Environmental and Social Management Plan (ESMP)

Draft

For the

National Immunization Support Project (NISP)

Federal Expanded Program on Immunization,
Ministry of National Health Services Regulation and Coordination

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List of Acronyms

AJK	Azad Jammu and Kashmir
AD	Auto Disable (Syringes)
AEFI	Adverse Events Following Immunization
BHU	Basic Health Unit
CSO	Civil society organization
DGHS	Director General Health Services
DHQ	District Headquarters (Hospital)
DLI	Disbursement linked indicator
DOH	Department of Health
EA	Environmental Assessment
EIA	Environmental Impact Assessment
EPI	Expanded Program on Immunization
ESMP	Environmental and Social Management Plan
GRM	Grievance Redress Mechanism
GRO	Grievance Redress Officer
IDA	International Development Association
IEE	Initial Environmental Examination
LHW	Lady health worker
MIWMR	Monthly Immunization Waste Management Reports
MONHRSC	Ministry of National Health Regulation, Services and Coordination
NGO	Non-Governmental Organization
NISP	National Immunization Support Project
OP	Operational Policy
PEPA	Pakistan Environmental Protection Act
PO	Partner Organization
PPE	Personal Protective Equipment
QPR	Quarterly Progress Report
RHC	Rural Health Center
UC	Union council
VLMIS	vaccine logistics management information system
VPD	Vaccine preventable disease
WHO	World Health Organization
WB	World Bank

Executive Summary

Government of Pakistan is planning to introduce the National Immunization Support Project (NISP) in the country, to support newly devolved Expanded Program on Immunization (EPI) at the provincial level. The World Bank will provide assistance for this purpose. In line with the environmental legislation of Pakistan as well as the World Bank (WB) safeguard policies, the present environmental and social management plan (ESMP) has been prepared, to address the potentially negative environmental and social impacts associated with the proposed initiative. The ESMP will also be broadly applicable to the vaccination to be carried out in connection with the Emergency Response Project for Internally Displaced People (IDP-ERP) in the Federally Administered Tribal Areas (FATA).

Background. Childhood immunization against vaccine preventable diseases is a highly cost effective intervention, delivering significant reductions in morbidity and mortality from inexpensive and standardized interventions. It remains one of the most fundamental competencies of public health programmes. In line with international standards, the EPI in Pakistan aims to immunize all children between 0 and 23 months against nine Vaccine Preventable Diseases (VPDs), which include infant tuberculosis, poliomyelitis, diphtheria, pertussis, neonatal tetanus, hepatitis B, Haemophilus Influenza type b (Hib), pneumonia and measles. From July 2015 onwards, one dose of the Inactivated Polio Vaccine (IPV) is planned to be introduced in the EPI throughout the country at the age of 14 weeks of child.

Project Overview. The proposed project/initiative has been designed with the development objective to increase the equitable coverage of services for immunization against the VPDs, including poliomyelitis, for children between 0 and 23 months in Pakistan. These objectives will be achieved with the help of four project/initiative's components briefly described here: *Component 1: Strengthening Management, Governance and Stewardship Functions*. This component has the objective of addressing the fundamental systemic weaknesses that underlie the poor performance and accountability of the EPI in Pakistan. The Component includes oversight, coordination and stewardship functions; robust monitoring & evaluation mechanisms; and surveillance systems. *Component 2: Improving Service Delivery Performance*. This component will increase equitable access to the EPI services at the Union Council (UC) level through improved planning, management of human resources and strengthened supply chain management at the point of service delivery. The Component includes enhanced planning for performance; availability and management of skilled human resources; effective supervisory systems for the EPI; enhanced linkage to communities. *Component 3: Demand Generation*. The objective of this component is to explore and expand innovative strategies to empower

communities to access immunization services and promote positive behaviors for acceptance and seeking of immunization services. The key elements of this component include social mobilization and community awareness, conditional cash transfer scheme, advocacy, and awareness raising through standardized School Curriculum aimed at improving understanding of the pupils about VPDs and their effective prevention through basic hygiene and immunization. *Component 4: Improving Capacity in Technical Areas for Increased Immunization Coverage*. This component will finance strengthening of the Federal EPI cell in national coordination, project management, research, training and critical analytic capacities as well as health system strengthening elements. The component will include capacity building of the Federal EPI Cell, support for national coordination, support for strengthening of other health systems; training, research and evaluation.

The project will be implemented through five implementing agencies: The Federal EPI Cell with responsibility for the federal territories, under Ministry of National Health Services, Regulations and Coordination (NHSR&C) at Federal Government level, and four provincial EPI cells established in the Director General Health Services (DGHS) in each province.

Key safeguards issues and their mitigation. The potential environmental, social and public health impacts of the project include: decreased effectiveness of vaccine due to disruption in cold chain; inappropriate handling of sharps and syringes and associated health hazards for the vaccinators; and most importantly, inappropriate disposal of medical waste associated with vaccinations (sharps, syringes, unused vaccines and gauzes) that may result in serious public health issues. To mitigate these potential impacts and risks, the revised National EPI Policy and Strategic Guidelines need to be effectively implemented; in particular, the cold chain management protocols need to be strictly followed (Effective Vaccine Management Implementation Plan); only auto-disable syringes need to be used; personal protective equipment (PPE) need to be used by the vaccinators; Hospital Waste Management Rules of 2005, and guidelines need to be effectively implemented to dispose immunization wastes; and finally appropriate trainings and capacity building need to be carried out for all staff associated with vaccination.

In addition to the above-described mitigation measures, an action plan for immunization waste management has also been proposed. Under this plan, during the year 1 of the project, current immunization waste management practices will be documented and workable solutions will be identified. During the year-2, immunization waste management action plans will be prepared at the district level, and finally during the year-3, these plans will be implemented with the immunization waste management systems being fully in place.

ESMP implementation arrangements. Overall coordination and implementation of ESMP will be the responsibility of National Program Manager, EPI who will designate an ESM Focal Point (FP) to coordinate on his/her behalf. Provincial EPI Managers will also designate similar ESM Focal Points at each province level, who will provide support to the federal level ESM FP. Each partner hospital/tertiary healthcare units will also nominate a focal person to ensure implementation of ESMP. All these FPs need to be government officers to ensure government ownership and accountability.

ESMP monitoring and reporting. In order to ensure effective implementation of ESMP during the NISP initiative, a comprehensive monitoring mechanism has been proposed as part of this document. Under this mechanism, key safeguard aspects of the initiative, namely; vaccine storage and cold chain management, availability of auto-disable syringes, availability and usage of PPEs, availability of safety boxes for disposal of sharps, disposal of immunization wastes in accordance with the Hospital Waste Management Rules 2005 and Immunization Waste Management Action Plans, and implementation of trainings will be monitored with regular monitoring reports prepared as an output. In addition, environmental audits will be carried out on a six-monthly basis, and a third party validation will be conducted on annual basis.

ESMP implementation cost. The ESMP implementation cost has been estimated to be around Pak Rupees (PKR) 36.6 million. This includes cost allocations for district immunization waste management planning, implementation of district immunization waste management plans, and annual third party validation.

1. Introduction

Government of Pakistan is planning to execute the National Immunization Support Project (NISP) in the country, to support newly devolved Expanded Program on Immunization (EPI) at the provincial level. The EPI Programme was launched in 1978 initially aiming at protecting children against Childhood Tuberculosis, Poliomyelitis, Diphtheria, Pertussis, Tetanus and Measles. Later, a number of new vaccines e.g. Hepatitis B, Haemophilus Influenza type b (Hib), and Pneumococcal vaccine were introduced in 2002, 2009 and 2012 respectively. The Program also aims at protecting mothers against tetanus. This national immunization programme contributed in significant decrease in childhood morbidity and mortality due to Vaccine Preventable Diseases (VPDs), and has a major contribution in improving Infant Mortality Rate (IMR) of the country.

The World Bank will assist the Government of Pakistan in execution of the NISP by providing financing. In line with the environmental legislation of Pakistan as well as the World Bank (WB) safeguard policies, an environmental and social assessment (ESA) of the proposed initiative has been carried out, and as an outcome, the current Environmental and Social Management Plan (ESMP) has been prepared.

This ESMP identifies the potential negative impacts of the initiative, and proposes appropriate mitigation measures to reduce if not eliminate these impacts. The ESMP also defines the environmental and social monitoring requirements as well as capacity building arrangements, to ensure that the Plan is effectively implemented. The ESMP will also be broadly applicable to the vaccination to be carried out in connection with the Emergency Response Project for Internally Displaced People (IDP-ERP) in the Federally Administered Tribal Areas (FATA).

2. Background

Childhood immunization against the VPDs presents a highly cost effective intervention, delivering significant reductions in morbidity and mortality from inexpensive and standardized interventions. It remains one of the most fundamental competencies of public health programmes. In line with international standards, the Expanded Programme on Immunization (EPI) in Pakistan aims to immunize all children between 0 and 23 months against nine VPDs, which include infant tuberculosis, poliomyelitis, diphtheria, pertussis, neonatal tetanus, hepatitis B, Haemophilus influenza type b (Hib), and measles. Newer vaccines which will expand EPI are in the process of roll out (pneumococcal vaccine), under consideration (Rotavirus vaccine, Human Papilloma Virus Vaccine) or are being implemented recently (Inactivated Polio Vaccine). Immunization coverage in Pakistan however has stagnated - the proportion

of children who are fully immunized is somewhere between 43 to 62 percent - and this figure varies considerably across geographic, social and political boundaries. The most recent Pakistan Demographic and Health Survey (PDHS) shows 53.8% children being fully immunized. The regrettable deficits in immunization coverage are reflected in the continued incidence of endemic polio transmission and the sporadic measles outbreaks. Considering the present herd immunity against the VPDs, plans to expand routine immunization to include delivery of new vaccines may present additional challenges to existing capacity.

The current political context presents both challenges and opportunities for improving EPI performance. After dissolution of the federal Ministry of Health under the 18th Amendment to the Constitution in 2010, the federal role in national planning and coordination in health needs further definition. Federal functions have been fragmented among several entities. The management of health services, including immunization, has been devolved to the provinces. While the stewardship function for EPI at the federal level has been moved to the Ministry of National Health Services, Regulation and Coordination (MoNHSRC), the extent to which federal roles like policymaking, oversight, and monitoring and evaluation will be managed by this unit remains unclear. While there are concerns about the capacity of provincial governments, the devolution presents clear opportunities for increased access, accountability, ownership and equity in immunization programs.

Pakistan is struggling to achieve polio eradication, as one of the world's last two to three endemic countries. For the past several years, National Emergency Plans have put significant emphasis on eradication and focused the energies of the provincial departments of health and the immunization staff on implementation of eradication activities. This has led to reduced focus and staff shortage for Routine Immunization (RI). A strong RI system is by itself essential to achieve the goal of polio eradication. But as the goal of polio eradication is judged to be almost within reach, there is now an even more urgent requirement to strengthen RI programmes to respond to outbreaks of polio if these occur after the country reaches zero cases. There has been a major investment in Polio eradication by the global community - including more than $800 million by the Bank worldwide. Strengthening of the routine EPI is necessary to safeguard this investment in Pakistan, and globally.

3. Project/initiative Description

This initiative is proposed in response to a particular set of temporary requirements resulting from devolution of the federal responsibility for immunization programs to the provinces under the 18th amendment to the constitution. It therefore focuses on building provincial level capacity for EPI implementation, while supporting a limited set

of competencies in research, policy advice, coordination and reporting at the federal level. The first three components take a results-based approach using Disbursement Linked Indicators (DLIs), while the fourth finances the Federal EPI cell in national coordination, project management and analytic capacities as well as Health System Strengthening elements to catalyze the provincial activities.

Component 1: Strengthening Management, Governance and Stewardship Functions

This component has the objective of addressing the fundamental systemic weaknesses that underlie the poor performance and accountability of EPI in Pakistan.[1]

*(i) Oversight, coordination and stewardship functions: S*ystems will be strengthened for rigorous monitoring by the provincial and national EPI cells, the development partners[2] and civil society. The Federal EPI Cell shall arrange for bi-annual review meetings with participation of all provinces and territories and development partners. There will be quarterly review meetings at the provincial level supplemented by monthly review meetings held at the district level. A National EPI Council, including all provincial program managers and the Federal EPI manager, will be established and its functions will include quarterly review meetings for consensus decisions on resource allocation and national immunization policy. To support the activities of this council, the capacity of the Federal EPI cell will be strengthened in the specific responsibilities of national standard setting, monitoring of national EPI program performance, advocacy, interprovincial coordination and coordination with development partners. In addition the capacity of the Federal EPI cell will be strengthened to provide support to the provinces in training, technical support, operational research, policy advice and performance of national level coverage surveys.

(ii) *Robust monitoring & evaluation mechanisms*. The system to support EPI management with timely and reliable programme data will be comprehensively strengthened at the provincial and district levels. The latest technological approaches in performance monitoring, which have been successfully applied in some areas of the country, and elsewhere in the world will be introduced. In addition to this, an effective and sustainable Vaccine Logistics Management Information System (vLMIS) will ensure adequate quality and quantities of vaccines are available at the service delivery point.

[1] The existing monitoring, surveillance, and reporting system is described in Box 1.
[2] Development partners include Technical Agencies: WHO, UNICEF, as well as USAID, DFAT Australia, JICA, DFID, the GAVI Alliance, the Bill & Melinda Gates Foundation and the World Bank

(iii) *Surveillance systems*: The critical capacity of surveillance is to be greatly enhanced. This function will be taken up by the provinces, with the Federal EPI cell providing technical support and overall stewardship through robust research and information feedback. The Federal EPI Cell will act as training hub for the national core capacities for surveillance and outbreak response, and this will be integrated with this system.

Component 2: Improving Service Delivery Performance

This component will increase equitable access to EPI services at the UC level through improved planning, management of human resources and strengthened supply chain management at the point of service delivery.

(i) *Enhanced planning for performance*: A versatile and powerful planning system is in place throughout Pakistan to support polio eradication campaigns. The provincial EPI offices will ensure the conversion of the current EPI tour plans into computerized GIS-based micro plans with much greater detail, based on the format used by the Polio micro plans, and integrated with this system.

(ii) *Availability and management of skilled human resources*: The provincial EPI cells require an expanded variety of qualified personnel on both the technical and managerial sides. The draft National EPI Policy states that two vaccinators should be deputed per union council – and recruitments will be done at the PHC level to meet this standard. Provincial EPI cells will train LHWs, vaccinators, management level staff and all other cadres – with a particular focus on capacity building of mid-level management. The federal EPI program will be responsible for the development of national training standards, manuals and guidelines – and to provide technical support to the provinces. The trainings need to be standardized and of high quality. The Federal EPI will develop a pool of excellent master trainers, which would be available at the district level to cascade trainings of high quality.

(iii) *Effective supervisory systems for EPI:* This subcomponent supports the availability of performance data and the institution of supervisory systems to allow their effective use. Key aspects are systematic prioritization of poorly performing areas, improving the quality of micro-plans, increasing the availability and quality of program data, institution of Lot Quality Assurance Sampling (with robust study design ensuring random sampling and minimizing bias), and developing an online monthly monitoring report system from districts to provinces.

(iv) *Enhanced linkage to communities*: Linkages will be established by provincial EPI cells, with private sector health providers and health related Civil Society Organizations (CSOs) working in low coverage catchment areas - especially urban slums. Some CSO are already working in Sindh and Punjab Province and

their list is attached as Annex A. Models will be developed for sustainably financed CSO engagement in service provision in the following areas: service delivery, supervision and reporting, health system responsiveness, and Behavior Change Communication (BCC).

Component 3: Demand Generation

The objective of this component is to explore and expand innovative strategies to empower communities to access immunization services and promote positive behaviors for acceptance and seeking of immunization services. CSOs will be key partners in this project component.

(i) Social mobilization and community awareness: Provincial activities include awareness creation through electronic and print media as well as local community awareness activities. The focus will be supporting CSOs to take an active role to increase LHWs/CMWs involvement with the community and to restore service utilization rates in these facilities. Use of Short Message Service (SMS), and of a dedicated help line will add value to the efforts.

(ii) Conditional Cash Transfer Scheme: A voucher scheme to provide incentives for accessing immunization services to mothers and health care providers will be piloted in the province of the Punjab under the Punjab Health Sector Reform project. Based on the results of its evaluation, and quality of evidence of performance in creating awareness and mobilizing demand, this initiative will be replicated within the rest of the Punjab, and adapted for national implementation.

(iii) Advocacy: National Communication Strategy developed in the light of the KAPB survey will be implemented all over the country. This communication strategy has inputs from all the provinces, areas and other stakeholders.

(iv) School Curriculum: Awareness of immunization and its importance to improve child health outcomes will be added as a component of the standard school curriculum in consultation with the relevant departments of education, and stakeholders.

Component 4: Improving Capacity in Technical Areas for Increased Immunization Coverage

This component will finance strengthening of the Federal EPI cell in national coordination, project management and analytic capacities as well as Health System Strengthening elements. The component will finance the following specific inputs using the traditional investment lending instrument:

(i) Capacity of Federal EPI Cell: This component will support capacity building activities in the areas of financial management, procurement, environmental and social management, and monitoring and evaluation.

(ii) Support National Coordination: It will also support coordination of the national EPI programs, including in establishment and support of the National EPI Council, facilitating regular provincial program reviews, evidence synthesis, standards setting, consolidation of national data and international reporting.

(iii) Other Health Systems Strengthening: This component will support the procurement of cold rooms, and Ice-Lined Refrigerators (ILRs) and expansion/maintenance of the vLMIS.

(iv) Research and Evaluation: A significant investment will be made to support analytical work and research, including operational research, to provide evidence for policy, and institution of a comprehensive system of independent third party assessment of program performance to verify achievement of the DLIs.

Institutional Arrangements for the Project

The program will have five implementing Agencies: Expanded Program on Immunization (EPI) with responsibility for the federal territories, under the Ministry of NHSR&C at the Federal Government level, and the four provincial EPI cells established in Director General Health Services (DGHS) in each province. The implementing entities will coordinate with Department of Health (DOH), Planning and Finance Departments, the Accountant General office and the concerned Audit offices. It is envisaged that overall project management. Overall monitoring will be the responsibility of the Federal EPI Cell.

Federal Level Roles and Responsibilities: Standard setting, Monitoring, Consolidation of: plans, reports, surveillance, Logistics data, data analysis, Vaccine reviews, Trainings (Development of updated modules/manuals, guidelines), Review meetings, Advocacy (development of advocacy guideline to support provincial plans),, Coordination (development partners, international and interprovincial), Technical support, Operational research, Litigations and National Coverage Surveys.

Provincial/Regional Level Roles and Responsibilities: Monitoring, Supervision, Planning, Reporting, data analysis, surveillance, procurement, logistics, financial management, vaccine management , human resource management, cascade trainings, review meetings, Health Education, Social mobilization, advocacy (including development and implementation of provincial plans),, IT solutions, engagement of CSO/Private sector, data management and litigations.

District Level Roles and Responsibilities: Monitoring, Supervision, implementation, data analysis, surveillance, reporting, logistics, financial management, Vaccine management, human resource management, trainings, district review meetings, Health Education, Social mobilization, advocacy, engagement of CSO/Private sector, and data collection and validation.

Union Council Level Roles and Responsibilities: Implementation, supervision, monitoring, reporting, logistic management, vaccine management, Social mobilization and CSO's engagement.

There are notified Steering Committees within the DOH at the Federal and Provincial level and will meet bi-annually to review the physical and financial progress as well as reviewing annual work plans including procurement and training plans. There will be bi-annual review meetings of provincial coordination committee and monthly review meetings at district level for the purpose of monitoring, supervision, planning, reporting, data analysis, human resource management, trainings, data management and data validation.

The design of the program relies on district-led program implementation and regular monitoring where the activities are coordinated by District Health Officer of each district. Keeping in view the current implementation challenges the project will support measures to improve the capacity of both provincial and district managers for effective program implementation. The will also support district level capacity building for data analysis, accurate and honest reporting.

DLI-based financing:

The project will employ DLIs as an incentive to achieve project results by disbursing a portion of the total project financing upon achievement of key results related to the implementation of the project components. The DLI targets are critical to advancing the EPI reform process and achieving the project's development objective. DLIs include key intermediate results, implementation performance targets, and milestones for strengthening management, governance and stewardship functions. Progress by each province will be monitored with the province-specific targets for each indicator, according to the province context and capacity. The sum of individual progress will determine the total of each disbursement request. Upon the request, credit and grant disbursements will be made against selected key health budget line items, with individual transfers to each of the five entities, contingent on their individual achievement of DLIs.

Box 1 : Monitoring, Surveillance and Reporting as per National EPI Policy and Strategic Guidelines (draft 2013)

Supervision & monitoring

- The local health facility in-charge shall be responsible for supervising immunization activities in his/her catchment area and to monitor immunization indicators, accuracy of data and timely reporting.
- Immunization activities shall be supervised by the district health management team to ensure that every eligible mother and child residing in his/her district/agency is fully immunized.

- At least 30% of district vaccination session should be monitored by district supervisory staff every month.
- A well-defined supervision and monitoring plan should be available at all levels (Federal, provincial, district/agency, sub-district and union council).
- Supervision should be structured, using standard national supervisory guidelines, tools and checklists.
- Immunization indicators are to be monitored regularly by national, province and district at respective responsible levels.
- Data quality to be monitored at various level using standard tools and mechanisms e.g. DQA, DQS etc.
- Regular review meetings shall be convened on quarterly basis by province and federal EPI cells and on monthly basis by the district.
- Inter-provincial and inter district monitoring activities shall be a regular process of the program at every level.

Surveillance

- The EPI program shall establish a functioning Vaccine Preventable Disease Surveillance system which includes active and passive; sentinel and community based AFP, Measles and NT surveillance system with appropriate laboratory component.
- The program also shall make a functioning Adverse Event Following Immunization (AEFI) surveillance system to ensure vigilance for the National Regulatory Authority.
- Each district must have a District epidemiologist or a designated 'District Surveillance Coordinator'.
- The District Health manager shall be responsible for submission of weekly Vaccine Preventable Disease Surveillance and AEFI surveillance reports. AFP cases to be notified immediately.
- National Expert Review Committees for final classification of AFP cases, Measles cases and AEFIs are to be formulated along with their provincial equivalents.

Evaluation

- Third party evaluation of various features of the EPI program including service provision, coverage, surveillance, communication, monitoring mechanisms, inventories etc. shall be carried out every three years to monitor the progress of the program

Reporting

- All immunizations given in static center or outreach site or during mobile activities shall be entered in the daily register and routine EPI tally sheet.
- At the end of every session or field activity, data shall be transferred from the daily to the permanent register.
- Only one permanent register shall be made for one union council. Permanent register shall have data of all routine immunization activities in a union council.
- Permanent registers shall have entries of only those children who are permanent residents of that union council.
- Any immunization given to a child resident of some other union council shall be recorded separately. The report shall be sent to the child's union council of residence through a stamp, printed post card to the concerned EDO for onward submission to the concerned center, or through other suitable mechanism.
- Lady Health Workers would be provided a daily register for recording immunization activity provided by themselves in their catchment areas.
- Lady Health workers shall provide immunization activities information to the UC in-charge vaccinators through LHS for recording of the information on the permanent register, and for non-permanent residents for further action, besides transferring it to her diary.
- To review EPI progress, there would be a meeting at the facility level, chaired by the health facility in-charge on the last working day of the month. The meeting shall be attended by the vaccinators, LHV, LHS, LHWs and other vaccination staff.
- Every child or pregnant women immunized for the first time shall be given a

vaccination card with appropriate entries and instructions to retain the card.

- If the card is lost; a new card shall be issued to the child/woman with the same registration number after completing all entries from previous vaccination record (permanent register).
- The in-charge of EPI centers in consultation with area vaccinators shall compile all UC immunization coverage reports and surveillance reports.
- VPD surveillance report to be sent in Form B weekly to the EDO (Health) office.
- AEFI surveillance report to be sent weekly along with VPD surveillance report to the EDO (Health) office
- All surveillance reports and immunization coverage reports shall be verified and signed by the health facility in-charges before submission to the concerned Tehsils/Talukas and districts.
- All monthly immunization performance reports for Static Centers, outreach and mobile activities shall be submitted to the district office by 2nd working day of the following month.
- All district reports shall be compiled by the DSV.
- The surveillance reports shall be countersigned by the District Surveillance Coordinator and the EDO (Health) before forwarding to the provincial offices.
- VPD and AEFI surveillance reports to be sent weekly and can be sent electronically to the provincial offices.
- The monthly immunization reports shall be countersigned by the district EPI Coordinator and EDOs-Health and submitted to the provincial offices by 7th of the following month.
- Feedback by district office to the facilities in charges shall be given every month in review meeting to be held at district level under the chairmanship of EDO (H) or his nominee.

4. Legal and Policy Framework

The present ESMP has been developed after reviewing the relevant promulgated environmental legislation and guidelines of Pakistan and the World Bank's safeguard policies. These legislations and safeguard policies, and their relevance to the proposed project, are briefly discussed below.

a. **Pakistan Environmental Protection Act, 1997:** The Pakistan Environmental Protection Act (PEPA) is the apex environmental law in the country, and provides for the protection, conservation, rehabilitation and improvement of the environment, for the prevention and control of pollution, and for promotion of sustainable development.

   Section 2(xxi) of the Act describes "hospital waste" as a waste medical supplies and materials of all kinds, and waste blood, tissue, organs and other parts of the human and animal bodies, from hospitals, clinics and laboratories. Under this Act the hospital waste has been described as "hazardous waste".

Section 12 of the Act requires preparation of environmental impact assessment (EIA) or initial environmental examination (IEE) before commencement of projects likely to cause adverse environmental effects.

The present ESA of the National Immunization Support Project has been carried out in compliance with the requirements of this Act.

b. **Pakistan Environmental Protection Agency Review of IEE & EIA Regulations, 2000:** These Regulations define procedures for preparation, review and approval of environmental assessments. The projects falling under any of the categories listed in Schedule-I require preparation of Initial Environmental Examination (IEE) report, whereas those falling under categories listed in Schedule-II require preparation of at detailed study, the Environmental Impact Assessment (EIA).

   The National Immunization Support Project (NISP) does not fall under any of the categories specified in Schedule-I or Schedule-II of the Regulations and would, therefore, not require preparation of IEE or EIA report.

c. **Hospital Waste Management Rules 2005:** These Rules describe the process of hospital waste management in an environmentally responsible manner. A 'hospital', as defined in the Rules, includes a clinic, laboratory, dispensary, pharmacy, nursing home, health unit, maternity center, blood bank, autopsy center, mortuary, research institute and veterinary institutions, including any other facility involved in health care and biomedical activities. These Rules also describe roles and responsibilities of the hospital management/administration.

   These Rules are applicable to the proposed project, and the risk and non-risk wastes generated during the implementation of the project need to be disposed of in accordance with these Rules. The rules describe the process as well as the roles and responsibilities at each level (from primary to tertiary level healthcare facilities) for segregation of the waste, its final disposal as well as monitoring mechanism for the entire process. This ESMP will benefit from the Rules, and will mainstream the suggestions in accordance to the challenges NISP faces.

d. **WB OP 4.01 (Environmental Assessment):** This operational policy (OP) requires environmental assessment (EA) to be conducted of projects proposed for Bank financing to help ensure that they are environmentally sound and sustainable with an objective to improve decision making process. The

present E/SA has been conducted and an ESMP has been developed in response to this OP.

This OP also categorizes the project in one of the four categories on the basis of the type, location, sensitivity, and scale of the project and the nature and magnitude of its potential environmental impacts. The proposed project has been classified as Category B, since the project activities can potentially have negative impacts on environment and human population, though these impacts are site-specific and can be eliminated/controlled/reduced by implementing properly designed mitigation measures.

e. **WB OP 4.04 (Natural Habitats):** This policy seeks the conservation of natural habitats for long-term sustainable development. It supports the protection, maintenance, and rehabilitation of natural habitats and requires a precautionary approach to natural resource management to ensure opportunities for environmentally sustainable development.

   The activities under the proposed project are not likely to affect the natural habitat, therefore this OP is not triggered.

f. **WB OP 4.09(Pest Management):** Through this OP, WB supports a strategy that promotes the use of biological or environmental pest control methods and reduced reliance on synthetic chemical pesticides.

   This OP is not triggered since the proposed project does not involve usage of pesticides.

g. **WB OP 4.11 (Physical Cultural Resources):** This policy addresses physical cultural resources defined as movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance.

   The project activities are not likely to affect any physical cultural resources, hence this OP is not triggered.

h. **WB OP 4.36 (Forests):** This policy seeks the management, conservation, and sustainable development of forest ecosystems and their associated resources essential for lasting poverty reduction and sustainable development.

   The project activities are not likely to affect any forest resources, hence this OP is not triggered.

i. **WB OP 4.37 (Safety of Dams):** The Policy seeks to ensure that appropriate measures are taken and sufficient resources provided for the safety of dams the Bank finances. However this OP is not relevant since the proposed project does not involve construction of dams.

j. **WB OP 7.50 (Projects on International Waterways):** This OP defines the procedure to be followed for the WB-financed projects that are located on any water body that forms a boundary between, or flows through two or more countries. However, no project components will be located on any such waterways, hence this OP is not triggered.

k. **WB OP 7.60 (Projects in Disputed Areas):** This policy defines the procedure that needs to be followed in case the Bank-funded project or any of its components is located within any disputed area.

5. Stakeholder Consultations

Stakeholder consultation to identify perceived impacts and associated mitigation measures is an integral component of an ESMP design and development process, and hence was carried out for this project as well. Consultations were conducted with stakeholders identified in partnership with the project team, and consisted of NGOs, federal government, and relevant Bank experts. The consultations continued while preparing the present ESMP, and continuous review and comments were sought from key professionals to add robustness to it.

Federal Environment Protection Agency

A meeting was held with the Director General, EPA on 28th January, 2014 to seek his advice on identifying the environmental issues associated with the project, as well as suggestions for mitigation measures. He identified immunization waste collection and disposal as the primary issue associated with the project, along with limited capacity and knowledge towards associated environmental hazards. He did not favor pit burial, since it can lead to groundwater contamination, and suggested incineration as a better option. He offered EPA support in developing the training modules, and conducting the same keeping in line with the Hospital Waste Management Rules, 2005. For remote areas, same trainings can be imparted using a travelling training program, where dedicated staff and vehicles can be used for the purpose.

Federal EPI Cell

A meeting was held with the Director Surveillance/Monitoring and Evaluation, Federal EPI Cell on 6th February, 2014. In addition to the immunization activities, he emphasized multiyear, multi-sectoral programs that would target eradicating the

sources of viruses. Municipal waste management for improved hygiene and sanitary conditions, awareness about spread of communicable diseases, baselines to measure impacts of immunization activities, and effects of physical environment on immunization programs were the other issues raised by him.

Civil Society

Comprehensive feedback from civil society was received through a workshop organized by WB on the 5th of February, 2014. Representatives from eight national and regional NGOs and from UNICEF, GAVI Alliance, and National EPI Programme were present to discuss a range of issues associated with vaccination service delivery, barriers to immunization, challenges associated with gender, remoteness and marginalization of a community and environmental hazards associated with such campaigns (see list of participants in **Annex B**). In addition to the workshop, focused interviews were held with Civil Society Human and Institutional Development Program, National Rural Support Program and LEAD Pakistan.

Following is the summary of the discussions with the civil society above:

Environmental Dimensions

1. Use of sharp instruments and their improper disposal can lead into epidemics and environmental hazards
2. Pit burial is the usual practice being followed, but with varying degree of compliance (relatively better at urban facilities than rural)
3. Roles of private sector and NGO's in waste collection and disposal needs to be considered
4. Use of expired vaccines, or where vaccines become ineffective due to improper temperature control, can cause epidemics as well as mistrust amongst the beneficiaries
5. Recycling of hospital waste has been reported and is in practice. This must be discouraged by all means
6. Hospital waste associated with immunization campaigns need to be disposed off in a proper manner
7. Adverse events that might follow due to immunization need to be documented and reported.
8. General sanitary conditions play a vital role in the success of immunization campaigns. Parallel investments need to be made into this sector

Social Dimensions

1. In many cases language barrier can be a major obstacle, where the care provider does not speak the local language
2. Limited number of vaccinators and how the gender of the vaccinator can be a major factor in terms of access to women in the community. The teams need to have male and female vaccinators
3. Low literacy levels inhibit immunization
4. Women's dependency for commuting and limitations on mobility of women to access the service and existing power structures at the household level
5. Access to remote areas with difficult geographic terrain and security issues
6. Political interference - incidence where the LHWs from different political parties were not allowed in the community
7. Communication discourse: It was shared that there are major gaps in communication and sensitization of the community which is crucial for ownership.
8. It was also shared that integrated health packages are received more in comparison to the EPI as there was also trust build within the communities and that was one of the core factors for bonding sustainable partnerships.

The above points presents the social barriers in the implementation of the NISP. The measures to overcome these barriers are discussed in Sections 8 and 13 of ESMP.

6. Project's Environmental Impacts and Mitigation Measures[3]

This section describes environmental aspects associated with the project activities, as suggested by the stakeholders as well as the project team. A summary is provided in **Tables 1** to **3**.

Cold Chain Management for Vaccine Effectiveness

Vaccines need to be stored at recommended temperatures for them to remain effective. Also the quantity to be administered is the key for it to work on a child or a mother. The campaign might not achieve its targets of disease(s) elimination, as well as causing mistrust amongst the communities (occurrence of disease despite vaccination), if the cold chain breaks.

[3] The assessment is primarily limited to the vaccination and associated waste disposal. Assessment of the facilities where the immunization waste will be disposed is not covered in this document.

Mitigation

Cold chain management, in accordance to the National Expanded Program on Immunization (EPI) Policy and Strategic Guidelines has to be ensured at all levels. Vaccines shall be stored at standard temperatures in official EPI store only. They should not be stored for more than a period of six months at federal level, three months at the provincial level, one month at the district and fifteen days at the facility level. Standard stock ledger with name of the vaccine, quantity in doses, vial size, manufacturer, expiry date, batch/lot number, date of receive and supply to be maintained at all level and updated regularly. Reconstituted vaccine must be discarded six hours after reconstitution or at the end of immunization session, whichever comes first.

Risk of Infections

The project activities involving administering vaccines using sharps/injections pose a high risk to the health workers as well as the community at large. They can cause epidemics, as well as transfer communicable diseases from a host population to another. Epidemics have an impact on virus genetics, and mutations can be caused. Such mutations can cause imbalance within a particular ecosystem, especially with symbiotic relationships, and can be detrimental to other organisms/species survival. Hence, the issue is both environmental as well as a public health issue.

Mitigation

The risk of infection associated with sharps and syringes can be greatly reduced by ensuring use of WHO pre-qualified Auto-Disable (AD) syringes for conducting vaccination, personal protective equipment (PPE) while handling sharps, provision of information posters at needle exchange places indicating safe handling, and collecting the sharp waste generated during the immunization in dedicated safety boxes for safe disposal.

Disposal of Sharps and Immunization Waste in General

Despite many efforts taken by the government and civil society, medical waste and sharp disposal remains a challenge for the hospital industry and environmental managers. Box 2 on current medical waste management practices shows that medical waste is not regulated and not always disposed in an efficient manner. The hazards associated with improper waste disposal by any healthcare facility operation are mostly caused by not following the infection control protocols, not using proper personal protective equipment (PPE), and not employing proper procedures for waste collection, transportation, storage, and final disposal. In addition, recycling of medical waste also poses very serious health risks for the workers involved in recycling and

also consumers using the recycled products. Moreover, safety of staff handling sharps such as syringes and needles is at risk if proper procedures are not followed. Air and water quality deterioration is another associated potential impact if the waste is disposed by burning and/or burial.

Box 2: Current Medical Waste Management Practices in Pakistan

A comprehensive survey was conducted in May 2007 in all four provinces, Azad Jammu and Kashmir, and Federal capital area. Overall fourteen health care establishments from each respective provinces/areas were included in the survey. One tertiary care hospital in public and private sectors, two secondary care hospitals in both public and private sectors and four first level care hospitals in both public and private sectors were surveyed. A total of 78 health care facilities were studied and data collected. Summary of the findings are detailed as below:

Presence of Health Care Waste Management (HCWM) Team or Infection Control Team	30% of hospital surveyed
Presence of guidelines or internal rules of the health care waste management	40 % of hospital surveyed
Presence of plan for HCWM	27 % of hospital surveyed
Presence of program to assess HCWM	12% of hospital surveyed
Regular trainings on HCWM	23% of hospital surveyed
Awareness about the hazards of Health Care Waste (HCW)	67 % of staff surveyed
Routine health surveillance for the staff	22 % of hospitals surveyed
No segregation for HCW	19% of hospitals surveyed
Segregation of sharps	27 % of hospitals surveyed
Segregation of sharps from infectious waste	21 % of hospitals surveyed
Presence of separate containers for infectious and non-infectious waste	48 % of hospitals surveyed
Presence of properly color coded and labeled containers	32 % of hospitals surveyed

Source: Health Care Waste Management in Pakistan (Khan EA et al.). Environmental Health Unit, Health Services Academy, Islamabad**.

****This is the latest national level information*

Mitigation

Immunization waste is required to be managed in accordance to the legal framework of Pakistan, specified under the Hospitals Waste Management Rules 2005. Auto disable (AD) syringes are recommended by WHO to be used for immunization purposes, and the EPI only procures the AD syringes for its fixed and outreach activities. Safe disposal of these syringes is absolutely necessary from a public health and environmental point of view. Once used, these syringes must be disposed into customized Safety Boxes, as per National EPI Policy as well as WHO recommendations. Current immunization activities are being carried out in accordance

to the WHO recommendations, and AD syringes and Safety Boxes are being used. Waste disposal can be carried out by using pit burial method[4].

Summary of Impacts and their Mitigation

A summary of the above-discussed environmental impacts and their mitigation is presented in **Tables 1** to **3**.

It is worth to mention that the consumables are procured by the provincial and federal governments through their PC-1s with the Public Sector Development Programmes. The District Health Authorities are responsible to make pits available from the DHQs at the district to the BHU level in the Union Councils.

Table 1: Significant Environmental Aspects and Suggested Mitigation Measures

Project Activities	Significant Aspects	Mitigation Measures
Storage, administration, constitution, reconstitution and temperature control of vaccines	Ineffective vaccines causing epidemic of the respective disease (e.g. measles, Hepatitis B), and/or increased occurrence of the disease leading to increased (child) mortality and morbidity (e.g. measles, Hepatitis B, Tetanus, TB)	Use of revised National EPI Policy and Strategic Guidelines for vaccine administration, management (including procurement, quality and supply) and storage Cold chain management, including ensuring that the cold chain does not contain Ozone Depleting substances Provision of trainings on vaccine administration and management to be provided to district health staffs including, but not limited to accredited EPI service providers including vaccinators, nurses, dispensers, Lady Health Visitors (LHVs), Medical Technicians (MT), Female Medical Technicians (FMT), mid-wives, Lady Health Workers (LHWs) and Medical Doctors
Immunization activities	Sharp waste generated due to immunization campaigns leading to increased risks of patient to patient infections as well as immunization staff safety	Ensure use of WHO pre-qualified Auto-Disable (AD) syringes for conducting vaccination. Provision of information posters at needle exchange places indicating safe handling Using personal protective equipment (PPEs) for infection control (procurement of the PPEs will be covered within the project cost)

[4] In the first phase of the project, Waste Disposal Site has to be a dedicated pit used for waste burial and burning (designed and constructed in accordance to Hospital Waste Management Rules, 2005 and/or National EPI Policy and Strategic Guidelines). Recommendations for hospital waste management for NISP project duration will be a part of the District Level Action Plan for Immunization Waste.

Project Activities	Significant Aspects	Mitigation Measures
		Collecting the sharp waste generated during the immunization in dedicated safety boxes for safe disposal.
		Providing trainings to all relevant stakeholders as per their roles and responsibilities in the process of immunization, on injection safety and disposal.
Medical waste generated as a result of immunization campaigns (syringes, used vaccine vials and safety boxes containing syringes)	Risk of infections and spread of diseases through vectors; contamination of soil and water	Use of the Hospital Waste Management Rules 2005 and National EPI Policy and Strategic Guidelines for proper waste management. Follow sound infection control practices, which includes segregation at source If AD syringes are not available, there should be provision of needle-burners/cutters and/or hub-cutters Staff should use Personal Protective Equipment (PPE) while immunization, and hospital workers should use appropriate PPE when collecting and disposing of medical waste All containers, safety boxes, and waste bags to be collected and sent for pit burial[5] Conducting monitoring of waste handling, storage and disposal to ensure proper implementation of waste management system.
	Lack of awareness among the project staff, district health authorities and facilities staff, healthcare extension workers, and others.	Development of awareness material Conducting trainings of the project staff and district health authorities and facilities staff, healthcare extension workers on hospital waste management as per their roles and responsibilities. Provision of information posters at waste collection and storage sites indicating safe handling and disposal
Capacity to minimize environmental and social risks associated with the above three activities	Untrained human resource	Providing appropriate trainings to all stakeholders congruent with their roles and responsibilities in the project with due consideration of sustainability of project components after its completion.

[5] As per current practice, pit burning and burial may continue till the end of first year of NISP. After that the ESMP will be revisited in accordance to the recommendations of the District Action Plans for Immunization Waste Management.

Table 2: Handling and Disposal of Wastes for Vaccine Extension Workers at Community level (Mid-wives, LHVs/LHWs, etc.)

Type of Waste	Handling of Material Prior to Use	Handling of Used Material/Waste	Storage/Disinfection of Waste	Final Disposal
Used syringes, Used gloves	Extension workers/field staff should: Always use WHO pre-qualified AD syringes which cannot be reused EPI allows only WHO pre-qualified AD syringes and these must be used with extreme safety pre-requisites There should not be recapping to avoid accidental pricking. There should not be double/multiple handling Waste should be segregated at source Avoid leaving unpacked syringes/sharps unguarded. In-charge should: Provide posters at needle exchange places indicating the methods of use and cleansing and disposal of waste.	Collect the sharp waste generated in dedicated safety boxes for safe disposal.	Wear non-pierce able gloves when handling the sharps. Discard sharps immediately after us into puncture-resistant safety boxes. Disinfect (him/herself & used equipment) as per recommended guidelines and procedure provided by NISP.	All containers, safety boxes, and waste bags to be collected and sent for pit burial and burning[6] (pit burning and burial will be carried out by the healthcare facility, eg, Basic Heath Unit)

Note: For details, please refer to the Pakistan Hospital Waste Management Rules, 2005 as per Annex 3.

[6] As per current practice, pit burning and burial may continue till the end of first year of NISP. After that the ESMP will be revisited in accordance to the recommendations of the District Action Plans for Immunization Waste Management.

Table 3: Handling and Disposal of Wastes for Tertiary Level (District/Tehsil) Healthcare Facilities (BHUs/RHCs)

Type of Waste	Handling of Material Prior to Use	Handling of Used Material/Waste	Storage/Disinfection of Waste	Final Disposal
Sharps Syringes Gloves Cotton Bandages Cloths Other stuff used in vaccination procedures	Always use WHO pre-qualified AD syringes and ensure non-reuse Avoid accidental pricking Avoid leaving unpacked syringes/sharps unguarded Provide posters and guidelines at visible places demonstrating recommended methods of material usage and disposal of waste	Collect the sharp waste generated in dedicated safety boxes for safe disposal. Collect used gloves, masks, waste cotton, bandages, and other waste contaminated with child's fluids in dedicated bags	Wear non-pierceable gloves when handling the sharps and needle containers. Transfer sharps in puncture-resistant safety boxes Collect and store all infectious materials in separate dedicated bags. Disinfect (him/herself & used equipment) as per recommended guidelines and procedure provided by NISP.	All containers, safety boxes, and waste bags to be collected, buried and burnt using a dedicated pit

Note: For details, please refer to the Pakistan Hospital Waste Management Rules, 2005 as per Annex 3

Information, Education and Communication

The recent Knowledge, Attitude, Practices and Behavior (KAPB) study has identified seven barriers to immunization in Pakistan. Out of these seven barriers, two barriers (given below) can be addressed towards injection safety and safe waste disposal:

1. Low awareness level amongst caregivers and healthcare providers regarding vaccine-preventable diseases and their risks -- *Demand*
2. Low knowledge and awareness of health care workers regarding VPDs and their prevention -- *Supply*

Based on the results of the KAPB communication strategy is in the process of finalization, and would cater for improved knowledge and practices among the health care providers/vaccinators.

Environment Enhancement

A vital aspect associated with the sustainability of immunization campaigns is the condition of the surrounding physical environment, in terms of sanitation facilities, and levels of personal hygiene. Many viruses breed in sewage, while others are transmitted due to touch and living conditions in close confinement (communicable diseases). Epidemics and communicable diseases are common in rural, relatively poorer areas of Pakistan, where the general literacy is low combined with minimal sanitation infrastructure.

An immunization campaign will be more successful if there are parallel investments in sanitation schemes, as well as in educating households about risks associated with communicable diseases. This includes building infrastructure (covered drains, municipal waste treatment plants,) as well as capacity building of communities into basic hygiene and that of sanitary staff into municipal waste management.

NISP will contribute towards building knowledge amongst communities on communal medicine and hygiene through its training programs discussed later in the document.

7. Action Plan for Immunization Waste Management

Immunization waste management across Pakistan remains a challenge, especially at the Tehsil and Union Council levels. As Box 2 explains, most of the primary level healthcare facilities do not have effective systems and procedures in place, nor have infrastructure to manage and dispose-off infectious waste. Hence immunization campaigns and/or other hospital treatments involving sharps and other infectious wastes, can lead to public health risks, unless the waste is efficiently managed and taken care of.

It is proposed under NISP to prepare a two to three years comprehensive action plan in order to tackle this issue, and suggest workable and practical solutions. A year wise breakdown of activities is proposed as under:

Year 1; Documentation of current practices and identification of workable solutions

- Regional workshops on documenting current practices and systems currently in place for infectious waste management;
- Identifying best practices from within the country as well as the South Asian region
- Documenting the results and dissemination to relevant stakeholders in the government, academia and civil society

Year 2; District Action Plans prepared and notified

- District Action Plans to be prepared on the basis of the above
- Identification of short, medium and long term milestones and action points from within the plans
- Notification of the Plans by the respective provincial health departments
- Appointment of provincial immunization waste management coordinator in each province.

Year 3; Implementation of the District Action Plans and Immunization Waste Management Systems in place

- Provision of resources for the short term actions points of each provincial plan
- Execution of the plans, especially of the short term actions that can be dealt with in the NISP lifetime
- Equipment, systems and procedures in place for immunization waste management, under the monitoring and coordination of Federal EPI Program.

8. Project's Social Impacts and Mitigation Measures (including Gender Aspects)

According to research countries with the higher gender development index have greater coverage of immunization According to Global Gender Gap Index Pakistan ranks 135/136, Gender Inequality Index 123/148 and Social Institutions and Gender Index 55/86. This is also related to the education levels of mothers and their socio economic status. As part of the ESMP, there are various social and gender related dimensions that are considered and mitigations are designed to expand vaccine coverage and make vaccination equitable in Pakistan. The unique needs of the child care givers needs to be explored in the context of the country to facilitate equitable access to services. There are inter-provincial disparities and even disparities within the provinces. Research proves that poor education indicators in this case lower literacy levels result in poor vaccine coverage. In case of Pakistan with relatively

better education indicators for males there is need for engagement of men with targeted advocacy to increase coverage of vaccine.

Equal access is another key to improving equitable vaccine coverage (GAVI Alliance – Gender and Immunization 2013). One of the major issues that needs to be addressed is the access of the beneficiaries to the provision of services, in this case the ease of access to the immunization and access of the mothers and fathers to the health facilities. With the existing patriarchal structures and gendered dynamics women have limited mobility and access to household financial resources, thus cannot access healthcare. Although they are the caretakers in the house it is the men who are the decision makers. Inclusion of men and boys should be increased to enhance the coverage of the immunization and effect access. Decision are made by either the male head of the household or elderly male including basic decisions such as mobility, finances, resource allocation and access to services. This dependency creates bottlenecks for women to access the services for their children. Female headed households usually fall in the last quintile and can be further excluded due to their low socio economic status resulting in limited access to basic services. Mobile vaccine services where the service provider reaches the doorstep should be provided to mitigate this implication especially in katchi abadis and rural areas.

Provider's attitude towards the women beneficiaries is another crucial factor that results due to the social stereotypes and gender related norms in the society. In the conservative societies due to limited interaction of males and females there are taboos attached to women's interaction with male care givers thus creating limitations for females to access the services. This coupled with gender discrimination and harassment further exasperates the issue. In order to overcome this barrier LHW will also be hired and trained as a part of the project. Strong advocacy as a project component is also included to overcome these issues. Awareness materials and training plan will be developed and implemented as a part of this project to shrink this barrier.

Time poverty and feminization of poverty are some of the significant factors that need to be considered and addressed in the context of the project. There are a large number of females in the informal economy and during the crop sharing seasons etc. the opportunity cost of taking the children to the health care units is very high for the female and male workers. Moreover with the existing workloads including (caretaking, nurturing, reproductive and productive roles) women face multiple challenges in equitable access to vaccination of children. Flexible schedules tailored to the availability of the females can effectively mitigate this impact that can be proposed in the project design and implementation. This training on this aspect has also been included in the training plan proposed in the ESMP.

Politicization of immunization and the various connotations attached with the Polio vaccination result in fear and rumors that are attached to vaccine provision particularly in the northern and conflict afflicted areas. There is resistance to immunization that is demanded by men but carried out by women. In the communities with the various stereotypes attached the cost of getting vaccinated can result in exclusion from the community. Project advocacy and training programs will be designed to promote gender sensitive behavior. Because of high illiteracy and linguistic diversities, awareness materials will be produced in Urdu and other regional languages but more pictorial (see awareness material section).

The existing power structures and the reinforcement of women's care taking and nurturing roles is another negative impact that needs mitigation. Through the engagement of females as the primary care givers their nurturing roles is reinforced and with the existing workload this is additional burden on the females, burden that can be shared by the male members of the household. Project include a strong social mobilization mechanism that can help around engagement of men as care takers.

Gender based violence in form of domestic violence can hamper women's access to the health unit. In some cases the shame and taboos attached to disclosure of domestic violence results in the segregation of women that in turn can affect the immunization of children. The mitigation in this case include the awareness for the behavior change as a part of training programme proposed in the ESMP.

Gender discrimination and harassment at workplace between the male and female workers can also be negative externality that needs specific action. There is a code of conduct developed by the government of Pakistan to address such issues: Harassment of Women at Workplace Act 2010. Mitigations include ensuring that there should be separate bathrooms for females with prayer facilities, protection of women against sexual harassment at workplace, separate waiting unit and care units for women and children and equal access to health care service providers.

Inclusion of the disabled persons (parents) is another factor that needs affirmative action. The disabled individuals might face greater difficulties in accessing the services and the same goes for the minorities from the religious and ethnic backgrounds.

Consultations with the beneficiaries need to ensure that women's participation and representation is there and sex disaggregated data is collated when it comes to the beneficiaries. Moreover gender inclusive grievance redress mechanisms has been devised to be in place during the project to ensure transparency and accountability. The project will institute regular consultations between federal/provincial EPI teams and CSO service providers.

The above social barriers can undermine the success of the project. These barriers will be overcome mainly through the strong social mobilization, advocacy and training plan.

Project includes a strong social mobilization mechanism which will focus on supporting CSOs to take an active role to increase LHWs/CMWs involvement with the community and to restore service utilization rates in these facilities. Use of Short Message Service (SMS), and of a dedicated help line will add value to the efforts. Project also supports a strong advocacy component to raise awareness among beneficiary families, number of who are located in remote areas, speak local languages with low literacy. The plans will include production of simple pictorial posters and pamphlets and dissemination strategy by engaging CSO, NGO. The plan will also sensitize political bodies and senior religious figures, which will be implemented locally by the Provinces. A pilot voucher scheme to provide incentives for accessing immunization services to mothers and health care providers will be expanded within Punjab and adapted for national implementation. Awareness of immunization will be developed as a component of the standard school curriculum.

Similarly, training plan included in the ESMP covers also the social aspects including the sensitization about vaccination, advocacy and awareness plans. This covers the general awareness about the benefits of the vaccination, training on provider's attitude towards the women beneficiaries, developing the flexible schedules tailored to the availability of the females, engagement of men as care takers, communication for behavior change to prevent GBV, composition of vaccination teams including male and female members and other aspects.

9. Grievance Redress Mechanism

A Grievance Redress Mechanism (GRM) has been designed by the Project and will be operational during implementation. The main objective of the GRM is to investigate charges of irregularities and complaints received by the Federal and EPI cells/units at the federal and provincial level and provide an early, transparent and fair resolution. Some of the grievances that may arise are listed as follows:

- Recruitment issues,
- Delays in reaching the target population,
- Type of vaccines used,
- Deviation from cultural norms,
- Malpractices/ perception of corruption
- Non-observance of project principles as laid down in the ESMP, and
- Any other issue arising during the project implementation.

The complaint will be registered and must contain:

- The name of the individual or organization, address and telephone number (if any) of the complainant.
- A brief description of the matter which is the source of the grievance, including copies of any relevant and supporting documents.
- Nature/ type of redress sought.

Grievances will also be submitted in the Complaint Box kept at reception of every EPI cell in the province. The Complaint Box should be opened on daily basis by the Grievance Redress Officer (GRO) at provincial and federal levels. Complaint can also be sent through electronic means (e-mail, fax) should also be accepted and replied, if requested, should be sent through e- mail also. The complaints may also be sent to the e- mail address of the GRO at the Federal EPI unit. In case the complainant is not satisfied with the response at a certain level, he/ she will be free to approach the next level.

GRM will be communicated widely, both among the staff and beneficiary communities through the use of electronic and print media among other stakeholders. With the proposed development objective of the project “to increase the equitable coverage and quality of services for immunization against vaccine preventable diseases (VPD), including poliomyelitis, for children between 0 and 23 months in Pakistan” the GRM will provide a platform using staff and citizen feedback to channel for early warning and system implementation issues that need to be addressed in increasing ownership and equitable coverage. GRM will also act as an effective tool for early identification, assessment, and resolution of complaints on projects objective of deterring fraud and corruption; mitigating risks; providing project staff with practical suggestions/feedback that allow them to be more accountable, transparent, and responsive to beneficiaries; assessing the effectiveness of internal organizational processes; and increasing.

Complaints Management Register (CMR)

The GRO will maintain a Complaint Management Register (CMR) to record grievances brought forward by affected persons and communities, and ensure that these are appropriately addressed. The complaint register will provide for: the date and particulars of the complaint; description of the grievance; follow–up action required; name of person responsible for implementing the action; a target date for redressal and up-dated status/final action with date. The GRO will be supported by the Social/Gender Specialist of for this purpose. The actual measures taken to mitigate the concerns will also be recorded in the register. The complainant's views on the remedial action taken will also be documented in the Register. All complaints received verbally or in writing will be properly documented and recorded/written in the CMR.

Grievance Procedure

Every application received will be tagged with a reference number. The grievance system will be continuous for the whole year. Every application or petition will be acknowledged through standard acknowledgement slips or a copy of the receipt which should be dispatched to the complainant within 3 days of receipt of complaint or handed over to person at the time of receipt for complaints submitted in person.

The GRO provincial EPI cell will be the initiating authority to address the issues. He/she will be bound to forward the compliant to the GRO EPI (Federal) within 3 days. The GRO (Federal) will take a decision on the compliant within 5 working days on receipt of compliant. If complainant is not satisfied with his/her decision / action, the GRO provincial will refer the case to Grievance Redress Committee (GRC) as detailed below. The Committee will review the matter keeping in view its nature and suggest a remedial action within 5 working days. If considered necessary, the Committee will consult the complainant as well. Once the Committee decides the remedial action, the GRO federal EPI with the support of social specialist will implement it within a week.

In case some response on the complaint is not received within 15 days of the lodging of the complaint, the complainant may also send a reminder to the GRC with 07 days' notice to take legal remedial measures. In case of complainant's disagreement with the decision of the GRC, the GRO federal EPI will send the case to the PD (NISP). The PD will respond within 07 days. If the complainant is not satisfied, he/she will have the option to seek legal course. In case of such eventualities, all affected persons will be exempted from legal and administrative fees made / paid / incurred pursuant to the grievance redressal procedures.

Grievance Redress Committee (GRC)

Under the GRM, a Grievance Redress Committee (GRC) will be established at the EPI federal unit, which will look into all the grievance cases including those related to social and environmental issues. The GRC will include:

- Project Director (PD) (Chair of the Committee)
- Grievance Redress Officer (GRO) EPI Federal (Member of the Committee)
- GRO provincial EPI cells (Member of the Committee)
- Social Safeguards Specialist (consultant)
- Two representatives from CSOs.

Federal EPI unit shall nominate an officer as GRO to deal with matters relating to complaints and grievances. GROs will also be appointed at the provincial level and every office should display at a prominent place/ notice board the name of GRO with

location, Contact numbers/ mailing IDs and address along with the specific visiting hours for hearing / receiving the grievance/complaints of the public.

GRO EPI Federal will report to PD who will act as Secretary of the Committee. The Committee will meet at least twice a month and provide decision to resolve the issues at the end of the meeting. The committee may request the complainant to attend and present his/her case. However, any aggrieved person will have the right to register her/his case for resolution by the court, in case s/he is not satisfied with the decision of GRC.

10. Institutional Arrangements for ESMP Implementation

Overall coordination and implementation of ESMP will be the responsibility of National Program Manager, EPI who will designate an ESM Focal Point (FP) to coordinate on his/her behalf. Provincial EPI Managers will also designate similar ESM Focal Points at each province level, who will provide support to the federal level ESM FP.

Each partner hospital/tertiary healthcare units will also nominate a focal person to ensure implementation of ESMP.

The primary responsibilities of the national level ESM FP will be:

- Effective implementation of ESMP.
- Ensure that cold chain equipment, AD syringes, safety boxes, waste management stuff and disinfectant equipment/chemicals are being made available to the provinces
- Coordinate with focal person of partner hospital/tertiary healthcare unit to ensure implementation of ESMP.
- Conduct the monitoring tasks as assigned in **Table 4** and maintain all reports and records.
- Coordinate and ensure development of training material and implement of trainings sessions.
- Coordinate and ensure development of advocacy plan guidelines and awareness material in Urdu.
- Support provincial advocacy and awareness materials development in regional languages
- Conduct environmental compliance audit for the program
- Commission annual third party validations of partner hospital/tertiary healthcare unit
- Prepare Quarterly Progress Reports(QPR) for the entire project.

The responsibilities of the provincial level ESM FP will be as follows:

- Coordinate with focal person of partner hospital/tertiary healthcare unit to ensure implementation of ESMP.
- Coordinate with focal person of partner hospital/tertiary healthcare unit to ensure availability of cold chain equipment, AD syringes, safety boxes, waste management stuff and disinfectant equipment/chemicals
- Conduct monitoring tasks as assigned under **Table 4,** in coordination with national level FP and submit reports to National Program Manager, EPI.
- Implement training sessions in provinces
- Develop and implement project advocacy component
- Facilitate and coordinate third party validations in the province.
- Prepare provincial QPRs

The responsibilities of the partner hospital/tertiary healthcare unit will be as follows:

- Identify a focal person to ensure implementation of ESMP
- Maintain the record of use of all recommended equipment including AD syringes, safety boxes, waste management stuff and disinfectant equipment/chemicals
- Tally the records with the permanent registers maintained by the vaccinators
- Conduct monitoring tasks as assigned under **Table 4** and submit reports to relevant line authorities as per ESMP.
- Ensure implementation of training session in coordination with national and provincial EPI offices.
- Coordinate with relevant national and provincial managers for environmental monitoring and reporting.
- Prepare QPR and MIWMR for the facility.

11. Environmental and Social Monitoring

Table 4 describes the monitoring mechanism based on risks and mitigation measures as per **Tables 1** to **3**, with further guidance from the National EPI Policy 2013. Environmental monitoring during project implementation would provide key information about the environmental and social performance of the project, measured through the effectiveness of mitigation measures. The monitoring would also enable the borrower and the Bank to evaluate the success and/or failures (in environment and social management) of such programs as part of project supervision and to determine corrective actions to be taken when needed. The monitoring program for the proposed project is provided in **Table4** with roles and responsibilities assigned. The Provincial EPI Offices will ensure regular monitoring as well as maintain record at the provincial hubs and tertiary healthcare units. Overall responsibility of ensuring compliance against the ESMP will remain with the National Program Manager, EPI.

Table 4: Monitoring of Key Environmental and Social Aspects and Waste Management Indicators under ESMP

	Monitoring parameters	Monitoring Tool	Frequency of Monitoring	Reporting Frequency	Responsibility
1	Vaccine storage and cold chain equipment management	Temperature Charts Vaccine Vial Monitors (used to monitor potency of vaccines)	Daily monitoring at the facility level	Monthly reporting of district wide assessment of vaccine stores	Cold Chain Technician, District Surveillance Coordinator and Provincial EPI Manager
2.	Availability and use of AD Syringes	Inventory and stock lists available at static EPI Centers at UC level (number of AD syringes issued per vaccinator) EPI Tally Sheet (to tally the number of syringes used versus total vaccinated) Daily and Permanent Register maintained by Vaccinators at UC level (to tally the number of syringes used versus total vaccinated) Immunization Performance Reports (IPR)	Daily at the UC level Monthly at the District Level	Daily at the UC level Monthly at the district level (IPR)	Vaccinators District Surveillance Coordinator / In charge Health Facility
3.	Availability and use of Safety boxes	Inventory and stock lists available at static EPI Centers at UC level (number of safety boxes issued per vaccinator)	Daily at the UC level Monthly at the District	Daily at the UC level Monthly at the district	Vaccinators District Surveillance Coordinator / In charge Health

	Monitoring parameters	Monitoring Tool	Frequency of Monitoring	Reporting Frequency	Responsibility
		Immunization Performance Reports (IPR) Quantities of safety boxes received per health facility (numbers to be recorded Health Facility Waste Management Plan[7])	Level	level (IPR)	Facility
4.	Immunization waste disposal including sharps and safety boxes	Timetables and activity sheets describing collection of waste, its quantities and disposal as per Health Facility Waste Management Plan	Weekly	Weekly	Waste Management Officer / Operator of the waste disposal facility
5.	Possible AEFI reports and response	AEFI entries in the Permanent Register at the UC level AEFI Surveillance Reports at the district and provincial level	Daily at the UC level Weekly at the district and provincial levels	Bi weekly basis	In charge, Healthcare Facility (DHQH/BHU/RHC), District Surveillance Coordinator, Provincial EPI Manager
9.	Training sessions	Training Plans Training workshop reports Training Modules Attendance Sheets	Bi Annually	Bi Annually	National Program Manager EPI/ Provincial EPI Managers

[7] Hospital Waste Management Plan is required to be developed by each health care facility as per requirements of Hospital Waste Management Rules, 2005, Government of Pakistan

12. Reporting Mechanism

The National EPI Policy 2013 (draft) (Box 1) suggests the following reporting structure:

- Vaccinator shall issue/update vaccination cards, maintain daily and permanent registers, monitoring charts, records of inventories and cold chain maintenance (temperature charts).
- Vaccinator shall be responsible for timely submission of all reports.
- The health facility in-charge shall ensure accurate and timely recording and reporting of immunization performance and diseases surveillance data.
- Sub-district and District Health management, Provincial and Federal EPI Offices shall be responsible for timely collation, verification and transmission of all data/information to all stakeholders and feedback.

For reporting on ESMP compliance, following structure has been proposed:

- Monthly cold chain management assessment reports; Prepared by Provincial EPI Office, these reports will describe the efficacy of the cold chain
- Quarterly Progress Reports (QPR) at district level; Comprising of inventory checklists (maintained on a daily basis at UC level), and Immunization Progress Reports (prepared on monthly basis at the district level). These QPR will describe the extent of usage of recommended equipment (AD syringes, Safety Boxes), and provide a tally of number of beneficiaries vaccinated compared to number of equipment issued.
- Monthly Immunization Waste Management Reports (MIWMR) at district level. These reports will describe the collection, management and disposal of immunization waste, including the quantities as well as the protocols being maintained.
- Quarterly Progress Reports (QPR) at provincial level; these will be a summarized version of the district level QPR and MIWMR, and will provide a provincial snapshot of ESMP compliance.
- Quarterly Progress Reports (QPR) at national level; these will be a summarized version of all the provincial level QPR and MIWMR, and will provide an overall national snapshot of ESMP compliance, as well as an inter-provincial compliance comparison.
- Regular reports on the EMSP implementation must be included in the project reports to be submitted to the World Bank bi-annually, prior to the supervision missions.

13. Capacity Development

Trainings

This section describes the capacity needs and the types of trainings to be conducted in response, in order to minimize/avoid the negative environmental and social aspects associated with the project. The training sessions, along with the learning objectives and the target groups to be focused on, are described in **Table 5**. The Mid-Level Manager (MLM) trainings are regularly conducted for the EPI staff. These trainings are developed by the EPI Cell, and are based on the WHO's formats/documents. The EPI training teams will develop sections for the specific trainings for ESM. The Federal EPI will develop a pool of excellent master trainers, which would be available at the district level to cascade trainings of high quality.

Table 5: Training Sessions and Schedule

	Training Session	Learning Objectives	Target Groups	Training Schedule
1.	Vaccine administration, management (including procurement, quality and supply) and storage	Understanding of WHO standards on vaccine constitution, reconstitution, temperature control, and related issues	a, b, c	As per regular training schedules at the federal and provincial levels, and should be given adequate weightage in curricula of different trainings.
2.	Environmental and Social Hazards associated with immunization	Understanding of environmental issues, social conflicts and abandonments, legal obligations, environmental assessment, infection control, sharps handling, and waste disposal	a, b, c,	Same as above
3.	ESMP implementation	Understanding of implementation requirements and roles and responsibilities	A	Same as above
5.	Hospital Waste Management System	Understanding of legal requirements, waste management system, roles and responsibilities, monitoring, reporting and record keeping.	a, b	Same as above
6.	Social aspects of Immunization Programs	Awareness about the importance of vaccination and its long term benefits,	a, b, c, d	Do

	Training Session	Learning Objectives	Target Groups	Training Schedule
		Understanding the social barriers in vaccination programs. Provider's attitude towards the women beneficiaries. Development of flexible schedules tailored to the availability of the females. Advocating formulation of vaccination teams including male and female members. Dealing with rural isolation, distant access and katchi abadis, Developing and adopting gender sensitive behavior.		
7.	Awareness Materials and Advocacy Plans	Communication skills with communities Types of awareness materials developed and how to use them Appropriate use of the awareness materials	a, b, c, d	Do
8.	Grievance Redress Mechanism	Features and functioning of GRM	a, b, c	

Target Groups:

a. Project management team (federal, provincial and district level managers, middle level managers, persons in charge of UC level Healthcare facilities, and/or hospital)

b. All other project team (persons other than project management team such as vaccinators, nurses, dispensers, Lady Health Visitors (LHVs), Medical Technicians (MT), Female Medical Technicians (FMT), mid-wives, Lady Health Workers (LHWs) and Medical Doctors, etc.)

c. NGOs/POs (partner organizations) engaged in project activities.

d. Selected members from the CSO, communities, religious and political leaders

Awareness Material

In addition to an aggressive and targeted training program, the project will need to invest into developing relevant awareness raising material according to advocacy component of the project. This material will be produced in Urdu and other regional languages, with minimum words and maximum pictures. It will cover following issues but will not be limited to these only:

a. Posters and pamphlets on general morbidity and mortality risks associated to non-immunization, and/or missed opportunities

b. Posters and pamphlets on relevant environmental and social issues related to syringe and sharps' safety

c. Posters and pamphlets on relevant environmental and social issues related to usage of improperly stored/handled/administered vaccines

d. Posters on AEFI occurrence, recording and reporting procedures (see annex 2 for basic guidance)

e. Brief guidelines/procedures for hospital waste handling and safe disposal. This would include but not limited to the usage of protective equipment, syringes and sharps disposal, safe disposal techniques for infectious wastes, etc. The Hospital Waste Management Rules 2005 and National EPI Policy 2013 may be used as base documents for developing such brief guidelines/procedures.

f. Posters and display sign for awareness on safe practices.

14. Evaluation of ESMP Compliance

Regular evaluation of effectiveness of ESMP is of prime importance for the overall success of the project, and to ensure that positive impacts are accrued from project activities and outputs. Two types of evaluations are suggested for this purpose; environmental audits, and third party evaluation and validation.

Environmental audit is an instrument to determine the nature and extent of all environmental concern of an activity, process, or a facility. The audit identifies and justifies effectiveness of a mitigation measure to address an environmental aspect.

Third party evaluation and validation provides an external, unbiased opinion of progress of the project against its objectives, and short term challenges and gains henceforth. Usually carried out on an annual basis, it helps realign the project as per its ESMP and the impact created due to its implementation.

Environmental audits and third party validations will be carried out to evaluate the implementation of ESMP as per the schedule mentioned in **Table 6** below.

Table 6: Activities for Evaluation of ESMP Implementation

Activities	Schedule	Purpose	Responsibility
Environmental Audit	To be carried out six monthly.	To evaluate overall aspects of the project, determine levels of ESMP compliance, determine effectiveness of ESMP as a whole	National Program Manager, EPI in coordination with

		and its various components (eg, mitigation measures and environmental monitoring responsibilities), and to assess the sustainability of suggested activities at the local (district/UC levels)	provincial EPI offices
Third Party Validation (TPV)	To be carried out twice – 4 months before mid-term review (MTR) and 6 months before project completion	To assess the overall impact of the project in terms of environmental and social hazards, AEFI reporting and response, and effectiveness of the ESMP, at the local, provincial and federal levels.	Third Party (Institution/consultants) Preference will be given to the Public Sector Institution/Public Health Academia / Universities

The National Program Manager, EPI will be responsible for preparing the schedules, setting the scope and scale of the ESMP evaluation activities, developing audit teams, and arrange subsequent financial support. Provincial Managers would be responsible for coordination and supporting the execution of third party validation annually. Services of consultants or professional institutes may be procured for environmental audits and third party validations.

The TORs for third party validation, environmental audit reports and final third party validation* findings will be submitted to the Bank for review, approval and record.

15. Summary of ESMP Actions

The overall action plan for ESMP implementation and the associated timeline is presented in **Table 7** below.

Table 7: ESMP Implementation Plan

Activity	Timeline	Notes/Basis
Implementation of mitigation measures	On a regular basis in accordance with the immunization schedule	Tables 1 to 3
ESMP monitoring	Same as above	Table 4
Documentation of current practices and identification of workable solutions	Year 1 of NISP	As part of Action Plan for Immunization Waste Management
Preparation and notification of District Action Plans	Year 2 of NISP	
Implementation of the District Action Plans (and revision of ESMP as required)	Year 3 of NISP	
ESMP trainings	On a regular basis along with the	Table 5

Activity	Timeline	Notes/Basis
	overall training program but minimum on a quarterly basis.	
Environmental audit	Twice a year	Table 6
TPV	4 months before MTR and 6 months before project completion	Table 6
ESMP implementation reports	Quarterly (to be prepared within one month of each completed quarter)	

16. ESMP Implementation Budget

The cost budget for implementation of the ESMP is provided in **Table8**.

Table 8: ESMP Implementation Budget [a]

	Activity/Item	Costs (Million PKR)					Total
		1st Year	2nd Year	3rd Year	4th year	5th Year	
1.	District Immunization Waste Action Planning (DIWAP) workshops 5 workshops each @ 1 million	5					5
2.	DIWAP implementation (Cost of DIWP Coordinators [b])			7.2	7.2	7.2	21.6
3.	Awareness Material [c]	-	-	-	-	-	0
4.	TPV One every year @ 2 million	2	2	2	2	2	10
Total							**36.6**

[a] Cost of consumables is included in overall project cost; cost of digging the pit is covered by the healthcare facility where the immunization waste is disposed.

[b] The DIWP coordinators can be the EPI officer who may be designated as infection control officer, and paid a top-up amount to his salary (current budget cost 4080/month. The once designated, the person should not be changed for at least three years)

[c] To be integrated into the ongoing training/awareness raising programs.

Annex A

LIST OF CSOs WORKING IN SINDH AND PUNJAB PROVINCE

SINDH PROVINCE	
Aga Khan University	
HELP	
The Health Foundation	
PVDP	
PAVHNA	
HANDS	
SAFWCO	
TRDP	
GSF	
Aga Khan Health Sevices	
Sindh Development Society	Hyderabad
Sindh Community Foundation	Hyderabad
Al- Mehran Rural Development Organization-AMRDO	Hyderabad
Management & Development Foundation (MDF)	Hyderabad
Sindhica Reforms Society	BeneziraBad (Nawabshah)
Nawabshah Disability Forum (NDF) Pakistan	BeneziraBad (Nawabshah)
Agriculture research and Training Services	Mirpur Khas
District Development Association	Tharparkar
Badin Development and Research Organziation	Badin
Sewa Development Trust Sindh (SDTS)	Khairpur
Sindh Radiant Organziation	Thata
Gorakh Foundation	Dadu
NARI Development Organization	Dadu
GSSS	Dadu
Community Development Network Organization	Jaccobabad
Community Development Foundation	Jaccobabad
Kainat Development Association	Kashmoor
Al Mustufa Welfare Association	Khairpur
PUNJAB PROVINCE	
Association for Gender Awarness and Human Empowerment(AGAHE)	Lahore
Community Support Concern	Lahore
Lodran Pilot Project	Lodhran
Al- Asar Development Organziation(ADO)	DG Khan
Paidar Development Organization	Multan
Awaz Foundation- Pakistan	Multan
AAS Foundation	Bahawalnagar
Health Education and Literacy Network	Lahore
Shehri Ijtimai Taraqiati Council (SHATAC)	Mandi Bahauddin
Musliam Aid	Islamabd
Awammi Development Organization (ADO)	Layyah
Friend Foundation	Islamabad
Jahandad Society for Community Development	Lahore
REEDS- RYK	Rahim Yar Khan
Strategy To Empower People (STEP Organization)	Rajanpur

Annex B

NISP Project CSO Meeting
February 5, 2014, The World Bank,
Islamabad

S.No	Name	Designation/ Organization
1.	Dr. Saadia Farrukh	Health Specialist, EPI/ UNICEF
2.	Dr. Samia Hashim	Health and Nutrition Specialist, UNICEF/ OIC Health Section
3.	Muqaddisa Mehreen	Senior Gender Specialist, World Bank Group
4.	Dr. Seema Raza	Manager Health, Pakistan Poverty Alleviation Fund
5.	Dr. Farah Naureen	Director of Health Programs, Mercy Corps.
6.	Dr. Irfana Asim	Senior Program Officer ,NRSP
7.	Mukhtar Ahmed Awan	Basic Development Needs (BDN) Program, Muzaffarabad AJK
8.	Huma Khawar	CSO Coordination, EPI Islamabad
9.	Dr. Qudsia Uzma	Director Health and Nutrition, Save the Children
10.	Dr. Laila Rizvi	Executive Director, The Health Foundation (Pakistan)
11.	D S Akram	Professor of Pediatrics Hon. Chairperson Health Education & Literacy Program (HELP)
12.	Dr. Nabeela Shahid	Deputy Program Manager, NRSP
13.	Tanveer Ahmed	Chief Executive, HANDS
14.	Sundas Warsi	M&E Officer, GAVI CSO Unit
15.	Lubna Hashmat	CEO, CHIP
16.	Dr. Unaiza Haidri	Deputy Director, EPI