

PUNJAB HUMAN CAPITAL INVESTMENT PROJECT (PHCIP)



ENVIRONMENTAL & SOCIAL MANAGEMENT FRAMEWORK (ESMF)

Final Draft Report

October 2019

Proposed to be implemented

By

Punjab Social Protection Authority, Primary & Secondary Health Department through Punjab Health Facilities Management Company (PHFMC), & School Education Department (SED)

EXECUTIVE SUMMARY

The Government of Punjab Province intends to implement Punjab Human Capital Investment Project (HCIP) with the proposed assistance of the World Bank (WB). Given the multi-sectoral operations, the project is proposed to be implemented jointly through multiple entities with Punjab Social Protection Authority (PSPA) as the lead agency and other entities including: School Education Department (SED) and Primary and Secondary Health Department (PSHD) through Punjab Health Facilities Management Company (PHFMC). Other entities in Punjab such as the Integrated Reproductive Maternal & Newborn Child Health & Nutrition Program (IRMNCH & NP) and Population Welfare Department Punjab (PWD) will provide support. The Government of Punjab in line with the prevailing legislation in the Country, and WB safeguard policies, has carried out an environmental and social assessment of the Project and accordingly the present Environmental and Social Management Framework (ESMF) has been prepared.

PROJECT OVERVIEW¹

Project Development Objective (PDO)

The proposed project development objective (PDO) is to increase the utilization of quality health services, and economic and social inclusion programs, among poor and vulnerable households in select districts in Punjab.

Project Components

The Project has following three components with brief description provided below²:

Component 1 : Health services quality and utilization: The ultimate goal of this component's activities is to improve children's health, especially those coming from poor and vulnerable households. Thus, this component aims to address short-term health challenges by improving the quality and utilization of key health services that are critical to a strong start in a child's first 1,000 days.

Sub-component 1.1: Quality of health services: This sub-component will strengthen primary health-care facilities to provide quality services. To ensure that key health services are of good quality, support will be provided for each targeted health facility to meet the minimum service delivery standards (MSDS). For this purpose, about 75 percent of existing normal Basic Health Units (BHUs) in the target districts will be upgraded to 24/7 BHUs to provide services around the

¹PHCIP PAD (10.15.2019)

² PAD-PHCIP

clock, every day of the week. Also, selected Rural Health Centers (RHCs) will be upgraded to RHC Plus to intensify neonatal care on a pilot basis. Any facilities that will be rehabilitated under the project will also include measures (e.g., a wheelchair ramp) to facilitate access to health care by persons with different abilities.

Sub-component 1.2: Utilization of health services: This sub-component aims to increase the utilization of key health services among the poor and vulnerable. For this purpose, a nutrition-sensitive CCT program, compensating for the financial and non-financial costs of visiting health facilities, is being planned in selected districts of Punjab.

On safeguard perspective (environmental and social), the relevant project activities under this component such as refurbishing, rehabilitations and up-gradation of existing BHUs/RHCs and greater utilization of health facilities are expected to result in increased health-care waste.

Component 2: Economic and social inclusion: Supplementary activities to improve households' economic and social inclusion would be introduced. These can also contribute to building early childhood human capital among poverty-stricken households.

Sub-component 2.1: Economic inclusion: This sub-component aims to support income-generating activities of young parents (ages 18 to 29) from poor and vulnerable households who have children under the age of 5. A holistic package of efforts to support their economic inclusion will be provided, and this includes (i) the labor market (LM) readiness package, (ii) livelihood support, and (iii) intensive coaching. *PSPA will lead these activities by working with local NGOs and community support groups.*

Sub-component 2.2: Social inclusion for education: This sub-component aims to strengthen select education initiatives in Punjab to support the inclusion of poor and vulnerable households and help ensure their children build a strong foundation for social and economic success in the future. An existing program in Punjab relevant for human capital accumulation in the early and foundational years includes ECE (Early Childhood Education). There are 3,400 ECE classrooms in the project's target districts and communities, but most of them do not meet the minimum ECE Quality Standards prescribed in the 2017 Punjab ECE Policy. In order to ensure access to quality ECE in these disadvantaged districts, the School Education Department (SED) has identified a number of interventions to improve the ECE model, including provision of quality teaching and learning materials and improved teacher training. Thus, through this project, the SED aims to further strengthen the quality of existing classrooms in the project's districts.

On safeguard perspective (environmental and social), the relevant project activities under this component include refurbishing and up-grading of class rooms in existing schools for establishing ECE classrooms³.

³Early Childhood Education conducive class rooms

Component 3: Efficiency and sustainability through SP service delivery systems and project management: To improve the efficiency and sustainability of Punjab’s interventions for poor and vulnerable households, the existing SP service delivery and governance structures will be modernized and strengthened. To this end, the proposed project will support improved coordination, modernization, and interoperability of SP institutional and administrative arrangements, and turn these into an efficient and cutting-edge SP service delivery platform.

Project Areas: The project will be implemented in 11 districts⁴ of Punjab province with the lowest performance on indicators of poverty and Human Capital attainment. More districts can be added to the project by its Steering Committee, subject to the availability of additional / counterpart funding.

REGULATORY&POLICY REVIEW

At the national level, the Pakistan Environmental Protection Act, 1997 (the Act) is the basic legislative tool empowering the government to frame regulations for the protection of the environment. The Act is applicable to a broad range of issues and extends to socioeconomic aspects, land acquisition, air, water, soil, marine and noise pollution, as well as the handling of hazardous waste.

Punjab Environment Protection Act 2012 being as principle legislation of environmental protection in Punjab Province envisages protection, improvement, conservation and rehabilitation with the help of legal action against polluters and green awakening of communities.

The discharge or emission of any effluent, waste, air pollutant or noise in an amount, concentration or level in excess of the **National Environment Quality Standards (NEQs)** or **Punjab Environmental Quality Standards (PEQs)** specified by the Punjab Environment Protection Agency (PEPA) are prohibited under the Act. According to *Section 11* of Punjab Environment Protection Act, 2012: *Prohibition of certain discharge or emissions* (1) no person shall discharge or emit or allow the discharge or emission of any effluent or waste or air pollution or noise in an amount, concentration or level which is in excess of the Punjab Environmental Quality Standards; whereas according to the *section 12* of Punjab Environment Protection Act, 2012: *Initial Environmental Examination and Environmental Impact Assessment*-(1) “No proponent of a project shall commence construction or operation unless he has filed with the Provincial Agency an Initial Environmental Examination or where the project is likely to cause an adverse environmental effect, an Environmental Impact Assessment and has obtained from the Provincial Agency approval in respect thereof”.

⁴The districts include: Bahawalnagr, Bahawalpur, Bhakkar, Dera Ghazi Khan, Khushab, Layyah, Lodhran, Mianwali, Muzaffargarh, Rahim Yar Khan, Rajanpur

The Pakistan Environmental Protection Agency Review of IEE and EIA Regulations, 2000 (the “Regulations”), provide the necessary details on preparation, submission and review of the initial environmental examination (IEE) and the EIA. Categorization of projects for IEE and EIA is one of the main components of the Regulations. Schedule I projects require an IEE to be conducted, provided they are not located in environmentally sensitive areas. For the Schedule II projects, conducting an EIA is necessary. However, the sub-projects come under Schedule I and II will not be covered by PHCIP.

The National Environmental Policy, 2005 aims to protect, conserve and restore Pakistan’s environment in order to improve quality of life for the citizens through sustainable development. The Policy provides an overarching framework for addressing the environmental issues facing Pakistan and sets direction for addressing the cross sectoral issues as well as the underlying causes of environmental degradation and meeting international obligations.

Climate Change Policy (Pakistan) – 2012 has identified the country as one of the top 16 countries with a high climate change vulnerability index. Many sectors like water resources, agriculture and livestock, human health, forestry, biodiversity, ecosystems, are at greater risk. The policy recommends policy measures and proposes mitigation strategies in particular for energy, transport, town planning, industries, agriculture and livestock and forestry sectors.

Pakistan Hospital Waste Management Rules – 2005, requires that every hospital is responsible for proper management of waste generated by it till its final disposal in accordance with provisions given in these rules. The Rules require each healthcare facility to constitute a waste management team, and to prepare and implement a waste management plan. The Rules also include guidelines for waste segregation, collection, transportation, storage, and disposal. These Rules will be applicable to the proposed project.

Punjab Hospital Waste Management Rules-2014 require that every hospital, public or private, shall responsible for the proper management of the waste generated by it till its final disposal in accordance with the provisions of the Act and the rules. The Rules also include guidelines for waste segregation, collection, transportation, storage, and disposal and responsibilities of the health workers.

In addition, there are several other laws /acts that govern various aspects of the healthcare services in Punjab Province with varied degree of relevance. The reference of these laws has been provided in the main report (Chapter-2).

The World Bank OP/BP 4.01 Environmental Assessment (EA) requires that all projects proposed for Bank financing are environmentally sound and sustainable, and thus to improve decision making. The Operational Policy defines the EA process and various types of the EA instruments to be developed. This project is classified as “Category B” as per the WB safeguards

category. Therefore, this ESMF has been prepared to fulfill Bank's EA requirements and Operational Policies.

The exact location and design of the sub-projects to be undertaken under PHCIP are not known yet; therefore, a framework approach has been adopted to carry out environmental and social assessment of the proposed sub-projects to fulfill Bank's EA requirements. Under this approach, present ESMF has been prepared to: identify potential negative environmental and social impacts, propose generic mitigation measures, provide E&S screening criteria; and to guide on the type of safeguard instrument to be developed at sub-project level. The document further identifies training/capacity building requirements; and provides institutional, monitoring, reporting and documentation requirements for implementing this ESMF.

SOCIAL AND ENVIRONMENTAL MANAGEMENT FRAMEWORK METHODOLOGY

As the exact nature of project activities and precise location of health care/education facilities within a district are not known at this stage, a framework approach has been adopted for environmental and social assessment for preparing this Environmental and Social Management Framework (ESMF).The ESMF report presents project description, the regulatory review, review of environmental and socio-economic baseline conditions of Punjab province in general and 11 project districts in particular, screening of potential adverse social and environmental impacts, and identification, prediction and evaluation of potential impacts that may arise due to the proposed project interventions and suggested generic mitigation measures to off-set/mitigate such adverse impacts, proposed procedures for implementation of ESMF, stakeholders consultation, capacity building and training requirements and budgetary estimations for implementation of ESMF.

OVERVIEW OF BASELINE CONDITIONS

The project interventions are proposed to be implemented in 11 districts of Punjab Province. Punjab is a thickly populated province and has average population density of 358persons/km².The average population growth rate is 2.48 percent per annum⁵. The province of Punjab is predominantly a fertile region along the river valleys. Topographically, Punjab can be divided into Upper hilly region Potohar plateau,Central plain lands (Doab⁶) including, Cholistan and Thal deserts. The variability of rainfall has increased receiving less than 250 mm of rainfall in a year. The major surface water resources in the province are rivers (Jehlum, Chenab, Ravi, Sutlej, and Bias),canals drawn from the rivers, and some wetlands⁷. About 79 percent area of the province has fresh groundwater.

The forests resources of the province include Coniferous Forests, Scrub Forests, Riverine Bela Forests, Irrigated Plantations, Linear Plantations, and Rangelands⁸.Agriculture is still the

⁵Ibid

⁶Doab in local language is an area between two rivers

⁷Ibid

⁸Brief on Punjab Forest Department, Punjab Forestry Research Institute, Faisalabad, 2006

predominant economic activity of 64 percent population of the rural Punjab. Punjab has a reasonable network of healthcare services in the public sector ranging from primary to tertiary and even up to specialized healthcare facilities. Similarly, educational facilities in the province range from primary level masjid-maktab⁹ schools up to universities and specialized institutions.

The mean income level of the city residents is higher than their rural counterparts¹⁰. There are more than 3.5 million registered vehicles in the province, which number is increasing with every passing day¹¹. The province's labor force is estimated as 35 million. Migration of people from rural to urban areas for employment opportunities and better socioeconomic conditions is an unending phenomenon in the province.

The province is rich with magnificent cultural heritage of ancient times and of early Islamic period, reflected through specimens of art and craft, literature, and architect. Vulnerability of women to discriminatory treatment varies across classes, region, and the urban / rural populations. Incidence of poverty in the province is estimated at around 21 percent¹². Overall health and education outcomes are far poorer among households in south Punjab, where the poverty rate (39 percent) is almost twice as high as the province's average.

BASELINE OF PROJECT DISTRICTS

During preparation of this document, baseline data was collected in 11 districts of Punjab i.e. 8 districts of South Punjab (Bahawalnagar, Bahawalpur, Rajanpur, Lodhran, Muzaffargarh, Rahimyar Khan, Layyah, and D.G Khan) and 3 districts of Central Punjab (Mianwali , Khushab and Bhakkar).

Rahim Yar Khan is the most populous district (4.8 M)¹³ whilst Khushab is the least populous district (1.2 M) amongst project districts.

Access to basic healthcare facilities is the major issue in all the districts and there is a dire need of rehabilitation and renovation and in some cases proper extension in infrastructure of basic healthcare services. Districts of South Punjab are having highest percentage of malnutrition and undernourished population in the province. Among 11 districts of South Punjab, Layyah is at the top with 29.6 % of stunted growth.

Availability of safe drinking water is another issue being faced by the rural as well as urban populations; as ground water is brackish in most of South Punjab and only limited pockets are of sweet water. Ratio of water and sanitation borne diseases is very high. Illiteracy and unemployment seemed to be the major reason of poverty in 11 districts. Due to poor nutrition facilities and access to basic healthcare services, percentage of children under five having diarrhea is 25 % and 30 % in

⁹ Mosque is called "Masjid" in Urdu Language. Maktab is Urdu equivalent of school

¹⁰Punjab Development Statistics, Bureau of Statistics, Government of the Punjab, 2007

¹¹ Office Papers, Excise and Taxation Department, Government of the Punjab, Lahore

¹²World Bank Poverty Estimates based on Household Income and Expenditure Survey 2015-16.

¹³Population Census-2017

D.G. Khan and Layyah respectively and are at the top in province of Punjab. Bahawalnagar, D.G Khan, Muzaffargarh and Rajanpur districts are subjected to partial waterlogging and salinity and water shortages for drinking as well as for irrigation purposes.

River Chenab, River Indus and River Sutlej and their respective head-works and barrages are the major sources of water in project districts. Three districts i.e. Muzaffargarh, D.G.Khan and Rajanpur come under flood prone areas of Punjab and affected badly due to heavy floods of 2010 & 2011. Sugarcane is the major crop throughout in the southern part while Bahawalnagar has cotton as major crop. Gram and wheat are major crops in Khushab and Bhakkar.

The major environmental hotspots of international importance in project districts are: Lal Suhanra National Park (Bahawalpur), Cholistan Wildlife Sanctuary (Bahawalpur), Taunsa Barrage (Muzaffargarh) and Uchhali Complex (Khabikki lake, Uchhali lake and Jahlar lakes of district Khushab).

STAKEHOLDERS CONSULTATION

Stakeholder consultation sessions were carried out with (i) local communities who are the direct beneficiaries of the project interventions and (ii) institutions (Punjab Social Protection Authority, Punjab Health Facility Management Company and School Education Department) that have an important role in enabling the realization of the project interventions. These consultations have revealed that the proposed project PHCIP is expected to have a positive social impact by improving health facilities while upgrading all remaining viable normal BHUs to 24/7 over the course of the next 5 years. The consultation was also extended to some selected schools of the targeted districts to observe the overall condition of the schools

- Consultation with direct beneficiaries revealed that the up-gradation of BHUs and RHCs will provide quality services including the improvement of the internal environment of hospital by providing adequate sanitation services, safe drinking water and general cleanliness will be ensured.
- The health workers appreciated that waste will be managed and improved through the provision of quality healthcare supplies, disinfectants and training of master trainers.
- Some workers were trained during the implementation of a previous WB funded project, “Punjab Health Sector Reform Project (PHRSP) and they responded that the same system introduced by the World Bank at primary health care centers, should be replicated.
- Some workers expressed their concern that during rehabilitation the environment may be compromised specially the movements of vehicles and dust will contaminate the soil and air. The patient and visitors will be disturbed while upgrading the health facilities.

IMPACT ASSESSMENT

Positive Impacts: Mostly the project impacts are positive - particularly for women and children –as the outcomes will contribute directly to improved human development and reduced vulnerability. Rehabilitation/refurbishment of BHUs/RHUs will improve the overall environment of the health facilities. Further the implementation of project activities will help households invest more and better in human capital, by a) incentivizing behavioral changes and use of health and nutrition services, in particular, by pregnant women, mothers, and children from poor and vulnerable households; and b) incentivizing retention in schools by improving the quality of education through play-based pedagogy in ECE programmes and focusing on readiness and transition to primary; and c) providing second chance socio-emotional skills support, and improving access to jobs and livelihood opportunities for poor and vulnerable adolescents and youth. Moreover, project interventions emphasizes on efficient and transparent service delivery will help utilizing government programs and services thus leveraging opportunities for an increased human capital investment.

Adverse Impacts: The ESMF broadly identifies two type of potential adverse impacts that are anticipated because of project interventions –under Component-1: *for upgrading existing health facilities and; under component-2: for rehabilitating/refurbishing Early Childhood Education (ECE) class rooms in existing schools.*

(a) Some low scale potential social and environmental impacts are anticipated from the refurbishing, rehabilitation and up-gradation of the existing BHUs and RHCs; as well as quality improvements in ECE classrooms in existing schools.

(b) In addition, health hazards and safety isuse related to improper management of medical waste generated;and likely to be produced more, because of demand side interventions (improved facilities, effeceint service delivery and improved governance etc.) resulting into expanded use of such faciliateis. These impacts are envisaged during operational phase of the proeject.

Most of these adverse impacts are however low scale temporary, localized, not unpresented and can be reversed or mitigated throug simple mitigation measures and better management practices as suggested in the current ESMF; and in Environmental and Health Care Waste Management Plan(EHCWMP),prepared¹⁴ as a part of this ESMF.

ENVIRONMENT AND SOCIAL MANAGEMENT FRAMEWORK

Under ESMF procedures, each subproject will be screened for the severity and extent of environmental and social impacts. All subprojects will be screened through an environmental and

¹⁴ Prepared as a separate document and is largely based upon a similar plan being successfully implemented by DoH, largely for secondary health care facilities (DHQs/THQs).

social screening Checklist (E&S Checklist) and those having negligible environmental and/or social impacts will require no further assessment. Subprojects having some negative, but localized environmental and/or social impacts will require a generic Environmental and Social Management Plan (ESMP) to be prepared for individual sub-project.

RECOMMENDATIONS UNDER ENVIRONMENTAL AND SOCIAL MITIGATION PLAN

The ESMF defines the screening criteria on selection of safeguard instrument to be used for different types of sub-projects based on type of interventions and corresponding nature and extent of potential adverse impacts. The instruments include; (a) Simple Checklist for the sub-projects involving minor civil works such as rehabilitation, up-gradation and maintenance of BHUs/RHCs/class rooms in existing facilities; and (b) ESMP for civil works involving new construction (additional room/classroom in existing health/education facilities etc.).

Some low scale potential environmental impacts are expected from the rehabilitation and up-gradation of BHUs/RHCs/Early Childhood Education (ECE) classrooms. After E&S screening no further document needs to be prepared. Simple mitigation measures, if required, however will be taken as described in Chapter 6.

Site specific Environmental and Social Management Plan (ESMP) will be prepared for sub-projects involving new constructions like additional classrooms or expansion of health facilities with new construction; or other additional structures at the existing facility.

In addition, increase in demand for services are expected at health care facilities due to the demand side intervention, which will likely produce more health care waste that needs to be assessed and appropriate measures are required to be introduced. Accordingly a separate Environment and Health Care Waste Management Plan (EHCWMP) has been prepared as a part of this assessment. However this ESMF is largely for civil/construction related project interventions. The ESMF identifies following environmental and social adverse impacts and proposes generic mitigation measures as listed below.

Water, air and noise pollution during and after construction/renovation activities are anticipated. Key mitigation measures include:

- Water contamination hazards must be addressed in all the sub-projects by avoiding solid waste disposal in surface water and location wise design/technology options to avoid ground water contamination.
- Water quality testing before, during and after sub-projects (according to the nature and extent of water pollution issues) should be the part of sub-project specific ESMP mitigation plan.

- Air and noise pollution issues will also be emerged during machinery/equipment operation and it should be minimized by adopting proper mitigation measures as suggested in this ESMF.

Health and Safety Hazards for the Workers

- Awareness and capacity building of labor/workers will be ensured.
- WB Group's EHS Guidelines will be implemented as appropriate.
- Use of appropriate Personal Protective Equipment (PPEs) will be mandatory while construction activities.

Impacts on Women, Children, and Vulnerable Groups

- Consultation with the women, being the major project beneficiaries, will be considered throughout the project activities.
- Environmental screening checklist will provide first stage information about impacts on poor, women and other vulnerable groups including needs and priority for social and economic betterment;
- Ensure participation of vulnerable groups (e.g. women, persons with disabilities and transgender) in project activities through consultations, to ensure planned investments take the well-being of such groups into consideration

IMPLEMENTATION ARRANGEMENTS

Punjab Social Protection Authority (PSPA) through Project Director -PHCIP, would serve as the lead agency for implementing ESMF with the function of overall coordination, implementation planning, and compliance reporting at project level. However each implementing agency will be responsible for ESMF implementation for its respective activities with clear distinction of health and education sector interventions.

Health sector ESMF Implementation and monitoring activities will be managed by a newly established PMU working under the jurisdiction of the Punjab Health Facilities Management Company (PHFMC). CEO PHFMC will be overall responsible for effective implementation of ESMF, coordination with the PSPA and reporting for health sector ESMF compliance. He/ She will be assisted on all E&S technical matters by a dedicated team of Environmental Specialist (ES) and a Social Safeguard Specialist (SSS) who shall be hired at PMU level. These specialists will be responsible for implementation and compliance of ESMF in up-gradation activities related to civil works in BHUs and RHCs.

At district level, CEO of District Health Authority, will be the overall responsible/Focal Person (FP) for ESMF implementation at all BHUs/RHCs under his jurisdiction. He will be supported by a District Implementation Unit (DIU) formed for implementing ESMF. The DIU will comprise of

two/three suitable existing staff that may include SMO, MO, Pharmacist and/or technician. DIU will be responsible for ESMF implementation, compliance and monitoring and evaluation at district level. The DIU will also conduct consultation with communities especially women and vulnerable groups.

At the facility level, head¹⁵ of BHU/RHC will be overall responsible for implementing ESMF and will act as a focal person (FP) for E&S related issues. He will constitute a committee of two/three members of suitable existing staff to monitor ESMF compliance and producing required data/documentation for DIU. The representatives from the Building Department and of the concerned contractor will also support him in ESMF compliance with particular focus on implementing mitigation measures and training of workers.

For implementation of EHCWMP, a Health Care Waste Management Specialist (HCWMS) will be hired at PMU level. HCWMS, in collaboration with ES and SSS, will be responsible for compliance of environmental and social safeguards related to EHCWMP, coordination with District Implementation Units (DIUs), training and capacity building programs, monitoring and evaluation of EHCWMP; and generating periodic reports as required by PMU/PSPA/PSHD/WB.

Education sector ESMF Implementation and monitoring activities will be managed by PMU PHCIP at PSPA. In addition to his role of ESMF implementation at project level, Project Director-PHCIP will also be responsible for implementation of ESMF for education sector interventions. PSPA has a dedicated position for Environmental and Social Specialist (ESS) to oversee the safeguard issues. He will assist PD-PHCIP of effective implementation of ESMF and for all technical matters. The ESS will be responsible for implementation and compliance of ESMF in up-gradation activities in existing schools. He will also be responsible for coordinating with PMIU and School Education Department for implementation and compliance of ESMF for activities related to rehabilitation/refurbishing of ECE classrooms.

At district/field level the ESMF implementation will be the responsibility of district education officers who shall act as focal persons for all safeguard related issues. The respective district officers will be supported by the existing staff for implementing mitigation measures, if required.

The respective safeguard specialists at (both) PMUs will also be responsible for maintaining an effective GRM, handling the gender related issues stakeholders' consultation, organization of training /capacity building programs, monitoring and evaluation, coordination with field offices and hiring of consultant/s for Third Party Validation (TPV) of ESMF.

MONITORING AND EVALUATION MECHANISM UNDER ESMF

¹⁵Senior Medical Officer (SMO)/Medical Officer (MO)/ In-charge Health Officer (IHO)

ESMF monitoring will be carried out to ensure that the mitigation plans are regularly and effectively implemented. It will be carried out at three levels i.e.at the PMU level, district level and at field level.

Punjab Social Protection Authority (PSPA) through Project Director-PHCIP would serve as the lead implementing agency to monitor all project related functions.

PMU (PHFMC) will be responsible for monitoring and evaluation at provincial level for health related ESMF compliance with the technical support of ES, SSS and HCWMS.

District Implementation Unit (DIU) will be responsible for monitoring and evaluation at its respective district with the technical support of ES, SSS and HCWMS. DIU will also be responsible for monitoring at field level activities and sub-project sites.

TRAINING & CAPACITY BUILDING

ESMF implementation will require comprehensive trainings, demonstrations & long-term sustainability. The environmental & social aspects identifications and mitigations integrated with the PHCIP trainings will help the project facilitators for better understanding of project components, related environmental issues and their solutions. The trainings will include, but not limited to, responsible social mobilization and environment-friendly approach for appropriate and feasible rehabilitation and renovation work of BHUs /RHCs and ECE classrooms in existing schools located in project districts.

ES and SSS will be responsible for designing and executing the social and environmental awareness and ESMF trainings related to environmental and social safeguards compliance before, during and after completion of sub-projects. They will plan and organize trainings and capacity building programs at PMU and DIU levels. HCWMS along with the collaboration of ES and SSS will be responsible for designing and executing the trainings related to EHCWMP and its respective social and environmental safeguards. They will also be responsible for preparing the reports and relevant documentation for each of the trainings conducted at PMU and DIU level.

GRIEVANCE REDRESSAL MECHANISM (GRM)

At the provincial level PSPA has an existing GRM mechanism that will be utilized for this project. Health Department and SED will share compiled data of complaints with PSPA for consolidation.

The GRM Facility based focal persons (FBFPs) will be nominated at all primary healthcare facilities as well as at schools. The focal person will be nominated by the head of the health facility (RHC & BHU). Similarly the focal person at schools will be nominated by the DDEO Schools. The focal persons will also be nominated at District Authorities (Health and Education). The District Focal Persons (DFPs) will have liaison with facilities based Focal Person for data sharing and reporting.

The focal person at health facilities and schools will display well prepared banner/posters/plank in national/local language. The contact numbers of the district focal persons will be displayed on the banners/posters/planks. All focal persons (DFPs and FBFPs) will be trained on GRM process. The District focal persons will maintain the record of complaints in a Complaint Register Book (CRB). The complaints will be recorded in a standard format consisting of, the complainant's contact, time, date, nature and type of the complaints. The district focal persons will lodge the complaints to the head of the health facilities (RHCs & BHUs) and schools to resolve the issues. Acknowledgement of a written submission will be issued to the complainant within three working days by FBFPs.

If the complainant is not satisfied, he/she will have the option to seek redress through Director General Health or Secretary Health and similarly the complaints from schools may also be forwarded to CEO District Education Authority, Director Public Instruction or Secretary Education. The data regarding complaints to resolve at any level will be recorded in the CRB and monthly reports will be generated by facility based focal persons and submitted to their respective District departments (DFPs). The DFPs will then forward the compiled data to PSPA through provincial departments to ensure that data related to complaints is being stored promptly and issues are being resolved at the department level.

REPORTING AND DOCUMENTATION

Complete documentation will be maintained for the entire ESMF implementation process. This will include environmental and social screening checklists filled by the ES and SSS respectively, field visit reports with photographs prepared by the ES, SSS and HCWMS, Environmental and Social Management Plans (if required for individual sub-projects), quarterly reports on overall ESMF implementation of the project, to be prepared by the ES,SSS and HCWMS, monitoring and evaluation reports on environmental, social and EHCWMP aspects prepared by ES,SSS and HCWMS respectively, annual third-party validation reports, and project completion report on overall ESMF implementation. The PMU will be overall responsible for maintaining and documenting all these records/reports.

ESMF DISCLOSURE REQUIREMENTS

Once finalized, the ESMF along with EHCWMP, with Urdu translation of relevant Executive Summary, will be disclosed on the official websites of GoPb, Department of Health & School Education Department (SED) and of PSPA. These documents will also be maintained at relevant key districts/field offices. In addition, these documents will be disclosed on WB image bank.

ESMF IMPLEMENTATION COST

The total cost of the ESMF implementation has been estimated¹⁶ to be about Pak Rupees **66,718,500**. This includes cost of hiring SSO and ES(hiring of HCWMS will be included in the implementation sub cost of EHCWMP), capacity building, Third Party Validation(TPV), and E&S Screening checklist and ESMP preparation for individual subprojects. This cost is included in the overall project cost.

¹⁶ Include PKR 26,718,500 as EHCWMP implementation cost. The breakup is given in EHCWMP

(پنجاب انسانی سرمایہ کاری کے منصوبے (پی ایچ سی آئی پی)



ماحولیاتی اور معاشرتی نظم فریم ورک (ESMF)

اس پر عمل درآمد کی تجویز

بذریعہ

پنجاب سوشل پروٹیکشن اتھارٹی ، پرائمری اینڈ سیکنڈری ہیلتھ ڈیپارٹمنٹ کے ذریعے پنجاب ہیلتھ
سہولیات مینجمنٹ کمپنی (پی ایچ ایف ایم سی) ، اور اسکول ایجوکیشن ڈیپارٹمنٹ (ایس ای ڈی)

عملی خلاصہ

پنجاب صوبہ حکومت عالمی بینک (ڈبلیو بی) کی مجوزہ مدد سے پنجاب ہیومن کیپٹل انویسٹمنٹ پروجیکٹ (ایچ سی آئی پی) پر عمل درآمد کا ارادہ رکھتی ہے۔ کثیر الجہتی کارروائیوں کے پیش نظر ، پروجیکٹ کو متعدد اداروں کے ذریعہ مشترکہ طور پر پنجاب سوشل پروٹیکشن اتھارٹی (پی ایس پی اے) کے ساتھ بطور لیڈ ایجنسی اور دیگر اداروں کے ذریعہ نافذ کرنے کی تجویز ہے جس میں اسکول ایجوکیشن ڈیپارٹمنٹ (ایس ای ڈی) اور پرائمری اینڈ سیکنڈری ہیلتھ ڈیپارٹمنٹ (پی ایس ایچ ڈی) شامل ہیں۔

پنجاب ہیلتھ سہولیات انتظامیہ کمپنی (پی ایچ ایف ایم سی) کے ذریعے۔ پنجاب میں دیگر اداروں جیسے انٹیگریٹڈ ری پروڈکٹیو مادر و نوزائید بچوں کی صحت اور تغذیہ پروگرام (IRMNCH & NP) اور پاپولیشن ویلفیئر ڈیپارٹمنٹ پنجاب (PWD) معاونت فراہم کرے گا۔ حکومت پنجاب نے ملک میں مروجہ قانون سازی ، اور عالمی بینک کی حفاظت کی پالیسیوں کے مطابق ، اس پروجیکٹ کا ماحولیاتی اور معاشرتی جائزہ لیا ہے اور اسی کے مطابق موجودہ ماحولیاتی اور سماجی انتظام کا فریم ورک (ای ایس ایم ایف) تیار کیا گیا ہے۔

منصوبے کا جائزہ

پروجیکٹ ڈویلومنٹ مقصد (PDO)

مجوزہ منصوبے کی ترقی کا مقصد (PDO) پنجاب کے منتخب اضلاع میں غریب اور کمزور گھرانوں میں معیاری صحت کی خدمات ، اور معاشی اور سماجی شمولیت کے پروگراموں کے استعمال میں اضافہ کرنا ہے۔

پروجیکٹ کے اجزاء

پروجیکٹ کے ذیل میں مختصر وضاحت کے ساتھ تین اجزا درج ہیں:

اجزاء 1: صحت کی خدمات کے معیار اور استعمال:

اس جزو کی سرگرمیوں کا حتمی مقصد بچوں کی صحت کو بہتر بنانا ہے ، خاص کر غریب اور کمزور گھرانوں سے آنے والے افراد کی۔ اس طرح ، اس جز کا مقصد اہم صحت کی خدمات کے معیار اور استعمال کو بہتر بناتے ہوئے قلیل مدتی صحت کے چیلنجوں سے نمٹنا ہے جو بچے کے پہلے ایک ہزار دن میں مضبوط آغاز کے لئے اہم ہیں۔

ذیلی جزو 1.1: صحت کی خدمات کا معیار:

یہ ذیلی اجزا صحت کی دیکھ بھال کرنے والی بنیادی سہولیات کو معیاری خدمات فراہم کرنے کے لئے مضبوط بنائے گا۔ اس بات کو یقینی بنانے کے لئے کہ کلیدی صحت کی خدمات اچھے معیار کی ہوں ، کم سے کم سروس کی فراہمی کے معیار (ایم ایس ڈی ایس) کو پورا کرنے کے لئے ہر ہدف صحت کی سہولت

کے لئے مدد فراہم کی جائے گی۔ اس مقصد کے لئے ، ہدف والے اضلاع میں تقریباً 75 normal فیصد موجودہ عام بنیادی ہیلتھ یونٹس (بی ایچ یو) کو 7/24 بی ایچ یو میں اپ گریڈ کیا جائے گا تاکہ ہفتے کے ہر دن چوبیس گھنٹے خدمات فراہم کی جاسکیں۔ نیز ، پیدائشی بنیادوں پر نوزائیدہ دیکھ بھال کو تیز کرنے کے لئے منتخب دیہی صحت مراکز (آر ایچ سی) کو RHC Plus میں اپ گریڈ کیا جائے گا۔ پروجیکٹ کے تحت جو بھی سہولیات بحالی ہوں گی ان میں مختلف صلاحیتوں کے حامل افراد کے ذریعہ صحت کی دیکھ بھال تک رسائی کو آسان بنانے کے لئے اقدامات (جیسے ، وہیل چیئر ریمپ) بھی شامل ہوں گے۔

ذیلی اجزاء 1.2: صحت کی خدمات کا استعمال:

اس ذیلی اجزا کا مقصد غریبوں اور کمزور لوگوں میں کلیدی صحت کی خدمات کے استعمال کو بڑھانا ہے۔ اس مقصد کے لئے ، ایک غذائیت سے متعلق حساس سی سی ٹی پروگرام ، پنجاب کے منتخب اضلاع میں صحت کی سہولیات کا دورہ کرنے کے مالی اور غیر مالی اخراجات کی تلافی کرنے کا منصوبہ بنا رہا ہے۔

حفاظتی نقطہ نظر (ماحولیاتی اور معاشرتی) پر ، متعلقہ پروجیکٹ کی سرگرمیاں جیسے اس جز کی تزئین و آرائش ، بحالی اور موجودہ BHUs / RHCs کی اپ گریڈیشن اور صحت کی سہولیات کے زیادہ سے زیادہ استعمال سے صحت کی دیکھ بھال کے فضلہ میں اضافے کی توقع کی جاتی ہے۔

اجزاء 2: معاشی اور معاشرتی شمولیت:

گھرانوں کی معاشی اور معاشرتی شمولیت کو بہتر بنانے کے لئے اضافی سرگرمیاں متعارف کروائی جائیں گی۔ یہ غربت زدہ گھرانوں میں ابتدائی بچپن میں انسانی سرمائے کی تعمیر میں بھی معاون ثابت ہوسکتے ہیں۔

ذیلی اجزاء 2.1: معاشی شمولیت:

اس ذیلی اجزاء کا مقصد نوجوان والدین (18 سے 29 سال کی عمر تک) کی آمدنی پیدا کرنے والی سرگرمیوں کی حمایت کرنا ہے جو 5 سال سے کم عمر کے بچے ہیں۔ معاشی شمولیت فراہم کی جائے گی ، اور اس میں (i) لیبر مارکیٹ (ایل ایم) کے لئے تیاری کا پیکج ، (ii) معاش کا سہارا ، اور (iii) انتہائی کوچنگ شامل ہے۔ پی ایس پی اے مقامی این جی اوز اور کمیونٹی سپورٹ گروپس کے ساتھ مل کر ان سرگرمیوں کی قیادت کرے گی۔

ذیلی جزو 2.2: تعلیم کے لئے معاشرتی شمولیت:

اس ذیلی اجزا کا مقصد پنجاب میں غریب اور کمزور گھرانوں کی شمولیت کی حمایت کرنے کے لئے منتخب تعلیمی اقدامات کو مضبوط بنانا ہے اور مستقبل میں معاشرتی اور معاشی کامیابی کے لئے اپنے بچوں کو ایک مضبوط بنیاد بنانے میں مدد کرنے کے لئے ان کی مدد کرنا ہے۔ پنجاب میں دو موجودہ تعلیمی پروگرام جو ابتدائی اور بنیاد سالوں میں انسانی سرمایہ جمع کرنے کے لئے موزوں ہیں ان میں

شامل ہیں: ای سی ای (ابتدائی بچپن کی تعلیم) اور ابتدائی گریڈ لرننگ (گریڈ 1-3)۔ منصوبے کے ہدف والے اضلاع اور کمیونٹیز میں 3،400 ای سی ای کے کلاس روم ہیں ، لیکن ان میں سے سبھی 2017 کی ای سی ای پالیسی میں طے شدہ کم سے کم ای سی ای معیار کے معیار پر پورا نہیں اترتے ہیں۔ مزید برآں ، ای سی ای تک رسائی کی پیمائش کے عمل میں ، اسکول ایجوکیشن ڈیپارٹمنٹ (ایس ای ڈی) نے ای سی ای ماڈل کو بہتر بنانے کے لئے متعدد مداخلتوں کی نشاندہی کی ہے۔ اس طرح ، اس پروجیکٹ کے ذریعے ، ایس ای ڈی کا مقصد اس منصوبے کے اضلاع میں موجود کلاس رومز کے معیار کو مزید مستحکم کرنا ہے۔

اور معاشرتی) پر ، اس جز کے تحت متعلقہ پروجیکٹ کی سرگرمیوں میں ای سی ای کلاس رومز کے قیام کے لئے موجودہ اسکولوں میں کلاس رومز کی تجدید اور اپ گریڈنگ شامل ہے۔

اجزاء 3: ایس پی سروس کی ترسیل کے نظام اور پروجیکٹ مینجمنٹ کے ذریعہ استعداد اور استحکام:

غریب اور کمزور گھرانوں کے لئے پنجاب کی مداخلت کی کارکردگی اور استحکام کو بہتر بنانے کے لئے ، موجودہ ایس پی سروس کی فراہمی اور گورننس ڈھانچے کو جدید اور مستحکم بنایا جائے گا۔ اس مقصد کے لئے ، مجوزہ پروجیکٹ ایس پی کے ادارہ جاتی اور انتظامی انتظامات میں بہتر کوآرڈینیشن ، جدید کاری ، اور باہمی تعاون کی حمایت کرے گا اور ان کو ایک موثر اور جدید ترین ایس پی سروس ڈلیوری پلیٹ فارم میں تبدیل کرے گا۔

منصوبے کے علاقوں: اس منصوبے کو غربت اور انسانی سرمائے کے حصول کے اشاروں پر سب سے کم کارکردگی کے ساتھ صوبہ پنجاب کے 11 اضلاع میں عمل میں لایا جائے گا۔ مزید اضلاع کرسکتے ہیں اس کی اسٹیئرنگ کمیٹی کے ذریعہ پروجیکٹ میں اضافہ کیا جائے ، اضافی / ہم منصب کی مالی اعانت کی فراہمی سے مشروط

ریگولٹری اور پالیسی کا جائزہ

قومی سطح پر ، پاکستان انوائرنمنٹل پروٹیکشن ایکٹ ، 1997 (ایکٹ) بنیادی قانون سازی ذریعہ ہے جو حکومت کو ماحول کے تحفظ کے ضوابط وضع کرنے کا اختیار دیتا ہے۔ یہ ایکٹ وسیع پیمانے پر مسائل پر لاگو ہے اور اس میں معاشرتی معاشی پہلوؤں ، زمین کے حصول ، ہوا ، پانی ، مٹی ، سمندری اور شور کی آلودگی کے ساتھ ساتھ مضر فضلہ کو سنبھالنے تک بھی ہے۔

پنجاب انوائرنمنٹ پروٹیکشن ایکٹ 2012 کے تحت ، صوبہ پنجاب میں ماحولیاتی تحفظ کی اصولی قانون سازی کے تحت ، کمیونٹیز کے آلودگی اور سبز بیداری کے خلاف قانونی کارروائی کی مدد سے تحفظ ، بہتری ، تحفظ اور بحالی کا تصور کیا گیا ہے۔

پنجاب ماحولیات کی حفاظت کے ایجنسی (پی ای پی اے) کے ذریعہ مخصوص کردہ قومی ماحولیاتی معیار کے معیار (این ای کیو ایس) یا پنجاب ماحولیاتی معیار کے معیارات (پی ای کیو ایس) سے زیادہ کسی مقدار ، حراستی یا سطح میں کسی بھی آلودہ ، فضلہ ، ہوا آلودگی یا شور کا خارج ہونا یا اخراج۔ ایکٹ کے تحت ممنوع ہے۔ پنجاب انوائرنمنٹ پروٹیکشن ایکٹ ، 2012 کے سیکشن 11 کے مطابق: کچھ خارج ہونے والے

مادہ یا اخراج کی ممانعت (1) کوئی بھی شخص کسی مقدار ، حراستی یا سطح پر کسی بھی آلودگی یا فضلہ یا فضائی آلودگی یا شور کو خارج کرنے یا خارج ہونے والے مادہ یا اخراج کی اجازت نہیں دے گا۔ جو پنجاب ماحولیاتی معیار کے معیار سے زیادہ ہے۔ جبکہ پنجاب انوائرنمنٹ پروٹیکشن ایکٹ ، 2012 کے سیکشن 12 کے مطابق: ابتدائی ماحولیاتی امتحان اور ماحولیاتی اثرات کی تشخیص۔ (1) "کسی پروجیکٹ کا کوئی بھی حامی اس وقت تک تعمیر یا کارروائی شروع نہیں کرے گا جب تک کہ وہ صوبائی ایجنسی کے پاس ابتدائی ماحولیاتی امتحان داخل نہ کرے یا جہاں امکان ہے کہ اس منصوبے سے ماحولیاتی اثر و رسوخ ، ماحولیاتی اثرات کی تشخیص ہوسکتی ہے اور اس کے سلسلے میں صوبائی ایجنسی سے منظوری لی گئی ہے۔

آئی ای اور ای آئی اے ریگولیشنز ، 2000 ("ریگولیشنز") کا پاکستان ماحولیاتی تحفظ ایجنسی کا جائزہ ، ابتدائی ماحولیاتی امتحان (آئی ای ای) اور ای آئی اے کی تیاری ، جمع کرانے اور جائزہ لینے کے بارے میں ضروری تفصیلات فراہم کرتا ہے۔ آئی ای ای اور ای آئی اے کے لئے منصوبوں کی درجہ بندی ریگولیشنز کے ایک بنیادی حصہ of میں سے ایک ہے۔ شیڈول I کے منصوبوں کے لئے کسی IEE کی ضرورت ہوتی ہے ، بشرطیکہ وہ ماحول کے لحاظ سے حساس علاقوں میں واقع نہ ہوں۔ شیڈول II کے منصوبوں کے لئے ، EIA کا انعقاد ضروری ہے۔ تاہم ، سب منصوبے شیڈول I اور II کے تحت آتے ہیں جن کا احاطہ پی ایچ سی آئی پی کے تحت نہیں ہوگا۔

قومی ماحولیاتی پالیسی ، 2005

قومی ماحولیاتی پالیسی ، 2005 کا مقصد پائیدار ترقی کے ذریعہ شہریوں کے معیار زندگی کو بہتر بنانے کے لئے پاکستان کے ماحول کے تحفظ ، تحفظ اور بحالی کا ہے۔ یہ پالیسی پاکستان کو درپیش ماحولیاتی امور کو دور کرنے کے لئے ایک اہم فریم ورک فراہم کرتی ہے اور کراس سیکٹورل امور کے ساتھ ساتھ ماحولیاتی پستی اور بین الاقوامی ذمہ داریوں کو پورا کرنے کے بنیادی وجوہات کو حل کرنے کی سمت متعین کرتی ہے۔

موسمیاتی تبدیلی پالیسی (پاکستان) - 2012 ء نے ملک کو موسمیاتی تبدیلیوں کے خطرے سے دوچار انڈیکس والے ٹاپ 16 ممالک میں شامل کیا۔ آبی وسائل ، زراعت اور مویشیوں ، انسانی صحت ، جنگلات ، حیاتیاتی تنوع ، ماحولیاتی نظام جیسے بہت سے شعبے زیادہ خطرہ ہیں۔ یہ پالیسی خاص طور پر توانائی ، ٹرانسپورٹ ، قصبے کی منصوبہ بندی ، صنعتوں ، زراعت اور مویشیوں اور جنگلات کے شعبوں کے لئے پالیسی اقدامات تجویز کرتی ہے اور تخفیف کی حکمت عملیوں کی تجویز کرتی ہے۔

پاکستان ہاسپٹل ویسٹ مینجمنٹ رولز - 2005 کے مطابق ، ہر ہسپتال ان قوانین میں دی گئی شقوں کے مطابق حتمی تصفیے تک اپنے ذریعہ پیدا ہونے والے کچرے کے صحیح انتظام کا ذمہ دار ہے۔ ان ضوابط کے تحت صحت کی دیکھ بھال کرنے والی ہر سہولت کو ضائع کرنے والی ٹیم کو تشکیل دینے ، اور ضائع انتظام کے منصوبے کو تیار کرنے اور ان پر عمل درآمد کرنے کی ضرورت ہے۔ قواعد میں فضلہ الگ الگ کرنے ، جمع کرنے ، نقل و حمل ، ذخیرہ کرنے اور ضائع کرنے کے لئے رہنما اصول بھی شامل ہیں۔ یہ قواعد مجوزہ منصوبے پر لاگو ہوں گے۔

پنجاب ہاسپٹل ویسٹ مینجمنٹ رولز -2014 کا تقاضا ہے کہ ہر اسپتال ، سرکاری یا نجی ، اس کے پیدا ہونے والے کوڑے کے مناسب انتظام کی ذمہ داری ایکٹ کی ضابطوں اور ضابطوں کے مطابق حتمی تصرف تک نہیں کرے گا۔ فضلہ الگ کرنا ، جمع کرنا ، نقل و حمل ، اسٹوریج ، اور ضائع کرنا اور صحت کے کارکنوں کی ذمہ داریاں۔ اس کے علاوہ ، بہت سے دوسرے قوانین / کاروائیاں ہیں جو صوبہ پنجاب میں صحت کی دیکھ بھال کی خدمات کے مختلف پہلوؤں پر متنوع مطابقت رکھتی ہیں۔ ان قوانین کا حوالہ مرکزی رپورٹ (باب -2) میں فراہم کیا گیا ہے۔

آپریشنل پالیسی EA کے عمل اور مختلف قسم کے EA آلات تیار کرنے کی وضاحت کرتی ہے۔ اس منصوبے کو WB حفاظتی اقدامات کے زمرے کے مطابق "زمرہ B" کے طور پر درجہ بندی کیا گیا ہے۔ لہذا ، یہ ESMF بینک کی EA ضروریات اور آپریشنل پالیسیوں کو پورا کرنے کے لئے تیار کیا گیا ہے۔

پی ایچ سی آئی پی کے تحت کیے جانے والے سب پروجیکٹس کی صحیح جگہ اور ڈیزائن ابھی تک معلوم نہیں ہے۔ لہذا ، بینک کی EA ضروریات کو پورا کرنے کے لئے مجوزہ ذیلی منصوبوں کا ماحولیاتی اور معاشرتی جائزہ لینے کے لئے ایک فریم ورک اپروچ اختیار کیا گیا ہے۔ ای اینڈ ایس اسکریننگ کے معیارات فراہم کریں۔ اور ذیلی منصوبے کی سطح پر تیار کیے جانے والے حفاظتی آلہ کی قسم کی رہنمائی کرنا۔ دستاویز

تربیت / صلاحیت سازی کی ضروریات کی مزید نشاندہی کرتی ہے۔ اور اس ESMF کو نافذ کرنے کے لئے ادارہ جاتی ، نگرانی ، رپورٹنگ اور دستاویزات کی ضروریات فراہم کرتا ہے۔

معاشرتی اور ماحولیاتی نظم و نسق کا فریم ورک میتھولوجی

چونکہ اس ضلع میں منصوبے کی سرگرمیوں کی صحیح نوعیت اور صحت کی دیکھ بھال / تعلیم کی سہولیات کا عین مطابق مقام معلوم نہیں ہے ، لہذا ماحولیاتی اور سماجی انتظام کے فریم ورک (ای ایس ایم ایف) کی تیاری کے لئے ماحولیاتی اور معاشرتی تشخیص کے لئے ایک فریم ورک اپروچ اختیار کیا گیا ہے۔ ای ایس ایم ایف کی رپورٹ میں منصوبے کی تفصیل ، باقاعدگی سے جائزہ لینے ، عام طور پر صوبہ پنجاب کے ماحولیاتی اور سماجی و معاشی بنیادی خطوط کا جائزہ اور خاص طور پر 11 پراجیکٹ اضلاع ، ممکنہ منفی معاشرتی اور ماحولیاتی اثرات کی جانچ ، اور ممکنہ اثرات کی شناخت ، پیش گوئی اور تشخیص پیش کیا گیا ہے۔ مجوزہ منصوبے کی مداخلتوں کی وجہ سے پیدا ہوسکتی ہے اور اس طرح کے منفی اثرات کو دور کرنے / کم کرنے کے لئے عمومی تخفیف کے اقدامات ، ای ایس ایم ایف کے نفاذ کے لئے مجوزہ طریقہ کار ، اسٹیک ہولڈرز کی مشاورت ، استعداد سازی اور تربیت کی ضروریات اور ای ایس ایم ایف کے نفاذ کے لئے بجٹ کے تخمینے کی وجہ سے تجویز کیا گیا ہے۔

بیس لائن شرائط کا جائزہ

منصوبے کی مداخلت کو صوبہ پنجاب کے 11 اضلاع میں نافذ کرنے کی تجویز ہے۔ پنجاب ایک گنجان آباد صوبہ ہے اور اس کی اوسط آبادی کثافت 358 افراد / کلومیٹر 2 ہے۔ آبادی میں اوسط شرح اوسطا 2.48

فیصد سالانہ ہے۔ صوبہ پنجاب بنیادی طور پر دریا کی وادیوں کے ساتھ ایک زرخیز علاقہ ہے۔ جغرافیائی طور پر ، پنجاب کو بالائی پہاڑی خطوطا پوٹھار ، وسطی میدان (دوآب) سمیت چولستان اور تھل صحرا میں تقسیم کیا جاسکتا ہے۔ ایک سال میں بارش کی مختلف حالتوں میں 250 ملی میٹر سے کم بارش کا امکان بڑھ گیا ہے۔ صوبے میں سطح کے آبی وسائل ندیوں (جہلم ، چناب ، راوی ، ستلج اور بیاس) ، ندیوں سے نکالی گئی نہریں ، اور کچھ گیلے علاقے ہیں۔ صوبے کے تقریباً 79 فیصد رقبے میں تازہ زمینی پانی موجود ہے۔

صوبے کے جنگلات کے وسائل میں مخروط جنگلات ، سکرپ جنگلات ، دریائے بیل جنگلات ، سیراب پودے لگانے ، لکیری پودے لگانے اور رنگین لینڈ شامل ہیں۔ زرعی زراعت اب بھی دیہی پنجاب کی 64 فیصد آبادی کی بنیادی معاشی سرگرمی ہے۔ صحت عامہ کی سہولیات تک پرائمری سے لے کر تریٹری تک اور حتیٰ کہ پنجاب میں صحت کے شعبے میں صحت سے متعلق خدمات کا ایک نیٹ ورک موجود ہے۔ اسی طرح ، صوبے میں تعلیمی سہولیات پرائمری سطح کے مسجد مکاتب اسکولوں سے لے کر یونیورسٹیوں اور خصوصی اداروں تک ہیں۔

شہر کے باشندوں کی اوسط آمدنی ان کے دیہی ہم منصبوں سے بلند ہے۔ صوبے میں ساڑھے تین لاکھ سے زیادہ رجسٹرڈ گاڑیاں ہیں ، جو ہر گزرتے دن کے ساتھ بڑھتی جا رہی ہے۔ اس صوبے کی طاقت کا تخمینہ 35 ملین ہے۔ روزگار کے مواقع اور بہتر سماجی و اقتصادی حالات کے لئے دیہی سے شہری علاقوں میں لوگوں کی نقل مکانی صوبے میں ایک نہ ختم ہونے والا رجحان ہے۔

یہ صوبہ قدیم زمانے اور ابتدائی اسلامی دور کے شاندار ثقافتی ورثہ سے مالا مال ہے ، جو آرٹ اور دستکاری ، ادب اور معمار کے نمونوں سے ظاہر ہوتا ہے۔ خواتین کی امتیازی سلوک کا شکار طبقوں ، علاقے اور شہری / دیہی آبادی میں مختلف ہوتا ہے۔ صوبے میں غربت کے واقعات کا تخمینہ 21 فیصد کے لگ بھگ ہے۔ جدید صحت اور تعلیم کے نتائج جنوبی پنجاب کے گھرانوں میں کہیں زیادہ غریب ہیں ، جہاں غربت کی شرح (39 فیصد) صوبے کی اوسط سے تقریباً twice دوگنا زیادہ ہے۔

پروجیکٹ ڈسٹرکٹ کی اساس

اس دستاویز کی تیاری کے دوران ، پنجاب کے 11 اضلاع یعنی جنوبی پنجاب کے 8 اضلاع (بہاولنگر ، بہاولپور ، راجن پور ، لودھراں ، مظفر گڑھ ، رحیم یار خان ، لیہ ، اور ڈی جی خان) اور وسطی پنجاب کے 3 اضلاع (میانوالی ، خوشاب اور بہکر)۔

رحیم یار خان سب سے زیادہ آبادی والا ضلع ہے (M 4.8) جبکہ خوشاب پروجیکٹ اضلاع میں سب سے کم آبادی والا ضلع (1.2 میٹر) ہے۔

بنیادی اضلاع کی سہولیات تک رسائی تمام اضلاع میں ایک اہم مسئلہ ہے اور اس کی بحالی اور ترقی و آرائش کی اشد ضرورت ہے اور کچھ معاملات میں بنیادی صحت کی سہولیات کے بنیادی ڈھانچے میں مناسب توسیع کی ضرورت ہے۔ جنوبی پنجاب کے اضلاع میں صوبے میں سب سے زیادہ فیصد غذائیت اور غذائیت کی کمی ہے۔ جنوبی پنجاب کے 11 اضلاع میں ، لیہ 29.6٪ مستحکم ترقی کے ساتھ سرفہرست ہے۔

پینے کے صاف پانی کی دستیابی ایک اور مسئلہ ہے جو دیہی اور شہری آبادی کو درپیش ہے۔ چونکہ جنوبی پنجاب کے بیشتر علاقوں میں زمینی پانی بڑی حد تک آلود ہے اور صرف محدود جیبیں میٹھے پانی کی ہیں۔ پانی اور صفائی سے پیدا ہونے والی بیماریوں کا تناسب بہت زیادہ ہے۔ خواندگی اور بے روزگاری 11 اضلاع میں غربت کی سب سے بڑی وجہ بنی تھی۔ غذائیت کی ناقص سہولیات اور بنیادی صحت کی سہولیات تک رسائی کی وجہ سے ، اسہال میں مبتلا پانچ سال سے کم عمر بچوں کی فیصد 25 children اور ڈی جی میں 30% ہے۔ خان اور لیہ بالترتیب صوبہ پنجاب میں سرفہرست ہیں۔ بہاولنگر ، ڈی جی خان ، مظفر گڑھ اور راجن پور اضلاع میں پینے کے ساتھ ساتھ آبپاشی کے مقاصد میں جزوی آبشار اور نمکینی اور پانی کی قلت کا سامنا کرنا پڑتا ہے۔

دریائے چناب ، دریائے سندھ اور دریائے ستلج اور ان کے متعلقہ بیڈ ورکس اور بیراج منصوبے کے اضلاع میں پانی کے بڑے وسائل ہیں۔ تین اضلاع یعنی مظفر گڑھ ، ڈی جی خان اور راجن پور پنجاب کے سیلاب زدہ علاقوں میں آتے ہیں اور سن 2010 اور 2011 کے شدید سیلاب کی وجہ سے بری طرح متاثر ہوئے ہیں۔ جنوبی حصے میں سیزی بڑی فصل ہے جبکہ بہاولنگر کپاس کی ایک بڑی فصل ہے۔ خوشاب اور بھکر میں چنے اور گندم کی بڑی فصلیں ہیں۔

منصوبے کے اضلاع میں بین الاقوامی اہمیت کے اہم ماحولیاتی مقامات ہیں: لال سہانرا نیشنل پارک (بہاولپور) ، چولستان وائلڈ لائف سینکوری (بہاولپور) ، تونسہ بیراج (مظفر گڑھ) اور اچھالی کمپلیکس (کھیبکی جھیل ، اچھالی جھیل اور ضلع خوشاب کی جہلر جھیلیں)۔

اسٹیک ہولڈرز کی مشاورت

اسٹیک ہولڈرز سے مشاورت کے اجلاس (i) مقامی کمیونٹیز کے ساتھ کئے گئے جو پروجیکٹ مداخلت اور (ii) اداروں (پنجاب سوشل پروٹیکشن اتھارٹی ، پنجاب ہیلتھ فیسیلٹی مینجمنٹ کمپنی اور اسکول ایجوکیشن ڈپارٹمنٹ) کے براہ راست مستفید ہیں۔ منصوبے کی مداخلت کا احساس۔ ان مشاورتوں سے انکشاف ہوا ہے کہ مجوزہ پروجیکٹ پی ایچ سی آئی پی کی توقع ہے کہ اگلے 5 سالوں کے دوران صحت کی سہولیات میں بہتری لانے کے ساتھ ساتھ بقیہ باقی تمام قابل عمل عام بی ایچ یو کو 7/24 کر دیا جائے۔ اسکولوں کی مجموعی حالت کا مشاہدہ کرنے کے لئے اہداف والے اضلاع کے کچھ منتخب اسکولوں تک بھی مشاورت میں توسیع کی گئی

direct براہ راست مستفید افراد سے مشاورت سے یہ بات سامنے آئی ہے کہ بی ایچ یو اور آر ایچ سی کی اپ گریڈیشن سے صفائی کی مناسب خدمات ، پینے کے صاف پانی اور عمومی صفائی کی فراہمی کے ذریعے اسپتال کے داخلی ماحول کی بہتری سمیت معیاری خدمات مہیا کی جاسکیں گی۔

workers صحت کے کارکنوں نے اس بات کی تعریف کی کہ معیاری صحت کی دیکھ بھال کی فراہمی ، ڈس انفیکشن اور ماسٹر ٹرینرز کی تربیت کے ذریعہ کوڑے دان کا انتظام اور ان میں بہتری لائی جائے گی۔

کچھ کارکنوں کو پچھلے ڈبلیو بی کے مالی اعانت سے چلنے والے منصوبے ، "پنجاب ہیلتھ سیکٹر ریفارم پروجیکٹ (پی ایچ آر ایس پی) کے نفاذ کے دوران تربیت دی گئی تھی اور انہوں نے جواب دیا تھا کہ ابتدائی صحت کی دیکھ بھال کے مراکز میں عالمی بینک نے جس نظام کو متعارف کرایا تھا ، اسے دوبارہ بنایا جانا چاہئے۔

workers کچھ کارکنوں نے اپنی تشویش کا اظہار کیا کہ بحالی کے دوران ماحول سے سمجھوتہ ہوسکتا ہے خاص طور پر گاڑیوں اور دھول کی حرکت سے مٹی اور ہوا آلودہ ہو گی۔ صحت کی سہولیات کو اپ گریڈ کرتے وقت مریض اور ملاقاتی پریشان ہو جائیں گے۔

5 selected منتخب اضلاع میں اسکول جانے کے دوران ، اساتذہ خوش تھے کہ اسکول کا ماحول برقرار رہے گا ، اور صفائی کو یقینی بنایا جائے گا۔ اسکول کے پرنسپل بھی تزئین و آرائش اور صفائی ستھرائی کے حوالے سے منصوبے کی سرگرمیوں کی تعریف کر رہے تھے۔ بہت کم اساتذہ نے بھی تزئین و آرائش کے کاموں کے دوران ماحولیاتی آلودگی اور کارکنوں کی حفاظت پر تفصیلی تبادلہ خیال کیا۔ اثرات کے خلاف تخفیف پر بھی تفصیلی گفتگو کی گئی تاکہ جواب دہندگان کو مطمئن کیا جاسکے۔

اثر کا اندازہ

مثبت اثرات: زیادہ تر پروجیکٹ کے اثرات مثبت ہوتے ہیں - خاص طور پر خواتین اور بچوں کے لئے - کیونکہ نتائج انسانی ترقی میں بہتری اور خطرہ کم کرنے میں براہ راست حصہ ڈالیں گے۔ بی ایچ یوز / آر ایچ یوز کی بحالی / بحالی صحت کی سہولیات کے مجموعی ماحول کو بہتر بنائے گی۔ مزید اس منصوبے کی سرگرمیوں کے نفاذ سے گھرانوں کو انسانی سرمائے میں زیادہ سے زیادہ بہتر سرمایہ کاری کرنے میں مدد ملے گی ، (الف) خاص طور پر حاملہ خواتین ، ماؤں ، اور غریب اور کمزور گھرانوں کے بچوں کی طرف سے ، خاص طور پر حاملہ خواتین ، ماؤں اور بچوں کے ذریعہ طرز عمل میں تبدیلی اور صحت اور تغذیہ کی خدمات کے استعمال کی حوصلہ افزائی۔ اور ب) اسکول میں واپس آنے اور باقی رہنے کی حوصلہ افزائی ، دوسرا موقع معاشرتی و جذباتی صلاحیتوں کی مدد فراہم کرنا ، اور غریب اور کمزور نوعمر اور نوجوانوں کے لئے ملازمتوں تک رسائی اور روزگار کے مواقع میں بہتری لانا۔ مزید برآں ، منصوبے کی مداخلت سے موثر اور شفاف خدمات کی فراہمی پر زور دیا جاتا ہے تاکہ سرکاری پروگراموں اور خدمات کو بروئے کار لایا جا۔ جس سے انسانی سرمائے کی بڑھتی سرمایہ کاری کے مواقعوں کا فائدہ اٹھایا جاسکے۔

منفی اثرات:

ESMF دو طرح کے ممکنہ منفی اثرات کی وسیع پیمانے پر نشاندہی کرتا ہے جس کی پیش گوئی منصوبے کی مداخلت کی وجہ سے کی جاتی ہے۔ اجزاء 1۔ موجودہ حرارت کی سہولیات کو اپ گریڈ کرنے

اور۔ جزو 2 کے تحت: موجودہ اسکولوں میں ابتدائی بچپن کی تعلیم (ای سی ای) کے کلاس رومز کی بحالی / تجدید کیلئے۔

(ا) موجودہ بی ایچ یوز اور آر ایچ سی کی تجدید کاری ، بحالی اور اپ گریڈیشن سے کچھ کم سطح کے امکانی معاشرتی اور ماحولیاتی اثرات کی توقع کی جا رہی ہے۔ نیز موجودہ اسکولوں میں ای سی ای کلاس رومز کی تجدید / تشکیل۔ ممکنہ منفی اثرات میں ہوا ، زمین ، پانی اور شور کی آلودگی جیسے دھول ، دھواں ، ناقص نکاسی آب ، لوگوں تک رسائی پر پابندی عائد ہے۔ اور سرپلس کنسروشن میٹریل کی ناجائز تصرف۔ سول کاموں کے جسمانی نفاذ کے دوران ان سب اثرات کی توقع کی جا رہی ہے۔

(b) اس کے علاوہ ، صحت سے متعلق خطرات اور حفاظت سے متعلق میڈیکل کوڑے سے پیدا ہونے والے ناجائز انتظام سے متعلق more اور اس سے زیادہ پیدا ہونے کا امکان ہے ، کیونکہ طلب کی طرف مداخلت (بہتر سہولیات ، بہتر خدمات کی فراہمی اور بہتر حکمرانی وغیرہ) کے نتیجے میں اس کا وسیع استعمال ہوتا ہے۔ اس طرح کی سہولت ان اثرات کا تخمینہ پروجیکٹ کے آپریشنل مرحلے کے دوران کیا گیا ہے۔

ان میں سے زیادہ تر منفی اثرات کم پیمانے کے عارضی ، مقامی ، بے مثال نہیں ہیں اور موجودہ ESMF میں تجویز کردہ جزو کے مطابق تخفیف کے آسان تخفیف اقدامات اور بہتر نظم و نسق کو تبدیل کیا جاسکتا ہے۔ اور ماحولیاتی اور صحت کی دیکھ بھال کے فضلے کے انتظام کی منصوبہ بندی (EHCWMP) میں ، جو اس ESMF کے ایک حصے کے طور پر تیار ہے۔

ماحولیات اور معاشرتی انتظام فریم ورک

ESMF طریقہ کار کے تحت ، ہر ایک ذیلی منصوبے کو ماحولیاتی اور معاشرتی اثرات کی شدت اور حد تک جانچا جائے گا۔ تمام ذیلی منصوبوں کو ایک ماحولیاتی ماحول کے ذریعے دکھایا جائے گا اور معاشرتی اسکریننگ چیک لسٹ (ای اینڈ ایس چیک لسٹ) اور جو نہ ہونے کے برابر ماحولیاتی اور / یا معاشرتی اثرات مرتب کرتے ہیں ان کو مزید تشخیص کی ضرورت نہیں ہوگی۔ کچھ منفی ، لیکن مقامی ماحولیاتی اور / یا معاشرتی اثرات والے سب پروجیکٹس کو انفرادی سب پروجیکٹ کے ل prepared ایک عمومی ماحولیاتی اور سماجی انتظام (ESMP) تیار کرنے کی ضرورت ہوگی۔

ماحولیاتی اور سماجی تخفیف کے منصوبے کے تحت سفارشات

ESMF حفاظتی آلہ کے انتخاب سے متعلق اسکریننگ کے معیار کی وضاحت کرتا ہے جو مختلف قسم کے مداخلتوں کی نوعیت اور اسی نوعیت اور ممکنہ منفی اثرات کی حد تک پر مبنی ذیلی منصوبوں کے لئے استعمال کیا جاسکتا ہے۔ آلات میں شامل ہیں۔ (الف) ذیلی منصوبوں کے لئے آسان چیک لسٹ جن میں معمولی سول کام شامل ہیں جیسے بحالی ، اپ گریڈیشن اور موجودہ سہولیات میں بی ایچ یو / آر ایچ سی /

کلاس رومز کی بحالی۔ اور (b) سول کاموں کے لئے ESMP جس میں نئی تعمیرات (موجودہ صحت / تعلیمی کیسہولیات میں اضافی کمرہ / کلاس روم وغیرہ) شامل ہیں۔

کچھ کم سطح کے ممکنہ ماحولیاتی اثرات BHUs / RHCs / ابتدائی بچپن کی تعلیم (ECE) کلاس روموں کی بحالی اور اپ گریڈیشن سے متوقع ہیں۔ ای اینڈ ایس اسکریننگ کے بعد مزید دستاویزات تیار کرنے کی ضرورت نہیں ہے۔ اگر ضرورت ہو تو ، تخفیف کے آسان اقدامات ، جیسا کہ باب 6 میں بیان کیا گیا ہے۔ اضافی کلاس رومز یا نئی تعمیرات کے ساتھ صحت کی سہولیات کی توسیع جیسی نئی تعمیرات شامل ذیلی منصوبوں کے لئے سائٹ مخصوص ماحولیاتی اور سماجی انتظام منصوبہ (ESMP) تیار کیا جائے گا۔ یا موجودہ سہولت پر دیگر اضافی ڈھانچے۔

اس کے علاوہ ، مطالبہ کی مداخلت کی وجہ سے صحت کی دیکھ بھال کی سہولیات پر خدمات کی مانگ میں اضافے کی توقع کی جاتی ہے ، جس سے ممکنہ طور پر زیادہ سے زیادہ صحت کی دیکھ بھال کا فضلہ پیدا ہوگا جس کا اندازہ کرنے کی ضرورت ہے اور مناسب اقدامات متعارف کروانے کی ضرورت ہے۔ اسی مناسبت سے اس تشخیص کے ایک حصے کے طور پر ماحولیات اور صحت کی دیکھ بھال کے فضلے کے انتظام کا ایک الگ منصوبہ (EHCWMP) تیار کیا گیا ہے۔ تاہم یہ ESMF زیادہ تر سول / تعمیر سے متعلق منصوبے کی مداخلت کے لئے ہے۔ ESMF مندرجہ ذیل ماحولیاتی اور معاشرتی منفی اثرات کی نشاندہی کرتا ہے اور ذیل میں جیسا کہ عام تخفیف اقدامات تجویز کرتا ہے۔ پانی ، ہوا اور شور کی آلودگی / تعمیر نو کے دوران اور اس کے بعد تخمینہ لگانا۔ تخفیف کے اہم اقدامات میں شامل ہیں:

زمینی پانی کی آلودگی سے بچنے کے لئے سطحی پانی اور مقام کے مطابق ڈیزائن / ٹکنالوجی کے آپشنز میں ٹھوس فضلہ کو ضائع کرنے سے پانی کی آلودگی کے تمام خطرات کو دور کرنا ہوگا۔ sub ذیلی منصوبوں سے پہلے ، دوران اور اس کے بعد پانی کے معیار کی جانچ پڑتال (پانی کی آلودگی کے امور کی نوعیت اور حد کے مطابق) ذیلی منصوبے کے مخصوص ESMF تخفیف منصوبے کا حصہ ہونا چاہئے۔

machinery مشینری / سازو سامان کے دوران ہوا اور شور کی آلودگی کے امور بھی سامنے آئیں گے اور اس ESMF میں تجویز کردہ مناسب تخفیف اقدامات کو اپناتے ہوئے اسے کم کیا جانا چاہئے۔

کارکنوں کے لئے صحت اور حفاظت کے لئے خطرات

labor مزدور / مزدوروں کی آگاہی اور صلاحیت میں اضافے کو یقینی بنایا جائے گا۔

• WB گروپ کی EHS رہنما خطوط موزوں کے طور پر نافذ ہوں گے۔

construction تعمیراتی سرگرمیوں کے دوران مناسب ذاتی حفاظتی سازوسامان (پی پی ای) کا استعمال لازمی ہوگا۔

خواتین ، بچوں اور کمزور گروپوں پر اثرات

project پروجیکٹ کے سب سے بڑے فائدہ اٹھانے والی خواتین کی حیثیت سے خواتین سے مشاورت پر غور کیا جائے گا۔

• ماحولیاتی اسکریننگ چیک لسٹ غریب ، خواتین اور دیگر کمزور گروہوں پر اثرات کے بارے میں پہلے مرحلے کی معلومات فراہم کرے گی جس میں معاشرتی اور معاشی بہتری کے لئے ضروریات اور ترجیح شامل ہے۔

consult مشوروں کے ذریعہ پروجیکٹ سرگرمیوں میں کمزور گروہوں (جیسے خواتین ، معذور افراد اور ٹرانسجینڈر) کی شرکت کو یقینی بنانا ، تاکہ یقینی بنائے کہ اس طرح کے گروہوں کی فلاح و بہبود کو مدنظر رکھا جائے۔

اطلاق کے انتظامات

پروجیکٹ ڈائریکٹر - پی ایچ سی آئی پی کے ذریعے پنجاب سوشل پروٹیکشن اتھارٹی (پی ایس پی اے) ، ESMF کو عملی طور پر ہم آہنگی ، عمل درآمد کی منصوبہ بندی ، اور پروجیکٹ کی سطح پر تعميل رپورٹنگ کے کام کے ساتھ عمل درآمد کرنے کے لئے ایک اہم ایجنسی کے طور پر کام کرے گی۔ تاہم ، عمل درآمد کرنے والی ہر ایجنسی صحت اور تعلیم کے شعبے میں مداخلت کے واضح امتیاز کے ساتھ اپنی متعلقہ سرگرمیوں کے لئے ESMF کے نفاذ کی ذمہ دار ہوگی۔

صحت کے شعبے میں ESMF نفاذ اور نگرانی کی سرگرمیوں کا انتظام ایک نیا قائم کردہ پی ایم یو کرے گا جو پنجاب ہیلتھ سہولیات انتظامیہ کمپنی (پی ایچ ایف ایم سی) کے دائرہ کار میں کام کر رہا ہے۔ سی ای او پی ایچ ایف ایم سی ESMF کے موثر نفاذ ، PSPA کے ساتھ ہم آہنگی اور صحت کے شعبے ESMF کی تعميل کے لئے رپورٹنگ کے لئے پوری طرح ذمہ دار ہوگا۔ ماحولیاتی ماہر (ES) کی ایک سرشار ٹیم اور ایک سوشل سیف گارڈ اسپیشلسٹ (ایس ایس ایس) کے ذریعہ ان کو E & S کے تکنیکی امور میں مدد فراہم کی جائے گی جس کو پی ایم یو سطح پر رکھا جائے گا۔ یہ ماہرین BHUs اور RHCs میں سول ورکس سے متعلق اپ گریڈیشن سرگرمیوں میں ESMF کے نفاذ اور تعميل کے لئے ذمہ دار ہوں گے۔

ضلعی سطح پر ، ڈسٹرکٹ ہیلتھ اتھارٹی کے سی ای او ، اپنے دائرہ اختیار میں تمام بی ایچ یوز / آر ایچ سی میں ESMF کے نفاذ کے لئے مجموعی طور پر ذمہ دار / فوکل پرسن (FP) ہوں گے۔ ای ایس ایم ایف کے نفاذ کے لئے تشکیل دیئے جانے والے ڈسٹرکٹ امپلیمنٹ یونٹ (ڈی آئی یو) کے ذریعہ اس کی مدد کی جائے گی۔ ڈی آئی یو کرے گی

دو / تین موزوں موجودہ عملہ پر مشتمل ہے جس میں ایس ایم او ، ایم او ، فارماسسٹ اور / یا ٹیکنیشن شامل ہوسکتے ہیں۔ ضلعی سطح پر ESMF کے نفاذ ، تعميل اور نگرانی اور جائزہ کے لئے DIU ذمہ دار ہوگا۔ ڈی آئی یو کمیونٹیز خصوصاً خواتین اور کمزور گروہوں سے بھی مشاورت کرے گی۔

سہولت کی سطح پر ، بی ایچ یو / آر ایچ سی کے سربراہ ESMF کو لاگو کرنے کے لئے مجموعی طور پر ذمہ دار ہوں گے اور ای اینڈ ایس سے متعلقہ امور کے لئے فوکل پرسن (FP) کی حیثیت سے کام کریں گے۔ وہ ESMF کی تعميل اور DIU کے لئے مطلوبہ ڈیٹا / دستاویزات تیار کرنے کے لئے موزوں موجودہ عملے کے دو / تین ممبروں پر مشتمل ایک کمیٹی تشکیل دے گا۔ محکمہ بلڈنگ اور متعلقہ ٹھیکیدار کے نمائندے بھی تخفیف کے اقدامات اور کارکنوں کی تربیت پر عمل درآمد پر خصوصی توجہ کے ساتھ ESMF کی تعميل میں ان کی مدد کریں گے۔

EHCWMP کے نفاذ کے لئے ، PMU کی سطح پر ہیلتھ کیئر ویسٹ مینجمنٹ اسپیشلسٹ (HCWMS) کی خدمات حاصل کی جائیں گی۔ ES ، HCWMS اور SSS کے اشتراک سے ، EHCWMP سے متعلق ماحولیاتی اور سماجی تحفظات کی تعمیل ، ضلعی عمل درآمدی یونٹوں (DIUs) کے ساتھ ہم آہنگی ، تربیت اور استعداد سازی کے پروگراموں ، EHCWMP کی نگرانی اور تشخیص کے لئے ذمہ دار ہوں گے۔ اور PMU / PSPA / PSHD / WB وقتنا فوقتا reports رپورٹس تیار کرنا ٹیم کی ذمہ داری ہو گی۔

تعلیم کے شعبے ESMF نفاذ اور نگرانی کی سرگرمیوں کا انتظام پی ایم یو پی ایچ سی آئی پی ایس پی اے میں کریں گے۔ پروجیکٹ کی سطح پر ESMF کے نفاذ کے اپنے کردار کے علاوہ ، پروجیکٹ ڈائریکٹر-پی ایچ سی آئی پی ایچ کیونکہ سیکٹر مداخلتوں کے لئے ESMF کے نفاذ کا بھی ذمہ دار ہوگا۔ پی ایس پی اے کے پاس ماحولیاتی اور سماجی ماہر (ESS) کے لئے حفاظتی امور کی نگرانی کے لئے ایک سرشار پوزیشن ہے۔ وہ ESMF کے موثر نفاذ اور تمام تکنیکی امور کے لئے PD-PHCIP کی مدد کرے گا۔ ESS موجودہ اسکولوں میں اپ گریڈیشن سرگرمیوں میں ESMF کے نفاذ اور تعمیل کے لئے ذمہ دار ہوگا۔ وہ ای سی ای کلاس روموں کی بحالی / تجدید کاری سے متعلق سرگرمیوں کے لئے ای ایس ایم ایف کے نفاذ اور تعمیل کے لئے اسکول ایجوکیشن ڈیپارٹمنٹ کے ای سی ای سیل / یونٹ کے ساتھ ہم آہنگی کا بھی ذمہ دار ہوگا۔

ضلعی / فیلڈ لیول پر ESMF کا اطلاق ضلعی ایجوکیشن افسران کی ذمہ داری ہوگی جو حفاظت سے متعلقہ تمام امور کے لئے فولکل پرسن کی حیثیت سے کام کریں گے۔ ضرورت پڑنے پر تخفیف اقدامات کو عملی جامہ پہنانے کے متعلقہ ضلعی افسران کا معاون عملہ تعاون کرے گا۔

(دونوں) پی ایم یو میں متعلقہ حفاظتی ماہر بھی ایک موثر جی آر ایم کو برقرار رکھنے ، صنف سے متعلق امور اسٹیک ہولڈرز کی مشاورت ، تربیت / صلاحیت سازی کے پروگراموں کی تنظیم ، نگرانی اور تشخیص ، فیلڈ دفاتر کے ساتھ کوارڈینیشن اور مشیر / خدمات لینے کی ذمہ دار ہوں گے۔ ESMF کی تیسری پارٹی کی توثیق (TPV) کے لئے۔

ESMF کے تحت مانیٹرنگ اور ایویویلیشن میکانزم

ESMF مانیٹرنگ کی جائے گی تاکہ اس بات کا یقین کیا جاسکے کہ تخفیف کے منصوبوں کو باقاعدگی سے اور موثر طریقے سے نافذ کیا جائے۔ اس کو تین سطحوں یعنی پی ایم یو کی سطح ، ضلعی سطح اور فیلڈ لیول پر انجام دیا جائے گا۔

پروجیکٹ ڈائریکٹر-پی ایچ سی آئی پی کے ذریعے پنجاب سوشل پروٹیکشن اتھارٹی (پی ایس پی اے) منصوبے سے متعلق تمام کاموں کی نگرانی کے لئے لیڈ عمل درآمد کرنے والی ایجنسی کا کام کرے گی۔ پی ایم یو (پی ایچ ایف ایم سی) ای ایس ، ایس ایس ایم اور ایچ سی ڈبلیو ایم ایس کی تکنیکی مدد سے صحت سے متعلق ای ایس ایف ایم تعمیل کے لئے صوبائی سطح پر نگرانی اور جانچ کی ذمہ دار ہوگی۔ ضلعی عمل درآمدی یونٹ (DIU) اپنے متعلقہ ضلع میں نگرانی اور جانچ کی ذمہ داری SSS ، ES اور HCWMS کی تکنیکی مدد سے ذمہ دار ہوگا۔ ڈی آئی یو فیلڈ سطح کی سرگرمیوں اور ذیلی منصوبے کی سائٹوں پر نگرانی کا بھی ذمہ دار ہوگا۔

تربیت اور اہلیت کی تعمیر

ESMF کے نفاذ کے لئے جامع تربیت ، مظاہرے اور طویل مدتی استحکام کی ضرورت ہوگی۔ PHCIP ٹریننگ کے ساتھ مربوط ماحولیاتی اور معاشرتی پہلوؤں کی شناخت اور تخفیف پروجیکٹ کے سہولت کاروں کو منصوبے کے اجزاء ، متعلقہ ماحولیاتی امور اور ان کے حل کی بہتر تفہیم کے لئے مدد کرے گی۔ تربیتوں میں پروجیکٹ اضلاع میں واقع موجودہ اسکولوں میں بی ایچ یوز / آر ایچ سی سکند ای سی ای کے کلاس رومز کی مناسب اور ممکنہ بحالی اور تزئین و آرائش کے کام کے لئے ذمہ دار معاشرتی متحرک اور ماحول دوست رویہ شامل ہوگا ، لیکن ان تک محدود نہیں۔

ES اور SSS ذیلی منصوبوں کی تکمیل سے پہلے ، اس کے بعد اور اس کے بعد ، ماحولیاتی اور سماجی تحفظات کی تعمیل سے متعلق معاشرتی اور ماحولیاتی آگاہی اور ESMF ٹریننگوں کے ڈیزائن اور نفاذ کے لئے ذمہ دار ہوں گے۔ وہ پی ایم یو اور ڈی آئی یو کی سطح پر تربیت اور صلاحیت پیدا کرنے کے پروگراموں کی منصوبہ بندی اور اہتمام کریں گے۔ HCWMS ES اور SSS کے اشتراک کے ساتھ EHCWMP اور اس سے متعلقہ معاشرتی اور ماحولیاتی حفاظتی انتظامات سے متعلق تربیت کی ڈیزائننگ اور ان پر عمل درآمد کے ذمہ دار ہوں گے۔ وہ پی ایم یو اور ڈی آئی یو کی سطح پر کی جانے والی ہر تربیت کے لئے رپورٹس اور متعلقہ دستاویزات تیار کرنے کے بھی ذمہ دار ہوں گے۔

گریونیسس ریسرچ میکنزم (جی آر ایم)

صوبائی سطح پر پی ایس پی اے کے پاس ایک موجودہ جی آر ایم میکنزم موجود ہے جو اس منصوبے کے لئے استعمال ہوگا۔ محکمہ صحت اور ایس ای ڈی استحکام کے لئے پی ایس پی اے کے ساتھ شکایات کا مرتب کردہ ڈیٹا شیئر کریں گے۔

جی آر ایم سہولت پر مبنی فوکل پرسن (ایف بی ایف پی) کو تمام بنیادی صحت کی سہولیات کے ساتھ ساتھ اسکولوں میں بھی نامزد کیا جائے گا۔ فوکل فرد کو صحت کی سہولت (RHC & BHU) کے سربراہ نامزد کریں گے۔ اسی طرح اسکولوں میں فوکل پرسن کو ڈیپٹی ڈائریکٹر اسکول نامزد کریں گے۔ فوکل افراد کو ضلعی اتھارٹیز (صحت اور تعلیم) ڈسٹرکٹ فوکل پرسنز (ڈی ایف پی) ڈیٹا شیئرنگ اور رپورٹنگ کے لئے فوکل پرسن پر مشتمل سہولیات کے ساتھ رابطہ کریں گے۔

صحت کی سہولیات اور اسکولوں کا فوکل پرسن قومی / مقامی زبان میں اچھی طرح سے تیار کردہ بینر / پوسٹر / تختی دکھائے گا۔ ڈسٹرکٹ فوکل افراد کے رابطہ نمبر بینرز / پوسٹر / تختیوں پر آویزاں کیے جائیں گے۔ تمام فوکل پرسنز (DFPs اور FBFPs) کو GRM عمل کے بارے میں تربیت دی جائے گی۔ ضلعی فوکل پرسن شکایات کا ریکارڈ شکایت رجسٹر بک (CRB) میں برقرار رکھیں گے۔ شکایات کو ایک معیاری شکل میں درج کیا جائے گا ، جس میں شکایت کنندہ کا رابطہ ، وقت ، تاریخ ، نوعیت اور شکایات شامل ہیں۔ ضلعی فوکل پرسنز ان مسائل کو حل کرنے کے لئے صحت کی سہولیات (آر ایچ سی اور بی ایچ یو) اور اسکولوں کے سربراہوں کو شکایات درج کریں گے۔ ایف بی ایف پی کے ذریعہ تین کاروباری دنوں کے اندر شکایت کنندہ کو تحریری جمع کرانے کا اعتراف کیا جائے گا۔

اگر شکایت کنندہ مطمئن نہیں ہے تو ، اس کے پاس ڈائریکٹر جنرل ہیلتھ یا سیکرٹری صحت کے ذریعہ ازالہ کرنے کا اختیار ہوگا اور اسی طرح اسکولوں سے بھی شکایات سی ای او ڈسٹرکٹ ایجوکیشن اتھارٹی ، ڈائریکٹر پبلک انسٹرکشن یا سیکرٹری تعلیم کو بھجوا دی جاسکتی ہیں۔ کسی بھی سطح پر شکایات کے حل کے اعداد و شمار کو سی آر بی میں ریکارڈ کیا جائے گا اور ماہانہ رپورٹس سہولت پر مبنی فوکل افراد کے ذریعہ تیار کی جائیں گی اور ان کو اپنے متعلقہ ضلعی محکموں (ڈی ایف پی) میں پیش کیا جائے گا۔ اس کے بعد ڈی ایف پیز صوبائی محکموں کے توسط سے مرتب شدہ ڈیٹا پی ایس پی اے کو ارسال کریں گے تاکہ یہ یقینی بنایا جاسکے کہ شکایات سے متعلق ڈیٹا کو فوری طور پر محفوظ کیا جا رہا ہے اور محکمہ کی سطح پر معاملات حل کیے جا رہے ہیں۔

رپورٹنگ اور دستاویزات

ESMF کے پورے عمل کے لئے مکمل دستاویزات کو برقرار رکھا جائے گا۔ اس میں ES اور SSS کی طرف سے بھری ہوئی ماحولیاتی اور سماجی اسکریننگ چیک لسٹس ، SSS ، ES اور HCWMS ، ماحولیاتی اور سماجی انتظام کے منصوبوں (اگر فرد سب منصوبوں کے لئے ضروری ہو) کی تیار کردہ تصویروں کے ساتھ فیلڈ وزٹ رپورٹس ، مجموعی ESMF عمل درآمد سے متعلق سہ ماہی رپورٹیں شامل ہوں گی۔ SSS ، ES اور SSS ، HCWMS اور HCWMS کے ذریعہ تیار کردہ ماحولیاتی ، سماجی اور EHCWMP پہلوؤں پر بالترتیب نگرانی اور جانچ کی رپورٹ ، سالانہ تیسری پارٹی کی توثیق کی رپورٹیں ، اور مجموعی ESMF عمل درآمد سے متعلق منصوبے کی تکمیل رپورٹ . ان تمام ریکارڈوں / رپورٹس کو برقرار رکھنے اور دستاویز کرنے کے لئے پی ایم یو مجموعی طور پر ذمہ دار ہوگا۔

ESMF کی ضروریات

ایک بار حتمی شکل دیے جانے کے بعد ، ESCF EHCWMP کے ساتھ ، متعلقہ ایگزیکٹو سماری کا اردو ترجمہ کے ساتھ ، GoPb ، محکمہ صحت اور اسکول ایجوکیشن ڈیپارٹمنٹ (ایس ای ڈی) اور پی ایس پی اے کی سرکاری ویب سائٹ پر ظاہر کیا جائے گا۔ ان دستاویزات کو متعلقہ اہم اضلاع / فیلڈ دفاتر میں بھی برقرار رکھا جائے گا۔ اس کے علاوہ ، ان دستاویزات کا انکشاف ڈبلیو بی امیج بینک پر کیا جائے گا۔

ESMF اطلاق لاگت

ای ایس ایم ایف کے نفاذ پر کل پاک لاگت کا تخمینہ تقریباً 40 ملین ہے۔ اس میں ایس ایس او اور ای ایس کی خدمات حاصل کرنے پر لاگت شامل ہے (ایچ سی ڈبلیو ایم ایس کی خدمات حاصل کرنے کو ای ایچ سی ڈبلیو ایم پی کی عمل آوری لاگت میں شامل کیا جائے گا) ، استعداد سازی ، تیسری پارٹی کی توثیق (ٹی پی وی) ، اور ای اینڈ ایس اسکریننگ چیک لسٹ اور انفرادی سب پروجیکٹس کے لئے ای ایس ایم پی کی تیاری۔ یہ لاگت مجموعی منصوبے کی لاگت میں شامل ہے۔

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ACRONYMS

ASP	Adaptive Social Protection
BHUs	Basic Health Units
BOD	Burden of the diseases
CCT	Conditional Cash Transfer
CPD	Continuous Professional Development
CSDS	Capacity & Social Development Specialist
DC	Deputy Commissioner
DMU	District Monitoring Unit
DoH	Department of Health
DRM	Disaster Risk Management
EA	Environmental assessment
ECA	Employment of Child Act
ECD	Early childhood development
EHCWMP	Environmental and Health Care Waste Management Plan
EHS	Environment, Health, and Safety
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EMR	Electronic Medical Record
EPAs	Environmental Protection Agencies
ERP	Emergency Response Procedures
ESIA	Environmental and Social Impact Assessment

ESMF	Environmental and Social Management Framework
ESMMP	Environmental and Social Management and Monitoring Plan
ESMP	Environmental and Social Management Plan
ES	Environmental Specialist
EWS	Early Warning Systems
FGDs	Focus Group Discussions
GFPs	Grievance Focal Points
GoP	Government of Pakistan
GoPb	Government of Punjab
GRC	Grievance Redressal Committee
GRM	Grievance Redress Mechanism
HNP	Health, Nutrition, and Population
HSE	Health, Safety and Environment
IAS	Impact Assessment Survey
IEE	Initial Environmental Examination
IEE	Initial environmental examination
IFAD	International Fund for Agricultural Development
IPM	Integrated Pest Management
IPs	Implementing Partners
LAA	Land Acquisition Act
LHWs	Lady Health Workers
LM	Labor Market

M&EC	Monitoring and Evaluation Consultants
MEAs	Multilateral Environmental Agreements
MIS	Management information system
MMR	Maternal mortality ration
MO	Medical Officer
MSDS	Material Safety Data Sheet
MSDS	Minimum service delivery standards
NEQS	National Environmental Quality Standards
NGOs	Non-governmental Organizations
OHS	Occupational Health and Safety
OP	Operational Policies
Pak- EPA	Pakistan Environmental Protection Agency
PDMA	Disaster Management Authority
PEF	Punjab Education Foundation
PEPA	Punjab Environment Protection Agency
PEQs	Punjab Environmental Quality Standards
PHCIP	Punjab Human Capital Investment Project
PIC	Project Implementation Consultants
PIU	Project Implementation Unit
PMDC	Pakistan Medical and Dental Council
PMIU	Project Management Implementation Unit
POPs	Persistent Organic Pollutants

PPE	Personal Protective Equipment
PPP	Public-private partnership
PPSHD	Punjab Primary and Secondary Health Care Department
PSPA	Punjab Social Protection Authority
PWD	Population Welfare Department
RHCs	Rural Health Care Centers
RPF	Resettlement Policy Framework
SBS	Sample Based Survey
SBS	Sample Based Survey
SEMU	Social and Environmental Management units
SESA	Strategic Environmental and Social Assessment
SIA	Social Impact Assessment
SIS	School information System
SMO	Senior Medical Officer
SSS	Social Safeguard Specialist
SP	Social Protection
UNFCCC	UN Framework Convention on Climate Change
UNICEF	United Nations Children’s Fund
WB	World Bank
WINGS	Women’s Income Growth and Self-Reliance
WWFN	World Wide Fund for Nature

CHAPTER 1

INTRODUCTION

With the population size of 110 million, Punjab is confronted with the challenge of making quality healthcare available, accessible and affordable to the public which is their fundamental right. Catering to the healthcare needs of this burgeoning population is a challenging task, particularly in rural and less accessible areas. The 18th Amendment to the Constitution of Pakistan made fundamental changes to federal & provincial health mandates through changes in the legislative lists – it awarded provincial autonomy with devolution of legislative and executive authority in the health sector. Punjab assumed a greater role in addressing the province’s human development challenges. Several initiatives are currently underway in Punjab to respond to human development challenges in particular in the areas of health and education, to ensure the supply of quality service delivery. A few key areas include:

- Improving access to primary health care services by upgrading regular Basic Health Units (BHUs) to 24/7 BHUs;
- Enhancing the quality and outreach of primary and secondary education, and
- Expanding skills development opportunities through TVET.

These activities have been supported by the Bank’s Health Sector Reform Project (HSRP), Third Punjab Education Sector Project (PESP III), and Punjab Skills project. Moreover, GoPb strived to find its role in the Social Protection (SP) agenda, to effectively address the poverty challenges in the province in the context of devolution while acknowledging and recognizing the huge role played by BISP. It developed Punjab’s SP policy that adopts the lifecycle approach to identify the areas of policy intervention in Punjab that are complementary to BISP. GoPb established a Punjab Social Protection Authority (PSPA) in 2015 to strengthen its efforts to support poor and vulnerable households in the province. The Government of Punjab had outlined a comprehensive roadmap and developed a package of focused and effective interventions focusing on strengthening functionality of primary healthcare facilities. The focus was kept on promoting universal health coverage through the launch of Prime Minister National Health Program.

1.1. BACKGROUND

Pakistan’s most abundant asset is human capital, but the country has not been effectively investing in or utilizing this significant resource. Pakistan has an estimated population of 208 million people (as per the 2017 census), many of whom are young (more than 60 percent of the population is younger than 30). The country’s demographic transition, characterized by the young, working-age population growing faster than the overall population, could also help create an environment conducive to economic growth and demographic dividends. However, as highlighted by the latest

Human Capital Index (HCI), released by the World Bank in 2018, an average girl born in Pakistan today will have realized only 38 percent of her overall human capital potential by the time she turns 18, if no changes in human capital accumulation take place. The country's high stunting rate (which was 37.6 percent in 2017, despite some progress) among children under five,¹⁷ and poor education and learning outcomes, also highlight the challenging human capital outcomes in the country.

Pakistan's low human capital indicators are in large part due to lagging outcomes among poor and vulnerable households and are associated with weak female empowerment. For instance, while primary school attendance is over 90 percent in the richest quintile, less than half of children in the poorest quintile attend primary school. Weak female empowerment, manifested in a large gender gap in education, employment, and earnings, also has significant implications on investment in children's human capital, given the strong association between mother's education and household income and children's human capital outcomes.

The human capital challenges faced in early childhood, which is a critical life stage for human capital accumulation, are disproportionately high among low-income households and lagging regions in Punjab. The infant mortality rate in Punjab is 60 per 1,000 live births (as compared to the national average of 61 per 1,000 live births).¹⁸ It is higher among poorer households with 83 per 1,000 live births among the bottom quintile households as compared with 27 per 1,000 live births among the top quintile households.¹⁹ A weak start in the first 1,000 days, followed by inadequate investment in early childhood education (ECE), limits children's cognitive development, which in turn lowers their school readiness and leads to poor school enrollment, retention, learning outcomes, and completion, creating a vicious cycle and widening gaps.²⁰

An immediate source of lagging early childhood human capital outcomes among vulnerable households can be found in their underutilization and low quality of key health services. There is a set of key health services—such as at least four antenatal care checkups, birth delivered by a skilled attendant, timely counseling for mothers and children's immunization—that are critical for the health of mothers and young children. Furthermore, according to a quality assessment done by the Primary Health Care Performance Initiative, health facilities are not equipped to provide quality services.

¹⁷ Pakistan Demographic and Health Survey, 2017–18.

¹⁸ This is based on Multiple Indicator Cluster Survey (MICS). The Pakistan Demographic and Health Survey, 2017–18 shows that the national average is 62 per 1,000 live births and Punjab average is 73 per 1,000 live births.

¹⁹ The MICS shows different levels of the infant mortality rates than those from DHS (overall rate in Punjab is 60 out of 1,000 live births). However, MICS also suggests a large gap between the poor and non-poor households (83 among the bottom quintile vs. 27 among the top quintile).

²⁰ Net enrollment in primary school (among children ages 6 to 10) is less than 50 percent, and close to 40 percent of students drop out before completing primary school among households in the bottom 20 percent of the income distribution (based on the HIES, 2015). Primary school completion rates in the poorest five districts in Punjab are less than 40 percent, and particularly low among girls (less than 30 percent). Likewise, rates of progress to secondary school are quite low: the secondary enrollment rate in these districts is around 22 percent.

There are also significant gaps in poor and vulnerable households' access to good-quality ECE and early learning services. There are 7.4 million children ages three to five in the Punjab and 37 percent of them attend preschool (Bureau of Statistics 2014). The majority is enrolled in low quality, less standardized katchi classes that do not adequately prepare students for their transition to primary school, and a significant share of them do not transition to primary school the following year as they repeat or drop out (Annual School Census, 2014 and 2015). The GoPb has increased access to quality ECE programs in recent years, including under the World Bank's Third Punjab Education Sector Project (PESP-III), and approved a comprehensive ECE policy in 2017 which details clear quality standards for ECE classrooms. More recently, the Chief Minister of Punjab has prioritized the provision of early childhood education and marginalized communities, under The New Deal 2018-2023, to improve access, equity and retention. Despite continued efforts to institutionalize and expand ECE, there is still considerable room for further and ultimately more targeted efforts. Quality in ECE classrooms could be enhanced more through the provision of teaching and learning materials, improved teacher training and preparation, and community to encourage enrollment. The poor and the vulnerable have not been explicitly targeted under existing programs despite evidence from a range of contexts suggesting disadvantaged children benefit the most from ECE interventions. Additionally, there is scope to strengthen the early grades to boost literacy and numeracy skills and increase transition rates from ECE to primary school.

The proposed project aims at making concerted efforts to support poor and vulnerable households with young children to improve key areas that are critical for human capital accumulation. First, for the immediate needs of a child's healthy survival, the proposed project will help vulnerable households utilize key health services. The underutilization of key health services is associated with financial and nonfinancial barriers such as lack of money for health services, opportunity costs for both patient and those accompanying them, and low perceived benefits from utilizing health services due to the poor quality of the services. To address some of these barriers, the project includes support for poor and vulnerable households through CCTs. In addition, efforts to enhance the availability and quality of essential health care services will be made to promote their higher take-up, building on the GoPb's efforts to improve access to primary healthcare services by upgrading selected regular basic health units (BHUs) to operate 24/7 (including provision of key equipment, supplies, and qualified providers), upgrading selected rural health centers (RHCs) to RHC Plus with a neonatal care unit and strengthening capacity to provide quality health services (e.g., training, monitoring and evaluation [M&E]).

Second, root causes of households' limited human capital accumulation will be addressed through support for social and economic empowerment. Economic inclusion support builds on support for basic consumption but includes additional support for livelihoods and social empowerment. Since there are limited labor market opportunities in the private sector, support focuses on the self-employment of young parents with children. This may involve support for combinations of livestock, crop, trade, and retail activities through the transfers of assets (e.g., in kind or cash), as well as technical and business training. More importantly, given the level of skills of potential

beneficiaries, coaching services will be provided throughout the intervention period. In addition, the project strengthens social inclusion support for Punjab's existing initiatives that are closely related to children's human capital by strengthening the quality of Early Childhood Education (ECE) and early grade learning, both of which are essential to building a successful foundation for school readiness. For the ECE of children ages three to five, the project will support strengthening and providing improved education services in remote and disadvantaged areas in line with the GoPb's efforts to support the holistic socio-emotional and cognitive development of young children, and provide them with adequate resources and support to improve their learning outcomes and comprehension skills. These targeted efforts will affect a greater proportion of girls (and boys) from poor and vulnerable households to be prepared for, attend and complete primary school.

The proposed project is aligned with the development objectives of the Government of Pakistan and the Government of Punjab that focus on increasing investment in people, by focusing on lagging regions and populations. It takes a targeted approach concentrated on enhancing maternal and child health and nutrition, and productive economic inclusion of the poor and vulnerable. Moreover, responsive to the growing needs, efficient and transparent service delivery would be greatly emphasized so citizens can utilize government programs and services; thus, leveraging the opportunities for an increased human capital investment. In these efforts, close collaboration and coordination between federal and provincial initiatives are required. While the details of the Ehsas program and the role of BISP have yet to be seen, the provincial investments in this area should provide important lessons going forward for both federal and provincial initiatives for poverty alleviation and human capital investment.

The Government of Punjab plans on upgrading of about 75% of normal BHUs to 24/7 over the course of the next 5 years. This is a part of the Prime Minister's Health Initiative, which is a series of programs aimed those improving health systems in districts in a phased manner. The first stage of this program is already underway, in which 11 districts of Punjab (namely Khushab, Bahawalnagar, Bhawalpur, Rajanpur, Lodhran, Muzaffargarh, Bhakkar, Rahimyar Khan, Layyah, Mianwali and D.G Khan) carefully chose on the basis of weak performance on the Multi-Dimensional Poverty index.

The subprojects under the proposed HCIP include a variety of physical works(upgrading/rehabilitation) in BHUs & RHCs in 11 different districts of Punjab such as upgradation in health and, rehabilitation of some class room in selected schools under education components. The works are generally of minor nature and are mostly to upgrade, rehabilitate and/or repair existing structure. It is anticipated that there will not be any physical displacement, as civil works are to be carried out in existing BHUs/RHCs and already established schools. As such there is not likely to have significant adverse impacts on the receiving environment and surrounding areas. During each subproject preparation the screening process will be carried out to assess any potential adverse impacts.

1.2. ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK (ESMF)

As the exact nature of project activities and precise location of health care/education facilities within a district are not known at this stage, a framework approach has been adopted for environmental and social assessment for preparing this Environmental and Social Management Framework (ESMF). The ESMF presents project description, the regulatory review, review of environmental and socio-economic baseline conditions of Punjab province in general and 11 project districts in particular, screening of potential adverse social and environmental impacts, and identification, prediction and evaluation of generic impacts; preparation of ESMF for mitigation of adverse impacts that may arise due to the proposed project interventions, proposed procedures for implementation of ESMF, stakeholders consultation, capacity building and training requirements and budgetary estimations for implementation of ESMF.

ESMF has been prepared by the Government of Punjab (GoPb) through Punjab Social Protection Authority (PSPA) as the lead agency and with other entities including: School Education Department (SED) and Primary and Secondary Health Department (PSHD) through Punjab Health Facilities Management Company (PHFMC) for the execution and implementation of Punjab Human Capital Investment Project (PHCIP).

This ESMF complies with the World Bank Environmental and Social Safeguard Operational Policies (SOPs) and local environmental and social laws to assess the project's environmental and social viability through various environmental components like air, water, noise, land, ecology along with the parameters of human interest and social acceptability and mitigation of adverse impacts along with chalking out of guidelines, SOPs, procedure for detailed EA and social implications during and after project execution.

The objectives of this ESMF are:

- To establish clear procedures and methodologies for the environmental and social planning, review, approval and implementation of subprojects to be financed under the Project.
- To specify appropriate roles and responsibilities, and outline the necessary reporting procedures, for managing and monitoring environmental and social concerns related to subprojects.
- To determine the training, capacity building and technical assistance needed to successfully implement the provisions of the ESMF.
- To establish the project funding required implementing the ESMF requirements.
- To provide practical resources for implementing the ESMF.

1.3 SCOPE OF THE STUDY

GoPb has prepared this ESMF for the sub-projects under Punjab Human Capital Investment Project (PHCIP). The Framework will provide specifically an overview of the baseline conditions and also

identify generic environmental and social impacts of the subprojects. The typical sub-project activities include minor civil works comprising rehabilitation/ improvement / refurbishing of existing facilities (BHUs/RHCs) for health sector sub-component. Similarly the refurbishing and upgradation of ECEs classrooms will be carried out in existing schools under education sector sub-component. In some cases, new construction is also likely such as addition of one/two classrooms in existing schools and construction of new room/structure (bathroom, store etc.) in existing health facilities.

The E&S Screening Checklist is designed to identify potential impacts that need to be avoided or mitigated before execution of individual sub-projects. Under ESMF procedures, if project screening will identify the potential environmental impacts of adverse nature, then a more detailed document i.e. Environmental and Social Management Plan (ESMP) will be prepared for that sub-project.

Some low scale potential environmental impacts are expected from the rehabilitation and upgradation of the selected BHUs and RHCs; as well as Early Childhood Education (ECE) classrooms in the existing facilities. These impacts are expected to be temporary, localized and reversible in nature. After E&S screening no further document needs to be prepared. Simple mitigation measures, if required, however will be taken as described in Chapter 6.

In addition, increase in demand for services are expected at health care facilities due to the demand side interventions, which will likely produce more health care waste that needs to be assessed and appropriate measures are required to be introduced. Accordingly, a separate Environment and Health Care Waste Management Plan (EHCWMP) has been prepared as a part of this assessment. However, this ESMF is largely for civil/construction related project interventions.

The Framework also provides the template ESMP for rehabilitation and renovation of health care facilities and ECE class rooms in the existing facilities This generic ESMP may be further updated or adjusted to specific works whenever the locations and designs of each sub-projects are changed.

The ESMF once reviewed and cleared by the World Bank, will be disclosed, along with the Urdu translation of Executive Summary, on the official websites of Government of Punjab and implementing entities (PSPA, SED, and PHFMC). The document will also be maintained at relevant key districts/field offices. In addition, the ESMF will be disclosed on WB image-bank.

1.4. ESMF STUDY METHODOLOGY

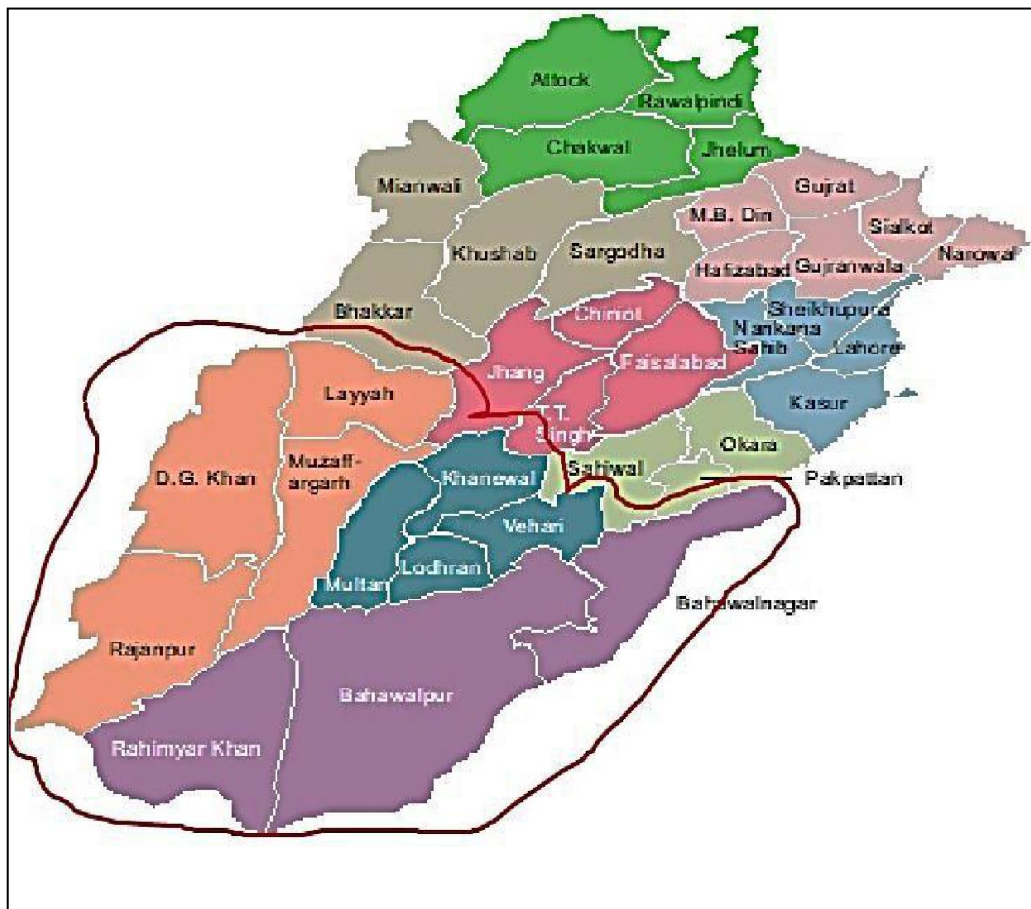
Methodology for the ESMF comprises upon a series of integrated tasks and this was based on a combination of Primary and secondary information. .

The specific steps involved for ESMF design include:

1.4.1. Situation Analysis

Study the overall project details and the subprojects details, their design, location, nature and key interventions supported by the project/subprojects.

Secondary data collection on existing social and environmental conditions of the 08 districts of South Punjab (Bahawalnagar, Bahawalpur, Rajanpur, Lodhran, Muzaffargarh, , Rahimyar Khan, Layyah, Mianwali and D.G Khan) And 03 districts of Central Punjab (Mianwali, Khushab and Bhakkar).



1.4.2. Review of Institutional Framework

Review the existing Institutional Framework and respective roles and responsibilities.

1.4.3. Review of Legal Framework

Review the national and provincial legislation and regulations related to environmental and social aspects and determine relevance for the proposed activities under the project. Review the WB Operational Policies on environmental and social safeguards assessment and determine relevance and subsequent requirements.

1.4.4. Data Analysis

Primary data collected from sample health care facilities was analyzed to determine the social and environmental baseline conditions.

1.4.5. Screening and Categorization of sub-projects

Generally, subprojects with any significant, long term or medium term, irreversible environmental and social negative impacts will be avoided to the extent possible.

The ESMF clearly defines the screening criteria on selection of safeguard instrument to be used for sub-projects, based on the type of interventions and corresponding nature and extent of potential adverse impacts. The instruments include; (a) Simple Checklist for the sub-projects involving minor civil works such as rehabilitation, up-gradation and maintenance of BHUs/RHCs/class rooms in existing facilities; and (b) ESMP for civil works involving new construction (additional room/classroom in existing health/education facilities etc.).

Since exact extent and precise location of individual interventions (sub-projects) to be implemented under the PHCIP are not known at this stage, a framework approach has been adopted for the present environmental and social assessment. Under this approach, each sub-project (of basic healthcare facilities and ECE) will be screened for the severity and extent of environmental and social impacts. Subprojects having negligible environmental and or social impacts will be assessed with the help of an **Environmental and Social Screening Checklist**(Attached in the Annexure A). Sub-projects having some negative but localized environmental and or social impacts will require a generic **Environmental and Social Management Plans (ESMPs)** to be prepared for individual sub-project.

1.5. STAKEHOLDERS CONSULTATION

For preparation of ESMF, stakeholders' consultation was carried out with the potential project beneficiaries and with the project implementation partners both at provincial and at field level.

Stakeholders' consultation at field level was carried out at RHCs/BHUs and in selected schools. At field level the consultation was done with the potential project beneficiaries including communities to be benefitted by the healthcare facilities, BHUs/RHCs staff, teachers/students and parents.

At provincial level the consultation was held with the implementing agencies and other relevant departments. These include the following:

- Punjab Social Protection Authority (PSPA)
- Punjab Health Facilities Management Company (PHFMC)H&ICP
- Women Development Department
- Primary and Secondary Healthcare Department (PSHD)
- School Education Department (SED)

The findings of the stakeholder's consultation are discussed in detail in Chapter 5.

1.5.1. Social and Environmental Impacts Analysis

Social and environmental Impact Assessment and analysis was carried out related to civil works:

This assessment entailed:

- a) Site visits to enable assessing of land and livelihood related issues.
- b) Determination of social impacts of the project interventions which are mostly of positive in nature including local employment and access to better healthcare and early childhood education facilities.
- c) It should be noted that since for most facilities' renovation would entail internal modifications of the built environment rather than outward expansion and no physical or economic displacement will take place. Therefore, no land acquisition, Voluntary Land Donation or resettlement would occur.
- d) Anticipated social and environmental impacts analysis are carried out in accordance with the scope of subprojects.res

Based on the above analysis generic mitigation measures are proposed for social and environmental impacts.

1.5.2. Structure of ESMF

The structure of the ESMF is as follows:

- Executive Summary
- Introduction
- Legal & Institutional Framework
- Project Description
- Environmental and Social Baseline
- Stakeholders Consultation
- Impact Assessment and Recommended Mitigation Measures

- Environment and Social Management Framework
- Annexure

CHAPTER 2

LEGAL FRAMEWORK REVIEW

This chapter discusses the policy, legal and administrative framework as well as institutional set-up relevant to the environmental and social assessment of the proposed Project. Also included in the Chapter are the environmental and social guidelines from the national agencies as well as international donors and other organizations. There are a number of legal covers that deal with the health sector and environmental and social management in Punjab, details of which are as under.

2.1 NATIONAL LAWS AND REGULATION

Pakistan's statute books contain a number of laws related to the regulation and control of the environmental and social aspects. However, the enactment of comprehensive legislation on the environment, in the form of an act of parliament, is a relatively new practice. Most of the existing laws on environmental and social issues have been enforced over an extended period of time and are context-specific. After the Eighteenth amendment in the constitution of Pakistan many federal subjects devolved to provincial legislation. The Concurrent list in fourth schedule of the constitution containing entries of subjects wherein federal and provincial legislation could legislate has been abolished. Since project coverage is in province of Punjab; therefore, only those national laws and regulations are discussed here which have application in the project. There are still several federal laws which have not been repealed by the provinces and applicable in provinces with its original titles. The laws relevant to the proposed project are briefly reviewed below.

2.1.1 Pakistan Environmental Protection Act, 1997

The Pakistan Environmental Protection Act, 1997 (the Act) is the basic legislative tool empowering the government to frame regulations for the protection of the environment (the "environment" has been defined in the Act as: (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 inter- relationships between any of the factors specified in sub-clauses "a" to "f"). The Act is applicable to a broad range of issues and extends to socioeconomic aspects, land acquisition, air, water, soil, marine and noise pollution, as well as the handling of hazardous waste. The discharge or emission of any effluent, waste, air pollutant or noise in an amount, concentration or level in excess of the National Environmental Quality Standards (NEQS) specified by the Pakistan Environmental Protection Agency (Pak- EPA) has been prohibited under the Act, and penalties have been prescribed for those contravening the provisions of the Act. The powers of the federal and provincial Environmental Protection Agencies (EPAs), established under the Pakistan Environmental Protection Ordinance 1983, have also been considerably enhanced under this legislation and they have been given the power to conduct inquiries into possible breaches of environmental law either of their own accord, or upon the registration of a complaint.

The requirement for environmental assessment is laid out in Section 12 (1) of the Act. Under this section, no project involving construction activities or any change in the physical environment can be undertaken unless an Initial Environmental Examination (IEE) or an Environmental Impact Assessment (EIA) is conducted, and approval is received from the federal or relevant provincial EPA. Section 12 (6) of the Act states that the provision is applicable only to such categories of projects as may be prescribed and the categories are defined in the Pakistan Environmental Protection Agency Review of IEE and EIA Regulations, 2000.

2.1.2 National Environment Policy, 2005

The National Environmental Policy, 2005 aims to protect, conserve and restore Pakistan's environment in order to improve the quality of life for the citizens through sustainable development. It provides an overarching framework for addressing the environmental issues facing Pakistan, particularly pollution of fresh water bodies and coastal waters, air pollution, lack of proper waste management, deforestation, loss of biodiversity, desertification, natural disasters and climate change. It also gives direction for addressing the cross sectoral issues as well as the underlying causes of environmental degradation and meeting international obligations.

2.2.3 National Climate Change Policy, 2012

The Ministry of Climate Change launched Pakistan's new Climate Change Policy in 2012. Pakistan has been identified as one of the top 16 countries with a high climate change vulnerability index. Many sectors like water resources, agriculture and livestock, human health, forestry, biodiversity, ecosystems, are at great risk of being affected by climate change. The new policy recommends policy measures and proposes mitigation strategies in particular for energy, transport, town planning, industries, agriculture and livestock and forestry sectors.

Three policy measures recommended, among others, that have a direct bearing on water supply, sanitation and solid waste are:

- i. Make installation of wastewater treatment plants an integral part of all sewerage schemes
- ii. Ensure separate collection, disposal and re-use of recyclable, composite and biodegradable waste, preferably at source
- iii. Introduce local rainwater harvesting measures

2.1.3 PEPA Review of IEE and EIA Regulations, 2000

The Pakistan Environmental Protection Agency Review of IEE and EIA Regulations, 2000 (the "Regulations"), developed by the Pak-EPA under the powers conferred upon it by the Act, provide the necessary details on preparation, submission and review of the initial environmental examination (IEE) and the EIA. Categorization of projects for IEE and EIA is one of the main components of the Regulations. Projects have been classified on the basis of expected degree of adverse environmental impacts. Project types listed in Schedule I are

designated as potentially less damaging to the environment, and those listed in Schedule II as having potentially serious adverse effects. Schedule I projects require an IEE to be conducted, provided they are not located in environmentally sensitive areas. For the Schedule II projects, conducting an EIA is necessary.

2.1.4 National Environmental Quality Standards

The National Environmental Quality Standards (NEQS), promulgated under the PEPA 1997, specify the following standards:

- Maximum allowable concentration of pollutants in gaseous emissions from industrial sources,
- Maximum allowable concentration of pollutants in municipal and liquid industrial effluents discharged to inland waters, sewage treatment and sea (three separate set of numbers).
- Maximum allowable emissions from motor vehicles.
- Ambient air quality standards.
- Drinking water standards
- Noise standards.

The above NEQS's are presented in Tables A.1 to A.6 in Annexure C. Only a few of these standards will be applicable to the gaseous emissions and liquid effluents discharged to the environment from the activities under the proposed project.

2.1.5 Hospital Waste Management Rules, 2005

Under these Rules, every hospital is responsible for proper management of waste generated by it till its final disposal in accordance with provisions given in these rules. The Rules require each healthcare facility to constitute a waste management team, and to prepare and implement a waste management plan. The Rules also include guidelines for waste segregation, collection, transportation, storage, and disposal. These Rules will be applicable to the proposed project.

2.1.6 Acts Governing Healthcare Services

The following laws govern various aspects of the healthcare services in the Province:

- Public Health (Emergency Provisions) Ordinance, 1944
- West Pakistan Epidemic Diseases Act, 1958
- Punjab Vaccination Ordinance, 1958
- Punjab Juvenile Smoking Ordinance, 1959
- Punjab Prohibition of Smoking in Cinema Houses Ordinance, 1960
- Punjab Pure Food Ordinance, 1960
- Eye Surgery (Restriction) Ordinance, 1960
- Pakistan College of Physician & Surgeons Ordinance, 1962
- Medical and Dental Council Ordinance, 1962

- Allopathic System (Prevention of Misuse) Ordinance, 1962
- Unani, Ayurvedic and Homoeopathic Practitioners Act, 1965
- Pharmacy Act, 1967
- Medical Colleges (Governing Bodies) (Punjab Repeal) Ordinance, 1970
- Pakistan Nursing Council Act, 1973
- Drugs Act, 1976
- Medical and Dental Degrees Ordinance, 1982
- Punjab Health Foundation Act, 1992
- Punjab Transfusion of Safe Blood Ordinance, 1999
- Mental Health Ordinance for Pakistan, 2001
- University of Health Sciences Lahore Ordinance, 2002
- Prohibition of Smoking and Protection of Non-Smokers Health Ordinance, 2002
- Protection of Breast-Feeding and Child Nutrition Ordinance, 2002
- Punjab Medical and Health Institutions Act, 2003
- Injured Persons (Medical Aid) Act, 2004
- King Edward Medical University Lahore Act, 2005
- Transplantation of Human Organs and Tissues Act, 2010
- Punjab Healthcare Commission Act, 2010.

However, the above laws have a limited relevance for the environmental, waste management aspects, construction and rehabilitation work.

2.1.7 Employment of Child Act, 1991

Article 11(3) of the Constitution of Pakistan prohibits employment of children below the age of 14 years in any factory, mines or any other hazardous employment. In accordance with this Article, the Employment of Child Act (ECA) 1991 disallows the child labor in the country. The ECA defines a child to mean a person who has not completed his/her fourteenth years of age. The ECA states that no child shall be employed or permitted to work in any of the occupation 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. The processes defined in the Act include carpet weaving, biri (kind of a cigarette) making, cement manufacturing, textile, construction and others).

The project proponent, participating farmers and their contractors will be bound by the ECA to disallow any child labor at the project sites.

2.1.8 Pakistan Penal Code, 1860

The Code deals with the offences where public or private property or human lives are affected due to intentional or accidental misconduct of an individual or organization. The Code also addresses control of noise, noxious emissions and disposal of effluents. Most of the environmental aspects of the Code have been superseded by the Pakistan Environmental Protection Act, 1997.

2.1.9 The Canal and Drainage Act, 1873

The Canal and Drainage Act 1873 (amended in 1952, 1965, 1968 and 1970) prohibits corruption or fouling of water in canals (defined to include channels, tube wells, reservoirs and watercourses), or obstruction of drainage.

This Act will be applicable to the physical works to be carried out during the proposed project.

2.2 PROVINCIAL LAWS AND REGULATIONS

2.2.1 Punjab Environment Protection Act, 2012

The Pakistan Environmental Protection Act 1997 was enacted on December 3, 1997. Punjab Environment Protection Act, 2012 deals with the establishment of Environmental Protection Council which is responsible for approving comprehensive environmental policies; provide guidelines for the protection of environment, species, habitat and biodiversity. The Act also establishes the Environmental Protection Agency that deals with the preparation of national environmental policies, prepare & publish national environment report, ensure the enforcement of National Environmental Quality Standards, establishment ambient air, water and land quality standards, measures to control environmental pollution.

According to a notification issued by Planning and Development Department, Government of the Punjab No. 35(231)RO(COORD)P&D/2007, dated 21st March 2007: “In case of development projects having environmental implications, an environmental impact assessment (EIA) report should invariably be submitted along with the project document at the time of getting approval”

In the context of Section 11 and 12 of Punjab Environment Protection Act, 2012, renovation/rehabilitation of health care and educational units (to be executed under PHCIP) doesn't come under Schedule I and II of PEPA Review of IEE/EIA Regulations 2000, therefore individual sub-projects will not require IEE or EIA.

2.2.2. Punjab Hospital Waste Management Rules, 2014

Every hospital, public or private, shall responsible for the proper management of the waste generated by it till its final disposal in accordance with the provisions of the Act and the rules.

The Rules also include guidelines for waste segregation, collection, transportation, storage, and disposal and responsibilities of the health workers. For healthcare facilities the hospital waste management rules, 2014 have been prepared and notified by Environment Protection Department to be implemented by all health care facilities which does not need further approval from EPD. However for the installation of incinerator at health care facilities the health department will take approval through fulfilling the EIA/IEE process for the safe disposal of waste.

2.2.3. Healthcare Waste Management for PHCIP

In the light of waste management regulatory framework, Health Care Waste Management Plan shall be prepared by the PHCIP Healthcare Waste Management Environment and Social Safeguards Specialist.

The waste management plan shall include:

- (a) A plan of the hospital showing the waste disposal points for every Ward and department, indicating whether each point is for risk waste or non-risk waste and showing the sites of the central storage facility for risk waste and the central storage facility for non-risk waste;
 - (b) Details of the types, numbers and estimated cost of containers, waste bags and trolleys required annually;
 - (c) Time tables indicating frequency of waste collection from each ward and departments;
 - (d) Duties and responsibilities for each of the different categories of hospital staff members, generating hospital waste and be involved in the management of waste;
 - (e) An estimate of the number of staff members required for waste collection;
 - (f) Procedures for the management of waste requiring special treatment such as autoclaving before final disposal;
 - (g) Contingency plans for storage or disposal of risk waste in the event of breakdowns of incinerators or of maintenance or collection arrangements;
 - (h) Training courses and programmers on waste management; and
 - (i) Emergency procedures.
- (a) A representative of a local council responsible for the collection and disposal of waste from the hospital shall be consulted in preparing and finalization of the waste management plan.
- (b) The waste management plan shall be regularly monitored, review, revised and updated by the hospital waste management team as and when necessary.

As Punjab has already developed the HWMRules 2014; so the plan has been prepared in accordance to the standard protocols that would be implemented at primary healthcare facilities across Punjab.

2.2.4. Punjab Early Child Education Policy 2017

The Punjab ECE Policy (2017) envisions that all children ages 3-5 years living in Punjab achieve their linguistic, socio-emotional and physical potential and transition to primary school

successfully. To achieve this vision, the provincial government has prioritized expansion in access to ECE through different modalities. The subcomponent 2.2 will achieve the standards by following steps which are aimed at strengthening select education initiatives in Punjab that directly contribute to improved educational attainments for children from the poor and vulnerable households. Two existing programs that are relevant to human capital accumulation in critical early years are the Early Childhood Education. ECE facility is currently available in 10,000 public schools but quality of facilities and learning materials need considerable improvement. School Education Department aims to further increase access and strengthen the quality of existing ECE classrooms in project's target districts. This will involve conversion of upgrading physical facilities of existing ECE classrooms and providing new/upgraded learning kits. On institutional capacity, SED plans to provide ECE in-service training for teachers, head teachers, school council members, and ECE caregivers, launch an ECE social mobilization campaign, and establish a capacitated Foundational Learning Cell in the department to achieve the desired standard

2.2.5. Punjab Local Government Act, 2013

The main legislation at present that governs sanitation is the Punjab Local Government Act 2013. Under this act various local governments are being established which deals with water supply and sanitation.

A Union Council shall provide sanitation and solid waste collection and sanitary disposal of solid, liquid, industrial and hospital waste besides providing and maintaining rural water supply schemes and public sources of drinking water, including wells, water pumps, tanks, ponds and other works for the supply of water and open drains. The Act also empowers the Union Council to coordinate with the community organizations for proper maintenance of rural water supply schemes and sewerage in the prescribed manner.

2.2.6. Punjab Growth Strategy 2018

Recently, the Planning and Development Board, Government of Punjab has developed a growth strategy for the province entitled "Punjab Growth Strategy 2018-accelerating Economic Growth and Social Outcomes". The document endorses Punjab's health sector vision and strategy, which emphasizes improvement of water, sanitation and hygiene services to prevent communicable diseases.

2.3 THE WORLD BANK OPERATIONAL POLICIES

Along with the local environmental and social laws and policies, it is obligatory for the project to abide by the World Bank safeguard policies. These Policies are briefly discussed as following with their applicability or otherwise for PHCIP.

2.3.1 Environmental Assessment (OP 4.01)

The World Bank requires environmental assessment (EA) of projects proposed for Bank financing to help ensure that they are environmentally sound and sustainable, and thus to improve decision making. The OP defines the EA process and various types of the EA instruments. The proposed project may consist of activities which can potentially have environmental and social reversible impacts, hence the policy is triggered. Since the activities

under the proposed project would be small scale in terms of construction, repair and maintenance of Healthcare units and educational institutes, the level of environmental impacts is likely to be low to moderate. The safeguards category of the project is classified as “Category B” with partial assessment. Present Environmental and Social Management Framework (ESMF) is developed to assess the potential E&S impacts and their generic mitigation measures. As per ESMF procedures, an Environmental & Social (E&S) Screening Checklist (attached as Annexure A) will be used for each sub-project to identify the social and environmental impacts and their relevant mitigation measures. In case of identification of any negative environmental or social impact of severe nature, a detailed document i.e. Environmental and Social Management Plan (ESMP) will be required to prepare (template of ESMP is attached as Annexure).

2.3.2 Natural Habitat (OP 4.04)

The conservation of natural habitats, like other measures that protect and enhance the environment, is essential for long-term sustainable development. The Bank therefore supports the protection, maintenance, and rehabilitation of natural habitats and their functions.

This OP is not triggered as the project interventions will not have any adverse impact on natural habitats.

2.3.3 Pest Management (OP 4.09)

Through this OP, the WB supports a strategy that promotes the use of biological or environmental control methods and reduces reliance on synthetic chemical pesticides.

This OP is not triggered as the subprojects/activities are not involved with the use of pesticides and pest management.

2.3.4 Indigenous People (OP 4.10)

For purposes of this policy, the term “Indigenous Peoples” is used in a generic sense to refer to a distinct, vulnerable, social and cultural group possessing characteristics in varying degrees.

This policy is not triggered as there are no known indigenous people as defined by OP 4.10 in South Punjab.

2.3.5 Physical Cultural Resources (OP 4.11)

The World Bank’s general policy regarding cultural properties is to assist in their preservation, and to seek to avoid their elimination.

Since the activities under the project would-be small-scale interventions in terms of construction, repair and maintenance of Healthcare units and class rooms in some schools, it is unlikely that any sites of cultural, archeological, historical, or religious significance will be affected.

Therefore, this OP is not triggered as in PHCIP, rehabilitation and refurbishment of existing healthcare and education facilities will be involved at the existing facilities.

2.3.6 Involuntary Resettlement (OP 4.12)

The WB's experience indicates that involuntary resettlement under development projects, if unmitigated, often gives rise to severe economic, social, and environmental risks. This policy includes safeguards to address and mitigate these risks. The overall objectives of the Policy are:

- Involuntary resettlement should be avoided where feasible, or minimized, exploring all viable alternative project designs.
- Where it is not feasible to avoid resettlement, resettlement activities should be conceived and executed as sustainable development programs, providing sufficient investment resources to enable the persons displaced by the project to share in project benefits.
- Displaced persons should be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them.

The project activities are not likely to cause any land acquisition or involuntary resettlement; therefore this OP is not triggered.

2.3.7 Forests (OP 4.36)

The objective of this Policy is to assist the WB's borrowers to harness the potential of forests to reduce poverty in a sustainable manner, integrate forests effectively into sustainable economic development, and protect the vital local and global environmental services and values of forests.

This policy is not triggered in case of PHCIP activities will be carried out in existing HCFs and Schools in already built- up areas.

2.3.7 Safety of Dams (OP 4.37)

The Policy seeks to ensure that appropriate measures are taken, and sufficient resources provided for the safety of dams the WB finances.

However, this OP is not relevant since the proposed project does not involve construction of dams.

2.3.8 Projects on International Waterways (OP 7.50)

This OP defines the procedure to be followed for projects the WB finances that are located on any water body that forms a boundary between or flows through two or more states.

However, this OP is not relevant since the proposed project interventions do not located on international waterways.

2.3.9 World Bank Guidelines

The principal World Bank publications that contain environmental and social guidelines are listed below.

- Environment, Health, and Safety (EHS) Guidelines World Bank in 2007
- Pollution Prevention and Abatement Handbook 1998: Towards Cleaner Production
- Environmental Assessment Sourcebook, Volume I: Policies, Procedures, and Cross-Sectoral issues.
- Social Analysis Sourcebook.

2.4 .OBLIGATIONS UNDER INTERNATIONAL LAWS/TREATIES

Pakistan is signatory of several Multilateral Environmental Agreements (MEAs), including:

- *UN Framework Convention on Climate Change (UNFCCC)*: The ultimate objective of this Convention that the Conference of the Parties may adopt to achieve stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.
- *Paris Climate Accord*: Convention on climate change dealing with greenhouse gas emission.
- *Basel Convention*: Control of Trans boundary movements of Hazardous Wastes and their disposal.
- *Convention on Biological Diversity*: The convention has 3 main objectives: (i) conservation of biological diversity; (ii) sustainable use of components of biological diversity; and (iii) fair and equitable sharing of the benefits arising out of the utilization of genetic resources

These MEAs impose requirements and restrictions of varying degrees upon the member countries, in order to meet the objectives of these agreements. Therefore, the provisions of these laws and treaties are to be taken care of if any of the project activity falls in the jurisdiction of any of the above mentioned MEAs.

2.5 INSTITUTIONAL SETUP FOR ENVIRONMENTAL MANAGEMENT

Environmental issues are governed by three levels of the government viz. Federal, Provincial and Local Government. The Cabinet Secretariat through Climate Change Division is the Ministry at the Federal level, which oversees the affairs of the environment in the country. The Government of Punjab (GOP) has designated its Punjab Environment Protection Department and Punjab Environment Protection Agency, to administer matters related to the environment in Punjab.

PEPA 2012 and PEPA Review of IEE/EIA Regulations 2000 have the key laws/regulations for environment management in Punjab and Punjab Environment Protection Agency is the leading agency for implementation, revision or establishment of NEQS and environment protection

regulations. A Director General who exercises powers delegated to him by the Provincial Government heads the Punjab EPA. IEEs and EIAs are submitted to Punjab EPA for approval.

2.6 ENVIRONMENTAL AND SOCIAL GUIDELINES

In addition to the World Bank Environmental Guidelines as discussed above, the Pak-EPA's guidelines are reviewed. These guidelines address the environmental as well as social aspects.

2.6.1 Environmental Protection Agency's Environmental and Social Guidelines

The Federal EPA has prepared a set of guidelines for conducting environmental assessments. The guidelines derive from much of the existing work done by international donor agencies and non-governmental organizations (NGOs). The package of regulations, of which the guidelines form a part, includes the PEPA 1997 and the NEQS. These guidelines are listed below.

- Guidelines for the Preparation and Review of Environmental Reports,
- Guidelines for Public Consultation,
- Guidelines for Sensitive and Critical Areas,
- Sectoral Guidelines.

It is stated in the Pakistan Environmental Protection Agency Review of IEE and EIA Regulations, 2000 that the EIA or IEE must be prepared, to the extent practicable, in accordance with the Pakistan Environmental Protection Agency Environmental Guidelines.

CHAPTER 3

PROJECT DESCRIPTION

This Chapter describes various aspects of the proposed project including its background, objectives, its components, and activities under each component.

3.1. PROJECT BACKGROUND

The proposed project aims at making concerted efforts to support poor and vulnerable households with young children to improve key areas that are critical for human capital accumulation.

First, for the immediate needs of a child's healthy survival, the proposed project will help vulnerable households utilize key health services. The underutilization of key health services is associated with financial and nonfinancial barriers such as lack of money for health services, opportunity costs for both patient and those accompanying them, and low perceived benefits from utilizing health services due to the poor quality of the services. To address some of these barriers, the project includes support for poor and vulnerable households through CCTs. In addition, efforts to enhance the availability and quality of essential health care services will be made to promote their higher take-up, building on the GoPb's efforts to improve access to primary healthcare services by upgrading selected regular basic health units (BHUs) to operate 24/7 (including provision of key equipment, supplies, and qualified providers), upgrading selected rural health centers (RHCs) to RHC Plus with a neonatal care unit and strengthening capacity to provide quality health services (e.g., training, monitoring and evaluation [M&E]).

Second, root causes of households' limited human capital accumulation will be addressed through support for social and economic empowerment. Economic inclusion support builds on support for basic consumption but includes additional support for livelihoods and social empowerment. Since there are limited labor market opportunities in the private sector, support focuses on the self-employment of young parents with children. This may involve support for combinations of livestock, crop, trade, and retail activities through the transfers of assets (e.g., in kind or cash), as well as technical and business training. More importantly, given the level of skills of potential beneficiaries, coaching services will be provided throughout the intervention period. In addition, the project strengthens social inclusion support for Punjab's existing initiatives that are closely related to children's human capital by strengthening the quality of Early Childhood Education (ECE) and early grade learning (Grades 1 – 3), both of which are essential to building a successful foundation for school readiness. For the ECE of children ages three to five, the project will support strengthening and providing improved education services in remote and disadvantaged areas in line with the GoPb's efforts to support the holistic socio-emotional and cognitive development of young children, and provide them with adequate

resources and support to improve their learning outcomes and comprehension skills. These targeted efforts will affect a greater proportion of girls (and boys) from poor and vulnerable households to be prepared for, attend and complete primary school.

3.2. PRINCIPLES OF PROPOSED PROJECT

Key principles of the proposed project are as following.

- **Poverty targeting:** For the objective targeting based on the household poverty status, the NSER will be used. The NSER is currently being updated, and new information is expected to be available by early 2020 with authentication through the identification system (Computerized National Identity Card, CNIC). In case the updating of the NSER is delayed, until the new information becomes available, the project would be supported by the existing NSER database.
- **Geographic targeting:** The most vulnerable districts are selected considering poverty and key human capital indicators. The number of districts to be covered by the project depends on the scope and cost of the planned activities, as well as available resources. Initially, a total of 11 out of 36 districts in Punjab will be prioritized.
- **Gender focused:** The project will aim to address constraints faced by women by not only initiating and strengthening women focused programs, but also providing gender-sensitive solutions to reduce the gender gaps.
- **Integrated, but selective:** Integrated (addressing both demand and supply challenges), multi-sectoral (health, education, social protection) interventions will be supported to contribute to improving human capital, but given that several other initiatives exist, the project would be selective in the area of intervention.

3.3 PROJECT DEVELOPMENT OBJECTIVE

The proposed project development objective (PDO) is to increase the utilization of quality health services, and economic and social inclusion programs, among poor and vulnerable households in select districts in Punjab.

3.4 PROJECT COMPONENTS

To achieve the PDO, the proposed project is expected to: (i) strengthen the quality of primary health care services; (ii) introduce a CCT program; (iii) support economic inclusion for young parents with children for poverty alleviation; (iv) strengthen the quality of ECE and lower

primary education (Grades 1-3); and (v) strengthen efforts to increase the efficiency and sustainability of Punjab's pro-poor initiatives.

Component 1: Health services quality and utilization: The ultimate goal of this component is to improve children's health, especially those coming from poor and vulnerable households. Thus, this component aims to address short-term health challenges by improving the quality and utilization of key health services that are critical to a strong start in a child's first 1,000 days.

Sub-component 1.1: Quality of health services: This sub-component will strengthen primary health-care facilities to provide quality services. To ensure that key health services are of good quality, support will be provided for each targeted health facility to meet the minimum service delivery standards (MSDS). It involves conversion/ up gradation of about 75 percent normal BHUs into 24/7 BHUs (166) & Conversion/ up gradation of 17 RHCs into RHC Plus facility. The expected civil works in RHCs and BHUs will be the construction, paints/ white wash, welding, wood works, electricity/wiring, gas piping (if necessary), partition walls, toilets, sanitary lines, wash rooms, flooring, seating (visitor areas) ramps etc. The work will be completed through an approved/certified contractor for structural integrity incorporating the ESMP in bidding document. For this purpose, about 75 percent of existing normal BHUs in the target districts will be upgraded to 24/7 BHUs to provide services around the clock, every day of the week. Also, selected RHCs will be upgraded to RHC Plus to intensify neonatal care on a pilot basis. Any facilities that will be rehabilitated under the project will also include measures (e.g., a wheelchair ramp) to facilitate access to health care by persons with different abilities. In addition, support will be provided for hiring and/or training of skilled and support personnel (pediatricians, medical officers, Lady Health Workers (LHWs), Lady Health Visitors (LHVs)²¹, etc) and the procurement of essential equipment, medicines, and supplies to meet the MSDS. Provision of population welfare services, conducted in close coordination with the Population Welfare Department, and nutrition services through outdoor therapeutic program (OTP) counters would also be supported under this sub-component. Furthermore, scale-up of an electronic medical record (EMR) system and implementation of a health care waste management plan (HCWMP) for all target primary health care facilities would be supported, which would bring positive spillovers to the entire province beyond the target districts. The Primary and Secondary Health Care Department (PSHD) would lead these activities.

Sub-component 1.2: Utilization of health services: This sub-component aims to increase the utilization of key health services among the poor and vulnerable. For this purpose, a nutrition-sensitive CCT program, compensating for the financial and non-financial costs of visiting health facilities, is being planned. The target population includes pregnant and lactating women (PLWs) as well as children up to the age of two from poor and vulnerable households, as identified through the NSER. Conditionalities include regular health checkups of PLWs, skilled birth delivery and birth registration, growth promotion, and immunization of children under two years of age. Furthermore, participation in counseling and

²¹Lady health workers (LHWs) and lady health visitors (LHVs) are primarily responsible for promoting community health by working with individuals, families, and communities for the welfare of mother and children, whether at health clinics (in the case of LHVs) or by visiting homes (LHWs). They are responsible for providing pre-, intra-, and postnatal care to expectant mothers, including tetanus toxoid immunizations, sharing appropriate family planning methods, supporting adequate feeding and care for mothers and children, monitoring and promoting babies' growth, treating minor diseases, and providing referrals in case of complications.

awareness sessions on population welfare, hygiene and feeding and caring practices, and children's cognitive development would be encouraged.

The operational manual for the CCT was prepared jointly by the PSPA and PSHD, and it describes the details of operational procedures and implementation arrangements. The service delivery process will include beneficiary outreach through information campaigns, social mobilization, and LHWs,²² and service delivery will be mainly at primary and secondary health-care facilities. Upon verification of compliance with co-responsibilities (conditionalities), the transfer will be made digitally to the individuals' bank accounts.²³ The business processes related to the program will be supported by the service delivery platform described in Component 3. The amount of transfers would be greater for services which is critical for child's health and nutrition, and for which the take-up has been low. Based on the number of BISP beneficiary women and assumptions regarding the likelihood of pregnancy, conditionality schedules, and coverage of children up to the age of two, the project financing of approximately US\$60 million (tentative) would be used for cash benefits to beneficiaries in select districts, and the remaining US\$5 million would be used for social mobilization and empowerment support by PSPA. Through this operation, up to one million beneficiaries would be informed and sensitized for CCT.

Component 2: Economic and social inclusion: Supplementary activities to improve households' economic and social inclusion would be introduced. These can also contribute to building early childhood human capital among poverty-stricken households.

Sub-component 2.1: Economic inclusion: This sub-component aims to support income-generating activities of young parents (ages 18 to 29) from poor and vulnerable households who have children under the age of 5. A holistic package of efforts to support their economic inclusion will be provided,²⁴ and this includes (i) the labor market (LM) readiness package, (ii) livelihood support, and (iii) intensive coaching. Prior to receiving a productive asset (either in cash or in-kind), individuals from target households will participate in a LM readiness component, which will include training on basic literacy and numeracy, social and health awareness, and confidence-building. Given the low literacy rates, education and self-esteem common among the extreme poor, it is critical to address these aspects before households receives assets to prepare them to effectively engage in livelihood activities. Basic literacy and numeracy will equip households with record-keeping skills needed to manage a livelihood. Lastly, through messaging and guidance on building a long-term vision, participants will be able to build a positive mindset, which will form the foundation for their sustained progress both during and after the program. The completion of the LM readiness package will lead to technical skills development (e.g., animal husbandry, entrepreneurship, financial literacy).

²²Ibid.

²³ "Digital payment" means a payment that is transferred to a recipient's individual transactional account and withdrawn through an electronic instrument (e.g., debit cards, mobile phones, national identification cards, etc.) using enhanced authentication measures (e.g., personal identification number, fingerprints, finger veins, etc.).

²⁴BRAC's four pillar framework of graduation to be adapted to the local context in Punjab include: (i) social protection -- protective and promotive mechanisms to support basic needs such as BISP benefits and nutrition sensitive CCT; (ii) livelihoods Promotion -- regular and diverse income streams for households to support consumption, asset accumulation, and economic empowerment; (iii) financial inclusion to provide improved income and risk management and financial empowerment; and (iv) social empowerment to equip families with a confident mindset and promotes community inclusion and positive behavior change. Interventions include life skills training, community mobilization, and coaching that cuts across all four pillars.

Meanwhile, local market analyses will be carried out to identify the options for viable livelihoods. The market analysis and beneficiary profiling exercises (regarding participant skillsets, interest, care burden and resources) conducted during the LM readiness course will recommend a list of livelihood packages that are viable for the target poor in the area of implementation taking into account of beneficiary characteristics and capacity. Livelihood support, including the transfer of productive assets (e.g., cash, livestock, tools, etc.), will then be accompanied by bimonthly coaching services. The entire series of graduation support will last up to 24 months since the completion of LM readiness package. This activity will coordinate closely with a similar initiative conducted by the DFID targeting women—the Women’s Income Growth and Self-reliance (WINGS) Program. The project financing would support service providers’ activities in the LM readiness package, productive asset transfers, and technical and social coaching, and the PSPA will lead these activities by working with local NGOs and community support groups.

Sub-component 2.2: Social inclusion for education: This sub-component aims to strengthen select education initiatives in Punjab to support the inclusion of poor and vulnerable households and help ensure their children build a strong foundation for social and economic success in the future. Early Childhood Education (ECE) is one existing education program in Punjab that is relevant for human capital accumulation in the early and foundational years. There are 3,400 ECE classrooms in the project’s target districts and communities, but not all of them meet the minimum ECE Quality Standards prescribed in the 2017 Punjab ECE Policy. Additionally, in the process of scaling access to ECE, the School Education Department (SED) has identified a number of interventions to improve the ECE model. Thus, through this project, the SED aims to further strengthen the quality of existing classrooms in the project’s districts by: (i) conducting an initial, comprehensive ECE needs assessment of the 3,400 ECE classrooms infrastructures, condition and status of existing learning kits, and capacity of existing ECE teachers and caregivers; (ii) filling the gaps in physical facilities and supplies (e.g., learning kits, tablets) and capacity of teachers and caregivers; (iii) developing detailed lessons to operationalize the recently notified new Punjab 2-year ECE curriculum and complementary new activities, (iv) conducting a specialized ECE social mobilization campaign; and (v) establishing and building capacity for a new special Foundational Learning Cell in the SED which is better able to ensure close monitoring, sustainability and ultimately innovation in early learning interventions moving forward. These activities are expected to reach 150,000 children, 20,400 teachers, and 1,300 recently empowered Administrative Education Officers (AEOs)²⁵ as well as 3,400 ECE classrooms. These will help better provide a strong institutional and individual foundations for initial human capital investment in the early years, and then for ongoing and accelerated human capital accumulation in subsequent life-stages.²⁶

With respect to early grade learning, renewed efforts will be made to build strong early literacy and numeracy foundations of pre-primary and primary students through a new pedagogy (e.g., play-based learning). This approach would ensure a close link between the newly enhanced approach to ECE, promoting greater transition from ECE to primary school, and primary school completion especially of children from poor and vulnerable households. Given the strong correlation between children’s early

²⁵ This training will be provided through the Quad-e-Azam Academy for Education Development (QAED).

²⁶ These activities will be staggered so as not to overlap with activities of PESP-III which are supporting the establishment of 7,000 ECE classrooms that meet quality standards, the training of teachers, AEOs, caregivers and head teachers and the creation of a ECE cell. Activities under PESP-III conclude in 2021.

foundational learning and an improvement in a range of future human development outcomes of adolescents and adults, the strengthening of early grade learning to increase completion rates of primary school children (and especially girls) would have important implications for the human capital of future mothers and children. Similar to ECE activities, the project would support the strengthening of the capacity of primary school teachers, head teachers, school councils and support staff (such as AEOs) and improvement of the quality and availability of teaching and learning, reading, and other support materials particularly focusing on early grade literacy and numeracy acquisition.

Component 3: Efficiency and sustainability through SP service delivery systems and project management: To improve the efficiency and sustainability of Punjab’s interventions for poor and vulnerable households, the existing SP service delivery and governance structures will be modernized and strengthened. To this end, the proposed project will support improved coordination, modernization, and interoperability of SP institutional and administrative arrangements, and turn these into an efficient and cutting-edge SP service delivery platform. The project financing will support hiring of qualified experts and specialists, the capacity building of staffs, and development of back-end IT systems. The platform aims to support all relevant institutions in the GoPb (including, but not limited to, the PSHD, SED, and departments of population welfare, agriculture, social welfare, zakat, women’s development, and labor, as well as the Punjab Disaster Management Authority [PDMA]) that provide services to poor and vulnerable households through their programs. In addition to supporting Components 1-2 activities, two additional areas are worth highlighting. First, PSPA will work closely with PDMA to identify priority areas for further strengthening to improve the province’s resilience to natural and man-made disasters by enhancing the adaptiveness of SP programs. Second, PSPA will further strengthen SED’s ZeT program,²⁷ to further encourage girls from poor and vulnerable households to attend and remain in school. Targeted mobilization for BISP families and WeT graduates can be considered.

In order to develop the platform, PSPA has already started building a beneficiary database and program dashboards to keep track of major initiatives and beneficiaries’ information in Punjab. In addition to this horizontal coordination and collaboration, the platform aims to vertically coordinate with federal entities and build interoperable systems.

Three functions to be strengthened in this platform are as follows:

- **Administrative functions.** The administrative functions defined in the PSPA’s institutional manual are requirements similar to that of an organization coordinating a significant budget. These include information technology (IT) systems, procurement and financial management, audit and control, human resource management, and capacity building, among others. The project will provide financing for digitized tools, support personnel for project implementation, and key consultancies (e.g., internal audit).

²⁷Zevar-e-Taleem (ZeT) was initially introduced to increase demand and improve access for secondary girls’ education in lagging districts of Punjab, with a modest payout of PRs 200 per girl each month in 2002–03. In 2017, the stipend program was rebranded as ZeT and was converted into a CCT program in public schools in 16 districts of Punjab. The CCT program is operated jointly by the PSPA and SED, with an agreement that the PSPA makes quarterly payments to beneficiary families through biometrically verified automatic teller machine (ATM) cards once the SED verifies eligible girls and confirms school attendance of 80 percent or higher. The program is supported by the World Bank’s Punjab Primary Education Sector Reform Project III (PESP III).

- **Programmatic operational functions.** The operational functions support the business process of service delivery for pro-poor programs, and would need to be customized to the requirements of each program. In every program, the following process of service delivery takes place (see figure 4): (i) identification and mobilization of eligible households; (ii) intake and registration and (iii) needs assessment; (iv) enrollment of eligible households to relevant programs including those discussed in components 1 and 2, (v) determine conditionality and benefits, (vi) notification of enrollment and onboarding; (vii) provision of services, verify compliance if relevant, and payment or transfer of resources as defined in each program; (viii) M&E of program results and achievements as well as grievance redress mechanisms (GRMs); and (ix) graduation and exit as well as recertification.
- **Policy and planning functions.** These functions are to conduct M&E for the overall SP sector, compile sector knowledge and evidence, and undertake horizontal coordination with other stakeholders in Punjab.

3.5 PROJECT BENEFICIARIES

The Project would directly benefit poor and vulnerable households in select districts in Punjab. The target populations—such as PLWs, young children in pre-primary and lower primary schools, and young parents—who would receive services and transfers from various project initiatives, would be direct beneficiaries of the project.

In addition, positive spillovers are expected from project activities and investments. By improving the quality of primary health care facilities, better equipping them, and ensuring availability of key services, households that use primary health facilities, even if they are not beneficiaries of the nutrition-sensitive CCT program, would benefit from the project's investment.

The benefit of the platform, when well developed, will go beyond the programs under the proposed project by supporting other agencies in Punjab and beneficiaries who receive support from other programs. For instance, the PDMA is currently developing a strategy for better disaster preparedness and response readiness for the areas and households particularly vulnerable to climate-induced disasters and risks for which the PSPA is providing support. Adaptive Social Protection (ASP), a framework linking the roles and tools of SP with approaches on mitigating shocks from climate change, is not new in Pakistan.

The country's national SP program, BISP, has already shown during large-scale floods that the impacts of climate change or natural shocks can be better managed by integrating disaster risk management with social protection, improving capacities for humanitarian aid to respond to and anticipate the impacts of climate changes.

The platform's support, especially using the updated NSER, will help the PDMA identify vulnerable households exposed to climate risks ex ante to be prepared, and make transfers to

them in case of natural disasters in a timely and efficient manner. In addition to the PDMA as well as SED and PSHD, there are various departments in Punjab that provide pro-poor initiatives. Examples include social welfare, agriculture, and Zakat, among others.

3.6 RATIONALES FOR BANK INVOLVEMENT

The proposed project takes a multi-sector, integrated approach to enhance human capital investment in Punjab. To identify the areas of intervention, the GoPb has carried out various analytical activities, supported by the Bank, to assess obstacles to the accumulation of human capital along the course of the human life cycle, review relevant programs in the province, and identify critical gaps. The Bank's own analytical exercises such as "moving the needle" and "Pakistan@100," discussing the major bottlenecks to bettering human capital outcomes, were used to identify several key areas in need of policy intervention. Also, the Bank's high-profile Human Capital Project,²⁸ in which Pakistan participated as an early adopter, further reaffirmed Pakistan's commitment to human capital and the need for provincial governments' complementary investments. The Bank's global knowledge and experience in the area of human capital investment are critical in bringing best practices to Pakistan.

At the moment, the World Bank is working closely with both federal and provincial governments to support their policy reforms and necessary investments. The Bank's policy engagement at the federal level focuses on two key pillars: (i) protecting the poor and vulnerable against the impact of the macro-fiscal reforms required to set the country on a stable growth path; and (ii) setting the foundations for human capital accumulation that is needed for sustained growth and protection from future risks. At the same time, the Bank is assisting provincial governments in making the investments necessary to achieve these objectives. The proposed Punjab human capital investment project, which focuses on investing in foundational human capital accumulation among vulnerable populations, is expected to help both Punjab and federal governments achieve synergies in reaching their shared goals, by facilitating GoPb's close coordination with federal initiatives such as *Ehsaas* (including the BISP), as well as within various programs and entities in the province. The Bank is uniquely positioned in that its technical and financial support has been provided to many federal and provincial initiatives and entities, which would greatly facilitate multi-sectoral coordination and operations.

3.7 PROJECT AREAS&IMPLEMENTATION ARRANGEMENTS

3.7.1 Primary Healthcare Facilities

Health Department is the largest health care giver in the province through its network of BHUs (one at each Union Council, Rural Health Centers (Markaz level), Tehsil Hospitals, District

²⁸ The Human Capital Project is a global effort to accelerate more and better investments in people for greater equity and economic growth, promoted by the World Bank.

Hospitals and tertiary hospitals. For the rural poor, BHUs and RHCs are the main service providers. Despite number of reforms and initiatives over the years, BHUs and RHCs still face numerous challenges of governance, institutional, staffing, equipment, resource and quality of service, which ultimately affect poorest people the most as they cannot afford the alternative of private sector health facilities. The Government plans to upgrade all remaining viable Normal BHUs to 24/7 BHUs over the course of the next 5 years. The first stage of this program is already underway, in which 8 districts have been selected and work is going on in four districts that are part of eleven districts selected for the program. Within the PHCIP the following PHFs has been selected for the up- gradation and revamping activities.

Table 3.1: Up- gradation of RHCs and BHUs of PHCIP Districts

District	Total BHUs	Existing 24/7 BHUs	BHUs to be upgraded to 24/7	Total RHCs	Number of RHCs to be revamped
Khushab	43	16	20	5	1
Bahawalnagar	102	45	43	10	2
Bahawalpur	72	46	20	12	3
R. Y. Khan	104	55	37	19	5
Bhakkar	40	21	14	5	1
Muzaffargarh	72	36	27	13	3
Layyah	36	29	5	6	2
Lodhran	0	0	0	0	0
Mianwali	0	0	0	0	0
D. G. Khan	0	0	0	0	0
Rajanpur	0	0	0	0	0
Total	469	248	166	70	17

3.7.2 Early Childhood Education (ECE)

For continued support for school readiness of young children beyond health and nutrition, the importance of ECE has been highlighted. It responds to the GoPb's ECE Policy (2017), which stipulates that all children between 3 and 5 years of age living in Punjab should achieve their linguistic, socio-emotional, and physical potential and will be ready and able to transition to primary school successfully.

3.7.3 Institutional and Implementation Arrangements

Given the multi-sectoral nature of the proposed operations, multiple entities are expected to implement the project. To the extent possible, existing institutional structures may be used to implement and oversee the project. The PSPA would serve as the lead implementing agency without establishing a separate project management implementation unit (PMIU). The responsibilities of overall coordination, planning, and reporting will reside with the PSPA. In addition, the PSPA will take the lead in demand-side engagement: CCTs (sub-component 1.2) and economic inclusion components (sub-component 2.1) as well as social mobilization of all project activities. The PSPA will also manage the SP service delivery platform (Component 3).

For health services (sub-component 1.1), the PSHD will be responsible for implementing activities. The PSHD will use the existing systems at the provincial and district levels to ensure timely implementation of various activities: The Punjab Health Facilities Management Company (PHFMC) will manage the sub-component at the provincial level along with the existing programs such as the Integrated Reproductive, Maternal, Newborn, and Child Health & Nutrition Program (IRMNCH&NP), which is already responsible for the LHWs Program, the Maternal, Newborn and Child Health (MNCH) Program; the Nutrition Program; and 24/7 Basic Emergency Obstetric and Newborn Care services; EPI Program; and Hepatitis Control Program. The District Health Authorities will be responsible for implementation and management of the district level activities. To support additional responsibilities, and effective and efficient implementation and management of the planned activities, the project will finance key implementation support personnel as well as the incremental operating costs.

To strengthen ECE and Early Grade Learning (sub-component 2.2), the SED would take the overall lead by providing direct oversight and ensuring alignment and adherence of the interventions with the new ECE policy requirements and evidence-based Early Grade Learning global good practice, respectively. Based on lessons learned from the model scaled by the PESP III, the SED will continue, through its PMIU, to work closely with the Quaid-e-Azam Academy for Education Development (QAED) to implement the ECE strengthening and roll out of upgrading ECE provision in government-run primary schools. The SED would also have primary responsibility for implementing and strengthening school-level early-grade literacy and numeracy teaching and learning practices, provision of enriched learning materials, and improved training and capacity-building activities for AEOs, head teachers, school councils, and teachers. To support additional responsibilities, and effective and efficient implementation and management of the planned activities, the project will finance the establishment of a Foundational Learning Cell in the PMIU with key implementation support personnel as well as the incremental operating costs.

CHAPTER 4

ENVIRONMENTAL AND SOCIAL BASELINE CONDITIONS OF PROJECT DISTRICTS

This section of the ESMF presents a broader picture of the existing environmental and social conditions that include physical, biological and socio-economic environment of project districts that are given in Table 4.1:

Table 4.1: Project Districts

Sr. No.	District	Sr. No.	District	Sr. No.	District
1	Khushab	5	Dera Ghazi Khan	9	Layyah
2	Ludhran	6	Rahim Yar Khan	10	Rajanpur
3	Mianwali	7	Bahawalpur	11	Bhakkar
4	Muzaffargarh	8	Bahawalnagar		

The project District wise map surrounded by red line is shown in the following map²⁹:

²⁹Bhakkar, Mianwali and Khushab are also included in PHCIP while Multan, Khanewal and Vehari will not be covered under PHCIP

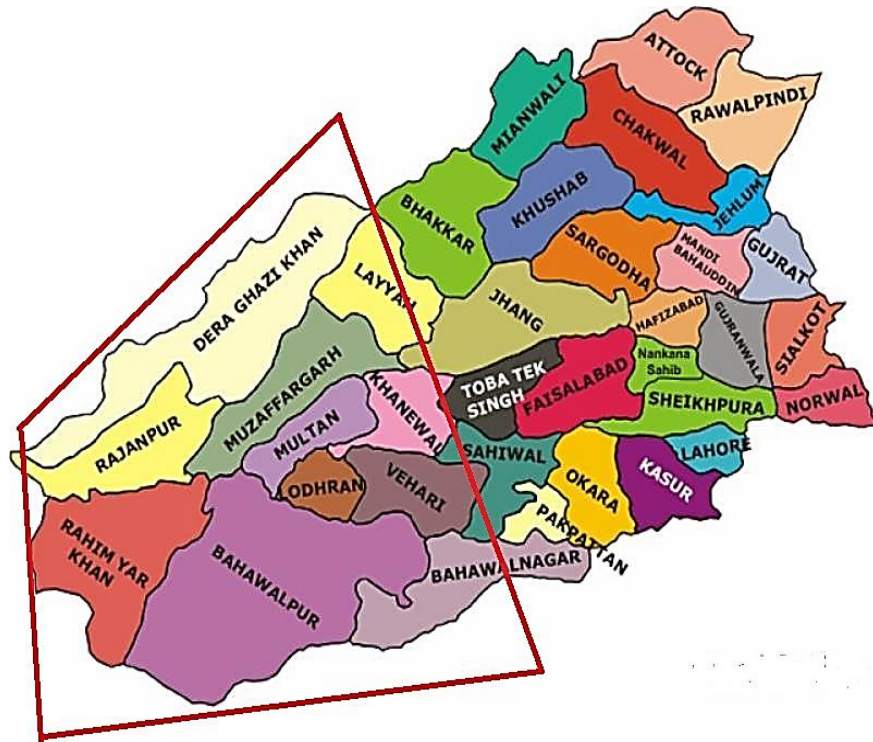


Fig. 4.1: Project Area Districts

Baseline data includes an inventory of physical, environmental and socio-economic parameters in order to identify any potential impact on and changes to the natural and socioeconomic aspects. Covering these aspects, data has been grouped into three categories:

4.1. PHYSICAL ENVIRONMENT

Land Environment (topography & geological conditions); Water Supply, Quality and Drainages;
Air & Noise.

4.2. BIOLOGICAL ENVIRONMENT

Vegetation/Flora (Trees, shrubs, crops etc.), Fauna (mammals, Birds, fish etc.);
and Protected Areas (Hot spots, Game reserves etc.).

4.3. SOCIO-ECONOMIC ENVIRONMENT

Population Composition, Public Facilities, Education and Literacy, Archeological Sites

4.4. METHODOLOGY OF BASELINE DATA COLLECTION

For secondary baseline data collection, latest available data from national and international publications, journals and reports is gathered, analyzed and used accordingly.

4.5. PHYSICAL ENVIRONMENT

The physical environment baseline studies describe the physical conditions and characteristics in the defined study area around and within the Project areas. These studies include topography, geology, climate and weather patterns, land-use, soil type, air quality, noise, surface water and groundwater quality. Physical features of proposed area are given as:

4.5.1. Topography (Geography)

Punjab is Pakistan's second largest province by area after Balochistan with an area of 205,344 square kilometers (79,284 square miles). It occupies 25.8% of the total landmass of Pakistan. Punjab province is bordered by Sindh to the south, the province of Balochistan to the southwest, the province of Khyber Pakhtunkhwa to the west, and the Islamabad Capital Territory and Azad Kashmir in the north. Punjab borders Jammu and Kashmir in the north, and the Indian states of Punjab and Rajasthan to the east³⁰.

Punjab's landscape mostly consists of fertile alluvial plains of the Indus River and its four major tributaries in Pakistan, the Jhelum, Chenab, Ravi, and Sutlej rivers. The landscape is amongst the most heavily irrigated on earth and canals can be found throughout the province. Punjab also includes several mountainous regions, including the Sulaiman Mountains in the southwest part of the province, the Margalla Hills in the north near Islamabad, and the Salt Range which divides the most northerly portion of Punjab, the Pothohar Plateau, from the rest of the province. Sparse deserts are found in southern Punjab near the border with Rajasthan and near the Sulaiman Range. Punjab also contains part of the Thal and Cholistan deserts³¹.

In **South Punjab**, elevation reaches 2,327 meters (7,635 ft.) near the hill station of Fort Munro in Dera Ghazi Khan. In terms of topography, around 22 million hectares (ha) or 25% of the total land area is cultivated. Of this, good-quality soils that do not constrain crop cultivation account for only 11 million ha. The other half consists of poor-quality soils that significantly limit crop yields. A further 8 million ha are classed as cultivable, but are undeveloped owing to wind and water erosion, water-logging, salinity, sodicity, or lack of irrigation water.

³⁰Punjab Small and Medium Enterprises Development Authority- Retrieved 14 July, 2016.

³¹Government of Pakistan, 2007- Pakistan Economic Survey 2006–2007. Islamabad: Ministry of Finance; Mian, A., and Y. Javed. 1992. NCS [National Conservation Strategy] Sector Paper on Soils. Islamabad: Government of Pakistan, World Conservation Union, and Journalists Resource Center..

4.5.2. Geology and Geomorphology³²

Punjab Province mostly comprises of plain areas lying in Indus Basin formation. Major portion of the Punjab Province falls in the Indus Plain, which geologically originated in Late Pleistocene period by deposition of sediments from the Himalayas into abyssal sea. In early days, the sediments were carried by two river systems, viz., Indus and Ganges. Later in the geological history, the Ganges River changed its course from westward to eastward. Later, the Indus River and its five major tributaries, viz., Jhelum, Chenab, Ravi, Bias and Sutlej, carved the deposits of the early river systems. The soils in Punjab generally range from loamy sand to sandy.

In the south and south east, Cholistan reaches the Indian border whereas in the north it runs parallel to the southern part of the Punjab plains and river Sutlej making a common border with the Lodhran and Muzaffargarh districts. The region of South Punjab (having project districts) is divided into three main physical features i.e. (a) Riverine area, (b) plain area and (c) Desert area of Cholistan. The Riverine area of the district lies close on the river Sutlej which flows in the north along its boundary with Lodhran and Vehari districts.

District Khushab is rich with mineral deposits and important ones are: Argillaceous Clay, Bentonite, Coal, Calcite, Dolomite, Fireclay, Gypsum, Limestone Ochers, Laterite, Marble, Bauxite, Iron ore, Rock Salt and Silica Sand

4.5.3. Climate and Weather Patterns³³

Most areas in Punjab experience extreme weather with foggy winters, often accompanied by rain. By mid-February the temperature begins to rise; springtime weather continues until mid-April, when the summer heat sets in. The onset of the southwest monsoon is anticipated to reach Punjab by May, but since the early 1970s the weather pattern has been irregular. The spring monsoon has either skipped over the area or has caused it to rain so hard that floods have resulted. June and July are oppressively hot. Although official estimates rarely place the temperature above 46 °C, newspaper sources claim that it reaches 51 °C and regularly carry reports about people who have succumbed to the heat. Heat records were broken in Multan in June 1993, when the mercury was reported to have risen to 54 °C. In August the oppressive heat is punctuated by the rainy season, referred to as breast, which brings relief in its wake. The hardest part of the summer is then over, but cooler weather does not come until late October. Recently the province experienced one of the coldest winters in the last 70 years. Although densely settled, Region's terrain is largely arid or semi-arid. Only 8% of the country's area receives more than 500 millimeters (mm) of rainfall per annum, mainly in the form of monsoon

32. (Multan, Bahawalpur & DG Khan City Profiles, Punjab Planning and Development Department)

33. Mercury drops to freezing point – Dawn Pakistan"

rain spread across 3 summer months of the year. This sub humid zone is essentially limited to the ecologically fragile uplands, comprising geologically recent mountains and foothills³⁴.

A climatological data was obtained, and relation is established within the proposed region to determine the local climatic profile. To describe the rainfall pattern and climate, the project area is divided into 3 divisions such as Multan, Bahawalpur and DG Khan respectively as shown in below table 4.2:³⁵

Table 4.2: Rainfall and Climate Pattern of PHCIP Districts

Division	Topography	Temperature	Precipitation (mm)
Bahawalpur	Flood plains and sand hill plains	The average annual temperature is 25.7 °C in Bahawalpur. In January, the average temperature is 13.4 °C. It is the lowest average temperature.	The rainfall here averages 143 mm. Most precipitation falls in July, with an average of 49 mm.
DG Khan	Hills in southwest Punjab-Suleman range with maximum height of 3000 m	The temperature here averages 25.7 °C. January has the lowest average temperature of the year. It is 12.9 °C.	The average annual rainfall is 155 mm. The driest month is November, with 2 mm of rainfall. With an average of 39 mm, the most precipitation falls in July. The warmest month of the year is June, with an average temperature of 36.1 °C.
Muzaffargarh	Upper Indus plain with sand plains and sand dunes	The average annual temperature is 31 °C in Muzaffargarh. January is the coldest month, with temperatures	The average rainfall is 175 mm. Most of the precipitation here falls in July, averaging 26.7 mm.

³⁴Government of Pakistan, 2007- Pakistan Economic Survey 2006–2007. Islamabad: Ministry of Finance; Mian, A., and Y. Javed. 1992. NCS [National Conservation Strategy] Sector Paper on Soils. Islamabad: Government of Pakistan, World Conservation Union, and Journalists Resource Center.

³⁵Climate-Data.org

		averaging 13.2 °C.	
Lodhran	Plain and dehydrated area with sand and clay surface on North side of river Sutlej	The average annual temperature in Lodhran is 25.7°C.	Most of the precipitation here falls in July-August, averaging 47mm
Rajanpur	Hills in Southwest Punjab-Suleman range with maximum height of 3000 m	The average annual temperature is 26°C	Most of the precipitation here falls in July-August averaging 205 mm
D.G. Khan	Hills in southwest Punjab-Suleman range with maximum height of 3000 m	The average annual temperature in DG Khan is 25.7	Most of the precipitation here falls in July, averaging 155mm
Bahawalnagar	Flood plains and sand hill plains	The average annual temperature is 31°C	Most of the precipitation here falls in July, averaging 59.8mm
Layyah	Northern part is sandy while southern is waterlogged due to floods	The average annual temperature in Layyah is 25.2°C	Most of the precipitation here falls in July, averaging 195mm
Rahim Yar Khan	Plains in southern side of Indus river and Cholistan desert	The average annual temperature in 26.2°C	Most of the precipitation here falls in July-August averaging 101 mm
Khushab	Central part of Jhelum-salt range hills	The annual average temperature in Khushab is 24.3°C	Maximum precipitation receives is 400mm
Bhakkar	Between Indus and Jhelum rivers with salt plains	The annual average temperature is 24.6°C	Maximum precipitation in Bhakkar is 213mm

Environmental and Social Management Framework (ESMF)
 Punjab Human Capital Investment Project (PHCIP)

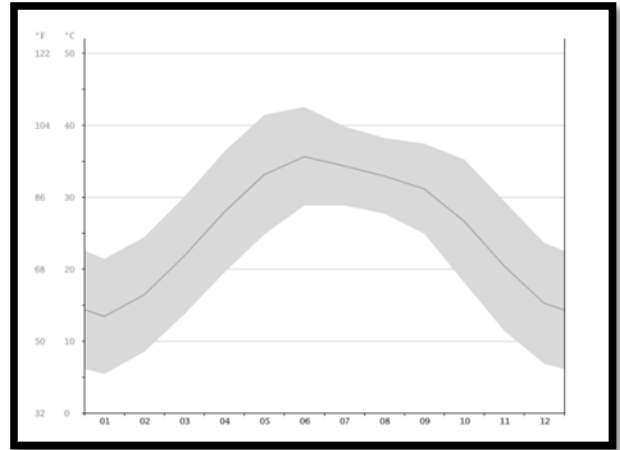
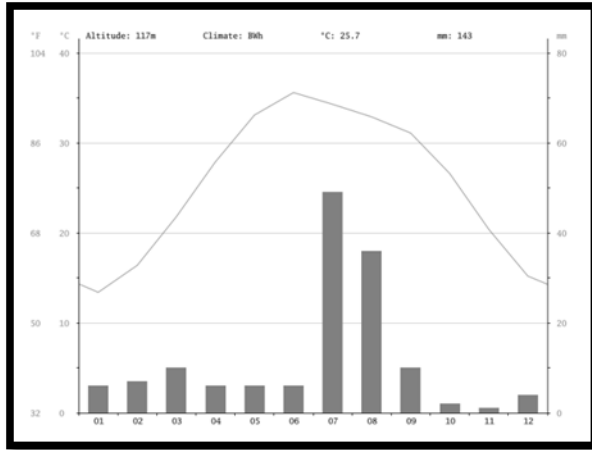


Fig. 4.2: Average monthly Rainfall & Temperature pattern of Bahawalpur (Source: Climate-data.org)

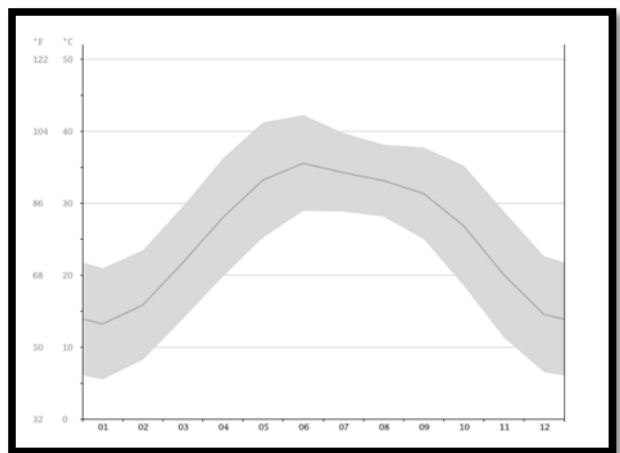
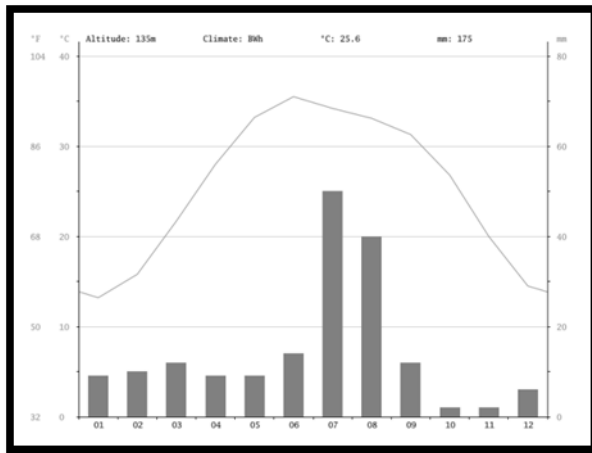


Fig. 4.3: Average monthly Rainfall & Temperature pattern of DG Khan (Source: Climate-data.org)

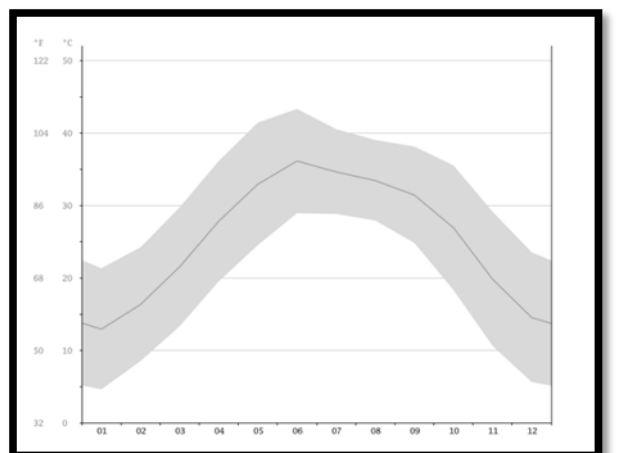
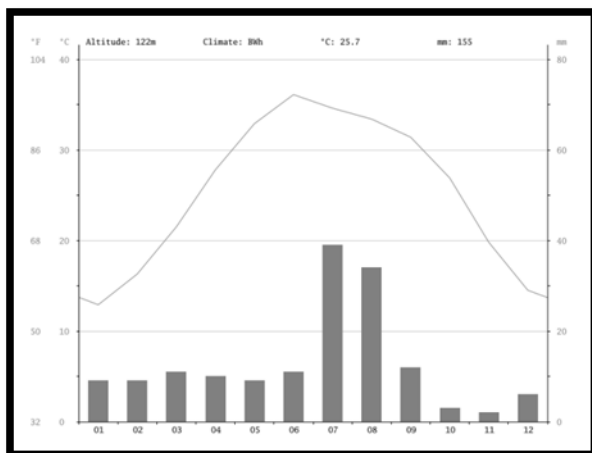


Fig. 4.4: Average monthly Rainfall & Temperature pattern of Bahawalpur (Source: Climate-data.org)

4.5.4. Natural Hazards

4.5.4.1. Floods

Eighteen major floods in 60 years (almost one major flood event every 3 years) are one of the main challenges to economic development. The 2010 floods were of unprecedented magnitude mainly triggered by the Indus and its tributaries and affected all the areas of the country.

In Punjab, heavy floods in 2010 were due to the major contribution of River Indus and later with the contribution of River Swat and Kabul. Amongst the Project (PHCIP) districts, Rajanpur, Muzaffargarh and D.G. Khan were the most affected districts due to devastating floods of 2010.

4.5.4.2. Seismic Analysis

Pakistan is situated at the junction of three tectonic plates namely Indian, Eurasian and Arabian. The seismic hazard map of Pakistan is shown in Figure 4.5

Figure 4.5 shows that the project districts of South Punjab are situated in an area where earthquakes of low magnitude are expected. The Project area is located in Seismic Zone 2A, which lies between 3 and 4.5 on MMI scale. The site is far away from the region of High Seismic hazard zone.

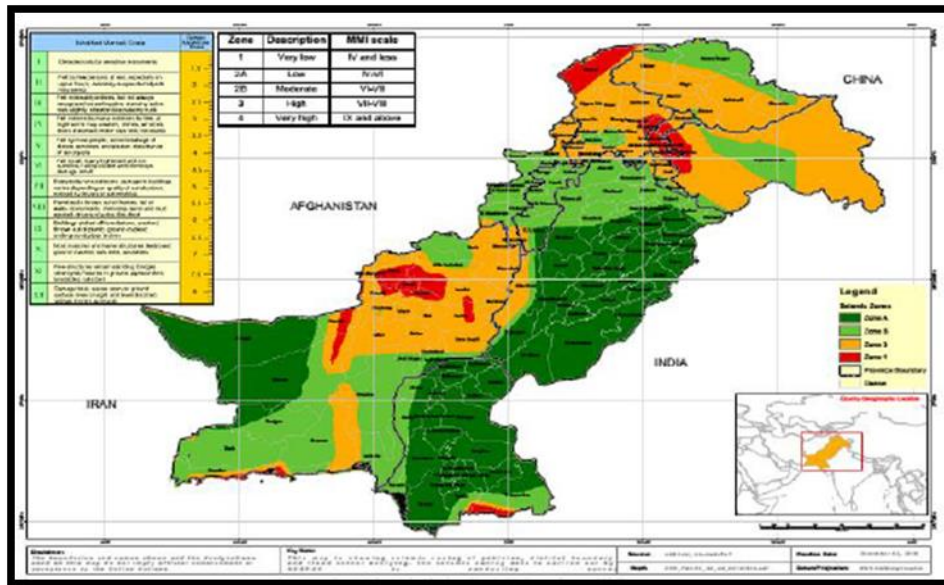


Figure 4.5: Seismic hazards map of Pakistan

4.5.5. Soil Morphology

The soils of the Punjab are composed of alluvial material, which was carried from the Himalayan ranges by tributaries of the vast Indus River system. Frequent changes in the rate of flow of the streams, recurrent floods, and ponding of the sediment-laden waters have created a varied and mixed soil pattern throughout the area³⁶. The soils generally range from loamy sand to sandy. The lands are extensively cultivated under irrigation from canal systems off taking from Indus River. The major soils in the region are mainly loamy clay and loamy sandy soils. The top surface comprises vegetative cover which is underlain by Lean Clay/Silt (Soft to firm), up to 1m depth, the material is underlain by silty Sand (medium dense to dense) up to a maximum investigated depth of 30 m depth below NSL. Further hill torrents also bring silt and clay deposits in the lower reaches. These silts provide a highly fertile layer of soil to the region. Moving sand dunes are found in the region. Small patches contain shallow or very shallow, strongly calcareous, gravely and stony loams are also found in some areas. Soil map³⁷ of province Punjab is shown as Figure below.

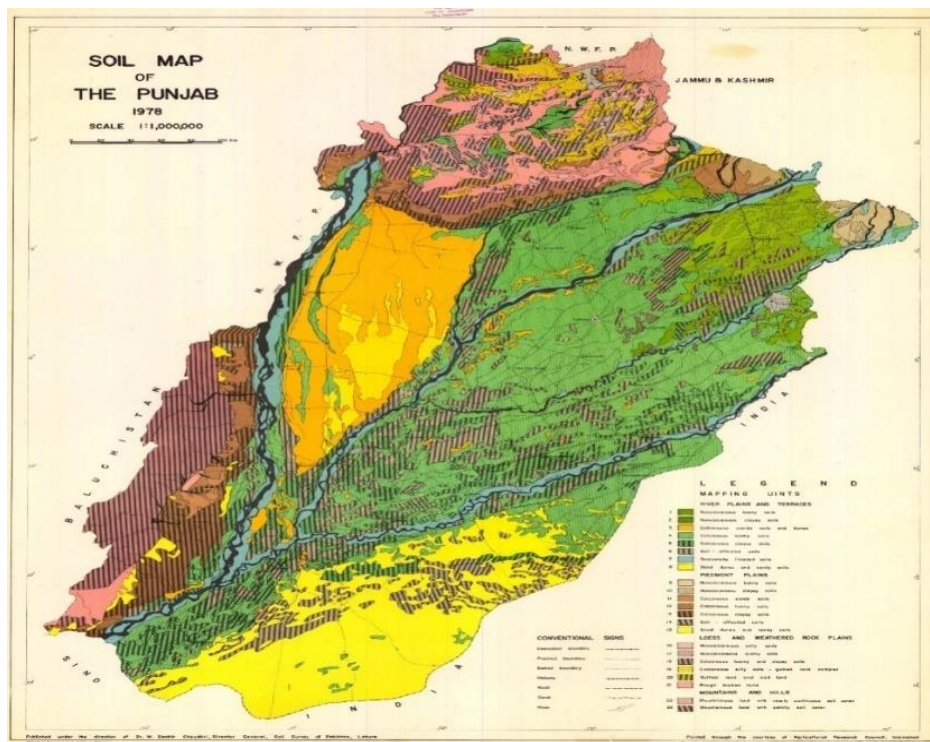


Figure 4.6: Soil Map of Punjab

³⁶Ground-Water Hydrology of the Punjab, West Pakistan With Emphasis on Problems Caused by Canal Irrigation
GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1608-H prepared in cooperation with the West Pakistan
Water and Power Development Authority, under the auspices of the U.S. Agency for International Development
³⁷<https://esdac.jrc.ec.europa.eu/content/soil-map-punjab>

4.5.6. Hydrology

The country's large and growing population is sustained by, and critically dependent on, the Indus River and its tributaries. Irrigated agriculture accounts for more than 90% of food and fiber, and for most of fodder production. This often badly suffers due to the increase or shortage of rains in upstream areas. The river flows are highly vulnerable due to the melting of glaciers being the original sources of these rivers³⁸.

The Indus Plain does not have well defined natural drainage. The introduction of irrigation system therefore resulted in surface and sub-surface drainage problems resulting in water logging and salinity, which has continued to aggravate over the period. Compared to the situation in the Upper Indus, groundwater use in the Lower Indus is very modest; yet waterlogging (groundwater within 1.5 meter of the soil surface) is common and has been assessed to prevail over 1.5 to 3.5 meters

The 11 Project Districts of South Punjab lie mostly in water logged area except some parts of Bahawalnagar, and Bahawalpur District

4.5.6.1. Surface Water Quality³⁹

Natural surface water quality in Punjab is quite good (TDS 125-250 PPM) but high level of contamination is a serious problem. Rivers are major source of surface water in Punjab and data of five rivers of Punjab is given in the following table 4.3.

Table 4.3: BOD Levels in five major rivers of Punjab⁴⁰

Sr. No.	Name of River	BOD (mg/L)
1	Jhelum	2.2
2	Chenab	4.6
3	Ravi	77
4	Sutlej	4.9
5	Indus	8.5

³⁸National Environmental Information Management System (NEIMS)- Environmental Profile of Punjab

³⁹ Resources 2015, 4(4), 831-856 (<http://www.mdpi.com/2079-9276/4/4/831/htm>)

⁴⁰ National Environmental Information Management System (NEIMS)- Environmental Profile of Punjab

Detailed Data on drinking water quality is not available for 11 project districts of South Punjab. Research studies and published data as a secondary source is available for cities like Lahore, Rawalpindi, Faisalabad, Karachi and Islamabad only.

Among project districts, District Khushab is named as “Sweat water “ and River Jhelum and its tributaries besides hilltorrents are main sources of surface water. Surface water quality is excellent as it is comparable to mineral water. Ground water in some areas is saline and unfit for human consumption. Local administration has provided water supply scheme to ensure provision of water after treatment.

4.5.6.2 Water Quality and Functionality of Water Supply Schemes

The technical assessment of water supply schemes in 21 districts in north, central & South Punjab conducted by the Pakistan Council of Research in Water Resources in 2011 revealed that 43% of functional schemes supplied water less than 5 hours per day, while 31% supplied between 5-10 hours per day. Of these, 81% of the schemes have been constructed by PHED, 5% by TMAs, 1% by the community, 4% by Non-Government Organizations and 10% by multilateral donors 31% of the schemes are over 25 years old, 23% are between 20 to 25 years old, 16% are 15- 20 years old while 30% schemes are 10-15 years old.

According to SPHERE Project study in villages of Punjab, very high level of bacterial contamination was found.⁴¹(Figure below) and there were 2661 villages/locations that tested positive for bacteriological contamination⁴².

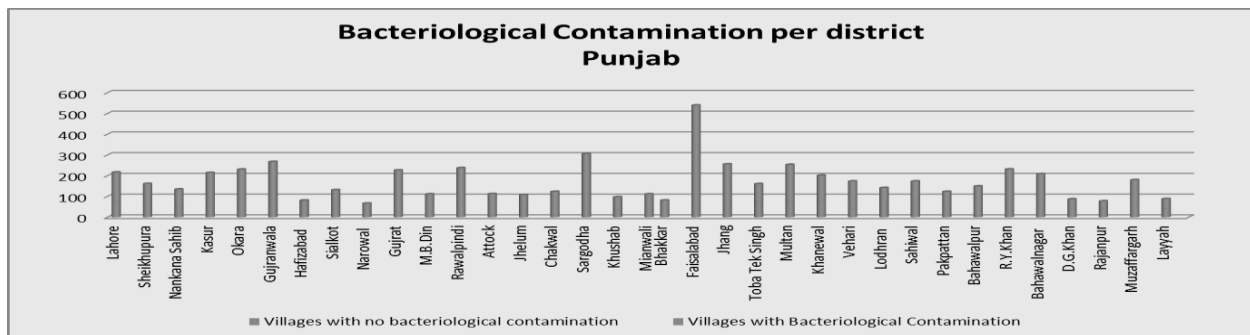


Fig. 4.7: Biological Contamination per District Punjab⁴³

41. National Water Quality Monitoring Program, Water Quality Status in Pakistan, Phase IRV, 2001R2014, Pakistan Council of Research in Water Resources

42SPHERE based Assessment of water access, quantity, perceived quality and sanitation in Punjab-2014-15

⁴³ National Water Quality Monitoring Program, Water Quality Status in Pakistan, Phase IRV, 2001R2014, Pakistan Council

In 80% of the schemes, there is no water treatment facility, while only 12% provide some treatment (chlorination, bleaching powder, potassium permanganate etc.). Water samples collected from the water sources of the functional water supply schemes indicates that 79% of the total collected samples are unsafe for drinking purpose because of microbiological and chemical contamination(iron, fluoride, nitrates) and physical problems (turbidity, hardness, total dissolved solids). Water samples collected from the houses of the consumers of the functional water supply schemes reveals that 88% of the total samples collected are unsafe for drinking purposes – the reasons are similar to those found at the sources⁴⁴.

4.5.7. Access to Water Supply and Sanitation

4.5.7.1. Access to Water Supply

PSLM data 2015-16 shows that 86 proportion of total population (urban and rural) in Pakistan has access to improved water sources while only 73 proportion of total population has access to sanitation⁴⁵

In PHCIP districts hand pumps (ground water) and motor pumps (ground water) are the major sources of water. Districts where ground water quality is deteriorated or salinity levels are higher (i.e. Bahawalnagar, Lodhran and D.G.Khan), tap water through water supply schemes is major source of water. As per PSLM data (given in table below), dug wells are also used as source of water in rural areas of Mianwali, D.G.Khan, Rajanpur and Bahawalnagar

Table 4.4 Access to Water Supply Sources in PHCIP Districts

District	Tap Water	Hand Pump	Motor Pump	Dug Well	Others	Total	Rank
Bhakkar	5	64	29	0	1	100	34.0
Urban	5	27	64	0	5	100	
Rural	6	72	22	0	0	100	
Khushab	26	43	26	0	4	100	7.0
Urban	28	38	32	0	3	100	

44 Report on Technical Assessment of Water Supply Schemes Northern and Central Punjab (Volume-I), 2011. Pakistan Council of Research in Water Resources
45 . PSLM 2015-16

Environmental and Social Management Framework (ESMF)
Punjab Human Capital Investment Project (PHCIP)

Rural	25	46	24	0	5	100	
Mianwali	17	46	28	4	6	100	13.0
Urban	21	36	43	0	0	100	
Rural	16	49	24	5	7	100	
Lodhran	22	25	49	0	4	100	9.0
Urban	19	1	64	0	16	100	
Rural	22	30	46	0	2	100	
D.G.K	26	48	17	1	9	100	8.0
Urban	59	5	18	0	17	100	
Rural	20	55	17	1	8	100	
Rajanpur	12	61	12	4	11	100	18.0
Urban	27	20	44	2	8	100	
Rural	9	69	6	5	12	100	
Layyah	6	58	35	0	0	100	25.0
Urban	28	25	47	0	0	100	
Rural	2	65	33	0	0	100	
Muzaffargarh	1	72	25	0	1	100	36.0
Urban	5	30	60	0	5	100	
Rural	1	78	21	0	0	100	
Bahawalpur	14	40	42	0	4	100	16.0
Urban	12	7	72	0	10	100	
Rural	15	53	31	0	1	100	

Bahawalnagar	35	41	18	1	6	100	2.0
Urban	62	12	18	1	7	100	
Rural	27	48	18	1	6	100	
R Y Khan	5	64	26	0	5	100	30.0
Urban	11	33	36	0	19	100	
Rural	3	71	24	0	2	100	

4.5.7.2. Access to Sanitation Facilities

Sanitation generally refers to the provision of facilities and services for the safe disposal of human urine and feces⁴⁶. PSLM data (2014-15) shows that 100% of the urban population in project districts of South Punjab has access to flush toilets at household level. In case of rural population, 59 % of population in Rajanpur has no toilets. However, Muzaffargarh is at lowest rank i.e.35 to have access to flush toilets while Layyah is at highest rank i.e. 20 to have access to flush toilets (which is 72 % of rural population). Data is attached as Annexure R2.

4.5.7.3. Types of Sanitation Facilities

PSLM 2014-2015 shows that 66 % of the Household population is using an improved⁴⁷ sanitation facility which is not shared and only 9 % of household use an improved facility which is public or shared with other households

4.5.8. Air Quality

Pakistan’s urban air pollution is among the most severe in the world, and it significantly damages human health and the economy. Pakistan is the most urbanized country in South Asia, and it is undergoing rapid motorization and increasing energy use.

Government of Pakistan/ Punjab has taken many initiatives towards air quality management in the form of Clean Air Program and installation of continuous monitoring stations to monitor Particulate Matter (PM), Sulfur Dioxide, Ozone, Carbon Monoxide and Nitrogen Dioxide.

46 .WHO

47 .Millennium Development Goals (MDGs) and the WHO/UNICEF Joint Monitoring Program (JMP) for Water Supply and Sanitation classify otherwise acceptable sanitation facilities which are public or shared between two or more households as unimproved. Therefore, the term “use of improved sanitation” is used to refer to improved sanitation facilities which are not public or shared.

Pakistan Environment Protection Agency (PaK-EPA) in collaboration with the Japan International Cooperation Agency (JICA) carried out studies on air quality in various cities of Pakistan i.e. Lahore, Rawalpindi, Islamabad, Quetta, Gujranwala, Sheikhupura and Faisalabad. A recent study was carried out by World Bank⁴⁸ with data coverage (%) for air quality parameters for five cities (Islamabad, Quetta, Karachi, Peshawar and Lahore) was taken.

A number of initiatives have been taken by The Government of Punjab after recent episodes of fogs in early winters in throughout cities of Punjab. “Punjab Clean Air Action Plan” and “Standing Instructions for Management of Episodes of Poor Air Quality in the Punjab (2017)” are one of those steps taken by GoP. In Lahore, at 5 different points, air quality meters are installed; however, there are no air quality meters that measure the Environmental Quality Standards for ambient air. It would take several meters, taking readings 24/7 that could give some idea of what the ambient air quality in just Lahore is. It is not enough to run a meter out for 24 hours and then take that for the whole city. The responsibility of the EPA and Government of Punjab is to ensure there enough meters in every urban District of Punjab that can accurately measure and report ambient air quality.

In district Khushab, main sources of air pollution are Sugar, Cement, Chemical, Rice Sheller, Bricks Kiln, Salt and Gypsum Grinding Units located at scattered places of the district. Urban centers of the district are adversely hit by fugitive dust and vehicular pollution which are gradually increasing.

Lack of air quality data and its reliability has been a major challenge. While secondary data collection of this ESMF Report; it was found that no secondary data of air quality is available for districts of South Punjab. Published Reports/studies are based upon air quality data of major urban areas of Punjab (Faisalabad, Gujranwala, Rawalpindi, Lahore and some data on Sheikhupura city). Anyhow, it is recommended in ESMF to collect air quality data of sub-projects areas before and during execution to monitor the air quality and incorporate the necessary mitigation measure accordingly in the ESMPs

4.6. BIOLOGICAL ENVIRONMENT

The biological environment baseline studies describe the biological conditions and characteristics in the surrounding of the region on the basis of primary and the secondary data by describing:



48 . Cleaning Pakistan’s Air-Policy Options to address the Cost of Outdoor Pollution-2014

4.6.1. Wildlife

4.6.1.1. Flora

A comprehensive data about the floral species of proposed project site have been obtained through direct sighting as well as indirect methods (i.e. obtaining information through discussions with the local inhabitants as well as field staff of the Environment and Forest Department and consulting with the previous literature) mentioned below.

Most of the area of South and central Punjab is agricultural in nature, which is a habitat of several floral species. *Dalbergiasissoo* (Shisham), Poplar, Kikar (*Accaciaarabica*) are the most common trees, found throughout the project areas. Common floral species with rooted vegetation and few different types of herbs, shrubs, and bushes are also present along canal and roads. Numerous medicinal plant species were also observed there. Apart, a total of 22 plant species were recorded. No Species were recorded as vulnerable, although *Prosopis cineraria*, *Salvedoraolieodis* and *Capparis decidua* are endangered species, observed in abundance in the area and vicinity (Common flora of PHCIP districts are given in annexure D)

4.6.1.2. Fauna

Vast Indus flood plains have been cleared of natural vegetation to grow crops. Very little wildlife habitat has been left untouched. Only animals like the jackal, mongoose, jungle cat, civet cat, scaly anteater, desert cat and the wild hare occur in these areas. Hog deer is found in riverine tracts. The crop residues and wild growth support reasonable populations of black and grey partridges.

Little vegetative cover, severity of climatic conditions and the great thrust of grazing animals on the deserts have left wild animals in a precarious position. Parts of Thal and Cholistan are now being irrigated, with the situation almost identical to that of the flood plains. Chinkara can still be found in average numbers in Cholistan, but rarely in Thal. The blackbuck, once plentiful in Cholistan has now been eliminated. However, efforts are being made to reintroduce them back into the country. A small number of blue bulls are found along the Pak-Indian border, and some parts of Cholistan. Grey partridge, species of sand grouse and the Indian courser are the main birds of the area. Peafowl occur in some areas in Cholistan.

The Indus dolphin, fishing cat, and smooth otter are found in the Indus River waters below the Chashma Barrage. The gavial has become extinct in Pakistan. Wild boar numbers have increased because of the immunity they enjoy in a Muslim society that forbids its consumption by humans. However, information about them is scanty. Information about carnivores in general is difficult to obtain because of their nocturnal mode of life and high mobility.(Common fauna of PHCIP districts are given in annexure D)

4.6.1.3. Forests

Pakistan is a forest poor country. Only 4.72 million hectares or 5.36 % of its land mass is covered with forests (Fig 4.18). The primary reason for meager forest area is that most of land area (70-80%) of Pakistan falls in arid or semi - arid zones where precipitation is too low to support tree growth^{49,50}

For conservation and environmental management of South Punjab's forests, South Punjab Forest Company (SPFC), a not-for-profit public sector company was incorporated in September 2015, under section 42 of the Companies Act 2017, established by the Forestry, Wildlife & Fisheries Department under Government of the Punjab. The organization aims to stimulate private sector investment alongside public money to reduce deforestation in Punjab and combine forest conservation with sustainable economic development. The Punjab Forest Department has assigned a blank area of 99,077 acres to SPFC mainly falling in D.G. Khan and Bahawalpur Civil Division at various sites, with variant areas. The aforementioned areas are generally under the category of Riverine Forests requiring considerable investment for afforestation, as the reliance has to be made on groundwater.

4.6.1.4. Protected Areas

According to IUCN, a protected area is a clearly defined geographical space, recognized, dedicated and managed through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values. Protected areas can take on many different forms, such as national parks, wilderness areas, game reserves, wildlife sanctuaries etc⁵¹.

Pakistan has 29 protected areas known as national parks and 22 out of them are under supervision of respective provincial governments. Only some of these are under the conservation scope of IUCN. Protection and conservation of the environment of Pakistan was included in the concurrent constitution of 1973. As a result, Environment Protection Ordinance was enacted in 1983, which was mainly regulated by the Environment and Urban Affairs Division. Later, a new system of 'Modern Protected Areas' legislation began at the provincial level which assigned the protected areas with designations such as national parks, wildlife sanctuaries and game reserves. Due to more awareness about their importance in conservation of biodiversity, 10 national parks have been established during the time period from 1993 to 2005⁵². The Status of Protected areas of PHCIP districts Pakistan is shown in Table: 4.5

⁴⁹Forests & Biodiversity Information/Data Report-2009

⁵⁰.<http://spfc.org.pk>

⁵¹IUCN, World parks, Congress, Sydney 2014

⁵²Pakistan Protected Areas Meeting- IUCN

Table 4.5: Protected Areas in PHCIP Districts

National Parks	Wildlife Sanctuaries	Protected Wetlands	Biosphere Reserves
Lal Suhanra National Park, Bahawalpur	Cholistan Wildlife Sanctuary	Taunsa Barrage, Muzaffargarh Lal Suhanra, Bahawalpur Uchaali Complex, Khushab	Lal Suhanra, Bahawalpur

Lal Suhanra is a national park in Pakistan situated in the Bahawalpur district of South Punjab. It is one of South Asia's largest national parks, and is a UNESCO declared Biosphere Reserve.⁵³ Lal Suhanra is notable for the diversity of its landscape, which includes desert, forest and wetland ecosystems⁵⁴.

4.7. SOCIO-ECONOMIC BASELINE CONDITIONS

Punjab is the most populous province of Pakistan, with approximately 55.6% of the country's total population, having 36 districts as shown in map below. It is bordered by Azad Jammu and Kashmir to the northeast, Indian Punjab to the east, Sindh to the south, Balochistan to the southwest, Khyber Pakhtunkhwa to the west, and Islamabad Capital Territory to the north. The main languages spoken in the province include Punjabi and Saraiki and the dialects of Mewati and Potowari. The name Punjab province is derived from derives from the words Punj (Five), and Āb (Water). These refer to the Five Waters or the five tributaries of the Indus River, which are Jhelum, Chenab, Ravi, Beas and Sutlej that flow through the province. Punjab has a geographical area of 20.63 million Hectares⁵⁵ (equivalent to 206,300 Km²) and constitutes about 25.9% of Pakistan's land area⁵⁶.

During the field visits, it was observed that 10 out of 22 BHUs were taking drinking water from bores, 7 BHUs were taking water from nearby sources (streams) and 5 BHUs were taking water from wells. Similarly 7 RHCs were taking water from water bores, 2 were taking water from wells and 2 RHCs were taking water from the nearby sources. The sanitation facility (toilets,

⁵³ "Lal Suhanra". UNESCO Retrieved 28 December, 2016

⁵⁴ "Lal Suhanra National Park"- Forest, Wildlife and Fisheries Department, Punjab- Retrieved 28 December 2016

⁵⁵ 1 Hectare = 2.471 Acres; or 10,000 square meters

⁵⁶ Punjab Development Statistics 2013- Bureau of Statistics, Government of Punjab

cleanliness, sewerage and hand washing) was well maintained at 12 BHUs however poor quality sanitation facilities were observed in 10 BHUs. Similarly the sanitation facilities were maintained at 7 RHCs and the remaining 4 RHCs did not have adequate sanitation facilities. The poor quality waste management was observed at almost all BHUs and RHCs except 4 RHCs where waste was properly segregated & stored. However waste was not disposed through environment friendly methods.

This section presents a broad profile of the prevailing socioeconomic situation in Punjab generally or in designated project 11 districts of Punjab specifically. This baseline has been prepared based upon the secondary literature resources as well as reconnaissance survey conducted in all eleven (11) districts of Punjab. The subsequent section will include the existing conditions of sanitation, agriculture, poverty, education, health, available infrastructure, demography, labor, employment etc.

4.7.1. Administrative Profile

Administratively, the province is divided into Districts, Sub-districts (Tehsils), Union Councils and Mauzas. The districts are further grouped into 9 divisions. Five large cities have been identified as urban centers, while other urban and rural settlements are grouped into sub districts only.

The administrative units in the province are as follows⁵⁷:

36 Districts,

140 Tehsils

5 City Districts

38 Towns in 5 City Districts

25,914 Mauzas/villages

3464 Union Councils – of which 978 are Urban Union Councils and 2486 are Rural Union Councils

20 Cantonment Boards

4.7.2. Demographics

The population of the province is estimated 101,391 million (68,911 million rural, 32,480 million urban) in 2017 which is over half the population of Pakistan. About 32 % of the

⁵⁷ Punjab Development Statistics 2018

population is urban and 68% is rural⁵⁸. The male population accounts for about 50.800 million (51.7%) while females account for about 47.423 million (48.3%). Nearly 50% of Punjab's population is under 20 years, and about 68% is under 30 years. This youth dividend is expected to dominate the population for another 30-35 years. The size, growth and age distribution demands that the province maintains a high and sustained GDP growth⁵⁹.

The demographic profile of designated districts of Southern Punjab with respect to urban and rural population along with household's number and size is shown in table below⁶⁰:

Table 4.6: Demographic profile of project districts⁶¹

Sr. No.	District	Population (2017)			Annual Growth Rate (1998-2017)	No. of Households	Household Size
		Urban	Rural	Total			
1	Lodhran	265,710	1,434,910	1,700,620	1.97	262,650	6.5
2	D.G Khan	1,901,333	9,113,065	11,014,398	2.81	1,555,295	7
3	Muzaffargarh	694,771	3,627,238	4,322,009	2.63	667,515	6.5
4	Rajanpur	337,202	1,658,756	1,995,958	3.16	262,490	7.6
5	Layyah	321,505	1,502,725	1,824,230	2.59	281,929	6.4
6	Bahawalpur	1,171,258	2,496,848	3,668,106	2.18	584,864	6.2
7	Bahawal Nagar	621,096	2,360,823	2,981,919	1.96	481,276	6.2
8	Rahim Yar Khan	1,032,636	3,781,370	4,814,006	2.27	701,520	6.9

⁵⁸. Development Statistics of Punjab 2018 prepared by the Bureau of Statistics, Government of Punjab

⁵⁹Punjab Development Statistics 2018- Bureau of Statistics- Government of Punjab

⁶⁰Development Statistics of Punjab 2018 prepared by the Bureau of Statistics, Government of Punjab

⁶¹Development Statistics of Punjab 2018 prepared by the Bureau of Statistics, Government of Punjab

9	Khushab	352810	928469	1281299	2.14	211686	6.7
10	Mianwali	328395	1217699	1546094	1.97	238006	7.2
11	Bhakkar	260114	1390404	1650518	1.98	268244	6.9

The demographic rural profile of designated districts of Southern Punjab with respect to male, female and transgender is shown in table 4.7 below⁶²:

Table 4.7: Rural demographic profile of project districts of South Punjab

S. No.	District	Population (2017)			
		Male	Female	Transgender	Total
1	Lodhran	728058	706811	41	1,434,910
2	D.G Khan	1171502	1152806	38	9,113,065
3	Muzaffargarh	1862671	1764477	90	3,627,238
4	Rajanpur	855347	803380	29	1,658,756
5	Layyah	762399	740300	26	1,502,725
6	Bahawalpur	1274019	1222729	100	2,496,848
7	Bahawal Nagar	1200605	1160124	94	2,360,823
8	Rahim Yar Khan	1940753	1840528	89	3,781,370
9	Khushab	638071	643181	47	1,281,299
10	Mianwali	774060	771995	39	1,546,094
11	Bhakkar	844247	806235	36	1650518

⁶²Development Statistics of Punjab 2018 prepared by the Bureau of Statistics, Government of Punjab

4.7.3. Languages

The main languages spoken in the province include Punjabi, Urdu and Saraiki and the dialects of Mewati and Potowari.

As the figure below illustrates, Punjabis and Urdu-speakers are significantly over-represented in urban Islamabad compared to their overall population in Pakistan, with Pashtuns not far behind. Sindhi's and Balochi's (and the minority Saraiki's who live especially in Punjab) are under-represented in the capital city compared to their overall population in Pakistan. Moreover, population distribution in Punjab with respect to mother tongue is depicted below which clearly illustrated that Punjabi is found everywhere in the region⁶³.

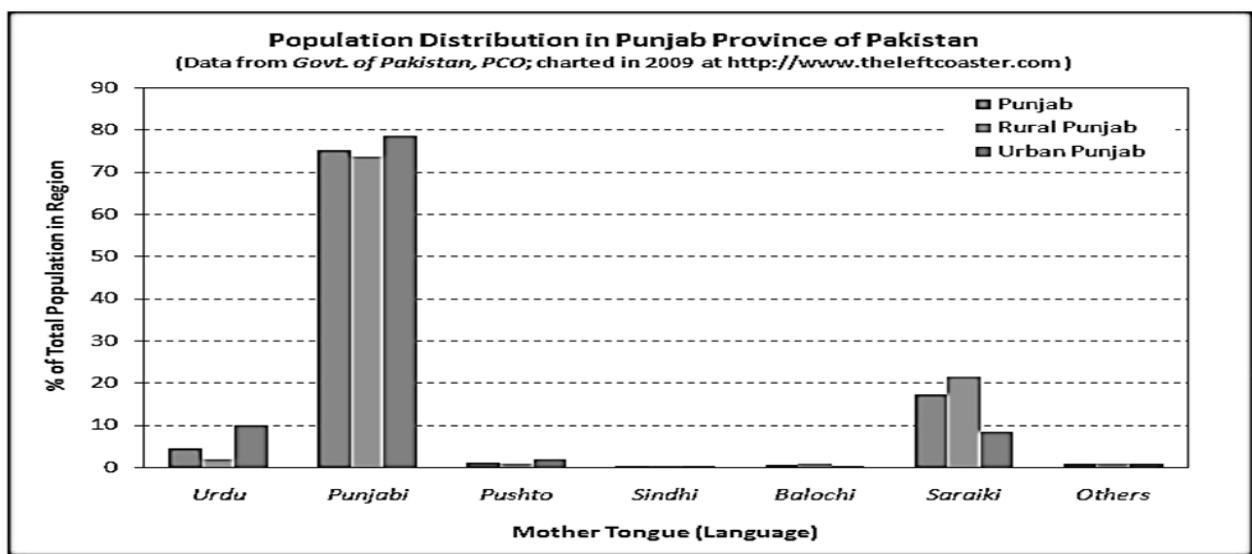


Figure 4.8: Population Distribution with respect to Language in Punjab

4.7.4. Basic Amenities

Thousands of people in Punjab particularly in rural areas of the region are deprived of basic amenities such as gas, water, electricity, Basic Health Units, school and other health facilities.

To know the percent distribution of HHs satisfaction by facilities and services in 11 project Districts of Southern Punjab, PSLM data (as demonstrated in Tale 4.12) shows that:

Muzaffargarh is at least percent (i.e.41) with respect of distribution of BHU whilst Rajanpur with respect of school and Lodhran for Agriculture Extension. District Vehari has led to other 10 districts in percent distribution of HH satisfaction by facilities and service use of BHU, family planning, school, veterinary and agriculture extension.

⁶³<http://www.theleftcoaster.com/archives/015268.php>

Table 4.8: Percent distribution of households Satisfaction by facilities & Services Use⁶⁴

Name of District	Basic Health Unit	Family Planning	School	Veterinary	Agriculture (EXT.)	Police
Lodhran	78.89	86.94	98.55	90.82	45.80	44.43
Urban	0.00	68.88	98.22	100.00	62.76	38.89
Rural	78.89	96.80	98.63	90.66	44.26	45.56
DG Khan	72.18	68.89	87.69	80.46	78.80	48.27
Urban	62.49	74.15	97.14	27.42	56.11	43.26
Rural	72.34	67.06	85.56	81.38	80.02	49.34
Rajanpur	53.81	11.23	78.03	54.69	59.82	39.60
Urban	0.00	4.61	78.36	15.97	16.27	42.44
Rural	53.81	27.46	77.27	63.02	69.77	35.80
Layyah	58.68	77.50	97.24	67.54	66.56	76.19
Urban	51.44	63.26	92.97	67.18	65.78	33.55
Rural	59.20	82.87	97.96	67.56	66.65	94.39
Muzaffargarh	41.75	90.57	95.98	89.04	60.66	24.71

⁶⁴. PSLM-Pakistan Social and Living Standards Measurement Survey (2014-15) by Pakistan Bureau of Statistics

Urban	73.61	70.34	98.87	47.47	40.23	11.21
Rural	41.17	94.31	95.49	91.03	64.11	29.77
Bahawalpur	46.71	63.59	94.48	67.82	83.20	21.79
Urban	17.15	67.93	96.10	69.57	44.34	24.05
Rural	48.63	60.49	93.71	67.68	87.22	20.53
Bahawalnagar	65.00	75.97	98.41	94.05	95.67	41.75
Urban	46.00	74.40	100.00	84.02	45.11	58.96
Rural	66.33	76.99	97.88	94.73	98.98	29.87
RYK	56.12	65.56	97.52	62.66	76.39	33.21
Urban	74.53	73.93	98.69	65.62	68.24	34.26
Rural	55.12	63.93	97.20	62.52	76.99	32.90

4.7.5. Health

Access to healthcare facilities in PHCIP districts is given in Table 4.9 and it shows that Bahawalpur has better hospital facilities while R.Y. Khan has given priority to RHCs and BHUs. It is expected that after implementation of PHCIP, access to basic healthcare facilities will be improved

Table 4.9: Access to Basic Healthcare Facilities in PHCIP Districts⁶⁵

District	Hospitals		Dispensaries		R.H.Cs Total		B.H.Cs total		T.B Clinics		S.H. Centers		M.C.H. Centers	
	No.	Beds	No.	Beds	No.	Beds	No.	Beds	No.	Beds	No.	Beds	No.	Beds
Bahawalpur	15	2472	704		12222		82146		20		00		100	

⁶⁵ Punjab Development Statistics 2018

Bahawalnagar	11711	37	0	10200	105204	10	330	90	
R Y Khan	81889	640		19356	108208	20	00	70	
D.G.Khan	101178	344		2204	53102	136	300	50	
Layyah	8532	210		360	3978	00	150	20	
Muzaffargarh	9437	3021		14260	76144	00	00	33	
Rajanpur	6334	130		6125	3264	00	170	14	
Lodhran	4217	166		480	5096	00	00	12	
Bhakkar	5501	260		594	4082	00	130	20	
Khushab	8437	320		4	80	3482	00	00	50
Mianwali	6381	170		18360	740	00	00	90	

4.7.6. Nutrition

Punjab, the most populous province of Pakistan and with the largest economy in the country, contributes more than three quarters of the country's annual food grain production. At the same time, the country faces significant challenges with respect to nutrition. Nearly 40% of the province's children under age 5 are nutritionally stunted (39.2 %.) The prevalence of underweight children is 29.8%, while wasting prevalence is 13.7%⁶⁶.

Low birth weight resulting from fatal malnutrition can reduce a person's IQ by 5 percentage points, stunting can reduce IQ by 5-11 points, and iodine deficiency by 10-15 points. Malnutrition has been found to reduce the likelihood that children will be enrolled in school and reduces the learning capacity of those who are enrolled. There are clear and direct relationships between school performance and subsequent earnings (Grantham-McGregor et al, 1999). Losses emanating from increased health costs resulting when malnutrition reduces immune response to infection. Malnourished children with poor schooling outcomes are also likely to repeat years more often increasing education costs. Such costs fall largely on governments, which are

⁶⁶ Nutritional Policy Guidelines Notes Punjab -2012

responsible for financing health and education for those, unable to pay⁶⁷. The consequences of

Form of Malnutrition	Prevalence in Punjab	Consequence
Stunting (under 5)	39.2%	Reduction of 5-11 IQ points per child ⁵
Wasting (under 5)	Moderate = 8.9%; Severe = 4.8%	Odds ratio of mortality: moderate wasting = 3.0; severe wasting 9.4 ⁶
Iodine deficiency disorder (school age children)	39.0%	Reduction of 10-15 IQ points per child
Anemia (under 5)	60.3%	Reduced adult productivity by 5-17% Loss of up to 25 IQ points in children under 2
Vitamin A deficiency (under 5)	51.0%	Reduced immunity to disease by 23%

Fig. 4.9: Consequences of Malnutrition (in children under 5) in Punjab

malnutrition are put in perspective for Punjab in Table below^{68,69}.

The Nutrition Status of districts of Punjab specifically in its south, prevalence of underweight, stunting, overweight etc. are more prominent as compared to other portions of the province. Information collected on nutrition of children shows that 34 % of children under 5 are underweight. The same proportion of children is stunted while 18 % are wasted. The three anthropometric indicators vary by household wealth. Nearly half of children living in the households in the lowest quintile are stunted (49%) and 48 % are underweight compared to 17 % for stunting and underweight in the highest quintile.

4.7.7. Agriculture

Agriculture is the predominant economic activity of most of the rural population of the South Punjab's project districts. The principal sources of irrigation are the surface channels supplemented by tube-wells. Rainfall accounts only for a small proportion of the irrigation sources. Horticulture and aviculture are gaining popularity. Investments in sheep-, goat-, fish-, poultry-, and dairy-farming also exist.

The five major crops of Punjab are wheat, rice, cotton, sugarcane, and maize.

Table 4.10 Cropped Areas by Crop, The Punjab: 2016-17⁷⁰

⁶⁷Economic Costs of Malnutrition", paper prepared for DFID by Institute of Public Policy, Beacon house National University, Lahore, Social Policy and Development Centre, Karachi and Macroeconomic Insights, Islamabad, June 2012, unpublished.

⁶⁸Figures on consequences are taken from The Lancet Series, 2008.

⁶⁹A severely wasted child has a 9.4 times greater risk of dying before the age of 5 than a child who is not wasted (The Lancet Series, 2008.)

#	Crop	Cropped Area(Thousands hectares)	% of total(thousands hectares)
	Wheat	6914	42.3
	Fodder	1814	11.1
	Cotton	2243	13.7
	Rice	1780	10.9
	Gram	855	5.2
	Sugarcane	705	4.3
	Maize	532	3.3
	Bajra	434	2.7
	Rape and Mustard	131	0.8
	Jawar	231	1.4
	Potatto	134	0.8
	Others	554	3.4

Amongst the 11 Project Districts, 7 districts of South Punjab (Layyah, D.G. Khan. Khanewal, Rajanpur, R.Y.Khan, Bahawalpur and Bahawalnagar) are leading districts of the province for production of its major crops. Other important crops of this region are rice and fodder crops like barley, maize, millet, jwar and bajra

South Punjab also contributes well in production of citrus fruits, Mangoes, dates and guava

4.7.8. Education and Literacy

Literacy is an important indicator of education as its improvement is likely to have an impact on other important indicators of welfare. The literacy rate for population 10 years and above at National level remains stagnant at 60% during the period 2014-15 and 2012-13.Literacy remains

much higher in urban areas with 76 % than in rural areas with 51 % and much higher in men with 70 % than in women with 49 %. It is revealed from the PSLM 2014-15 data that Punjab leads with 63 % in 2014-15 as compared to 62 % in 2012-13

Figure 4.9 below is based upon map showing literacy rate in population of 10 years and above in project districts of Punjab

Table 4.11: Population that has ever attended School⁷¹ in Project Districts ⁷²

District	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Lodhran	84	66	75	64	36	51	67	41	54
D.G.Khan	84	71	78	54	22	38	58	30	44
Rajanpur	76	57	67	44	18	32	49	25	38
Layyah	88	68	78	75	46	61	77	49	64
Muzaffargarh	79	63	71	58	28	43	60	33	47
Bahawalpur	76	61	69	56	30	43	61	38	50
Bahawalnagar	75	64	70	61	27	49	64	43	54
RYK	74	61	68	57	29	43	60	35	48
Bhakkar	70	52	62	55	24	39	57	29	43
Khushab	69	52	60	61	30	45	64	36	49
Mianwali	74	53	63	63	28	44	65	33	48

⁷¹. Population aged 10 years or above that has ever attended school expressed as a %age of the total population aged 10 years and above

⁷². PSLM 2014-15

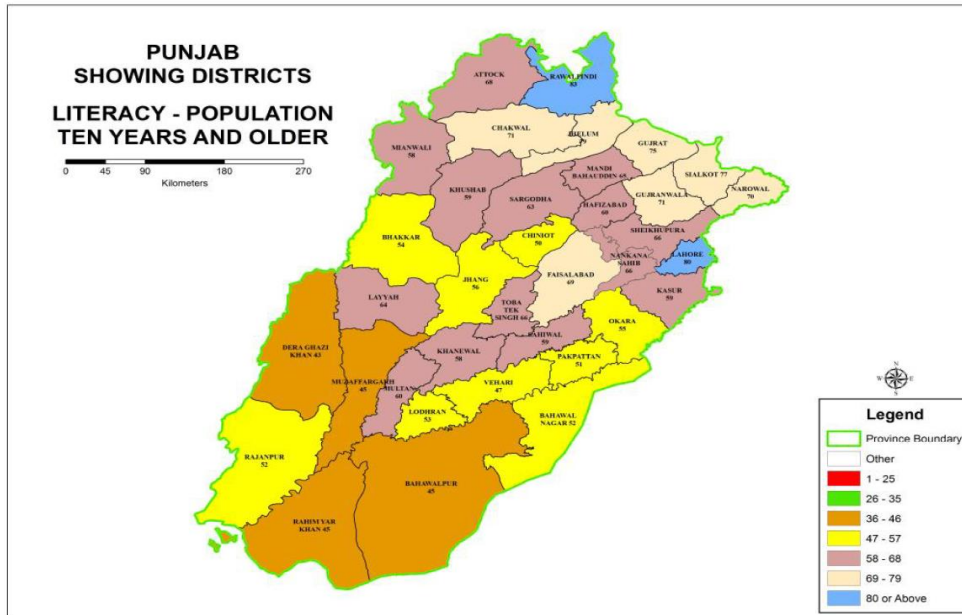


Fig. 4.9: Literacy – Population Trends

4.7.9. Gender Issues

Generally, women in Pakistan are among the poorest and the most vulnerable sections of the society. Women’s access and control over productive resources is limited, which ranks Pakistan amongst the countries with high maternal and infant mortality rates⁷³. According to WB, the maternal mortality ratio (MMR) was 178 per 100,000 live births in 2015, down from 431 in 1990⁷⁴. Vulnerability of women to discriminatory treatment varies across classes, region, and the urban / rural populations.

Maternal mortality is still very high in Pakistan despite its decline from 431/100,000 live births to 178/100,000 live births. A skilled birth attendant attends less than 50% of the births in Pakistan and the lifetime risk associated with pregnancy related death is 1 in 93 for Pakistani women⁷⁵. According to Global Gender Gap Report 2018, Pakistan is ranked 146 out of 149 countries in women’s economic participation and opportunity placing it at the bottom in South Asia.

According to Punjab Gender Parity Report 2018, there are only 3 percent women are gazetted officers in Punjab. Percentage of Non-Gazetted officers and contract-based staff are 9 and 18 respectively. In the Punjab Civil Service, between Grade 18-22, only 4 percent are women.

⁷³World Bank Indicators - Data

⁷⁴Maternal mortality ratio (modeled estimate, per 100,000 live births) by World Bank

⁷⁵ Punjab Gender Parity Report, 2018, Punjab Commission on the Status of Women

4.7.9.1 Reported cases of Violence against Women in Punjab

In Pakistan, as in the rest of the world, women experience violence throughout their life cycle. Government continues to strengthen existing mechanisms to ensure adequate protection for violence survivors. The reported cases in 2017 are described below:

Table 4.13 Gender Based Violence in Punjab, 2017⁷⁶

Type of GBV	Reported cases in 2017	Type of GBV	Reported cases in 2017
Rape	3083	Acid Burn	22
Murder	922	Stove Burning	1
Beating	361	Custodial Rape	44
Gang Rape	251	Assault	3031
Honor killing	222	Hurt cases	1198
Any other	1171	Attempted murder	352

4.7.9.2. Gender Based Violence Response Services

- Help Desk for Women (HDW)

Of 711 total police stations 696 in Punjab have established front desk that are managed by female and male police Station Assistants and Senior Station Assistants. The purpose is to encourage reporting of VAW by providing a more gender friendly environment at police station. The complaints are facilitated for complaint registers.

- Special Courts for Gender Based Violence (SCGBV)

In 2017, the Lahore high court and district judiciary inaugurated Pakistan's first Gender Based Violence Court to streamline cases involving female survivors of VAW. It makes provision of extraordinary measure to support survivors, ensure speedy and confidential trials, reduce harassment and provide security against reprisals to survivors.

- Violence Against Women Centers (VAWCs)

⁷⁶ Punjab Gender Parity Report 2017

VAWCs are envisioned as one-stop shop centers where survivors of violence can report instances of violence and register an FIR, get a medical examination, obtain counseling, engage a prosecutor to lead their cases. Similarly for women empowerment Punjab has taken special initiatives for legal, economic development, education, health and political

4.7.10 Issues related to Open Defecation

Women have to face many difficulties when they go in fields for Open Defecation as:

Defecating in the open seemed quite an uncomfortable task to do especially when they have to choose between early morning or late night as they have to wait the full day till night (or early morning) when the male members of community are not around in open fields .It ultimately results in intestinal blockages and bowl obstructions. The problem gets more complex when the women are pregnant or they are in old age. And if in case they have some gastro intestinal problems, they have to defecate in their backyard which is highly unhygienic for the whole family.

While going to open field at night, dogs biting is very common and it becomes very complicated due to lack of timely and proper medical facilities in remote villages. A case of 14 years girl's death due to complex infections after dog biting was also reported by women in a village at Lodhran during public consultation.

4.7.11. Indigenous People

Pakistan does not have any separate policy to define indigenous peoples or to protect their rights and cultural identities. However, the World Bank's Policy OP 4.10 on `Indigenous Peoples' defines indigenous peoples, in a generic sense of the term, to a distinct, vulnerable, social and cultural group possessing the following characteristics:

Self-identification as member of a distinct indigenous cultural group and recognition of this identity by others;

Collective attachment to geographically distinct habitat or ancestral territories in the project area and to the natural resources in these habitats and territories;

Customary cultural, economic, social, or political institutions that are separate from those of the dominant society and culture; and

An indigenous language is often different from the official language of the country of region.

There are no indigenous people in the PHCIP project area.

4.7.12 Places of Cultural/Archeological Importance

Project districts of South Punjab have very rich cultural and archeological distinctions. During sub-projects execution, it must be considered at screening phase to identify such areas that may have any sort of negative impact due to project activities. Detail of important cultural and archeological sites of project districts is given in table 4.14.

Table 4.14: Important Cultural/Religious/Archeological Sites in Project Districts

District	Name	Type	Location
Bahawalpur	Noor Mahal	Fort	Bahawalpur
	Derawar Fort	Fort	Dera Nawab Sehab, Bahawalpur
	More than 20 different Shrines and Mosques of archaeological importance	Shrine/Mosque	Uch Sharif
	Jamia Masjid Al-Sadiq	Mosque	Bahawalpur
	Masjid e Hajat	Mosque	Bahawalpur
	Shrine of Hazrat Hasan Darya Kabir	Shrine	Bahawalpur
	Shrine of KhawajaKhudaBux	Shrine	KhairpurTamiwali
	Fareed Gate	Gate	Bahawalpur
	Abbasi Mosque	Mosque	Bahawalpur
	Sadiq Dane High School	Public Building	Farid Gate, Bahawalpur
	Masjid Wazir Khan	Mosque	Multan
	ParahladpuriTample	Temple	Multan
	SurajKund Temple	Temple	SurajKund
	Mound RattiKhari	Archaeological	Head Bust 133, Village Bhatianwala,

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		Site	Kaberwala
	Fortification Wall of Shujaabad City	Archeological site	Shujaabad
Muzafargarh	Tomb of Thar Khan Nahar	Shrine	Sitpur
	Tom of Sheikh Sadan Shaheed	Shrine	Village Sadan
	Fort of Mahmood Kot	Fort	Muzaffargarh
D.G.Khan	Shrine of Syed Ahmad Sultan SakhiSarwar	Shrine	Muqam Village
	Shrine of Hazrat Muhammad Seleman Taunsvi	Shrine	Taunsa Sharif
	Shrine of Hazrat Khawaja Mahmood	Shrine	Taunsa Sharif
	Fort Manro	Fort	D.G.Khan
Rahim Yar Khan	Shrine of Hazrat Sadar-Ud-Din Shamsi and son	Shrine	RYK
Rajanpur	Shrine of Hazrat Khawaja Ghulam Farid	Shrine	Kot Mithan
	Shrine of Hazrat Taj Mahmud	Shrine	Rajanpur
	Harand Fort	Fort	Jampur/Dajal
	Shrine of Hazrat Abu Bakar Barraq Mailsi	Shrine	Vehari

CHAPTER 5

STAKEHOLDERS CONSULTATION

This section describes consultations carried with the key stake holders during preparation of this ESMF.

The consultations with key stakeholders were carried out while conducting both formal and informal consultation sessions. The main objective of the consultation was, among others, to take stock of any additional suggestions/concerns that might have emerged during implementing PHCIP with due focus on healthcare facilities and selected schools for renovation in Punjab.

5.1 SPECIFIC OBJECTIVES OF CONSULTATIONS

The stakeholder consultation is an integral part of the environmental and social assessment for a project such as PHCIP and aims to provide a two-way communication channel between the stakeholders and the project proponents. In line with this aim, the objectives of the stakeholder consultation conducted as part of the present study were to:

- i) Apprise the stakeholder about the additional support being provided under this project to PHCIP and to inform them about its potential impacts,
- ii) To obtain views, concerns and suggestions of the stakeholders about the project and its design; and
- iii) Address these concerns/suggestions in designing the mitigation measures.

5.2 CONSULTATION WITH BENEFICIARY REPRESENTATIVES

Stakeholder Consultation in the, form of Focus Group Discussion (FGD) was carried out on 25th August, 2019 at RHCs and BHUs.

The participants of the consultative meeting include:

All Senior Medical Officers (SMOs) of selected 1 RHC from 11 districts

All Medical Officers (MOs) of selected 2 BHUs from 11 districts

All Principals/School administrators of selected 5 Districts

5.3 CONSULTATION AT RHCS & BHUS

The SMOs /MOs were consulted by visiting the Rural as well as basic health units. The discussion points were regarding environmental and social impacts during the renovation of healthcare facilities. The beneficiaries were informed about the environmental and health hazards. Mostly participants were well known about the hazards during the construction or renovation work. At the onset of the meeting the stakeholders were thoroughly briefed about the project, its objective, planned activities and associated potential environmental and social impacts. The discussion encompassed the following topics, issues and concerns.

1. Civil work of RHCs/BHUs rooms and repair/maintenance of new rooms.
2. Quality of Construction.
3. Monitoring of Construction Healthcare Facilities.
4. Water and Sanitation Facilities at healthcare facilities
5. Operation of Transport Vehicles
6. Provision of Electricity in healthcare Facilities.
7. Operation and Management of RHCS/BHUs

The participants, while actively taking part in the meeting gave their views, concerns and suggestions on the following aspects:

- District construction authority is least bothered to monitor construction.
- Provision of safe drinking water in Healthcare facilities is a major concern.
- Slow employment of health staff in RHCs/BHUs is an issue of concern.
- Health staff lacks capacity of facility operation.
- Construction during operation/patient checkup hours results in disturbance.
- Contractor usually do-not dispose-off construction waste.
- Limited funds are available for health facilities maintenance such as toilets and sewerage system.
- Electricity is not available in most of BHUs and RHCs also and load shedding is yet another issue.

Summary of issues and concerns of community with the proposed project of renovation and rehabilitation work in BHUs and RHCs and action taken are described below in Table 5.1.

Table 5.1: Summary of Issues /Concerns of Community and Action Taken

Sr. No.	Name of Participant	Issue Raised	Action Taken / Suggested Measures
1	Dr.Habib Mr.EjazSial Mr. Hayat Mian	District construction authority is least bothered to monitor construction.	District construction authority/CEO (W) will be taken on board during the renovation work.
2	Dr.Mushtaq Khan Ms. Nazia jamshed	Provision of safe drinking water in healthcare facilities is a major concern.	Chief executive Health and DHO preventive will be taken onboard for the provision of safe drinking water in the health care facilities
3	Dr.SehrishMawaz	WASH services are very poor in RHCs and BHUs	The issue will be addressed by the health department. DHO

			preventive services would be responsible to mitigate the infection control related activities in the facilities.
4	Mr.Arshad Ali	Construction during operation or patient checkup hours results in disturbance.	SMO/MO would prepare the contingency plan and share with contractor to start work after 2 pm.
5	Dr.Fozia Noreen	Contractor usually do-not dispose-off construction waste after completion of works.	MS/MO will ensure the alternative and provide the standard guidelines for safe disposal of waste
6	Dr. Adnan	Limited funds are available for RHCs and BHUs maintenance such as toilets and sewerage system.	Health Department shall make tangible efforts to address this concern.
7	Dr.Faryal	Electricity is not available in most Health Facilities and load shedding is yet another issue.	SMO/MO & contractor will arrange the alternative source of electricity.
8	Ms. Noreen	Vehicles during construction make fuel spillage in the vicinity of the health facilities.	The contractor would adopt the SOP while using standard leak proof vehicle.
9	Shazia Batool	Workers during the construction are not using the personal protection equipment (PPEs)	The contractor will ensure the workers safety by adopting occupational health and safety protocols according to the health safety act 2005.

5.4 CONSULTATION AT SCHOOLS

A detailed consultative meeting was held with the concerned officials of PMU of PHCIP and representative of five (5) schools of 5 selected districts to get an understanding of the project

and to inform the PMU staff regarding potential impacts of the project and possible mitigation measures.

Summary of issues and concerns of community with the proposed project renovation and rehabilitation work in schools and action taken is brief below in Table 5.2.

Table 5.2 Summary of Issues /Concerns of Community and Action Taken

Sr.No.	Name of Participant	Issue Raised	Action Taken / Suggested
1	Mr. Shabir Khan	There is no proper monitoring for quality work being done at schools	Director education/school principal will ensure the quality work through certified contractor.
2	Mr. AzimChaudhry Mr. FaryalNasim	Workers are not using mask while painting and scratching the walls.	The principal will provide standard protocols regarding occupational health and safety.
3	Mr. Hidayat Jabbar	The movement of vehicles sometime degrade the land scape of the schools	The school principal/contractor will not allow vehicle to come in lawn, rails or on foot paths
4	Mr. Noor Amin	The project will contaminate the drinking water and some time the workers damage the school furniture in the absence of school staff.	The contractor will manage the drinking water for workers and school principal will ensure the security of school belongings in late hours.

Sr. No.	Name of Participant	Issue Raised	Action Taken / Suggested Measures
5	Mr. Ehsan Chaudhry	Construction during school hours results in disturbance.	A mitigation plan will be provided by Principal to contractor to specify the working hours before and

			after school time.
6	Mr. Nazir Zafar	Contractor usually do-not dispose-off construction waste after completion of works.	The SMO/MO will provide guidelines for the safe collection and disposal of the waste
7	Mr. Tajamal Hussain	The vehicle spillage contaminates the surface and sometime drinking water sources.	Contractor will not allow the vehicle to unload in the premises of drinking water source, lawns and green belts.
8	Mr. Mushataq Azim Mr. Kamran Ashraf	The broken tubes, bulbs and wire some time are disposed in the vicinity of the schools.	The principal will hire certified contractor to keep an eye on the activities for the safe disposal of the trash.
9	Sadia Bibi Shahjahna Khan	Electricity is not available in most schools and load shedding is yet another issue.	Contractor/school head will arrange the alternate source of electricity.
10	Mr. Naseer Shahbaz Mr. Murad Wahid Humaira Jamil	The construction site is not confined by the contractor some time.	Contractor will display the signage for prohibited area.
11	Mr. Abdul Hameed	During construction the workers do not wash the hand while painting the walls. And eat without washing the hands	The contractor will build the capacity of the workers and will make soap available to workers for washing hands and separate toilets will be designated by the principal

5.5 CONSULTATION WITH INSTITUTIONS

Following stakeholders were consulted for the public consultation component of PHCIP:

- PSPA
- Health department
- Education Department
- Punjab Environment Protection Department
- Women Development Department

A detailed consultative meeting was held with the concerned officials of PSPA and CEOs (H) of selected 11 districts and representative of Education Department, to get an understanding of the project implementation, its potential impacts mitigation measures. At the onset of the meeting the participant of the meetings was given a detailed briefing regarding possible environmental and social impacts of the project and thereafter participants were asked to express their view and put forth the suggestions for possibly incorporating in the ESMF.

The health department agreed to mitigate the proposed impacts during the up gradation and revamping work at healthcare facilities.

Health department ensured the environment and health safety by hiring a certified contractor

The school education department also ensured for safe working condition, environment safety and pollution control. The site-specific conditions/responses from school staff were observed and mitigation measures were prepared as mention above (summery of issues, table 5.2).

5.5.1. Consultation with Environment Protection Department

The director Environment Dr. Nusrat and Deputy Director Maryam were consulted. A detail briefing was given to the EPD regarding the project benefits and outcomes. The environmental contamination and cost-effective solutions were discussed. The Director showed her concern about the drinking water quality, flora and fauna and air contamination especially during the construction, repair and maintenance. She told that provincial Environmental Quality Standards must be maintained during any activity likely to cause the potential impact. She also emphasized on worker's safety and advised the use of personal protection equipment during the working hours.

CHAPTER 6

IMPACT ASSESSMENT AND PROJECT ALTERNATIVES

This chapter assesses the potential social and environmental impacts (both positive and adverse) of the proposed project.

6.1 POSITIVE SOCIO-ECONOMIC AND ENVIRONMENTAL IMPACTS OF PHCIP

Most of the Project’s environmental and social impacts will be beneficial. Positive social and environmental impacts of PHCIP are briefed in the following table:

Table 6.1. Positive Socioeconomic and Environmental Impacts of PSNIP

Sr.#	Project Components	Social and Environmental Benefits
1.	Rehabilitation/ Refurbishment of existing BHUs /RHCs	<ul style="list-style-type: none"> • The proposed project focuses on key areas of human development along the life cycle where risks and needs are high. It aims at improving access and utilization of services, leading to increased human capital investment and better livelihood opportunities. • It addresses one of the key human development goals by incentivizing behavioral changes and use of health and nutrition services by pregnant women, mothers, and children from poor households • PHCIP also supports a service delivery platform to provide overall support to pro-poor programs in the province. • In focusing on these areas, the proposed project supports the improved efficiency and effectiveness of the social sector service delivery, so households build effectively builds resilience to risks and shocks (e.g. health risks, labor market shocks, climate-induced disasters and shocks). • The healthcare component of the project specifically focuses on the first 1000 days of life of the child. • Job creation and employment opportunities for educated youth. Skilled and unskilled labor will work on the schemes to earn money for project time period and economic activities will be developed. • There are significant non-quantifiable social benefits,

		<p>especially health related benefits.</p> <ul style="list-style-type: none"> • The decrease in morbidity rates, and infant mortality, are visible benefits. • To ensure sustainable access of masses to improved healthcare facilities will eliminate their sense of deprivation. • Inclusive facilities will reduce the work load of a family and open up educational and employment opportunities with ultimate result of poverty reduction. • Women and girls will get access to safe healthcare facilities • Access to healthcare facilities will have a very good impact on women and girls overall physical and mental health
2	<p>Strengthening the quality of Early Childhood Education (ECE) Classrooms at the existing Schools</p>	<ul style="list-style-type: none"> • PHCIP aims at improving access and utilization of services, leading to increased human capital investment and better livelihood opportunities. • It addresses incentivizing returning to school, receiving second chance skills training (e.g., adult literacy programming), and improving access to new and better jobs for improved labor force participation and increase in income for poor women and youth. • PHCIP supports a service delivery platform to provide overall support to pro-poor programs in the province. • In focusing on these areas, the proposed operation supports the improved efficiency and effectiveness of the social sector service delivery, so households build effectively builds resilience to risks and shocks (e.g. health risks, labor market shocks, climate-induced disasters and shocks). • Community Awareness on education • Job creation and employment opportunities for educated youth. • Skilled and unskilled labor will work on the schemes to

		<p>earn money for project time period.</p> <ul style="list-style-type: none"> • To ensure sustainable access of masses to improved education will eliminate their sense of deprivation.
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Besides, social and environmental impacts, following Health Benefits are also directly or indirectly associated with the project:

Savings related to seeking less health care. Health care savings are estimated as a function of treatment seeking rates, medical practices and unit costs of medical services. Medical practices include the types of treatment given for a disease and the rate of in-patient admission or referral. All these variables fluctuate by disease and country. In addition, patients and their careers incur treatment-seeking costs such as travel costs.

Savings related to productive time losses from disease. Productivity losses are estimated based on disease rates, the number of days absent from productive activities, and the unit value of productive time.

6.2. ANALYSIS OF ALTERNATIVES

The analysis of the alternatives is a part of ESMF process to select the best among all possible project options. The alternatives of a project are defined as the options that can help to meet the objectives of a project by different means including alternative project sites, technology or material, design or inputs. The key criteria when identifying alternatives is that they should be feasible and reasonable, environmentally sustainable and socially acceptable.

Selection of preferred alternative is based on scores of factors including cost, schedule of delivery, environmental and social impact and the cost for their redressal.

The drivers that affect potential alternative options and scenarios include:

- The ‘No Action’ Alternative
- Design and technologies Alternatives
- Availability of project sites,
- Environmental & social issues, their potential impacts, and costs of mitigation

6.2.1 The ‘No Action’ Alternative

The “No Action” alternative situation is taken into account to demonstrate the need of the Project. Under this alternative, the project would not be undertaken in any form. The main potential negative impacts associated with the adoption of a null alternative include the following:

People will have restricted or even further worst access to basic healthcare and early childhood education facilities. Resultantly poor maternal and child health, weak educational and economic status of women, early marriage and limited health care services will lead to poor educational and nutritional outcomes among children. A weak start in the first 1,000 days of a child’s life, followed by inadequate investment in early childhood education (ECE), limits

children’s cognitive development, which in turn lowers their school readiness and leads to poor school enrolment and learning outcomes creating a vicious cycle. A fundamental reason for poor early childhood human capital is social and economic exclusion, especially of women in poor households. Poor households have limited financial resources to allocate to children’s human capital to begin with. Food insecurity and poor water and sanitation environments, which significantly affect human capital outcomes, are also major contributors to poverty. Income-generating options for poor households are limited due prevailing labor market conditions in Punjab.

The “null” or “no action” alternative is not preferred as the project will benefit more in conjunction with fulfilling goals of basic healthcare and education facilities.

6.2.2. Design Alternatives under PHCIP

As the PHCIP sub-project do not involve any new construction and rehabilitation/refurbishment of BHUs/RHCs and ECE Classrooms will be carried out at the existing facilities, there is no need for comparison of design.

6.2.3. Availability of Project Sites

As the PHCIP sub-projects involve and rehabilitation/refurbishment of BHUs/RHCs and ECE Classrooms at the existing facilities, there is no need to consider the project sites alternatives.

6.3. ENVIRONMENTAL & SOCIAL ISSUES, THEIR POTENTIAL IMPACTS, AND MITIGATION

The potentially negative impacts will be identified with the help of E&S Screening Checklist. The generic mitigation measures have also been provided in this ESMF and additional measures may be added if ESMP will be required to prepare for any individual sub-project

It will be ensured through E&S Screening checklist that the sub-projects of PHCIP shall avoid any significant social or environmental impacts.

6.3.1. Environmental and Social Screening

These subprojects can potentially cause negative environmental and social impacts. However, exact nature, extent, and location of these subprojects are not known at this stage. The potential impacts of generic nature have nonetheless been screened using the E & S Screening Checklist(given in **Table 6.1** below and attached as Annexure A)

Table 6.1: Environmental and Social Screening

Screening Questions	Yes	No	Remarks
<p>A. Project Siting</p> <p>Is the Project area adjacent to or within any of the following</p>			

environmentally sensitive areas:			
Cultural heritage site		✓	Unlikely, as the PHCIP sub-project do not involve any new construction and rehabilitation/refurbishment of BHUs/RHCs and ECE Classrooms will be carried out at the existing facilities
Protected Area		✓	Unlikely, as the PHCIP sub-project do not involve any new construction and rehabilitation/refurbishment of BHUs/RHCs and ECE Classrooms will be carried out at the existing facilities
Wetland		✓	Unlikely, as the PHCIP sub-project do not involve any new construction and rehabilitation/refurbishment of BHUs/RHCs and ECE Classrooms will be carried out at the existing facilities
Mangrove		✓	Unlikely, as the PHCIP sub-project do not involve any new construction and rehabilitation/refurbishment of BHUs/RHCs and ECE Classrooms will be carried out at the existing facilities.
Estuarine		✓	Unlikely, as the PHCIP sub-project do not involve any new construction and rehabilitation/refurbishment of BHUs/RHCs and ECE Classrooms will be carried out at the existing facilities
Buffer zone of protected area		✓	Unlikely, as the PHCIP sub-project do not involve any new construction and rehabilitation/refurbishment of BHUs/RHCs and ECE Classrooms will be carried out at the existing

			facilities
Special area for protecting biodiversity		√	Unlikely, as the PHCIP sub-project do not involve any new construction and rehabilitation/refurbishment of BHUs/RHCs and ECE Classrooms will be carried out at the existing facilities
B. Potential Environmental Impacts Will the Project cause:			
Ecological disturbances arising from the establishment of a plant or facility complex in or near sensitive habitats?		√	Unlikely, as the PHCIP sub-project do not involve any new construction and rehabilitation/refurbishment of BHUs/RHCs and ECE Classrooms will be carried out at the existing facilities. Anyhow if any existing facility may located near sensitive habitats of ecological resources and any negative environmental impacts on it are identified in it during construction activities, then an ESMP will be prepared and detailed mitigation measure will be taken ,implemented and monitored

<p>Loss of precious ecological values (e.g. result of encroachment into forests/swamp lands or historical/cultural buildings/areas, disruption of hydrology of natural waterways, regional flooding, and drainage hazards)?</p>		√	<p>Unlikely, as the PHCIP sub-project do not involve any new construction and rehabilitation/refurbishment of BHUs/RHCs and ECE Classrooms will be carried out at the existing facilities</p>
<p>Eventual degradation of water bodies due to discharge of wastes and other effluents from plant or facility complex?</p>		√	<p>Unlikely, as the PHCIP sub-project do not involve any new construction and rehabilitation/refurbishment of BHUs/RHCs and ECE Classrooms will be carried out at the existing facilities. Anyhow the contractor and labor workers will be trained on these aspects that they do not harm any environmental resources of the sub-project area.</p>
<p>Serious contamination of soil and groundwater?</p>	√		<p>Unlikely, as the PHCIP sub-project do not involve any new construction and rehabilitation/refurbishment of BHUs/RHCs and ECE Classrooms will be carried out at the existing facilities</p> <p>Anyhow the contractor and labor workers will be trained on these aspects that they do not degrade the environmental resources of the sub-project area.</p> <p>In case, if any negative environmental impacts of significant nature are identified during construction activities, then an ESMP will be prepared and detailed mitigation measure will be taken/implemented and monitored .</p>
<p>Aggravation of solid waste problems in the area?</p>	√		<p>This aspect will be assessed while designing specific subprojects activities. It will be ensured that the subprojects do not aggravate</p>

		<p>solid waste problems in the area.</p> <p>Contractor will ensure that the solid waste generated from the labor camp and debris material will be properly disposed off at the site designated by the executing authority</p> <p>A separate document on Environmental Healthcare Waste Management Plan (EHWMP) has been developed to deal with the solid waste management issues that may be aggravated after rehabilitation an up-gradation of existing BHUs/RHCs and it will be ensured to implement in true letter and spirit</p>
<p>Public health risks from discharge of wastes and poor air quality; noise and foul odor from plant emissions?</p>	<p>√</p>	<p>Unlikely, as the PHCIP sub-project do not involve any new construction and rehabilitation/refurbishment of BHUs/RHCs and ECE Classrooms will be carried out at the existing facilities and the sub-project activities will be for a shorter period of time</p> <p>Anyhow the contractor and labor workers will be trained on these aspects and a site will be specified and designated by the project field staff for solid waste and debris collection. It will be monitored on daily basis and workers/laborers will not be allowed to throw or dump solid waste/debris etc. other than the designated site</p>

<p>Short-term construction impacts (e.g. soil erosion, deterioration of water and air quality, noise and vibration from construction equipment?)</p>	<p>√</p>	<p>As the PHCIP sub-project do not involve any new construction and rehabilitation/refurbishment of BHUs/RHCs and ECE Classrooms will be carried out at the existing facilities and civil work activities will be involved for a shorter duration.</p> <p>Anyhow all the activities will be monitored by the project staff team to ensure that proper mitigation measures are being taken</p>
<p>Environmental degradation (e.g. erosion, soil and water contamination, loss of soil fertility, disruption of wildlife habitat) from intensification of agricultural land use to supply raw materials for plant operation; and modification of natural species diversity as a result of the transformation to mono culture practices?</p>	<p>√</p>	<p>Unlikely, as the PHCIP sub-project do not involve any new construction and rehabilitation/refurbishment of BHUs/RHCs and ECE Classrooms will be carried out at the existing facilities</p> <p>Anyhow all the activities will be monitored by the project staff team to ensure that proper mitigation measures are being taken and no such activities are carried out that may degrade the environment</p>
<p>Water pollution from discharge of liquid effluents?</p>	<p>√</p>	<p>Unlikely, as the PHCIP sub-project do not involve any new construction and rehabilitation/refurbishment of BHUs/RHCs and ECE Classrooms will be carried out at the existing facilities</p> <p>Anyhow all the activities will be monitored by the project staff team to ensure that proper mitigation measures are being taken and no such activities are carried out that may degrade the environment</p>

<p>Gaseous and odor emissions to the atmosphere from processing operations?</p>		<p>√-</p>	<p>Unlikely, as the PHCIP sub-project do not involve any new construction and rehabilitation/refurbishment of BHUs/RHCs and ECE Classrooms will be carried out at the existing facilities and the duration of sub-projects activities will be for a shorter period of time</p>
<p>Accidental release of potentially hazardous solvents, acidic and alkaline materials?</p>	<p>√</p>		<p>There may be a chance of any such incident and to avoid any such accidents, First Aid boxes will be ensured by the contractor to provide at sub-project site and emergency services contacts will be also displayed at the site</p>
<p>Uncontrolled in-migration with opening of roads to forest area and overloading of social infrastructure?</p>		<p>√-</p>	<p>Unlikely, as the PHCIP sub-project do not involve any new construction and rehabilitation/refurbishment of BHUs/RHCs and ECE Classrooms will be carried out at the existing facilities</p>

Occupational health hazards due to fugitive dust, materials handling, noise, or other process operations?	√-		For the workers/laborers, use of PPEs will be made sure.
Disruption of transit patterns, creation of noise and congestion, and pedestrian hazards aggravated by heavy trucks?	√		All the civil works activities will be monitored by the project staff team to ensure that proper mitigation measures are being taken and no such activities are carried out that may degrade the environment or may create a nuisance for the local communities. Whilst for the workers/laborers, use of PPEs will be made sure.
Disease transmission from inadequate waste disposal?	√		There may be a chance of vector borne diseases due to inadequate waste disposal. To avoid it, contractor and labor workers will be trained on these aspects and a site will be specified and designated by the project field staff for solid waste and debris collection. It will be monitored on daily basis and workers/laborers will not be allowed to throw or dump solid waste/debris etc. other than the designated site
SOCIAL SCREENING			
Dislocation or involuntary resettlement of people		√	Unlikely, as the PHCIP sub-project do not involve any new construction and rehabilitation/refurbishment of BHUs/RHCs and ECE Classrooms will be carried out at the existing facilities. The up gradation of RHCs/BHUs will occur within the

			existing health care facilities. Similarly the additional class rooms will be established within the same/ existing schools. Therefore, there would be no involuntary resettlement of people and land for new rooms/classrooms will be free of encroachment
Social conflicts arising from the influx of laborers from other areas?	√		Unlikely, as the PHCIP sub-project do not involve any new construction and rehabilitation/refurbishment of BHUs/RHCs and ECE Classrooms will be carried out at the existing facilities and for the time period of short duration. Moreover, local laborers/workers will be preferred to involve in the civil works. As such chance for conflict arising from labor influx is rare. However, there will be communication outreach to users and community members on the renovation/construction before and during the civil work execution. GRM will be established at the sub projects site to resolve the public grievances and complaints
Impediments to movements of people and animals?	√		During civil works activities, there may be impediments in the movement of vehicles and or local people temporarily. To avoid this, traffic management plans will be displayed at main points and local communities will be informed about it timely.
Disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups?	√	-	Due to civil work activities, there may be temporary delay in the access to healthcare facilities. To avoid it, it will be ensured that construction activities should be performed at night hours or early morning before the official timings and all the possible mitigation measures will be adopted to avoid any delay in the access to

			<p>facilities.</p> <p>There will be communication outreach to users and community members on the renovation/ construction before and during the civil works. The outreach will also be done, particularly at health facilities, when large equipment is likely to be installed and may require additional male workers.</p> <p>GRM will be established at the sub projects site to resolve the public grievances and complaints</p>
Potential social conflicts arising from land tenure and land use issues?		√	<p>Unlikely, as the PHCIP sub-project do not involve any new construction and rehabilitation/refurbishment of BHUs/RHCs and ECE Classrooms will be carried out at the existing facilities</p>
<p>Potential Social Impacts</p> <p>Does the subproject require land acquisition for new construction?</p>		√	<p>Unlikely, as the PHCIP sub-project do not involve any new construction and rehabilitation/refurbishment of BHUs/RHCs and ECE Classrooms will be carried out at the existing facilities</p> <p>It will be ensured that land required for new rooms/classrooms at the existing facilities is free of encroachment</p>
<p>Private land</p> <p>Will the construction or installation be done on a private land? If yes, will the cost of construction or installation be shared between the project and landowner?</p>		√	<p>Unlikely, as the PHCIP sub-project do not involve any new construction and rehabilitation/refurbishment of BHUs/RHCs and ECE Classrooms will be carried out at the existing facilities</p> <p>It will be ensured that land required for new rooms/classrooms at the existing facilities is free of encroachment</p>

<p>Private donation to a group of farmers</p> <p>Will the land be obtained through private voluntary donations, provided the donation will have minimal livelihood impact on the concerned person (less than 10 percent)?</p>	<p>✓</p>	<p>Unlikely, as the PHCIP sub-project do not involve any new construction and rehabilitation/refurbishment of BHUs/RHCs and ECE Classrooms will be carried out at the existing facilities</p>
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6.4 ASSESSMENT OF POTENTIAL IMPACTS AND GENERIC MITIGATION MEASURES

The potentially negative impacts identified with the help of environmental screening discussed in Section 6.2 are assessed in the subsections below. The generic mitigation measures have also been provided here; additional measures may be added as a result of the subproject-specific environmental assessments to be carried out during the Project implementation.

6.4.1 Sub-projects Sitting (Land Use and Landform)

The revamping of healthcare facilities and renovation at schools will not include sub project siting (land use & land reforms). The renovation and up gradation will be completed within the existing structures of primary health care facilities. The schools room will be renovated, and no new construction will be carried out within the subproject.

6.4.2 Ecological Disturbances and Loss of Precious Ecological Values

The subprojects established in or near sensitive habitats such as protected areas can potentially cause ecological disturbances. This could be caused by changes in land form and habitat, habitat fragmentation, blockage of migration paths, water consumption and contamination. The impacts would be directly related to the subproject siting which is not associated the subproject implementation as mentioned in 6.3.

6.4.3 Soil and Water Contamination

The extension of health and education facilities may generate a range of waste effluents. These could include waste water from washing and cleaning operations, oils and oily water generated by machinery maintenance, leaked/spilled fuels and oils, waste effluent discharges from the processing operation, others. Uncontrolled discharges of these wastes and other effluents can potentially contaminate the soil, pollute the nearby water bodies and degrade their value for communities and ecology.

Mitigation Measures

The generic mitigation measures to address the soil and water contamination and degradation of water bodies are listed below.

- The subprojects will be designed employing technologies that are least polluting
- Fuel, oil and other chemicals will be handled and stored at the subproject facilities following the standard operating procedures, avoiding any leakage and spillage, and minimizing contamination of soil and water.
- Appropriate effluent treatment arrangements will be included in the design of the subprojects.
- Settling/retaining tanks will be constructed at the site as appropriate to minimize contaminants
- It will be ensured that the waste effluents leaving the facility comply with the NEQS attached at annex- C
- It will be ensured that the wastes are not released into any drinking water source, cultivation fields, or critical habitat.

6.4.4 Aggravation of Solid Waste Problems

The facilities to be established subprojects may potentially generate a range of solid wastes, including construction material surplus, hospital waste and municipal waste. Inappropriate disposal of these wastes can potentially aggravate the solid waste management problems in the area, while also likely to contaminate soil and water.

Mitigation Measures

The generic mitigation measures to address the solid waste management issues are listed below.

- The subprojects will be designed employing technologies that minimize generation of solid wastes.
- Recycling of solid waste will be carried out as far as possible and practical.
- Composting of biodegradable waste will be considered and adopted if practicable.
- Disposal of solid waste will be carried out in a manner that does not negatively affect the drinking water sources, cultivation fields, irrigation channels, natural drainage paths, wetlands and critical habitat, the existing waste management system in the area, local routes, and general aesthetic value of the area. The mitigation measures suggested in EHCWM shall be implemented.

6.4.5 Public Health Issues

The facilities to be established under the PHCIP subprojects may potentially cause public health issues. These issues may be related to waste discharges discussed in **Sections 6.3.3** and **6.3.4** above, and emissions (dust and smoke) from the subprojects construction activities. These waste discharges and emissions can potentially cause water contamination and leading to disease, heavy metal poisoning, respiratory disorders, and other similar ailments. In addition, foul odor and noise from these subprojects can potentially cause public nuisance.

Mitigation Measures

The generic mitigation measures to address the public health issues are listed below.

- Mitigation measures listed under **Sections 6.3.3** and **6.3.4** will address the public health issues associated with waste effluents and solid waste from the subproject facilities.
- It will be ensured that the emissions and noise from the subproject facilities comply with NEQS.
- Community consultations will be carried out as part of the subproject design activities.
- Grievance redress mechanism will be established in the area to address the public complaints regarding issues such as noise and odor from the subproject facilities.

6.4.6 Construction Related Issues

The construction of subproject facilities can potentially cause short-term environmental and social issues such as soil erosion, soil and water contamination, noise and air pollution, and safety hazards for the nearby population. These issues in turn can potentially affect the cultivation fields, soil fertility, human health, ecological degradation, and public nuisance.

Mitigation Measures

The generic mitigation measures to address the construction-related issues are listed below.

- The design of the facility and appropriate construction planning will ensure that construction activities do not cause any soil erosion or degradation. Spoils and excess soil if generated will be disposed appropriately.
- Untreated waste effluents from the construction sites will not be released to drinking water sources, cultivation fields, irrigation channels, and critical habitats. Appropriate effluent treatment arrangements such as settling tanks will be made at the site. It will be ensured that the effluents comply with NEQS.
- Construction machinery, generators, and vehicles will be kept in good working condition, minimizing exhaust emissions. It will be ensured that exhausts from these equipment and vehicles comply with relevant NEQS.
- It will be ensured that noise generated from the construction activities comply with relevant NEQS.
- All safety precautions will be taken to address safety hazards for the nearby community. These precautions may include safety/warning signage, safety barrier around the construction site, and safe driving practices.
- Community consultations will be carried out before commencing the construction activities, informing the nearby population regarding the construction activities and possible impacts such as noise and additional vehicular traffic.
- The construction contracts will include appropriate clauses to protect environment and public health. The present ESMF will be included in the bidding document.

6.4.7 Health and Safety Hazards for workers &the Community

Transportation, storage, and use and/or disposal of materials such as, fuel and other chemicals during construction and operation pose health and safety risks for the nearby community. Similarly, accidental release of potentially hazardous substances such as fuels, solvents, acidic and alkaline materials from the subproject facilities may potentially pose health and safety

hazards for the nearby population. Such activities/releases may contaminate the drinking water source and other water bodies, damage crops, degrade the soil, contaminate ambient air, and cause explosion and fire thus posing serious risks to life, health, and property of the nearby population.

Mitigation Measures

The generic mitigation measures to address the risks associated with accidental releases from the subproject facilities are listed below.

- The design of the facilities will comply with all relevant and applicable technical standards and safety codes.
- Standard operating procedures will be developed and implemented at each facility.
- Containment arrangements will be made for fuels and oils stored at the facility.
- Material Safety Data Sheet (MSDS) for each hazardous substance will be made available at each facility.
- Emergency response plans will be prepared for each facility as appropriate.

6.4.8 Occupational Health and Safety Hazards

Operation and maintenance of the subproject facilities may potentially cause occupational health and safety (OHS) risks for the workers. These risks may be associated with fugitive dust and gaseous emissions, fire and explosion, exposure to noise, electric shock, working on heights, body injuries caused by process equipment, working in confined spaces, and other similar aspects.

Mitigation Measures

The generic mitigation measures to address the OHS risks at the subproject facilities are listed below.

- The design of the facilities will comply with all relevant and applicable technical standards and safety codes to minimize occupational health and safety risks.
- The HFCs shall follow the mitigation measures as suggested in EHCWMP.
- Standard operating procedures will be developed and implemented at each facility.
- These procedures will address the OHS aspects as well.
- The facility workers will be appropriately trained in OHS aspects.
- Use of appropriate personal protective equipment (PPE) will be mandatory at the facility. The indicative list of PPEs is given below.

Table 6.2: Personal Protective Equipment According to Hazard

Objectives	Workplace hazards	Suggested PPE
Eye and face protection	Flying dust particles	Safety glasses

Head protection	Falling objects, inadequate height clearance, and overhead power cords	Plastic hard hats with top and Side impact protection
Hearing protection	Noise	Ear plugs or muffs
Foot protection	Falling or rolling objects, pointed objects	Safety shoes and boots
Hand protection	Hazardous materials	Gloves made of rubber or synthetic materials
Respiratory protection	Dust	Facemasks filters for dust Removal
Leg protection	Hazardous materials, biological agents, cuttings and lacerations.	Overalls
Protection against falls	Working on slippery, wet floors Rubber boots. Fatal falls from working at heights	Rubber boots, Safety latches, safety harness

6.4.9 Vehicular Traffic

Vehicular traffic during facility construction and operation may potentially cause congestion on the local routes, generate noise, and pose safety hazards for the local population particularly for children and elderly people.

Mitigation Measures

The generic mitigation measures to address the vehicular traffic associated with the subproject facilities are listed below.

- Depending upon the traffic volume and the condition/nature of local routes, a traffic management plan may need to be prepared.
- Community consultations will be carried out before the facility establishment.
- Community liaison will be maintained.
- Safety signage will be erected at appropriate places.
- Safe driving practices will be promoted among the drivers.

6.4.10 Impacts on Women, Children, and Vulnerable Groups

The project will generally benefit the local community for their health and education, in addition to providing employment opportunities for the local community. The interventions are unlikely to affect vulnerable groups such as poor, women and children but the vulnerable groups may not be able to take full advantage of such improved facilities.

Mitigation Measures

The generic mitigation measures to address the potential impacts on women, children and vulnerable groups are listed below.

- No discrimination with respect to religion, caste, gender, or association with any social group will be practiced in assessing the facilities.
- Communication outreach and site-level GRM will be developed
- It will be ensured that the subprojects do not have any negative impacts on women, children and vulnerable groups.

6.4.11 Influx of Workers and Employment

Construction as well as operation and maintenance of the health and education facilities will generate employment and contracting/service delivery opportunities. However, the scale of activities is not significant that may cause huge influx of labor. However, in case of some influx of workers, contractors, and service providers from outside the province resulting into possible conflicts and tension with the local communities.

Mitigation Measures

The generic mitigation measures to address the influx of workers and service providers are listed below

- Preference will be given to the local contractors, workers, and laborers.
- GRM will be put in place to amicably resolve any disputes or conflicts related to employment and service provision.
- There will be communication outreach to users and community members on the renovation/construction before and during the civil work. The outreach should also include, particularly at health facilities, when large equipment is installed and would require additional male workers.

6.4.12 Gender based Violence and Harassment

Gender Based Violence (GBV) is very common in Pakistan especially in remote areas. Due to activities of workers/laborers, women and children may have to limit their access to healthcare facilities for a limited period of time.

Impact mitigation

- All workers/laborers will be trained to respect the social and cultural norms of the area and do not interfere with the privacy of local communities.
- All the staff of healthcare facilities will be trained about GBV issues and Governmental policies and procedures to handle and report it.
- There will be information help desk to handle grievances related to GBV

6.4.13 Impacts related to Disabled Persons

Some healthcare facilities are not user friendly especially for disabled persons due to which these persons have to face lots of issues in healthcare units. There is scarcity of facilities for disabled persons. This would be a significant, negative medium-term impact

Impact mitigation

All health care facilities must be user-friendly regardless of the ages, races, gender especially to disabled persons. Following facilities for disabled persons should be ensured by the contractor during the construction/revamping work of every health care unit:

Staircase

- Tactile floor located at least 400mm before the step.
- Continuous handrails provided
- Braille inscription at the handrail

Ramp

- The ramp is free from any obstructions and anti-slip
- The ramp should at least 1200mm wide.
- There are handrails provided on both sides.
- The ramp should be of gentle gradient with landing maximum every 6 meters.

Signage

- The signage is clearly seen by all people
- The signage is marked with universal symbol
- Tactile floor located at least 400mm before the step

Entrance

- The entrance is free from any obstructions
- The entrance accessible with pathways

Parking

- The parking area is marked with universal symbol
- The parking space located near to the entrance

Toilet

- The door is accessible for wheelchair user should not less than 900mm wide
- The area of the toilet is big enough to fit the wheelchair
- Handrails provided should be at 800mm high from the floor and adjustable
- The floor should not be slippery
- Other facilities should be accessible

The wheel chairs and ramps have been proposed in the ESMP as an essential part of the up gradation so that health facilities are easily accessible for persons with disability as well. For drinking water the health facilities have already installed water filters especially at RHCs however these facilities are lacking in BHUs. In such locations provision of these facilities will be managed through hospital regular budget or through the health council's budget allocated for health facilities. The EHCWM Plan recommends for safe drinking & sanitation which will be administered through hospital's regular budget.

6.4.14 Issues with Transgender

Transgender people have had negative experiences in health care facilities, including providers and office staff who have lacked the information necessary to provide sensitive services. Discrimination in the provision of services causes transgender people to delay or avoid necessary health care, including care that is not transition-related, often to the point of putting their overall health at severe risk.

Impact mitigation

Following mitigation measures should be adopted to avoid such discriminations.

- Welcome transgender people by getting the HCF.
- Treat transgender individuals as we all would want to be treated, showing respect by being relaxed and courteous, avoiding negative facial reactions, and by speaking to transgender clients as we would with any other patient or client.
- Always refer to transgender people by the name and pronoun that corresponds with their gender identity. Use "she" for transgender women and "he" for transgender men, even if you are not in the patient's presence.
- Establish an effective policy for addressing discriminatory comments and behavior In Healthcare Facilities.
- Hospital staff should be knowledgeable about transgender health care issues. Get training, stay up to date on transgender issues, and know where to access resources.

CHAPTER 7

ENVIRONMENTAL AND SOCIALMANAGEMENT FRAMEWORK

This chapter presents the Environmental and Social Management Framework (ESMF) for the proposed project-PHCIP.

7.1 ENVIRONMENTAL AND SOCIAL SAFEGUARDS PROCESSING STEPs

Implementation of environmental and social safeguards will follow the following procedures closely linking with activity planning, design and implementation steps.

Step 1: Preliminary Environmental Information (Physical, Biological and Socio-economic baseline data collection) and Analysis.

Step 2: Preparing Environmental Assessment-using Environment & Social Screening Checklist

Step 3: If required, preparation of Environmental and Social Management Plan (ESMP) and inclusion of social and environmental mitigation costs in the Sub-project document/cost

Step 4: Environmental Clearances

Step 5: Inclusion of Environmental and social specifications and Environmental and Social Management Plan (ESMP) / Checklists in bid documents

Step 6: Inclusion of Environmental and social mitigation measures in BOQs and contractors agreement

Step 7: Compliance and Monitoring

Based on type of construction, all preliminary information analysis, Environmental Assessments, Environmental Management Plans must be completed prior to awarding of contracts for construction.

7.1.1. Subprojects Environmental and Social Screening

All activities proposed for the sub-projects shall undergo initial screening through screening of environmental and social impacts. Under ESMF, an Environmental & Social (E&S) Screening checklist is designed to identify potential impacts to be avoided or mitigated before execution of each sub-projects.

ESMF categorizes sub-projects on the basis of their nature of activities and potential impacts on environment and or on people.

Under ESMF procedures: 1: each sub-project will be screened for the severity and extent of environmental and social impacts by using E& S Checklist. **2.** Generally, sub-projects with any significant, long term or medium term irreversible environmental or social negative impact (e.g. in which large civil works of new construction like several additional classrooms or expansion of health facilities with new construction; or other additional structures at the existing facility may be involved) will be avoided to the extent possible. However, if sub-project screening will identify the potential environmental or social impacts of adverse nature, then a more detailed document i.e. Environmental and Social Management Plan (ESMP) will be prepared for that sub-project (Refer Table 7.1 below).

Some low scale potential environmental impacts are expected from the rehabilitation and up gradation of the selected BHUs and RHCs as well as Early Childhood Education (ECE) classrooms. These impacts are expected to be temporary, localized and reversible in nature.

In addition, increase in demand for services are expected due to the demand side intervention, which will likely produce more health care waste which needs to be assessed and appropriate measures introduced. Accordingly, an “Environment and Health Care Waste Management Plan (EHCWMP)” has been prepared as a separate document for hospital waste management.

To investigate any potential environmental and social impacts as a result of construction related activities and to identify generic mitigating measures, present ESMF is prepared. Since the scale of the impacts is expected to be low, the ESMF is comprised of screening, mitigation, supervision, and monitoring checklists. Based upon the E&S Checklists, following table will be used to screen the sub-projects and further documentation/safeguard instrument requirements.

Table 7.1: PHCIP Sub-Projects Social and Environmental Screening

Sr. #	Type of Sub-Project	Nature of Environmental and Social Impacts	Safeguard Instrument/Document Requirements
01	Rehabilitation /Refurbishment of BHUs / RHCs at their existing facility	May have negligible or low scale environmental and or social impacts	After E&S Screening, no further document needs to be prepared. Simple mitigation measures, if required, however will be taken as described in Chapter 6
02	Rehabilitation /Refurbishment of Early Childhood Education (ECE) Classrooms at	May have negligible or low scale environmental and or social impacts	After E&S Screening, no further document needs to be prepared. Simple mitigation measures, if required, however will be taken as

	their existing facility		described in Chapter 6
03	New construction ⁷⁷ in up-gradation/ expansion of BHUs / RHCs at existing facility	May have some negative but temporary and localized environmental and or social impacts	ESMP* will need to be prepared and further steps described in section 7.1(from step 3 to step 7) will be applicable
04	New construction ⁷⁸ in up-gradation / expansion of Early Childhood Education (ECE) Classrooms at existing facility	May have some negative but temporary and localized environmental and or social impacts	ESMP* will need to be prepared and further steps described in section 7.1(from step 3 to step 7) will be applicable
<p><i>*The revised generic ESMP (sample at Annex B) would be enough and it should be attached with the contractor's bidding documents.</i></p> <p><i>Site-specific ESMPs would need to be prepared only for large scale construction activities or development of healthcare waste disposal sites.</i></p>			

7.1.2 Integration of Environmental and Social Safeguards Management in sub-project Life Cycle

The environmental and social management procedure described in 7.1 above will be seamlessly integrated within the sub-project identification, preparation, appraisal, approval, and implementation cycle. Environmental and social screening (described in Section 7.2) will be carried out at the sub-project identification stage. If required, the sub-project-specific ESMPs will be prepared during the scheme preparation/appraisal stage. Finally, ESMPs will be implemented during the sub-project implementation stage.

7.1.2.1 Preparation of Sub-Projects

For the sub-project categorized as having negligible social and environmental impacts, no further environmental /social assessment will be needed, simple mitigation measures, if required, will however be implemented. If the sub-projects categorized as having some negative and localized social and environmental impacts, an ESMP will be prepared (generic template given in Annexure B). ESMPs will be prepared by the ES and SSS (detailed TORs of are attached as Annexure E & F respectively)

During the appraisal stage, the environmental and social appraisal shall focus on the following aspects:

⁷⁷. where an entirely new structure (construction of new rooms etc.) will be involved

⁷⁸. where an entirely new structure (construction of new class rooms) will be involved

- Compliance with regulatory requirements and clearances if required;
- Comprehensiveness of the ESMP in light of the activity specific environmental and social issues;
- Integration of environmental and social measures in to the design wherever relevant;
- Arrangements for implementation of ESMP, including institutional capacity and contractual provisions;
- Inclusion of ESMP budgets in the sub-project cost;
- ESMP monitoring and reporting arrangements;
- Adequacy of the social issues identified and suggested mitigation measure;
- Need for any legal covenant to address any specific environmental risks including regulatory risks.

The EHS and SSO will ensure that the above requirements are fulfilled.

7.1.2.2. Sub-Projects Implementation

The sub-project will be approved once all the technical requirements are fulfilled and the ESMP is cleared. As stated above, ESMPs will be cleared by the DO (Environment) of the relevant district and by the WB.

The mitigation Checklists /ESMP of each sub-project will be included in the bidding documents and the contracts. In this manner, the ESMP will be included in the overall scope of works/services and BOQs, and the contractor will implement the mitigation measures included in the ESMP alongside other works/services included under the contract.

7.1.2.3. Monitoring, Audit and Evaluation

ES and SSS will monitor the contractor to ensure complete and proper implementation of the works/services in accordance with the contract.

During this phase, the ES and SSS will conduct environmental and social monitoring to ensure that the mitigation measures given in the ESMP are effectively implemented. The environmental and social monitoring will include:

- Frequent site visits by the ES and SSS-Environmental and social monitoring to ensure effective implementation of ESMPs particularly the mitigation measures included in these documents. The monitoring will be conducted with the help of checklists prepared on the basis of the mitigation plans included in ESMPs.
- Laboratory analysis will be conducted if so, specified in the ESMPs.
- Photographic records will be maintained where applicable/useful. (sub-projects Monitoring checklist is given in Annexure H)

7.1.2.4. Third Party Validation

A sample-based Third Party Validation (TPV) will be carried out on an annual basis to evaluate the overall effectiveness of ESMF implementation for all the sub-projects financed under PSNIP. ES and SSS will ensure the hiring process as per TORs for monitoring and validation and will engage suitable entity (such as consultants/firm) for this purpose and ES and SSS will be responsible for coordination and site visits support to the TPV consultants/firm. Annexure G presents sample ToRs for this TPV.

Table 7.2: Environmental/Social Assessment and Management Process

Milestones/ Objectives	Process	Responsibility	Decision/Outcome
1. Sub-Projects Screening			
Screen from environmental and Social perspectives	The PMU at PHFMC Office will prepare the Proposal including: Environmental and Social Screening Reports based upon the Environmental & Social Screening Checklist including categorization for further documentation requirements	ES and SSS	Environmental and social categorization of scheme; Determination of type of assessment needed (ESMP or no further procedures; or no further assessment)
2. Scheme Appraisal			
Detailed Environmental and Social Appraisal	Preparation of ESMP	ES and SSS	Completed ESMP
	Review of ESMP	DO (Environment) and WB	Approved ESMP

Milestones/ Objectives	Process	Responsibility	Decision/Outcome
3. Sub-Projects Implementation			
Finalization of Contract Agreement	Include mitigation checklists/ ESMP in bidding documents and contracts	PD with the technical support of ES and SSS	ESMP included in contracts
Sub-Projects implementation	ESMP implemented alongside the other civil works	Contractor	ESMP implemented.
4. Monitoring, Audit and Evaluation			
Monitoring	Environmental and social monitoring to ensure that no negative environmental or social impacts are arisen Environmental and social monitoring to ensure effective implementation of mitigation measures included in mitigation checklists/ESMP	ES and SSS	Monitoring reports
Third Party Validation	Sample based assessment and evaluation of ESMF implementation for all sub-projects every year	ES and SSS(through outsourcing)	TPV Reports

7.1.2. Institutional Arrangements

Punjab Social Protection Authority (PSPA) through Project Director - PHCIP, would serve as the lead agency for implementing ESMF with the function of overall coordination, implementation

planning, and compliance reporting at project level. However, each implementing agency will be responsible for ESMF implementation for its respective activities with clear distinction of health and education sector interventions.

Health sector ESMF Implementation and monitoring activities will be managed by a newly established PMU working under the jurisdiction of the Punjab Health Facilities Management Company (PHFMC). CEO PHFMC will be overall responsible for effective implementation of ESMF, coordination with the PSPA and reporting for health sector ESMF compliance. He/ She will be assisted on all E&S technical matters by a dedicated team of Environmental Specialist (ES) and a Social Safeguard Specialist (SSS) who shall be hired at PMU level. These specialists will be responsible for implementation and compliance of ESMF in up-gradation activities related to civil works in BHUs and RHCs.

At district level, CEO of District Health Authority, will be the overall responsible/Focal Person (FP) for ESMF implementation at all BHUs/RHCs under his jurisdiction. He will be supported by a District Implementation Unit (DIU) formed for implementing ESMF. The DIU will comprise of two/three suitable existing staff that may include SMO, MO, Pharmacist and/or technician. DIU will be responsible for ESMF implementation, compliance and monitoring and evaluation at district level. The DIU will also conduct consultation with communities especially women and vulnerable groups.

At the facility level, head⁷⁹ of BHU/RHC will be overall responsible for implementing ESMF and will act as a focal person (FP) for E&S related issues. He will constitute a committee of two/three members of suitable existing staff to monitor ESMF compliance and producing required data/documentation for DIU. The representatives from the Building Department and of the concerned contractor will also support him in ESMF compliance with particular focus on implementing mitigation measures and training of workers.

For implementation of EHCWMP, a Health Care Waste Management Specialist (HCWMS) will be hired at PMU level. HCWMS, in collaboration with ES and SSS, will be responsible for compliance of environmental and social safeguards related to EHCWMP, coordination with District Implementation Units (DIUs), training and capacity building programs, monitoring and evaluation of EHCWMP; and generating periodic reports as required by PMU/PSPA/PSHD/WB.

Education sector ESMF Implementation and monitoring activities will be managed by PMU PHCIP at PSPA. In addition to his role of ESMF implementation at project level, Project Director-PHCIP will also be responsible for implementation of ESMF for education sector interventions. PSPA has a dedicated position for Environmental and Social Specialist (ESS) to oversee the safeguard issues. He will assist PD-PHCIP of effective implementation of ESMF and for all technical matters. The ESS will be responsible for implementation and compliance of

⁷⁹Senior Medical Officer (SMO)/Medical Officer (MO)/ In-charge Health Officer (IHO)

ESMF in up-gradation activities in existing schools. He will also be responsible for coordinating with ECE cell/unit of School Education Department for implementation and compliance of ESMF for activities related to rehabilitation/refurbishing of ECE classrooms.

At district/field level the ESMF implementation will be the responsibility of district education officers who shall act as focal persons for all safeguard related issues. The respective district officers will be supported by the exiting staff for implementing mitigation measures, if required.

The respective safeguard specialists at (both) PMUs will also be responsible for maintaining an effective GRM, handling the gender related issues stakeholders' consultation, organization of training /capacity building programs, monitoring and evaluation, coordination with field offices and hiring of consultant/s for Third Party Validation (TPV) of ESMF.

7.1.3. Monitoring and Evaluation Mechanism Under ESMF

ESMF monitoring will be carried out to ensure that the mitigation plans are regularly and effectively implemented. It will be carried out at three levels i.e.at the PMU level, district level and at field level.

Punjab Social Protection Authority (PSPA) through Project Director- PHCIP would serve as the lead implementing agency to monitor all project related functions.

PMU (PHFMC) will be responsible for monitoring and evaluation at provincial level for health related ESMF compliance with the technical support of ES, SSS and HCWMS.

District Implementation Unit (DIU) will be responsible for monitoring and evaluation at its respective district with the technical support of ES, SSS and HCWMS. DIU will also be responsible for monitoring at field level activities and sub-project sites.

7.2 ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MONITORING FRAMEWORK

The generic mitigation plan prepared on the basis of impact assessment discussed in the previous section is presented in Table 7.3. The subproject-specific mitigation plans will be implemented in combination with the generic mitigation plan. These mitigation plans will be expanded if needed and finalized once the subproject location is known. These plans will also be included in the subproject ESMPs. The relevant mitigation plans and also the site-specific ESMP will be included in the design of each subproject and included in the bidding documents of contractors.

Table 7.3 Environmental and Social Management and Monitoring Plan

S/N	Anticipated Social /Environmental Impacts	Mitigation Measures (S)	Monitoring	Responsibility	Supervision
1	Air quality deterioration due to dust emission & excavation activities	<ul style="list-style-type: none"> • Tractor loads should be covered with any suitable material. • Soil and temporary spoil piles should be covered or sprayed with water if generating dust. • Construction sites including Soil piles should be fenced to avoid material escape, generation of dust and access to children 	<ul style="list-style-type: none"> • Inspect vehicle mobility • Inspect construction site • Inspect fencing 	Contractor	SMO/MO, school FP,ES, SSS

2	<p>Surface and Ground Water Quality deterioration due to runoff from HFs /school toilet during operation</p>	<ul style="list-style-type: none"> • It will be ensured that the wastes are not released into any drinking water source, cultivation fields, or critical habitat. • Effluents from the construction sites will not be released to drinking water sources, cultivation fields, irrigation channels, and critical habitats. • Appropriate effluent treatment arrangements such as settling tanks will be made at sites. 	Inspect discharge point of toilets	Contractor	SMO/MO School FP,ES, SSS
3	<p>Surplus material /Solid Waste Management for school and health units during construction and operation.</p>	<ul style="list-style-type: none"> • Construction sites should be equipped with temporary refuse bins 	Inspect waste disposal	Contractor	SMO/MO School FP,ES, SSS
		<ul style="list-style-type: none"> • Disposal of surplus material /solid waste will be carried out in a manner that does not negatively affect the drinking water sources, cultivation fields, irrigation channels, natural drainage paths, and the existing waste management system in the area, local routes, and general aesthetic value of the area 	Inspect waste disposal		

		<ul style="list-style-type: none"> Wastes should be routinely collected from the designated area and disposed at waste disposal facilities 	Inspect waste disposal	Contractor	SMO/MO School FP,ES, SSS
4	Possible Noise emissions from running of Construction machinery.	<ul style="list-style-type: none"> Machinery operation and high noise activities should be carefully planned and scheduled. 	Inspect construction activities near Communities	Contractor	SMO/MO ES, SSS
		<ul style="list-style-type: none"> Where that is not possible, high noise activities should cease between 22:00 and 06:00 hrs. 	Inspect working hours	Contractor	SMO/MO ES, SSS
5	Occupational Health and Safety	<ul style="list-style-type: none"> WB and IFC Environment, Health and Safety (EHS)Guidelines i.e. Environmental Code of Practice (ECOPs) (attached at the end of this document as Annex I & H) will be Implemented 	Audit WBG EHS (ECOPs)guidelines provisions	SMO/MO	SMO/MO ES, SSS
		<ul style="list-style-type: none"> The construction contracts will include appropriate clauses to protect environment and public health. The Present ESMF will be included in the bidding document. 	Inspect bidding documents	Health Department	SMO/MO ES, SSS
		<ul style="list-style-type: none"> Avoid stagnation of water and initiate drainage/clean-upof stagnant water. 	Inspect construction site	Contractor	SMO/MO ES, SSS
		<ul style="list-style-type: none"> Provide for the provision of appropriately 	Inspect first aid provision	Contractor	SMO/MO

		stocked first-aid equipment at work sites;			School FPEHS, SSS
		<ul style="list-style-type: none"> Provide for the provision of appropriate personal protective equipment (PPE) to minimize risks, such as but not limited to appropriate outerwear, boots and gloves; safety helmets; 	Inspect PPEs provision	Contractor	SMO/MO/ School FP ES, SSS
		<ul style="list-style-type: none"> Provide training for workers for the use of PPE 	Check training records	Contractor	SMO/MO, School FP,ES, SSS
		<ul style="list-style-type: none"> Include procedures for documenting and reporting accidents, diseases, and incidents. 	Check procedures	Contractor	SMO/MO, School FP,ES, SSS
6	Ground Water Quality deterioration due to runoff	<ul style="list-style-type: none"> Contractor will ensure that the wastes are not released into any drinking water source, cultivation fields, or critical habitat. 	Inspect construction activities	Contractor	SMO/MO, School FP,ES, SSS
7	Impacts on Women (including GBV), Children, and Vulnerable Groups	<ul style="list-style-type: none"> It will be ensured that the subprojects do not have any negative impacts on women, children and vulnerable groups There will be communication outreach to users and community members on the renovation/construction before and during the civil work. The outreach will also include, particularly at health facilities, when large 	<ul style="list-style-type: none"> Check procedures of awareness raising and outreach activities GRM 	Contractor	SMO/MO, School FP, SSS

		<p>equipment is installed and would require some male workers.</p> <ul style="list-style-type: none"> GRM will be established at the sub projects site to resolve the public greviances and complaints Provision of information on help desk at site level facility may be ensured 	<p>monitoring</p> <ul style="list-style-type: none"> Community consultation Help desk services monitoring 		
8	Change in land use due to site clearance, pavement works	<ul style="list-style-type: none"> Public Consultation before execution of sub-project and pay compensation in case of any loss/damage to private properties 	Inspect site before and during execution	Contractor	SMO/MO, School FP, SSS
9	Air pollution due to dust from exposed surface, from construction equipment and vehicles	<ul style="list-style-type: none"> Water Sprinkling Cover material during transportation. Use of face mask while working on dust prone areas Awareness and capacity building for use of appropriate personal protective equipment (PPE) will be mandatory. 	Inspect site before and during execution	Contractor	SMO/MO, School FP, ES
10	Noise pollution during construction works, Material hauling and unloading	<ul style="list-style-type: none"> Avoid construction activities during school hours Restricted use of horn near school and settlements 	Inspect site during execution	Contractor	SMO/MO, School FP, ES
11	Solid waste generation storage deposits, excavation debris and solid waste, and waste water from camp site of labor may cause pollution	<ul style="list-style-type: none"> Location of camp site away from settlements Proper storage and disposal of chemical and materials in the area designated by the relevant executing agency. May use local labor and local houses as camp 	Inspect camp site	Contractor	SMO/MO, School FP, ES

		<p>area</p> <ul style="list-style-type: none"> In case local house is to be used as camp office, pay rent as compensation to house/land owner 			
12	Air pollution due to emission of smoke, increase in vibration and noise pollution due to operation of construction equipment's	<ul style="list-style-type: none"> All the vehicles deployed for material movement shall be spill proof to the extent possible. Equipment/Vehicles deployed for construction activities shall be monitored regularly 	<ul style="list-style-type: none"> Inspect camp site Air Quality monitoring 	Contractor	SMO/MO, School FP, ES
13	Impact on Community Infrastructure due to demolition of structures	<ul style="list-style-type: none"> Restoration or relocation of affected infrastructures. Information signboard will be placed (Such as School area, Speed limit, drive slowly) 	Inspect site during execution	Contractor	SMO/MO, School FP, ES,SSS
14	Impacts on Women (privacy and <i>pardah</i> issues) Children (restricted movements) and overall restricted mobility	<ul style="list-style-type: none"> It will be ensured that the subprojects do not have any negative impacts on women, children and vulnerable groups. Labor will be trained not to interfere with the local community Local community (especially women and children) will be informed before construction activities and entry of labor at site areas 	<ul style="list-style-type: none"> GRM monitoring Public consultation Site monitoring 	Contractor	SMO/MO, School FP, SSS
15	Odor , water quality degradation, aesthetics	<ul style="list-style-type: none"> use of infiltration gallery for effluent disposal buffer zones Simple O&M 	Inspect site during execution	Contractor	SMO/MO, School FP, ES,SSS
16	Public health risks from discharge of wastes and	<ul style="list-style-type: none"> The contractor and labor workers will be trained on these aspects 	Daily monitoring during execution	Contractor	SMO/MO, School FP,

	poor air quality and noise	<ul style="list-style-type: none"> • Site will be specified and designated by the project field staff for solid waste and debris collection. • Workers/laborers will not be allowed to throw or dump solid waste/debris etc. other than the designated site 			ES,SSS
17	Air pollution due to dust from exposed surface, from construction equipment's and vehicles	<ul style="list-style-type: none"> • Water Sprinkling • Minimizing on-site material storage • Cover material during transportation. • Use of face mask while working on dust prone areas Awareness and capacity building for use of appropriate personal protective equipment (PPE) will be mandatory. 	<ul style="list-style-type: none"> • Inspect site during execution • Air quality monitoring 	Contractor	SMO/MO, School FP, ES
19	Disruption of transit patterns , creation of noise and congestion, and pedestrian hazards aggravated by heavy trucks	<ul style="list-style-type: none"> • Workers/laborers will be ensured to use PPEs • Community information and awarnes mechanism before execution of civil works activities • Traffic management plans 	<ul style="list-style-type: none"> • Inspect during execution on daily basis 	Contractor	SMO/MO, School FP, ES
20	Impediments to movements of people and animals	<ul style="list-style-type: none"> • Traffic management plans will be displayed at main points • Local communities will be informed about it timely 	<ul style="list-style-type: none"> • Site inspection • Public consultation 	Contractor	SMO/MO, School FP, SSS
21	Accidental release of potentially hazardous solvents, acidic and alkaline materials	<ul style="list-style-type: none"> • Use of PPEs will be made sure. • Community emergency plan will be made • Rescue services contact information will be displaced at the prominent places of project execution site 	<ul style="list-style-type: none"> • Community Emergency Plan check • Site visits • First Aid 	Contractor	SMO/MO, School FP, SSS,ES

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		<ul style="list-style-type: none">• First Aid box facility will be ensure at each site	Box monitoring		
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7.3 TRAINING/CAPACITY ENHANCEMENT FRAMEWORK

To ensure the successful implementation of ESMF and compliance of the environmental and social mitigation measures, strengthening capacity of relevant technical staff and communities is essential. These training/capacity enhancement programs will lay the foundation of a self-sustainable project.

The objectives of the environmental and social trainings include providing basic knowledge and information on the key environmental and social issues associated with the proposed interventions to the key project personnel and general project staff. Trainings of the project staff and project beneficiaries will be carried out for the environmental and social management of the subprojects.

Regarding PHCIP implementation and successful compliance of ESMF, Training/Capacity Enhancement Program has 3 major components:

- Training of Project staff at PMU with respect to ESMF implementation processes and procedures
- Training of DIU staff as part with respect to ESMF implementation processes and procedures and field level implementation and compliance
- Awareness Raising and community mobilization at community level in project execution areas

Table 7.4: Framework for Training under PHCIP

Description	Aspects to be Covered	Participants	Responsibility	Frequency
Environmental and Social Management Framework (ESMF) compliance and implementation trainings	Environmental and social awareness ESMF implementation procedures /steps Key environmental and social issues associated with the project and subprojects ESMF findings Subproject-specific ESMPs and their components	Key staff responsible for PHCIP execution at PMU level	ES and SSS	Quarterly

	ESMP implementation costs and their inclusion in sub-project's cost procedures			
Environmental and Social Management Framework (ESMF) compliance and implementation trainings	<p>Environmental and social aspects</p> <p>Environmental and social safeguards awareness-WB OPs and local laws</p> <p>ESMF implementation procedures /steps</p> <p>Sub-projects screening procedures</p> <p>Key environmental and social issues associated with the project and subprojects</p> <p>ESMF findings</p> <p>Subproject-specific ESMPs and their components</p> <p>ESMP implementation costs and their inclusion in sub-project's cost procedures</p> <p>Sub-Projects specific environmental and social issues and their mitigation measure</p> <p>Sub-projects mitigation measures compliance and monitoring requirements and monitoring Checklists used in field</p>	project staff of DIU	ES and SSS	Monthly

	<p>Site-specific mitigation plans compliance</p> <p>Sub-Projects reporting and record maintaining at district level</p> <p>GRM</p> <p>Community consultation and disclosure of information</p>			
Environmental and Healthcare Waste Management Plan	Salient features of EHCWMP	<p>DIU staff</p> <p>PIU and healthcare facilities staff</p>	HCWMS	Quarterly
Awareness raising	Community Mobilization and awareness regarding healthcare facilities and access to ECE Classrooms	Sub-project beneficiaries at field level	ES and SSS	Quarterly

7.4 REPORTING AND DOCUMENTATION

A robust reporting mechanism can enable project progress to be followed up, any prevalent hindrances to program implementation to be identified and rectification measures to be setup if so required. Such a system will allow project staff and WB to track the advancement of the program and reconcile these with the overall objectives and targets of the Project.

7.4.1 Reporting & Documentation Framework

Regular and comprehensive reporting will be conducted during the subprojects execution. Project Coordinator, ES and SSS and EFPs will ensure a constant surveillance of the project progress and deliverables through preparation and submission of these reports. This will include the following:

Table 7.5: Reporting Requirements under each component

Sr.#	Type of Reporting	Frequency	Responsibility
1	Visit Reports and consultation with communities including women (with date, time, venue and photographs)	Monthly/Weekly	ES and SSS
2	Environmental and Social Screening Checklists and Screening Reports	Monthly/ Weekly	ES and SSS
3	Environmental and Social Monitoring Checklists	Monthly/ Weekly	ES, SSS and DIU
4	ESMF Progress Reports	Quarterly and biannual ⁸⁰	ES and SSS
5	TPV Reports	Quarterly	ES and SSS
6	Training reports	Quarterly	ES and SSS for ESMF and HCWMS for EHCWMP
7	ESMF Progress Annual Report	Annually	ES and SSS

7.5 STAKEHOLDERS CONSULTATION FRAMEWORK

The stakeholder consultation is a continuous process and should be carried out throughout the life of project. The consultations carried out during the present study and reported in this ESMF are essentially among the initial steps in this process. The more focused consultation or communication would be for outreach to beneficiaries/users on the construction/rehabilitation of selected districts. Information on GRM GBV resources would be provided at the occasions of consultation with the communities. During the subsequent project phases as well, participation of the project stakeholders needs to be ensured.

Table 7.6 describes the proposed consultation framework during different project phases.

80. Quarterly Progress Reports(QPRs)will be at PMU level while Biannual Progress Reports will be shared with World Bank

Table 7.6: Stakeholders Consultation Framework

Project Stage	Stakeholders	Consultation Tools	Responsibility
Project Design	Institutional Stakeholders: relevant provincial Health and Education Department and PHCIP, academia, Development Agencies, NGOs and subject experts in health and education sector	Consultative meetings/ and at least one Stakeholders Consultation Workshop with all Institutional Stakeholders to deliberate on the planned project interventions and potential environmental and social risks	PD, PMU and ES, SSS and HCWMS
	Local Communities, notables, School teachers and professionals, educated youth ,local councilors, LHWs and LHVs, and women etc.)	Focus Group Discussions (FGDs) in all districts on sub-projects activities disclosure and potential environmental and social risks project access and benefits	DIU and ES, SSS and HCWMS
	Communities from Low-Income backgrounds-laborers, tenants, low income farmers (including women and vulnerable groups)	Focus Group Discussions in all districts on potential environmental and social risks and project benefits and accessibilities	DIU and ES, SSS and HCWMS
Project Inception	Institutional Stakeholders including INGOs and Professionals	Inception Workshop for project disclosure	PD, PMU, DIU and ES, SSS and HCWMS
	Target Communities including representation from women and vulnerable groups where relevant	Focus Group Discussions in all 11 districts: Information disclosure Community Feedback GRM,	PMU, DIU and ES, SSS and HCWMS

Environmental and Social Management Framework (ESMF)

		Institutional Coordination, and M&E	
Project implementation	Beneficiaries at Local-level	Project Launching Workshop providing all relevant project details as per WB's information disclosure requirements	PMU, DIU and ES, SSS and HCWMS
	Healthcare and ECE classrooms executing field staff	Monitoring and reporting of field-level activities	PMU, DIU and ES, SSS and HCWMS
	DIU and Healthcare facilities and ECE classrooms executing field staff	Bi-monthly District-level monitoring and reporting for compliance of ESMF and environmental and social issues identified through GRM procedures	PMU, DIU and ES, SSS and HCWMS

7.6. Grievance Redress Mechanism (GRM)

7.6.1 Overview and Scope

The Grievance Redressal Mechanism proposed here in ESMF will be applicable throughout the course of project during the entire project implementation and will cater to both the directly and indirectly affected populations. This GRM is proposed as a requirement of WB GRM policy to address the public grievances regarding environmental and social issues that may emerge during and after PHCIP sub-projects implementation. It will also cater to manage any disconnects that emerge from the field level and that has significant implications for effective implementation of the sub-project interventions.

The PMU at level will serve as the Secretariat for the Grievance Redressal Committee (GRC-Directorate) that will be responsible for providing oversight on the entire GRM process at a strategic level and monitoring of complaints management.

7.6.2 Objectives of Grievance Redress Mechanism

The Grievance Redressal Mechanism (GRM) will be consistent with the requirements of the World Bank safeguard policies to ensure mitigation of community concerns, risk management, and maximization of environmental and social benefits. The overall objective of the GRM is therefore to provide a robust system of procedures and processes that provides for transparent and rapid resolution of concerns and complaints identified at the village level.

The GRM will be accessible to diverse members of the community, including women, senior citizens and other vulnerable groups. Culturally-appropriate communication mechanisms will be used at all sub-project sites both to spread awareness regarding the GRM process as well as complaints management.

Grievances may be of following types:

- Negative impacts on a person or a community (e.g. financial loss, harm or loss of property, physical harm, and nuisance) project participation and inclusiveness (consultation process, beneficiary targeting, etc.)
- Any negative impact on health and safety or the environment
- Failure of the contractors and their workers or drivers to comply with standards or legal obligations
- Harassment of any nature
- Criminal activity
- Improper conduct or unethical behavior

ESMF GRM will be integrated with the PHCIP overall project GRM hotline

At the provincial level PSPA has an existing GRM mechanism that will be utilized for this project. Health Department and SED will share compiled data of complaints with PSPA for consolidation.

The GRM Facility based focal persons (FBFPs) will be nominated at all primary healthcare facilities as well as at schools. The focal person will be nominated by the head of the health facility (RHC & BHU). Similarly, the focal person at schools will be nominated by the Deputy Director Schools. The focal persons will also be nominated at District Authorities (Health and Education). The District Focal Persons (DFPs) will have liaison with facilities based Focal Person for data sharing and reporting.

The focal person at health facilities and schools will display well prepared banner/posters/plank in national/local language. The contact numbers of the district focal persons will be displayed on the banners/posters/planks. All focal persons (DFPs and FBFPs) will be trained on GRM process. The District focal persons will maintain the record of complaints in a Complaint Register Book (CRB). The complaints will be recorded in a standard format consisting of, the complainant's contact, time, date, nature and type of the complaints. The district focal persons will lodge the complaints to the head of the health facilities (RHCs & BHUs) and schools to resolve the issues. Acknowledgement of a written submission will be issued to the complainant within three working days by FBFPs.

If the complainant is not satisfied, he/she will have the option to seek redress through Director General Health or Secretary Health and similarly the complaints from schools may also be forwarded to CEO District Education Authority, Director Public Instruction or Secretary Education. The data regarding complaints to resolve at any level will be recorded in the CRB and monthly reports will be generated by facility based focal persons and submitted to their respective District departments (DFPs). The DFPs will then forward the compiled data to PSPA through provincial departments to ensure that data related to complaints is being stored promptly and issues are being resolved at the department level.

7.7. COMMUNICATION & AWARENESS

The final processes and procedures for the GRM will be translated in to local languages (Punjabi/ Saraiki and Urdu) and disseminated at all sub-project locations. These shall be made available (in both leaflet and poster format) to all sub-project locations through the offices of each DMU.

7.8. RECORDS AND DOCUMENTATION

The Project Director's Office will maintain an electronic database at the PMU that will provide a summary of complaints received and mitigations. The PD office will also provide an analysis of the grievances at each sub-project location using a pre-designed M&E template that will give insight in to the type of complaints received and qualitative and quantitative review of grievance redressal. The PD's office will also be responsible for uploading the actions and results for each grievance for each sub-project location on a periodic basis to the

Project website. The dedicated mobile application that will be used to communicate grievances will provide the basis for recording complaints both at the provincial and district levels.

Apart from the electronic database that will be maintained at the PMU level, a manual register of all complaints and actions taken will be maintained by the Environmental and Social Focal Persons for each District at the Office of the DIU

7.9. ESMF IMPLEMENTATION BUDGET

The total cost estimated to implement ESMF is PKR 66,718,500 including PKR 40,000,000 for ESMF and PKR 26,718,500 for implementation for EHCWMP. Details of ESMF cost are provided in below Table 7. This cost will be included in the overall project cost. Additional costs could be included in the sub-project specific ESMPs.

Table 7.7: Estimated Budget for ESMF⁸¹ Implementation

Description	Cost (PKR)per year	Sub Total(PKR)
Cost of Social Safeguards Specialist ⁸²	300,000	300,000 x 60(for 5 years) = 18,000,000
Cost of Environment Specialist	300,000	300,000 x 60 (for 5 years) = 18,000,000
TPV	500,000	500,000 ×5=2,500,000
Training/Capacity Building Program	100,000	100,000×5=500,000
Miscellaneous costs / ESMP preparation	L.S.	1,000,000
Sub Total for ESMF (PKR)		40,000,000
Sub Total⁸³ for EHCWP (PKR)		26,718,500
G. Total (for SG Documents) = PKR 66,718,500		

⁸¹ Including HCWMP

⁸² HCWMS will be paid form EHCWMP budgetary allocation

⁸³ The break up is provided in EHCWMP

ANNEXURES

ANNEXURE A: ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST

Environmental Screening Checklist

Screening Questions	Yes	No	Remarks
A-Project Sitting			
Is the project area adjacent to or within any of the following environmentally sensitive areas?			
• Cultural Heritage Site			
• Protected Area			
• Wetland			
• Mangrove			
• Estuarine			
• Buffer Zone of Protected area			
• Special Area of Protecting Biodiversity			
B-Potential Environmental Impacts			
Will the project activities (rehabilitation / up-gradation / expansion of HCFs / Schools)* cause?			*Pl use the appropriate/ applicable activities and facilities
• Ecological disturbances arising from establishment of a plant or facility complex in or near sensitive habitats?			
• Loss of precious ecological values (e.g. result of encroachment into forests, swamplands or historical/cultural buildings, areas, disruption of hydrology of natural			

waterways, regional flooding, drainage hazards)?			
<ul style="list-style-type: none"> • Eventual degradation of water bodies due to discharge of wastes and other effluents from plant or facility complex? 			
<ul style="list-style-type: none"> • Serious contamination of soil and groundwater? 			
<ul style="list-style-type: none"> • Aggravation of solid waste problems in the area? 			
<ul style="list-style-type: none"> • Public Health risks from discharge of waste and poor air quality? 			
<ul style="list-style-type: none"> • Quality: noise and foul odor from plant emissions? 			
<ul style="list-style-type: none"> • Short-term construction impacts (e.g. soil erosion, deterioration of water and air quality, noise and vibration from construction equipment)? 			
<ul style="list-style-type: none"> • Environmental degradation (e.g. disruption of wildlife habitat) from intensification of agricultural land used to supply raw materials for plant operations; and modification of natural species diversity as a result of the transformation to monoculture practices 			
<ul style="list-style-type: none"> • Water pollution from discharge of liquid effluents? 			
<ul style="list-style-type: none"> • Air pollution from all plant operations? 			
<ul style="list-style-type: none"> • Accidental release of potentially hazardous solvents, acidic and alkaline materials? 			
<ul style="list-style-type: none"> • Uncontrolled in-migration with opening of roads to forest area and 			

overloading of social infrastructure?			
<ul style="list-style-type: none"> Occupational health hazards due to fugitive dust, materials handling, noise, or other process operations? 			
<ul style="list-style-type: none"> Disruption of transit patterns, creation of noise and congestion, and pedestrian hazards aggravated by heavy trucks? 			
<ul style="list-style-type: none"> Disease transmission from inadequate waste disposal? 			
C-Potential Social Impacts			
<p>Will the project activities (rehabilitation / up-gradation / expansion of HCFs / Schools)* cause?</p> <p><i>*Pl use the appropriate/ applicable activities and facilities</i></p>			
<ul style="list-style-type: none"> Dislocation or involuntary resettlement of people? 			
<ul style="list-style-type: none"> Social conflicts arising from influx of laborers from other areas? 			
<ul style="list-style-type: none"> Impediments to movements of people and animals? 			
<ul style="list-style-type: none"> Disproportionate impacts on the poor, women and children, indigenous people or other vulnerable groups? 			
<ul style="list-style-type: none"> Potential social conflicts arising from land tenure and land use issues? 			
<ul style="list-style-type: none"> Noise from construction and plant equipment? 			
<ul style="list-style-type: none"> Risks to community health and safety due to the transport, storage and/or disposal of materials such as explosives, fuels and other chemicals during construction and operation? 			

<ul style="list-style-type: none"> • Does the subproject require land? 			
<ul style="list-style-type: none"> • If yes, will the subproject cost be shared between the project and landowner? (Complete documentation will be maintained for land procurement or donation) 			
<ul style="list-style-type: none"> • Will the private land be obtained through land cost paid by the community through willing buyer-willing seller arrangement? (Complete documentation will be maintained for land procurement) 			
<ul style="list-style-type: none"> • Will the land be obtained through private voluntary donations, provided the donation will have minimal livelihood impact on the concerned person (less than 10%)? (Complete documentation will be maintained for land donation) 			
<p>Note: If any of the response requires mitigation measures, then measures suggested in the main text will be referred.</p>			

ANNEXURE B:

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)

When a subproject includes a new construction or distinct mitigation measures (physical works or management activities) and as required under sub-project screening criteria given in Chapter 7, a site specific Environmental and Social Management Plan (ESMP) needs to be prepared.

ESMP General Format/ Contents:

An ESMP will include the following components:

Description of adverse effects: The anticipated effects are identified and summarized.

Description of mitigation measures: Each measure is described with reference to the effect(s) it is intended to deal with. As needed, detailed plans, designs, equipment descriptions, and operating procedures are described.

Description of monitoring program: Monitoring provides information on the occurrence of environmental and social effects. It helps identify how well mitigation measures are working, and where better mitigation may be needed. The monitoring program should identify what information will be collected, how, where and how often. It should also indicate at what level of effect there will be a need for further mitigation. How environmental and social effects are monitored is discussed below.

Responsibilities, Capacity Development and Training: The people, groups, or organizations that will carry out the mitigation and monitoring activities are defined, as well as to whom they report and are responsible. There may be a need to train people to carry out these responsibilities, and to provide them with equipment and supplies.

Implementation schedule: The timing, frequency and duration of mitigation measures and monitoring are specified in an implementation schedule and linked to the overall subproject schedule.

Cost estimates and sources of funds: These are specified for the initial subproject investment and for the mitigation and monitoring activities as a subproject is implemented. Funds to implement the EMP may come from the subproject grant, from the community, or both. Government agencies and NGOs may be able to assist with monitoring.

Monitoring Methods:

Methods for monitoring the implementation of mitigation measures or environmental effects should be as simple as possible, consistent with collecting useful information, so that community members can apply them themselves

Methodology

The sector specific ESMPs will be prepared using the standard methodology, as briefly listed below.

- Scoping – studying the subproject details and preparing long list of potential issues and concerns
- Site surveys and data collection – recording the key environmental and social aspects of the area, identifying any environmental/social hot spots or key concerns, carrying out consultations with the community.
- Screening – on the basis of the above, short listing the key concerns and potential impacts of the subproject on environment and people.
- Impact assessment – assessing the significance of each potential impact and identifying appropriate mitigation measures. Assessment of cumulative impacts of a cluster of subprojects.
- ESMP compilation – documenting the process and outcome of the study.

ESMP Structure

The ESMP will follow the standard structure as given below.

- Introduction, including background, a brief description of the Project, an overview of the relevant legal and policy framework
- A simplified description of the subproject, including its layout and location, resource requirements, wastes to be generated, manpower requirement, a brief description of construction activities, and a brief description of operation and maintenance activities.
- Baseline description, primarily describing the proposed site and its immediate surrounding aided with maps, photographs and schematics, key environmental and social aspects/resources of the surroundings such as land form and land use, land ownership, water resources, settlements, any critical habitat or protected area, any cultural heritage sites or graveyards, any sensitive receptor such as schools and hospitals, access routes, and other relevant details.
- Stakeholder consultations, recording the key concerns and suggestions of the community regarding the subproject and its potential impacts, and a description of the way these concerns will be addressed.
- Impact assessment
- Mitigation plans, listing all the impacts, their mitigation measures, assigning responsibility of implementing these measures, and also assigning responsibility for monitoring. Also identifying cumulative impacts if applicable.
- Monitoring plan, describing the monitoring requirements, frequency, and responsibility of conducting the monitoring.
- Training plan, describing the training requirements, contents, frequency, training recipients, and responsibility of conducting these trainings.
- Documentation and reporting, describing the requirement, frequency, and responsibility of documentation and reporting.
- Grievances redress mechanism (GRM).
- ESMP implementation budget, providing the cost estimate of its implementation.

Annexure C: National Environmental Quality Standards

National Environmental Quality Standards

The National Environmental Quality Standards (NEQS), promulgated under the PEPA 1997, specify the following standards:

- Maximum allowable concentration of pollutants in gaseous emissions from industrial sources,
- Maximum allowable concentration of pollutants in municipal and liquid industrial effluents discharged to inland waters, sewage treatment and sea (three separate set of numbers).
- Maximum allowable emissions from motor vehicles.
- Ambient air quality standards.
- Drinking water standards
- Noise standards.

The above NEQS's are presented in **Tables A.1 to A.6** below. Only a few of these standards will be applicable to the gaseous emissions and liquid effluents discharged to the environment from the activities under the proposed project.

Table A.1: Selected NEQS for Waste Effluents

Parameter	Unit	Standards (Maximum Allowable Limit)
Temperature increase	⁰ C	< 3
pH value (acidity/basicity)	pH	6-9
5-day biochemical oxygen demand (BOD) at 20 ⁰ C	mg/l	80
Chemical oxygen demand (COD)	mg/l	150
Total suspended solids	mg/l	200

Total dissolved solids	mg/l	3,500
Grease and oil	mg/l	10
Phenolic compounds (as phenol)	mg/l	0.1
Chloride (as Cl)	mg/l	1,000
Fluoride (as F)	mg/l	10
Sulfate (SO ₄)	mg/l	600
Sulfide (S)	mg/l	1.0
Ammonia (NH ₃)	mg/l	40
Cadmium	mg/l	0.1
Chromium (trivalent and hexavalent)	mg/l	1.0
Copper	mg/l	1.0
Lead	mg/l	0.5
Mercury	mg/l	0.01
Selenium	mg/l	0.5
Nickel	mg/l	1.0
Silver	mg/l	1.0
Total toxic metals	mg/l	2.0
Zinc	mg/l	5
Arsenic	mg/l	1.0
Barium	mg/l	1.5
Iron	mg/l	8.0
Manganese	mg/l	1.5
Boron	mg/l	6.0

Chlorine	mg/l	1.0
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Notes:

1. The standard assumes that dilution of 1:10 on discharge is available. That is, for each cubic meter of treated effluent, the recipient water body should have 10 m³ of water for dilution of this effluent.
2. Toxic metals include cadmium, chromium, copper, lead, mercury, selenium, nickel and silver. The effluent should meet the individual standards for these metals as well as the standard for total toxic metal concentration.

Source: Government of Pakistan (2000) (SRO 549 (I)/2000).

Table A.2: NEQS for Industrial Gaseous Emissions

Parameter	Source of Emission	Standards (Maximum Allowable Limit)
Smoke	Smoke opacity not to exceed	40% or 2 Ring Lemann Scale or equivalent smoke number
Particulate matter ¹	(a) Boilers and furnaces: i. Oil fired ii. Coal fired iii. Cement Kilns	 300 500 300
	(b) Grinding, crushing, clinker coolers and related processes, metallurgical processes, converters, blast furnaces and cupolas	500
Hydrogen Chloride	Any	400
Chlorine	Any	150
Hydrogen fluoride	Any	150
Hydrogen sulphide	Any	10
Sulphur Oxides ^{2,3}	Sulfuric acid/Sulphonic acid plants	5,000
	Other Plants except power Plants operating on oil and coal	1,700
Carbon Monoxide	Any	800
Lead	Any	50
Mercury	Any	10
Cadmium	Any	20

Arsenic	Any	20
Copper	Any	50
Antimony	Any	20
Zinc	Any	200
Oxides of Nitrogen ³	Nitric acid manufacturing unit	3,000
	Other plants except power plants operating on oil or coal:	
	i. Gas fired	400
	ii. Oil fired	600
	iii. Coal fired	1,200

Explanations:

1. Based on the assumption that the size of the particulate is 10-micron or more.
2. Based on 1% Sulphur content in fuel oil. Higher content of Sulphur will cause standards to be pro-rate.
3. In respect of emissions of Sulphur dioxide and nitrogen oxides, the power plants operating on oil and coal as fuel shall in addition to NEQS specified above, comply with the standards provided separately.

Source: Government of Pakistan (2000) (SRO 549 (I)/2000).

Table A.3: National Environmental Quality Standards for Ambient Air

Pollutants	Time-weighted Average	Concentration in Ambient Air		Method of Measurement
		Effective from 1 st July 2010	Effective from 1 st January 2013	
Sulfur Dioxide (SO ₂)	Annual Average*	80 µg/m ³	80 µg/m ³	Ultraviolet Fluorescence
	24 hours**	120 µg/m ³	120 µg/m ³	
Oxides of Nitrogen as (NO)	Annual Average*	40 µg/m ³	40 µg/m ³	Gas Phase Chem luminescence
	24 hours**	40 µg/m ³	40 µg/m ³	
Oxides of Nitrogen as (NO ₂)	Annual Average*	40 µg/m ³	40 µg/m ³	Gas Phase Chem luminescence
	24 hours**	80 µg/m ³	80 µg/m ³	
Ozone (O ₃)	1 hour	180 µg/m ³	130 µg/m ³	Non dispersive UV absorption
Suspended Particulate Matter (SPM)	Annual Average*	400 µg/m ³	360 µg/m ³	High Volume Sampling, (Average flow rate not less than 1.1 m ³ /minute).
	24 hours**	550 µg/m ³	500 µg/m ³	
Respirable Particulate Matter. PM ₁₀	Annual Average*	200 µg/m ³	120 µg/m ³	β Ray absorption
	24 hours**	250 µg/m ³	150 µg/m ³	
Reparable Particulate Matter. PM _{2.5}	Annual Average*	25 µg/m ³	15 µg/m ³	β Ray absorption
	24 hours**	40 µg/m ³	35 µg/m ³	
	1 hour	25 µg/m ³	15 µg/m ³	

Lead (Pb)	Annual Average*	1.5 $\mu\text{g}/\text{m}^3$	1.0 $\mu\text{g}/\text{m}^3$	ASS Method after sampling using EPM 2000 or equivalent Filter paper
	24 hours**	2.0 $\mu\text{g}/\text{m}^3$	1.5 $\mu\text{g}/\text{m}^3$	
Carbon Monoxide (CO)	8 hours**	5 mg/m^3	5 mg/m^3	Non-Dispersive Infra-Red (NDIR)
	1 hour	10 mg/m^3	10 mg/m^3	

*Annual arithmetic mean so f minimum 104 measurements in a year taken twice a week 24 hourly at uniform interval.

** 24 hourly /8 hourly values should be met 98% of the in a year. 2% of the time, it may exceed but not on two consecutive days.

Source: Government of Pakistan (2010) (SRO 1062 (I)/2010).

Table A.5: National Standards for Drinking Water Quality

Properties/Parameters	Standard Values for Pakistan
Bacterial	
All water intended for drinking (E.Colior Thermo tolerant Coli form bacteria)	Must not be detectable in any 100 ml samples
Treated water entering the distribution system (E.Colior thermo tolerant coli form and total coli form bacteria)	Must not be detectable in any 100 ml samples
Treated water in the distribution system (E.Coliorthermo tolerant coliform and total coliform bacteria)	Must not be detectable in any 100 ml samples In case of large supplies, where sufficient samples Are examined, must not be present in 95% of the samples taken throughout any 12-month period.
Physical	
Color	≤15 TCU
Taste	Non objectionable/Accept able
Odor	Non objectionable/Accept able
Turbidity	< 5 NTU
Total hardness as CaCO ₃	< 500 mg/l
TDS	< 1000
pH	6.5 – 8.5
Chemical	
<i>Essential Inorganic</i>	<i>mg/Litre</i>

Aluminum (Al)	≤0.2
Antimony (Sb)	≤0.005 (P)
Arsenic (As)	≤ 0.05 (P)
Barium (Ba)	0.7
Boron (B)	0.3
Cadmium (Cd)	0.01
Chloride (Cl)	<250
Chromium (Cr)	≤0.05
Copper (Cu)	2
<i>Toxic Inorganic</i>	<i>mg/Litre</i>
Cyanide (Cn)	≤0.05
Fluoride (F)*	≤1.5
Lead (Pb)	≤0.05
Manganese (Mn)	≤ 0.5
Mercury (Hg)	≤0.001
Nickel (Ni)	≤0.02

Properties/Parameters	Standard Values for Pakistan
Nitrate (NO ₃)*	≤50
Nitrite (NO ₂)*	≤3 (P)
Selenium (Se)	0.01 (P)
Residual chlorine	0.2-0.5 at consumer end; 0.5-1.5 at source
Zinc (Zn)	5.0
Organic	
Pesticides mg/l	PSQCA No. 4639-2004, Page No. 4 Table No. 3 Serial No. 20- 58 may be consulted.**
Phenolic compound (as phenols) mg/l	WHO standards: ≤ 0.002
Polynuclear Aromatic hydrocarbon (as PAH) g/L	WHO standards: ≤ 0.01v(by GC/MS method)
Radioactive	
Alpha Emitters bq/L or pCi	0.1
Beta Emitters	1

* Indicates priority health related inorganic constituents which need regular monitoring.

** PSQCA: Pakistan Standards Quality Control Authority. Source: Government of Pakistan (2010) (SRO 1063(I)/2010).

Table A.6: National Environmental Quality Standards for Noise 27

Limit in dB(A) Leq *

Category of Area/Zone	Effective from 1 st July 2010		Effective from 1 st July 2012	
	Day time	Night time	Day time	Night time
Residential area	65	50	55	45
Commercial area	70	60	65	55
Industrial area	80	75	75	65
Silence zone	55	45	50	45

Notes:

1. Day time hours: 6:00 a.m. to 10:00p.m.
2. Night time hours: 10:00 p.m. to 6:00a.m.
3. Silence zone: Zones that are declared as such by the competent authority. An area comprising not less than 100 m around the hospitals, educational institutions, and courts.
4. Mixed categories of areas may be declared as one of the four above-listed categories by the competent authority.

* dB(A) Leq: Time weighted average of the level of sound in decibels on Scale A which is relatable to human hearing.

Source: Government of Pakistan (2010) (SRO 1064(I)/2010).

ANNEXURE D: COMMON FLORA AND FAUNA IN PUNJAB

Common Flora in Project Districts

Local Name	Scientific Name	Uses
Trees		
Peepal	<i>Ficus religiosa</i>	
Keekar	<i>Acacia nilotica</i>	Bark is astringent and used in diarrhea. Gum and immature pods are useful in sexual impotency and leucorrhoea. Bark decoction are recommended in toothache and swollen gums. Powder of ash is used as tooth powder.
Shetoot	<i>Morus Nigra</i>	Used for treatment of kidney disorders, fatigue, anemia and premature hair graying.
Berry	<i>Melia azedarach</i>	
Sheesham	<i>Dalbergia sisso</i>	The plant is used in treatment of leprosy, jaundice, gonorrhoea and syphilis etc.
Dates	<i>Phoenix dactylifera</i>	
Safeda	<i>Eucalyptus citriodora</i>	The buds of Safeda are antiscorbutic, antiseptic, balsamic, diaphoretic, diuretic, expectorant, febrifuge, salve, stimulant, tonic and vulnerary. They are taken internally in the treatment of bronchitis and upper respiratory tract infections, stomach and kidney disorders
Dhrek	<i>Melia azedarach</i>	

Common Fauna in Project Districts

#	Local Name	Scientific Name
	Jackal	<i>Canis Aureus</i>
	Indian Grey Mongoose	<i>Herpestes edwardsi</i>
	Jungle Cat	<i>Felis chaus</i>
	Civet Cat	<i>Viverricula indica</i>
	Desert Cat	<i>Felis margarita</i>

	Wild Hare	<i>Lepus nigricollis</i>
	Hog Deer	<i>Axis porcinus</i>
	Indian /Bengal Fox	<i>Vulpes bengalensis</i>
	Chinkara	<i>Gazella gazella</i>
	House Mouse	<i>Mus musculus</i>
	Indian Wild Boar	<i>Sus scrofa</i>
	Indus Dolphin	<i>Platanista indica</i>
	Fishing Cat	<i>Prionailurus viverrinus</i>
	Indian crested porcupine	<i>Hystrix cristatus</i>
<i>Avifauna</i>		
	Houbara bustard	<i>Chlamydotis undulata</i>
	Black Partridge	<i>Francolinus francolinus</i>
	Grey Partridge	<i>Perdix perdix</i>
	Pea Fowl	<i>Pavo cristatus</i>
Endangered Species		
	Marsh Crocodile	<i>Crocodylus palustris</i>
	Beaked Sea Snake	<i>Enhydrina schistosa</i>
	Pangolin	<i>Manis crassicaudata</i>
	Honey Badger	<i>Mellivora capensis</i>
	Indian Grey Mongoose	<i>Herpestes edwardsi</i>
	Jungle Cat	<i>Felis chaus</i>
	Civet Cat	<i>Viverricula indica</i>
	Desert Cat	<i>Felis margarita</i>
	Wild Hare	<i>Lepus nigricollis</i>

FORESTS IN PROJECT DISTRICTS

Table 1: Bahawalpur Forest District

Serial #	Name of Sub Division/Range	Name of Forest	Total Area/Acres
1	Bahawalpur Range	Shahi Wala	2979
Total			2979

Table2: Dera Ghazi Khan Forest District⁸⁴

⁸⁴ .http://spfc.org.pk/project_areas/dg-khan.php

Serial #	Name of Sub Division/Range	Name of Forest	Total Area/Acres
1	Taunsa Range	Rind Wala	1010
2		Triman	4639
Total			5649

Table 3: Muzaffargarh Forest District⁸⁵

Serial #	Name of Sub Division/Range	Name of Forest	Total Area/Acres
1	Muzaffargarh Sub Division	Sarian	5070
2		Bait Qaim Shah	1278
3		Serwani	1509
4	Ghazi Ghat Sub Division	Ghazi Ghat	2106
5		Ahmad Mohana	2370
6		Sohni	696
7		Eason Wala	7072
8	Jatoi Range	Bakaini	1998
9		Bait Mir Hazar	3614
10		CheenaMalana	4180
11	Khanpur Range	Khanpur	31555
12		Ali Wali	4629
13		Latti	715
14		Eastern Ghirri	690
15		Middle Ghirri	337
16		Khannani	720
17		Bait Dewan	3164
18		Dhaka I & II	2302
19		Khairpur Para I, II & III	1014
20		Baqir Shah	2341
21		Mohib Shah	628

⁸⁵ .http://spfc.org.pk/project_areas/muzaffargarh.php

22		DamberWala	2612
Total			80600

Table 4: Rahim Yar Khan Forest District⁸⁶

Serial #	Name of Sub Division/Range	Name of Forest	Total Area
1	Abbasia Sub Division	Abbasia	6749
2	Walhar Range	Walhar	4632
3	Q. Wala	---	5763
4	Rahim Yar Khan	IL / Abbasia	8400
5		IL / IL Abbasia	5212
Total			30756

Table 5: Rajanpur Forest District⁸⁷

Serial #	Name of Sub Division/Range	Name of Forest	Total Area
1	Rajanpur Sub Division	Noor pur (West)	296
2	Jampur Range	RakhNoshra	91
3		RakhKhanwah	1827
4		KotlaSher Muhammad	2941
5		Bait Bagh Shah	2127
6		ThulMenghraj	3084
7		RakhAzmatWala	2034
8		RegistanShumali	3180
9		RegistanPachadi	
Total			15580

ANNEXURE E: SAMPLE TORS FOR ENVIRONMENT SPECIALIST (ES)

1. Dealing with the environmental aspects of the ESMF and implementation of its

⁸⁶ .http://spfc.org.pk/project_areas/ry-khan.php

⁸⁷ .http://spfc.org.pk/project_areas/rajanpur.php

procedures and processes during the course of project accordance with hospital waste management rules, 2014.

2. Update in Implementation of Environmental aspects of the project.
3. Implementation of all environment aspects including environmental screening and filling the screening checklists for each subproject to be undertaken under the project.
4. Supervising and supporting IAs in achieving their responsibilities as outlined in the ESMF and subsequent Checklists;
5. Carrying out frequent field visits and conduct monitoring for effective ESMF implementation
6. Identifying and assist in preparing environmental induction and training materials;
7. Conduct/manage ESMF trainings for the IA(s),
8. Responding to environmental incidents as required;
9. Preparing quarterly progress reports for submission to World Bank and other stakeholders.
10. Provide technical support to implementing IAs in the development of site specific ESMPs
11. Coordinate with implementing agencies IAs for onsite implementation.
12. Organize and conduct the trainings on ESMF compliances as proposed in mitigation plan.
13. Prepare monthly, quarterly progress reports of Environment and Social Management Framework (ESMF).
14. Prepare final progress report of the ESMF and submit to the World Bank.
15. Ensure the Health Safety and Environment (HSE) compliance onsite by the civil works consultants / contractor at project sites.
16. Coordinate and conduct Environmental Field Monitoring visits of Project Areas.
17. Review and revision of documents and ensuring timely delivery of outputs as agreed with The World Bank.
18. As and when required contribute to the ongoing activities of the safeguard unit.

19. Assist the Project Director in routine office matter when require.
20. Work as the focal point for World Bank to provide necessary requirements of environmental compliances within the project.

REQUIRED QUALIFICATION AND EXPERIENCE:

Masters in Environmental Sciences/Environmental Engineering from a HEC recognized university; More than 8 years of relevant experience in dealing with environment management and implementation in environmental health related projects preferably in WB funded projects; have sound knowledge of local laws/policies on environmental management ,Environmental OPs of WB and their compliance in field including ESMF procedures and processes; monitoring and compliance of environmental mitigation measures and OHS practices during projects execution and implementation.

ANEEXURE F: SAMPLE TORS FOR SOCIAL SPECIALIST (SS)

1. Dealing with the social aspects of the ESMF and implementation of its procedures and processes during the course of project in Bank's social safeguards policies.
2. Update in Implementation of social aspects of the project.
3. Implementation of all social aspects including social screening and filling the screening checklists for each subproject to be undertaken under the project.
4. Supervising and supporting IAs in achieving their responsibilities as outlined in the ESMF and subsequent Checklists;
5. Carrying out frequent field visits and conduct monitoring for effective ESMF implementation
6. Identifying and assist in preparing social induction and training materials; conduct/manage ESMF trainings for the IA(s),
7. Closely work with Environmental Health & Social Safeguard Specialist for the implementation of the subproject.
8. Preparing quarterly progress reports for submission to World Bank and other stakeholders.
9. Provide technical support to implementing IAs in the development of site specific ESMPs
10. Coordinate with implementing agencies for onsite implementation.
11. Organize and conduct the trainings on ESMF compliances as proposed in mitigation plan.
12. Prepare monthly, quarterly progress reports on Social Management Framework (ESMF).
13. Prepare final progress report of the ESMF and submit to the World Bank.
14. Ensure the Health Safety and Environment (HSE) in collaboration with Env. Specialist & compliance onsite by the civil works consultant/ contractor at project sites.
15. Coordinate and conduct Field Monitoring visits of Project Areas.
16. Review and revision of documents and ensuring timely delivery of outputs as agreed with The World Bank.
17. As and when required contribute to the ongoing activities of the safeguard unit.
18. Assist the Project Director in routine office matter on proposed subject when required.

REQUIRED QUALIFICATION AND EXPERIENCE:

Master's Degree, or equivalent, in Anthropology, Sociology, Applied Social Sciences/ from a HEC recognized university; More than 5 years of relevant experience in safeguard work or related areas dealing with social management and implementation in health related projects preferably in WB funded projects; have sound knowledge of local laws/policies on social management, OPs of WB and their compliance in field including ESMF procedures and processes; monitoring and compliance of social mitigation measures.

ANNEXURE G

TERMS OF REFERENCES FOR TPV

PURPOSE

The purpose of this assignment is to verify the implemented process regarding the hospital waste management in health care facilities of 11 districts for the sake of disbursement agreed with World Bank.

OBJECTIVES

The overall objective of this assignment is to validate whether the results as reported for the subproject has been achieved.

The specific objectives are to validate that:

- 1. Hospitals have prepared plans to implement the set of standard (SOPs) for the safe collection, storage and final disposal of health care waste.
- 2. Daily waste generation record, reporting system, documentation & communication.
- 3. Hospitals have dedicated waste management team, Health care supplies.
- 4. Complaint Management system and social safeguard process are in place

OUTPUT/DELIVERABLES

- Inception report
- Study methodology, design and tools/questionnaires.

Study assessment analysis plan

- Mid term report (brief)
- Draft Study Report

SCOPE OF TPV

The TPV will cover all target districts of the Punjab province. It will assess:

Verify Medical Waste Management Plan is being implemented at all selected Primary Healthcare Facilities

with the Medical waste management plan as defined in the Pakistan Hospital Waste Management Rules 2014. The Medical waste management plan is being implemented at each selected health facility. "Implementation means functioning system at each of selected 166 BHUs & 17 RHCs in 11 districts (i) medical waste management committee, (ii) segregation of medical waste, (iii) disinfection of infectious/hazardous waste generated by the health facility (iv) proper disposal of medical waste as required under the Punjab Hospital Waste Management Rules, 2014, and (v) medical waste management documentation and reporting.

SAMPLING STRATEGY

166 BHUs and 17 RHCs hospital reported to be implementing Medical Waste Management Plan.

ESTIMATED SAMPLE SIZE

All Targeted healthcare facilities would be selected to verify against the set of indicators for the safe collection, storage, transportation and final disposal of the waste.

PRINCIPLES UPON WHICH THE TPV SHOULD BE DESIGNED AND IMPLEMENTED

It should provide objective, quantifiable data which can be used to compare reported and validated figures.

CAPACITY BUILDING OF GOVERNMENT

One of the objectives of this assignment is to build technical capacity within Go Pb to repeat the TPV itself on six monthly basis including funding, contract management for data collection if necessary, data analysis, report writing and updating the dashboard.

MANAGEMENT OF THE TPV

The PD PHFMC and ES will remain associated with the assessment through the entire period. This will help to improve the quality of assessment as well as build the capacity of the team from the DoH to carry out subsequent assessments. The team will report to PD PHFMC, Department of Health, and Government of the Punjab. The consultant will be contracted by PD PHFMC. The ES will supply relevant documents from his records and arrange meetings for the consultant & team. The outputs should be submitted to PD PHFMC.

Proposed TEAM: A team comprising of four persons:

Team Lead	01
Research Associate	03

TEAM LEADER

The team leader will have overall responsibility for the TPV. Main responsibilities will include:

- Finalization of assessment design and guidelines
- Drafting of questionnaires and tools for data collection with support from the EHS.
- Drafting assessment guidelines with support from core team
- Training surveyors for data collection
- Follow-up with key stakeholders
- Finalize the analysis plan
- Doing statistical analysis
- Leading the process of report writing and dissemination

QUALIFICATION/EXPERIENCE:

Master's in environmental sciences/Social Sciences/Public health/ (10-15 years) with experience in health systems assessment and experience as team leader, questionnaire development, analysis, report writing, dissemination etc.

- Liaison with all stakeholders and coordinate logistics for the core team Manage record including field data, timelines and invoices.

- Develop a survey plan including data management and a monitoring system along with a time frame for the data collection process based on the proposed methodology.
- Conduct pre-testing of data collection tools and share the pre-tested forms with core team and conduct the data collection using the finalized translated questionnaires by conducting interviews with the sampled individuals and within sampled health facilities in these selected districts as per the given methodology.

TIMELINE

REGULATION OF TPV REPORT/ACCEPTANCE CRITERIA

PD PHFMC will notify a committee for the timely completion of the reports and analysis of the data/results that would be submitted by the consultant.

The approval of final draft would be made by PD PHFMC after detail analysis and report will be submitted to bank.

ANNEXURE H:

Field Monitoring Checklist for Environmental & Social Management Plan

Sr. No.	Description	Yes	No	Comments
Traffic Management Plan				
1	Fuel or oil leaks observed from any vehicle?			
2	Are Contractor's vehicles exceeding speed limits on public highways?			
3	Are barricades, flag men & signs provided where haulage			
4	Is mud observed on route ways?			
5	Are ruts & scars resulting from the Contractor's operations observed?			
6	Are delivery vehicles queuing on public highways?			
7	Are vehicle overloaded?			
8	Is water sprinkling is being carried out at project area?			
9	Are public highways blocked?			
10	Are any vehicle exceeding 40km/ hr onsite?			
Health and Safety				
11	Has a health & Safety induction been provided to all staff starting this month?			
12	Is any staff under the age of 18?			
13	Are first aid stations/kits available at all camp and construction sites?			
14	Have there been any incident/accidents in this month?			

	<ul style="list-style-type: none"> • Was the accident recorded? • Have measures been taken/practice improve corrective actions reports are prepared to prevent the accident reoccurring? 			
15	Is staff wearing all necessary PPFs?			
16	Adequate number of fire extinguishers available at all camp site?			
17	Appropriate barricade, fencing erected at working areas/ construction site?			
18	Accident/incident, near misses record register available site and properly reported with corrective actions?			
19	Guard rails or equivalent protection erected (at height or excavations) to stop falls?			
20	Is construction site is free from trip hazards?			
21	Is construction site is free from trip hazards?			
22	Scaffolds/work platforms properly erected?			
23	Use of harness belt?			
24	Signage's displayed?			
25	Emergency drills conducted?			
26	Emergency telephone numbers displayed?			
27	All staff aware of the emergency procedures?			
28	Broken plugs, sockets, switches observed?			
29	Frayed or defective lead observed?			
30	Is work being carried out near exposed live electrical equipment's?			
31	Storage material Labeled correctly?			
32	Material data sheet available?			
33	Danger of falling object?			

34	Drums stacks stable?			
35	Training Records available?			
36	Warning notices in place to stop people using an incomplete scaffold or telephone			
37	Individual employees from working in excavations are unsupervised?			
38	Are workers protected from the moving parts of the machine by installing and maintaining proper guards?			
39	At least one first aid kit is provided and kept stocked at all time at Structural site?			
40	Has all new staff signed the Code of Conduct?			
Waste Management and Disposal Plan				
1	Is waste stored in areas defined in the waste management plan?			
2	Is hazardous material safely and securely stored in designated storage areas?			
3	Was any waste observed littering the site?			
4	Are containers segregated according to waste type?			
5	Is solid waste being disposed of in the approved site by the engineer?			
6	Are sanitary waste are safely disposed of through burial?			
7	Has any hazardous waste been disposed of through burial?			
8	Where any waste material is disposed of through burning, have all charred remains been removed			
9	Is liquid waste entering water courses?			
10	Is adequate number of waste bins provided at all camp and construction site?			
11	Is the waste disposal burial area fenced?			

12	Is sufficient number of waste bins provided at camp and working sites?			
Pollution Prevention and Control				
1	Is cement dust spreading from the batching plant or storage areas during refilling?			
2	Are plant and equipment being washed down outside the designated wash down areas?			
3	Are fire extinguishers available?			
4	Are plant & vehicle refilling only in designated and bunded areas or are drip tray used?			
Contractor Camp Sites				
1	Are gas cylinders at labor camps provided for cooking purpose?			
2	Is stagnant water accumulating in the camp sites?			
3	Is reliable electricity and lighting supplied in the labour camps?			
4	Are washing facilities including showers are provided and regularly cleaned?			
5	Is a sheltered kitchen area provided which is separated from living quarters?			
6	Are vehicles parked in designated parking areas at camp site?			
7	Water sample test being conducted of each water source from approved laboratory?			
8	The water samples tested are safe for drinking water purpose?			
9	All water storage tanks are covered to avoid the risk of contamination?			
10	Are there any chemicals (waste oil, petrol, solvent) near to the drinking water point?			
11	Are the latrines more than 50 feet away from water drinking			

	point?			
12	Are fire extinguishers available at all camp site?			
13	Are fire extinguishers periodically inspected and replaced prior to expiry			
14	Are fire extinguisher easily accessible and their path clear			
15	Is contractor staff using local wells or hand pumps?			
16	Are septic provided for the disposal of sewage waste?			
17	Is fencing provided and maintained around camp site?			
18	Are security guards present at project sites?			
19	Is ground water entering the landfill site?			
20	Is recycle waste or medical waste disposed of in the camp site?			
21	Is first aid box/kit facility available at camp sites?			
22	Have littered waste been observed at camp site?			
23	Are emergency accesses routes in all campsites are signed and maintained?			
24	Floors to room are constructed of float finished concrete or other similar solid or washable material?			
25	All Labor dormitories and kitchen areas are regularly cleaned and maintained in hygiene condition?			
26	Are kitchen areas are built up/raised of smooth, easily cleanable, non-toxic and non-corrosive surface for food preparation?			
27	Are agreement with operator of municipal facilities where are used for ultimate disposal of sanitary waste			
Storage Areas				
1	Are storage areas built above flood levels and on leveled ground?			
2	Are any materials stored outside designated storage areas?			

3	Are all storage areas clearly labeled and each of the container are clearly marked?			
4	Are stockpiles of construction materials being eroded by wind?			
5	Are construction materials entering watercourses, drains or being spread along transport routes?			
6	Are storage areas built near to watercourses, drains and transport routes?			
7	Are stock pile are regularly sprinkle which have potential to particulate matter in the locality?			
8	Is the hazardous material storage area secured, and locked when not in use?			
9	Are warning signs displayed at entrances to hazardous material stores and are necessary PPE depicted?			
10	Is the floor of the hazardous material storage area impervious and is a bund provided around it?			
11	Is necessary PPE used when handling hazardous materials?			
12	Are any leaks or spills observed in storage areas?			
13	Are spill kits provided at storage areas?			
14	Are fire extinguishers provided at hazardous material storage areas?			
15	Is fuel stored in a double skinned bowser or surrounded by abandon an impervious floor?			
16	Is storage area constructed on impervious floor and dike provided to avoid contamination of soil and ground?			

ANNEXURE I: World Bank HSE Guidelines

The Contractor shall implement their plan, and in particular, no staff will be allowed to enter the site that has not undergone induction training. The Contractor shall ensure employees are trained in the proper use of equipment in their care. In addition, adequate Personal Protective Equipment (PPE) shall be provided to all workers. A qualified doctor and paramedic shall be engaged by the contractor on site along with adequately equipped and properly staffed portable first aid stations.

Item	Activity	Guidelines
<p>Guidelines on Health and Safety</p>	<p>Safety Measures</p>	<ul style="list-style-type: none"> • Provide appropriate type of firefighting equipment suitable for the construction camps • Display emergency contact numbers clearly and prominently at strategic places in camps. • Communicate the roles and responsibilities of laborers in case of emergency in the monthly meetings with contractors. • Availability of fire extinguishers inside the camps. • Provide appropriate security personnel (police /home guard or private security guards) and enclosures to prevent unauthorized entry in to the camp area. • Encourage use of flameproof material for the construction of labor housing/site office. Ensure that these houses/rooms are of sound construction and capable of withstanding storms/cyclones.
	<p>Health and Hygiene</p>	<ul style="list-style-type: none"> • Provide adequate health care facilities within camp sites. • Provide first aid facility round the clock. Maintain stock of medicines in the facility and appoint a doctor on site. • Provide adequate drainage facilities throughout camps to ensure that disease vectors habitats (stagnant water bodies, puddles) do not form.

		<ul style="list-style-type: none"> • Place display boards at strategic locations within the camps containing messages on best hygienic practices • Provide transport facility for the laborers during emergency to be transported to nearest hospitals
	<p>Fire Prevention</p>	<p>The purpose of Fire Prevention plan, as part of emergency evacuation plan, is to provide chance and awareness to workers and managers with a planned response to situations that will protect lives, infrastructure, environment and property. Fire can arise from natural disasters or from project and human activities supported with heavy machinery and have the potential for creating devastating destruction.</p>
<p><u>The broad outline of proposed firefighting arrangement is as under:</u></p>		
<ol style="list-style-type: none"> i. Fire alarm system must be installed in all working area sharing a connection with the central office. ii. Camps shall be equipped with fire prevention and fighting equipment iii. The contractor shall provide training to designated fire officers within his staff iv. The Contractor shall take special precautions to prevent fire from spreading beyond the piles being burned and shall be liable for any damage caused. 		
<p>Medical Facilities</p>	<p>A paramedic staff shall be appointed and resident onsite and adequately equipped and properly staffed portable first aid stations or dispensaries shall be provided by the Contractor at camps and other strategic locations, to administer first aid treatment at anytime required and free of charge to all persons on the Site, including personnel of the Engineer and the Employer.</p> <p>The nature, number and location of facilities furnished and the Contractor's staff for administering first-aid treatment shall, as a minimum, meet the requirements of the Health Service of the Government of Pakistan.</p>	