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IDA/R2016-0052/1

April 1, 2016

**Closing Date: Thursday, April 21, 2016
at 6 p.m.**

FROM: Acting Vice President and Corporate Secretary

Pakistan - National Immunization Support Project

Project Appraisal Document

Attached is the Project Appraisal Document regarding a proposed credit to Pakistan for a National Immunization Support Project (IDA/R2016-0052), which is being processed on an absence-of-objection basis.

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Report No: PAD616

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED CREDIT

IN THE AMOUNT OF SDR 36.1 MILLION
(US\$50.0 MILLION EQUIVALENT)

AND A

PROPOSED GRANT FROM THE

PAKISTAN NATIONAL IMMUNIZATION SUPPORT PROJECT MULTI-DONOR TRUST
FUND

IN THE AMOUNT OF US\$79.60 MILLION

TO THE

ISLAMIC REPUBLIC OF PAKISTAN

FOR A

NATIONAL IMMUNIZATION SUPPORT PROJECT

March 25, 2016

Health, Nutrition, and Population Global Practice
South Asia Region

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CURRENCY EQUIVALENTS

(Exchange Rate Effective: December 31, 2015)

Currency Unit = Pakistan Rupee (PKR)
PKR = US\$0.01
US\$1.38573 = SDR 1

FISCAL YEAR
July 1 – June 30

ABBREVIATIONS AND ACRONYMS

AEFI	Adverse Events Following Immunization
BCC	Behavioral Change Communication
BCG	<i>Bacille Calmette-Guérin</i> vaccine
BMGF	Bill & Melinda Gates Foundation
CMYP	Comprehensive Multi-Year Plan
CPS	Country Partnership Strategy
CSO	Civil Society Organization
DA	Designated Account
DGHS	Director General Health Services
DLI	Disbursement-Linked Indicator
DALY	Disability Adjusted Life Year
DOH	Department of Health
DSV	District Superintendent Vaccination
DTP	Diphtheria Tetanus Pertussis vaccine
EDO	Executive District Officer
EDO(H)	Executive District Officer (Health)
EEP	Eligible Expenditure Program
EPI	Expanded Program on Immunization
ESMP	Environmental and Social Management Plan
EVM	Effective Vaccine Management
FM	Financial Management
GAVI	Gavi, the Vaccine Alliance
GDP	Gross Domestic Product
GFF	Global Financing Facility
GOP	Government of Pakistan
HepB	Hepatitis B vaccine
Hib	Haemophilus influenzae type b
ICB	International Competitive Bidding
ICC	Interagency Coordination Committee
IDA	International Development Association
IFR	Interim Financial Report

KP	Khyber Pakhtunkhwa
LHW	Lady Health Worker
LQAS	Lot Quality Assurance Sampling
M&E	Monitoring and Evaluation
MDGs	Millennium Development Goals
MDTF	Multi-donor Trust Fund
MNT	Maternal and Neonatal Tetanus
MOH	Ministry of Health
MONHSRC	Ministry of National Health Services, Regulation and Coordination
NCB	National Competitive Bidding
NGO	Non-government Organization
NISP	National Immunization Support Project
PC-1	Planning Commission Form 1
PCV	Pneumococcal Vaccine
PDO	Project Development Objective
PDHS	Pakistan Demographic and Health Survey
Penta1&3	Pentavalent vaccine doses 1 and 3
PHC	Primary Health Care
PEI	Polio Eradication Initiative
PP	Procurement Plan
PSLM	Pakistan Social And Living Standards Measurement
QCBS	Quality and Cost Based Selection
SIA	Supplemental Immunization Activity
SDR	Special Drawing Rights
TPV	Third Party Verification
UC	Union Council
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
vLMIS	Vaccine Logistics Management Information System
VPD	Vaccine Preventable Diseases
WHO	World Health Organization

Regional Vice President:	Annette Dixon
Country Director:	Patchamuthu Illangovan
Senior Global Practice Director:	Timothy G. Evans
Practice Manager:	Rekha Menon
Task Team Leader:	Robert Oelrichs

PAKISTAN
National Immunization Support Project

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PAD DATA SHEET*Pakistan**National Immunization Support Project (P132308)***PROJECT APPRAISAL DOCUMENT***SOUTH ASIA*

Report No.: PAD616

Basic Information			
Project ID P132308	EA Category B - Partial Assessment	Team Leader Robert Oelrichs	
Financing Instrument Investment Project Financing	Fragile and/or Capacity Constraints []		
	Financial Intermediaries []		
	Series of Projects []		
Project Implementation Start Date 22-Apr-2016	Project Implementation End Date 30-Jun-2021		
Expected Effectiveness Date 2-May-2016	Expected Closing Date 31-Dec-2021		
Joint IFC No			
Practice Manager Rekha Menon	Senior Global Practice Director Timothy G. Evans	Country Director Patchamuthu Illangovan	Regional Vice President Annette Dixon
Borrower: Islamic Republic of Pakistan			
Responsible Agency: Expanded Program on Immunization, Ministry of National Health Services, Regulations and Coordination (MONHSRC)			
Contact: Telephone No.:	Muhammad Ayub Shaikh (92-51) 920-3248	Title: Email:	Secretary secretaryipc@yahoo.com
Project Financing Data (in USD Million)			
<input type="checkbox"/> Loan	<input checked="" type="checkbox"/> Grant	<input type="checkbox"/> Guarantee	
<input checked="" type="checkbox"/> Credit	<input type="checkbox"/> IDA Grant	<input type="checkbox"/> Other	
Total Project Cost:	129.60	Total Bank Financing:	50.00
Financing Gap:	0.00		

Financing Source	Amount
International Development Association (IDA)	50.00
Multi-Donor Trust Fund by Gavi and USAID (total of available and committed amounts)	79.60
Total	129.60
Results-linked partial buy-down of credit by Bill & Melinda Gates Foundation	25.00

Expected Disbursements of credit and Multi-Donor Trust Fund only (in USD Million)

Fiscal Year	FY16	FY17	FY18	FY19	FY20	FY21			
Annual	11.96	37.57	28.29	21.88	15.45	14.46	0.00	0.00	0.00
Cumulative	11.96	49.53	77.82	99.69	115.14	129.60	0.00	0.00	0.00

Institutional Data

Practice Area (Lead)

Health, Nutrition and Population

Contributing Practice Areas

-

Cross Cutting Areas

Climate Change

Fragile, Conflict & Violence

Gender

Jobs

Public Private Partnership

Sectors / Climate Change

Sector (Maximum 5 and total % must equal 100)

Major Sector	Sector	%	Adaptation Co-benefits %	Mitigation Co-benefits %
Health and other social services	Health	100		
Total		100		

I certify that there is no Adaptation and Mitigation Climate Change Co-benefits information applicable to this project.

Themes

Theme (Maximum 5 and total % must equal 100)

Major theme	Theme	%
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Human development	Health system performance	50
Human development	Child health	25
Human development	Other communicable diseases	25
Total		100

Proposed Development Objective(s)

The development objective is to increase equitable coverage of services for immunization against vaccine preventable diseases (VPD), including poliomyelitis, for children between 0 and 23 months in Pakistan.

Components

Component Name	Cost (USD Millions)
Component 1: Strengthening Management, Governance and Stewardship Functions	40.30
Component 2: Improving Service Delivery Performance	19.75
Component 3: Demand Generation	20.75
Component 4: Vaccine Supply Chain	34.00
Component 5: Improving Capacity for Increased Immunization Coverage	14.80

Systematic Operations Risk-Rating Tool (SORT)

Risk Category	Rating
1. Political and Governance	High
2. Macroeconomic	Moderate
3. Sector Strategies and Policies	High
4. Technical Design of Project or Program	Moderate
5. Institutional Capacity for Implementation and Sustainability	Substantial
6. Fiduciary	Substantial
7. Environment and Social	Moderate
8. Stakeholders	High
OVERALL	Substantial

Compliance

Policy

Does the project depart from the CAS in content or in other significant respects?	Yes []	No [X]
Does the project require any waivers of Bank policies?	Yes []	No [X]
Have these been approved by Bank management?	Yes []	No [X]

Is approval for any policy waiver sought from the Board?		Yes []	No [X]
Does the project meet the Regional criteria for readiness for implementation?		Yes [X]	No []
Safeguard Policies Triggered by the Project		Yes	No
Environmental Assessment OP/BP 4.01		X	
Natural Habitats OP/BP 4.04			X
Forests OP/BP 4.36			X
Pest Management OP 4.09			X
Physical Cultural Resources OP/BP 4.11			X
Indigenous Peoples OP/BP 4.10			X
Involuntary Resettlement OP/BP 4.12			X
Safety of Dams OP/BP 4.37			X
Projects on International Waterways OP/BP 7.50			X
Projects in Disputed Areas OP/BP 7.60			X
Legal Covenants			
Name	Recurrent	Due Date	Frequency
Implementation Units I	X	N/A	Throughout Project implementation
Description of Covenant			
MONHSRC to maintain (i) a Federal Steering Committee; and (ii) a Federal EPI Cell, and each DoH of each Project Province to maintain Provincial EPI Steering Committees and Provincial EPI Cells.			
Name	Recurrent	Due Date	Frequency
Implementation Units II	N/A	three (3) months after Effectiveness	N/A
Description of the Covenant			
(i) Federal EPI Cell to hire a Financial Management (FM) specialist, a procurement specialist, a monitoring, evaluation and surveillance specialist, a data management technician and an epidemiologist; and (ii) Provincial EPI Cells to hire a financial reporting specialist, all under Terms of Reference, and with qualification and experience acceptable to the Association.			
Name	Recurrent	Due Date	Frequency
ICC Meetings	X	N/A	Twice a Year
Description of Covenant			
MONHSRC to convene ICC meetings with provincial EPI Cells, representatives of Donors and the Association, and Project Provinces to ensure the attendance of ICC Meetings by the respective managers of the provincial EPI Cells			
Name	Recurrent	Due Date	Frequency
Procurement Manual	X	N/A	Throughout Project implementation

Description of Covenant			
MONHSRC to carry out its respective parts of the Project in accordance with the Procurement Manual, and refrain from unilaterally amending, suspending or waiving the provisions of such Manual.			
Name	Recurrent	Due Date	Frequency
National Immunization Policy Framework	X	One (1) year after Effectiveness	Throughout Project implementation
Description of Covenant			
MONHSRC to prepare and adopt a national level policy framework for the financing of immunization services setting forth immunization targets and annual resources requirements, and thereafter make annual budgetary appropriations for EPI services on the basis of the approved policy.			
Name	Recurrent	Due Date	Frequency
FM Implementation Plan	X	Three (3) months after Effectiveness	Throughout Project implementation
Description of Covenant			
MONHSRC and the Project Provinces to prepare, adopt and carry out an implementation plan for the strengthening of the financial management capacity of MONHSRC, its Federal EPI Cell, the provincial DoHs and their respective EPI Cells.			
Name	Recurrent	Due Date	Frequency
DLI Verification Protocols	X	N/A	Throughout Project implementation
Description of Covenant			
MONHSRC and the Project Provinces to undertake DLI verification processes in accordance with the terms of reference agreed with the Association.			
Name	Recurrent	Due Date	Frequency
Recurrent Budgetary Provisions	X	June 30, 2019	N/A
Description of Covenant			
MONHSRC to categorize all human resources positions created on the development side of the GOP's budget as per the Federal PC-I as part of the recurrent side of the budget.			
Name	Recurrent	Due Date	Frequency
Cold Chain Procurement	N/A	September 30, 2016	N/A
Description of Covenant			
MONHSRC to enter into a purchase agreement with UNICEF for the provision of cold rooms, ice lined refrigerators and related equipment for the storage and transport of vaccines.			
Name	Recurrent	Due Date	Frequency
Environmental and Social Management Plan	X	N/A	Throughout Project implementation
Description of Covenant			
MONHSRC and the Project Provinces to carry out their respective Project activities in accordance with the Environmental and Social Management Plan.			

Name	Recurrent	Due Date	Frequency
Procurement Transparency and Complaint Mechanisms.	X	Three (3) months after Effectiveness	Throughout Project implementation
Description of Covenant			
MONHSRC to establish and thereafter maintain a procurement documentation and record keeping system, and a mechanism for the handling of procurement complaints, in a manner and substance acceptable to the Association.			
Team Composition			
Bank Staff			
Name	Title	Specialization	Unit
Aliya Kashif	Health Specialist	Health	GHNDR
Amna W. Mir	Senior Program Assistant	Program Assistant	SACPK
Anwar Ali Bhatti	Financial Analyst	Financial Management	SACPK
Chau-Ching Shen	Senior Finance Officer	Finance	CTRLN
Emiliana Gunawan	Program Assistant	Program Assistant	GHNDR
Hammad Yunus	Consultant	Financial Management	GGODR
Inaam Ul Haq	Program Leader	Health	SACPK
Javaid Afzal	Senior Environmental Specialist	Environmental Safeguards	GENDR
Martin M. Serrano	Senior Counsel	Legal	LEGES
Minhaj ul Haque	Consultant	Economist	GHNDR
Mohammad Omar Khalid	Consultant	Environmental Safeguards	GENDR
Muqaddisa Mehreen	Consultant	Gender	GSURR
Naoko Ohno	Operations Officer	Operations	GHNDR
Rahul Rekhi	Consultant	Economist	GHNDR
Rehan Hyder	Senior Procurement Specialist	Procurement	GGODR
Robert Oelrichs	Senior Health Specialist	Team Lead	GHNDR
Rubina Geizla Quamber	Program Assistant	Program Assistant	SACPK
Salma Omar	Senior Social Development Specialist	Social Safeguards	GURDR
Samina Mussarat Islam	Consultant	Social Safeguards	GSURR
Syed Waseem Abbas Kazmi	Financial Management Specialist	Financial Management	GGODR
Tayyeb Masud	Senior Health Specialist	Health	GHNDR

Locations					
Country	First Administrative Division	Location	Planned	Actual	Comments
Pakistan	Federal	Nationwide	X		

I. STRATEGIC CONTEXT

A. Country Context

1. Pakistan is the world's sixth most populous country with a population of 180 million and a per capita income of US\$1,410 in 2014 - a lower middle-income country. Pakistan's cycles of high growth have been interrupted by shocks and crises - followed by relative stagnation. Continuing insecurity and slow economic reform pose critical challenges. The economic and political instability of the 1990s was followed by improved economic performance in the first half of the 2000s, with an average growth of real Gross Domestic Product (GDP) of around 5%, and decreasing levels of poverty from 34.5% in 2001/02 to 17.2% in 2007/08. The country's recovery from the 2008–09 global financial crisis has been the weakest in South Asia, with GDP growth averaging 2.9% in the FY09-13 period, recovering to 4.7% in 2014.

2. Accelerating progress in human development remains a key underpinning for sustained economic gains and poverty reduction in Pakistan. Pakistan has undergone a major demographic transition over the last 40 years, with an overall decline in the ratio of the dependent age population to the working age population from 90 percent in the early 1960s to about 68 percent today. Although Pakistan has made great strides in service delivery over the last three decades, it has not been able to translate an increasing working age population into a strong and sustained impetus for growth. This is partly because the level of expenditure on education and health has been very limited – compounded by chronically low performance. In fact, Pakistan is ranked as one of the lowest spenders on education and health in the region (at less than 2% of GDP). Pakistan was not able to meet most of the Millennium Development Goal (MDG) targets on health by the end of 2015. The social indicators for both health and education have remained low and lag seriously behind other countries in the region. Infant and under five mortality rates still lag behind other South Asian countries. Gender disparities persist in education, health and all economic sectors. Nutrition also remains a significant cross-cutting challenge. Pakistan faces a growing burden to meet the basic needs of its population; without substantial investments in human development, Pakistan is unlikely to capture a potential demographic dividend and to enjoy high levels of economic growth.

B. Sectoral and Institutional Context

3. **Pakistan's performance in maternal and child health remains poor and immunization coverage is a major challenge.** In the South Asia Region, only Afghanistan has worse health indicators. Significant inequity exists in health service access and utilization, and little has changed for the poorest and rural population since the 1990s. Immunization coverage in Pakistan has stagnated - the proportion of children who are fully immunized has been variously estimated between 43 to 62 percent¹ - and this figure varies considerably across geographic, social and political boundaries. The regrettable deficits in immunization coverage are reflected in the recurrent outbreaks of vaccine preventable diseases (such as measles and diphtheria) that have been largely controlled in other countries. There are plans to expand immunization services to include delivery of more advanced and effective vaccines to Pakistan's children. This will present additional challenges to existing system capacity.

¹ The country comprehensive multiyear plan for immunization (2014) assigns a baseline coverage in 2012 of 53%.

4. **Pakistan is grappling with the public health emergency of ongoing polio virus transmission.** After almost two decades of intense global effort, the goal of polio eradication is within reach. The complete elimination in perpetuity of the cruel paralysis and death caused by polio will be an historical achievement and a global public good of tremendous value. The only two countries in which endemic transmission continues are Pakistan and Afghanistan, and the majority of reports of infant paralysis in the latter are associated with cross-border transmission from Pakistan. Interrupting the transmission of polio in Pakistan is therefore recognized as an extreme priority at the highest levels of national and provincial government. In this aim, the country is strongly supported by international partners, including the World Bank. There has been a major investment in polio eradication by the global community - including more than US\$800 million by the World Bank worldwide. Of this amount, more than one third has been financed in Pakistan.

5. **Strengthening of the national routine immunization program** (the Expanded Program on Immunization, EPI) is imperative to achieve eradication and to safeguard these substantial investments, in Pakistan and globally. Ensuring strong national routine immunization is the first essential pillar in polio eradication and has been the key to rapid control of polio in many countries. For the last several years, National Emergency Plans for Polio have focused the energies of the provincial departments of health and their immunization staff on implementation of eradication activities. However, a strong routine immunization system is by itself essential to achieve the goal of polio eradication, and to quench outbreaks of polio if these occur after the country reaches zero cases.

6. **The Pakistan National EPI Program.** Childhood immunization against vaccine preventable diseases (VPD) presents a highly cost effective intervention by delivering significant reductions in morbidity and mortality from inexpensive and standardized interventions. It remains one of the most fundamental competencies of public health programs. EPI has existed for over 30 years in Pakistan. In line with international standards, EPI in Pakistan aims to immunize all children against eight vaccine preventable diseases that include tuberculosis, poliomyelitis, diphtheria, pertussis, tetanus, hepatitis B, haemophilus influenza type b (Hib), and measles. Newer vaccines which will expand EPI are either in the process of roll out (pneumococcal vaccine, inactivated polio vaccine) or under planning (rotavirus vaccine).

7. **Core EPI Program activities** include provision of immunization services, management and operational support, the purchase and supply of vaccines, maintenance of an effective vaccine supply chain, surveillance for outbreaks of vaccine-preventable diseases and demand generation. EPI services are provided almost exclusively through the public health delivery network through fixed centers and outreach services. Centers manned by vaccinators have been established in health facilities supported by facility staff; vaccinators with lady health workers (LHWs) undertake outreach services.

8. Governance of the program has been complex after the 18th Amendment to the Constitution, which was passed by Parliament in April 2010. This Amendment enhanced provincial autonomy through devolving federal legislative powers and responsibilities to the provinces - including for health. After this decentralization, the provinces have been expected to plan and manage their own provincial budgets for EPI. Provinces continue to support the costs of program implementation. Meanwhile, the federal policy, oversight, regulatory, monitoring and

evaluation functions have not been strongly or consistently supported. In effect, therefore, there are five more or less independent EPI programs in Pakistan— one for each of the four provinces, and a national program supporting service delivery in the federally administered territories. The barriers to improved routine immunization performance are **not primarily financial but systemic**. Program governance and accountability mechanisms are weak and fragmented between federal, provincial and district levels. Effective mechanisms for performance management and accountability for results are lacking. Access to quality services varies greatly across geographic and socioeconomic dimensions. An analysis of challenges faced by the EPI program, with further details on program structure and performance may be found in the World Bank’s 2012 report².

9. **Financing of Immunization.** The provincial EPI programs suffer from **fragmentation of financing**, with multiple sources from federal and provincial budgets and from the considerable international support that flows off-budget. This fragmentation causes serious inefficiencies due to delayed flow of funds and unpredictable resource projections. In addition it limits accountability due to failures of accounting and reporting. The financial sustainability of the program is continuously threatened by the reliance on development budgeting and off-budget international support. Securing accountable and sustainable financing for immunization is an urgent health priority. Financing for EPI is largely under the federal and provincial development budgets, and committed investments under the program core activities are articulated in federally and provincially approved Planning Commission documents (PC-Is).

10. The total cost of the immunization program in 2012 was estimated at US\$239 million, including supplementary immunization activities (SIAs) for polio and other diseases. SIAs accounted for one third of the total cost (US\$75.3 million), and the remaining costs were allocated to vaccine supply and logistics (24%), shared health system resources (23%) and service delivery (18%). External sources of financing dominate, with the Polio Eradication Initiative contributing 37% and Gavi 22%. When shared health system costs are considered, the provincial governments are a major financing source (28%), although in most provinces this financing remains in the development rather than the recurrent budget. The Federal Government share is 5%, when vaccine co-financing is included.

11. **The Pakistan National EPI program – a new resolve.** The Federal and Provincial governments have prepared and endorsed the 2014-18 national Comprehensive Multi-Year Plan (CMYP)³ for the Pakistan National EPI Program, which outlines a new resolve to improve program performance and rebuild the system. The Executive Committee of the National Economic Council approved on March 8, 2016 the federal PC-I for EPI, which will finance the CMYP over the project period. Government financing estimates based on provincially approved planning documents (PC-Is) total US\$1,581.20 million (see Table 1 below). This may increase based on future requirements (for example, Punjab has costed introduction of the new Rotavirus vaccine while other provinces have not reflected it). The PC-Is detail the financing to be provided for the EPI program under the development budget for management and operational support (US\$16.02 million), vaccine costs (US\$1,485.28 million), vaccine supply chain

² [*The Expanded Program on Immunization in Pakistan: Recommendations for improving performance.*](#) Tayyeb Masud and Kumari Vinodhani Navaratne. HNP Discussion Paper. World Bank, Washington, DC. April 2012

³ National Comprehensive Multi-Year Plan for the Immunization Program of Pakistan, 2014.

(US\$34.68 million) and surveillance, monitoring and demand generation (US\$45.22 million). In addition the program is supported within the regular health budget by salary costs (US\$46.65 million).

Table 1: Government Financing for EPI Program for the period 2016 to 2020 (US\$ millions)

	Government co-financing
Federal Government	326.00
Provincial Governments Total	1255.2
Punjab	764.00
Sindh	193.00
KP	204.00
Balochistan	94.20
Total	1581.20

12. As articulated in the CMYP, the federal and provincial governments have committed to address the performance and governance challenges faced by the EPI program, with well-defined targets for reduction of measles morbidity, interruption of poliovirus transmission and elimination of neonatal tetanus. The CMYP envisages a) Enhancing equitable coverage of immunization services, b) Strengthening routine immunization and c) introducing a systems strengthening approach. This plan encompasses improving governance, as well as building systems for effective management, particularly at the provincial and district levels. In addition, the CMYP encompasses financing reforms and restructuring institutions in the context of decentralization. The federal role in national planning and coordination in health will also be further defined. The CMYP acts on clear opportunities for increased access, accountability, ownership and equity in immunization programs.

C. Higher Level Objectives to which the Project Contributes

13. The latest Country Partnership Strategy (CPS) 2015-2019⁴ for Pakistan recognizes service delivery in health and education as key areas of World Bank Group engagement in order to achieve the twin goals of poverty reduction and shared prosperity in Pakistan. The role of human development in national productivity is highlighted - noting that an educated, skilled, and healthy workforce is essential to create jobs and increase growth. Indeed, the recent Lancet Commission on Global Health 2035 notes that investing in health has a huge payoff. Mortality reductions account for 11% of recent economic growth in low- and middle-income countries - and between 2000 and 2011, 24% of the growth in full income in low- and middle-income countries resulted from additional life years gained. Specifically, the CPS sets the goal of increasing provincial expenditures on education and health by 20% and, within that, to increase child immunization by 20%. Furthermore, the CPS emphasizes leveraging more funds from outside the World Bank as one of strategy for transformational change. The innovative financing plan to be implemented under the proposed National Immunization Support Project (NISIP) is

⁴ Report No. 84645-PK. April 4th, 2014

exemplary of this strategy. The project also reflects the World Bank Group goals of promoting universal health coverage. These are to provide quality, affordable health care to everyone, while reducing financial risks associated with ill health, and increasing equity.

II. PROJECT DEVELOPMENT OBJECTIVE

A. PDO

14. The development objective of the project is to increase equitable coverage of services for immunization against vaccine preventable diseases (VPD), including poliomyelitis, for children between 0 and 23 months in Pakistan. The project will support and incentivize the implementation of the government EPI program as articulated in the CMYP.

B. Project Beneficiaries

15. Children under two years of age in Pakistan are to be the primary beneficiaries of NISP – particularly children in the lowest wealth quintiles in which immunization coverage is lowest. In addition, children under 5 years of age are targeted during Pakistan’s SIA for polio and under 10 years of age for measles. Children aged under 10 years are thus secondary beneficiaries under the project. Pakistan is one of the last two countries globally in which polio is endemic. The eradication of this virus, towards which billions of dollars are being invested, will be heavily contingent upon an effective EPI program, particularly as Pakistan introduces inactivated polio vaccine into its routine schedule in 2015/16. This project aims to strengthen EPI in Pakistan at the critical endgame stage of polio eradication, and therefore its ultimate beneficiaries also include all children globally.

C. PDO Level Results Indicators

16. The success of the project in meeting its objectives of improving *coverage* and *equity* will be measured by the following outcome indicators:

- Percent of children aged between 12-23 months old in each project province who are fully immunized, disaggregated by gender, income, province and district.
- Percentage of districts in each project province reporting at least 80% coverage of Penta3 immunization in children between 12-23 months old.
- Number of children reported as receiving Penta3 minus the number of children reported as receiving Penta1, as a percentage disaggregated at the provincial level (dropout rate).
- Penta3 coverage in each province between the lowest and the highest wealth quintile.

17. In addition, a full set of intermediate outcome indicators will be used to track improvements in service delivery, performance, governance and accountability (Annex 1). The Results Framework of this project is in line with the framework of Pakistan National EPI program and aligned with the Country Performance Framework employed by Gavi. This will allow seamless monitoring and reporting on all sources of finance supporting the EPI program, without duplication of indicators. Progress by each province will be monitored with the province-specific targets for each indicator, according to provincial context and capacity.

III. PROJECT DESCRIPTION

A. Project Components

18. This project aims to incentivize results and address bottlenecks in support of the Pakistan national EPI program, which is articulated in the National Comprehensive Multi-Year Plan for the Immunization Program of Pakistan, 2014. The multi-pronged organization of EPI in Pakistan explains much of the scale and complexity of managing the program. This is also reflected in the proposed project, particularly through the performance framework, which is tailored to each provincial program. The proposed project with an IDA investment of US\$50 million will use a results-based approach. The project will be supported by US\$ 79.6 million grant through a World Bank-administered Multi-Donor Trust Fund (MDTF).

19. The project will coordinate government and development partner support within a results-based structure with an emphasis on strengthening provincial capacity by:

- (i) Providing a single financing platform to coordinate sources of international support for Routine Immunization;
- (ii) Using standard government budgetary and accounting mechanisms to deliver the majority of funds directly to the federal Ministry of Finance and provincial Departments of Finance;
- (iii) Employing a performance-based financing structure to incentivize outcomes; and,
- (iv) Channeling catalytic finance and technical assistance to address specific health system bottlenecks and building management and reporting systems to enhance accountability.

20. The proposed project will focus on provincial level capacity for EPI implementation, while supporting a limited set of competencies in strengthening the stewardship role at the federal level. The first three components of the proposed project will use a results-based approach through a Disbursement-Linked Indicator (DLI) mechanism to incentivize provincial results. The fourth and fifth components of the proposed project will finance the Federal EPI cell and partner agencies to provide technical assistance and analytic capacities as well as health system strengthening elements (particularly cold chain capacity) to catalyze the provincial results.

21. **Component 1: Strengthening Provincial Management, Governance and Stewardship Functions** (total cost US\$40.3 million)

- (i) *Robust monitoring & evaluation mechanisms.* The system to support EPI management with timely and reliable program data will be comprehensively strengthened.
- (ii) *Surveillance systems:* The critical capacity of provincial surveillance is to be greatly enhanced, with the Federal EPI cell providing technical and logistic support.
- (iii) The provincial expansion/maintenance of the *vaccine logistics management information system* (vLMIS) will be supported.
- (iv) *Oversight, coordination and stewardship functions:* Provincial EPI systems will be strengthened for rigorous monitoring. All provincial EPI programs will be supported to contribute to the effective functioning of the national Interagency Coordination Committee (ICC).

22. **Component 2: Improving Service Delivery Performance** (total cost US\$19.75 million)
- (i) *Enhanced planning for performance*: Provincial development of computerized EPI micro plans with much greater detail, integrated with the system developed for polio.
 - (ii) *Availability and management of skilled human resources*: An expanded variety of qualified personnel will be deployed in technical and managerial roles in the provincial EPI cells.
 - (iii) *Effective supervisory systems for EPI*: Enhanced availability of performance data and the institution of supervisory systems to allow their effective use, including strengthened supply chain management.
 - (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. Models will be developed for sustainably financed CSO engagement in service provision.
23. **Component 3: Demand Generation** (total cost US\$20.75 million)
- (i) *Social mobilization and community awareness*: Provincial activities will include awareness creation through electronic and print media as well as local community awareness activities. CSOs will be key partners in this component.
 - (ii) *Advocacy*: The Federal EPI cell will develop an advocacy plan to sensitize political bodies and senior religious figures, which will be implemented locally by the provinces.
 - (iii) *School Curriculum*: Development of awareness of immunization as a component of the standard school curriculum.
24. **Component 4: Vaccine Supply Chain** (total cost US\$34 million). This component will support the national procurement of essential equipment to strengthen the capacity and performance of the national and provincial vaccine supply chains. It is anticipated that the majority of procurements financed under this component will be made in the first year of project implementation, through a contract with UNICEF's supply division and will utilize a proposed Cold Chain Platform to be launched by Gavi.
25. **Component 5: Improving Capacity for Increased Immunization Coverage** (total cost US\$14.8 million)
- (i) *Capacity of Federal and Provincial EPI Cells*: This subcomponent will support capacity building activities in the areas of financial management, procurement, environmental and social management, and monitoring and evaluation. It will also support the effective functioning of the ICC in coordination of the national EPI programs, and overall supervision and reporting of NISP.
 - (ii) *Research and Evaluation*: A significant investment will be made to support analytical work and research including to develop a pilot conditional cash transfer scheme to provide incentives for accessing immunization services to mothers and health care providers.
 - (iii) *DLI Certification*. Institution of a comprehensive system of independent third party assessment of program performance will be also supported to verify achievement of

DLIs. As requested by the Government of Pakistan, these third party verifications (TPVs) will be implemented by the Federal EPI cell and by the World Bank.

- (iv) *Coordinating the Technical assistance* to be provided to federal and provincial governments by the World Health Organization (WHO), UNICEF and CSOs.

B. Project Cost and Financing

Lending Instrument

26. An innovative financing instrument is proposed, which aligns incentives for program performance at the provincial and national levels in both health and finance. This is achieved by the use of a DLI schedule to govern disbursement of the majority of the credit and grant resources, complemented by a “results-linked buy down,” which will incrementally cancel the credit fees, service charges and part of the principle, subject to achievement of the same DLI targets over the life of the project. The **IDA Credit of US\$50 million** will be financed through Investment Project Financing, focusing on results with well-defined qualitative and quantitative targets. The project will be co-financed with **US\$79.6 million grant through a World Bank-administered Multi-Donor Trust Fund** with contributions from Gavi and USAID, potentially followed by other development partners. Gavi has committed to graduated contributions to the MDTF grant in FY16, FY17 and FY18. Therefore as of March 2016, only US\$39.68 million is available. In addition, US\$20 million will be sought from the Global Financing Facility (GFF), in the second year of the project for national scale up of the demand-side interventions.

27. Components 1, 2, and 3 of the project will be financed by IDA and the MDTF (IDA \$35 million; MDTF \$45.8 million) using a results-based DLI approach. These amounts will be disbursed against eligible expenditure programs (EEPs) which consist of pay and allowances for employees of the Health Staff working on immunization at the districts in the provinces. The EEPs are part of the Provinces and Districts recurrent budget for the government EPI program’s activities. Component 4 will be financed by IDA (\$10 million) and MDTF (\$24 million); and Component 5 will be financed by IDA (\$5 million) and MDTF (\$9.8 million).

28. The Bill & Melinda Gates Foundation (BMGF) have committed financing up to **US\$25 million for a partial, results-linked buy-down of the IDA Credit.**

29. The MDTF will be governed by a steering committee which will comprise representatives of the government, contributing donors, World Bank and the BMGF, as well as one independent CSO representative. It will oversee the activities undertaken under the MDTF executed by UNICEF, WHO, CSOs and the World Bank. It will receive and approve the recommendations of the ICC on the achievement and independent verification of the DLIs.

Table 2: Project Cost and Financing by Component (\$US millions), IDA and MDTF only

Project Components	Project cost
Component 1. Strengthening Management Governance and Stewardship	40.3
Component 2. Improving Service Delivery Performance	19.75

Component 3. Demand Creation	20.75
Component 4. Vaccine Supply Chain	34
Component 5. Technical Capacity	14.8
Total	129.6

Table 3: Projected Project Cost by Implementing Agency (\$US millions)

	IDA credit	MDTF (total available and committed)	Total
Federal EPI and National Total	15.00	33.80	48.80
Federal Activities			
National Cold Chain Equipment Procurement	10.00	24.00	34.00
MONHSRC	5.00	9.80	14.80
Provincial Activities Total	35.00	45.80	80.80
Punjab	18.00	18.00	36.00
Sindh	9.00	17.00	26.00
KP	5.00	7.00	12.00
Balochistan	3.00	3.80	6.80
Grand Total	50.00	79.60	129.60

C. Lessons Learned and Reflected in the Project Design

30. The technical design of this project is based on analytic work undertaken by the World Bank in “*The Expanded Program on Immunization in Pakistan: Recommendations for Improving Performance.*”⁵ This study found that underachievement of the program is due to a combination of factors thematically linked under management, performance and accountability. A second area of importance was demand-side issues, notably barriers to community health-seeking behavior. The recommendations are reflected in NISP design, especially the focus on coordination, management and accountability.

31. The financing approach developed for this project draws on: a) the 13-year implementation of the Partnership for Polio Projects in Pakistan with BMGF and the United Nations Foundation, from which the “buy down” approach has been derived and modified; and b) the experience of a series of projects in education and health which have explored and improved the DLI approach in partnership with the Government of Punjab.

32. The implementation arrangements developed for this project, which emphasize provincial ownership and accountability, were informed especially by the Implementation Completion and Results Report of the Pakistan HIV/AIDS Prevention Project.⁶ This report highlighted the difficulties of implementing a nation-wide umbrella projects covering multiple provinces. During the project implementation, the project faced constraints due to complex process, particularly related to the multiple layers of approval and the complex flow of funds at the provincial and federal levels. In the proposed project, though sharing one financing agreement, the performance

⁵ T Masud and K Navaratne. 2012. World Bank, HNP Discussion Paper, Washington, DC.

⁶ Report No. ICR00001651

of each province will be independently monitored and incentivized with province-specific targets and direct flow of funds.

IV. IMPLEMENTATION

A. Institutional and Implementation Arrangements

33. The implementation arrangements for the project as the same as those for the government's EPI program. Pakistan is a federal country, with responsibility for the financing and delivery of health services fully devolved to the four provinces. Provincial EPI program activities will be implemented by the provincial EPI cells, with the Federal EPI cell delivering technical assistance to strengthen the provincial programs, monitoring, reporting, and project management. The Federal EPI Cell additionally is responsible for EPI in the federally administered territories. The program will therefore have five implementing agencies *viz.*, the Federal EPI cell under the MONHSRC and the four EPI cells established in the provincial health departments. The implementing entities will coordinate with each DOH, Finance Department, the Accountant General office and the concerned Audit offices.

34. A Credit Financing Agreement and an MDTF Grant Agreement to be entered into with the federal government will govern all flow of funds under NISP. The EPI unit within MONHSRC will be responsible for processing and submitting of withdrawal applications on behalf of itself and all four provinces. The project includes a legal covenant for the appointment and maintenance of critical technical and fiduciary positions.

35. **Program Review and Trust Fund Governance:** The central role of the ICC as the apex body for EPI program review has been agreed upon between the Government of Pakistan and its development partners. The ICC shall provide advice to federal and provincial EPI programs on future project directions and its activities will be supported under the project component 5 executed by the federal MONHSRC. The ICC will convene every six months, concurrent with normal project supervision missions. The ICC will form the mechanism for convening the mission meetings, ensuring invitation of development and technical partners, organizing field visits to assess progress in provincial implementation and convening a wrap-up meeting at the conclusion of each mission.

36. Progress by each province will be monitored with province-specific targets for each indicator, which have been developed and negotiated according to the province context and capacity. All funds flowing to the provinces will be governed by the DLI mechanism. The total amounts set for DLI payments to each province from IDA and the MDTF are shown in Table 3 under "Provincial Activities." The DLI results will be verified by third party independent audits, supported under the project. There are 12 DLI payment points (DLI Table in Annex 1). Provinces will be individually eligible for payment under each of the DLI payment points, subject to verified provincial achievement of the indicator. The value of the single point in year one will be a total of US\$10 million (US\$4.3 million from the IDA credit and US\$5.7 million from the MDTF), to be divided amongst the provinces. The remaining funds will be divided evenly between the 11 DLI payment points in years 2 to 5, which will be of equal value. For each of these 11 payments, the ratio of the payment amount to each of the four provinces will

remain unchanged from that shown in Table 3. The ICC will review progress on achievement of DLIs and independent verification of the results and provide advice to the Federal EPI cell on forming a disbursement request to be made to the World Bank. Annually the ICC will convene/facilitate a Gavi Joint Appraisal mission. Every quarter, MoNHSRC may convene a briefer meeting of the ICC alone to review progress under the cMYP. All meetings of the ICC will be recorded in minutes shared with all members.

B. Results Monitoring and Evaluation

37. As detailed in Annex 1, most of the indicators are tracked by existing program administrative data at the provincial level, and will be collated and tracked at the national level by the Federal EPI cell. Recognizing that significant weaknesses exist in the current system, the project will substantially invest in strengthening the areas of data quality, on-line reporting, data validation and surveillance. At present there is a discrepancy in program reported data and survey data due to lack of a functional management information system (MIS), with limited monitoring and oversight. This will be addressed through establishment of automated MIS with validation by the DHOs.

38. Many of the indicators for immunization outcomes, intermediate outputs and processes will also be tracked using an annual coverage evaluation survey, which shall form the basis of those TPVs which are undertaken by the World Bank. On the basis of this coverage survey, and the reports of the additional TPV contracted by the Federal EPI cell, the Federal and the Provincial EPI cells will prepare an annual DLI Results Report. This report will be reviewed by the national ICC and then inform the steering committee of the MDTF during the World Bank's biannual implementation missions. The achievement of DLI results will trigger the disbursement of funds.

39. Project DLI values have been discussed and agreed by the Provincial Departments of Health, Finance and Planning, in consultation with the World Bank, co-financing partners, and WHO and UNICEF. In some instances, the DLI targets are set higher than those in the CMYP and results framework, to incentivize additional performance.

C. Sustainability

40. *Ownership and Consensus:* The emphasis of the project components on program management, performance and accountability is a reflection of the priorities reached by the Government, as articulated in the CMYP, with which NISP design is completely aligned.

41. *Financial Sustainability:* The provincial governments are the major source of financing for EPI when labor and other shared costs are included. The choice of a results-based financing model to govern the majority of the external financial support under NISP was closely discussed during project preparation. There is familiarity with the DLI mechanism and its effect to employ and strengthen Government Financial Management systems – thereby increasing the long-term financial sustainability of the program. The development budget is more sensitive to changing political priorities than the regular provincial budget. Yearly approval and release procedures can result in significant delays in availability of funds. Importantly, the project will incentivize movement of the funding of EPI from the development budget to the regular budget in the

majority of provinces. The cost of a fully immunized child in Pakistan is estimated at US\$64.20,⁷ and the total cost of immunization program amounted to US\$238.7 million in 2012, including US\$75.3 million on SIA activities, predominantly for polio.⁸ Of this, only US\$4.1 million was accounted for by EPI vaccines and no financing gap for vaccines and injection equipment is anticipated for the 2014-2018 period.

V. KEY RISKS

A. Overall Risk Rating and Explanation of Key Risks

42. The overall implementation risk of the project is rated as Substantial. The following risk categories are rated High: sector strategies and policies, stakeholder, and political and governance, in addition to a difficult country operating environment - especially the weak economy and uncertain security situation. The following risk categories are rated Substantial: institutional capacity for implementation and sustainability, and fiduciary.

43. *Governance.* Historically, low accountability in the civil services has eroded the work ethic of staff working for EPI in Pakistan. There is no reward for high-performing vaccinators, nor are there effective actions for poorly performing vaccinators. Supervisors do not consistently take actions on their reports; and management decision making is opaque. To mitigate this weak governance environment, the project introduces a performance-based approach with DLIs at the provincial level, as well as measures to enhance the culture of routine monitoring of performance and properly incentivize good performance on the ground

44. *Sector Strategies and Policies:* The dissolution of the federal MOH and consequent decentralization due to the 18th Amendment to the Constitution resulted in confusion regarding sector-level responsibility, oversight processes, lack of federal-level coordination and facilitation mechanisms, thus weakening routine immunization services. The project is designed in large part precisely to address this issue. The project will focus on strengthening provincial EPI implementation capacity. It will also support a minimum set of capacities at the federal level, including coordination mechanisms for provincial EPI reporting, program evaluation, surveillance and policy-making.

45. *Stakeholder:* The experience from ongoing polio campaigns indicates that the project may potentially face stakeholder risk. Religious opposition by some groups and conspiracy theories, have led to a number of attacks and killing of polio vaccinators. Although this opposition has been directed at polio activities specifically and the number of incidents has been drastically reduced due to strong interventions by the government, it is possible that some routine immunization activities may face associated opposition. Together with WHO and UNICEF, the Government is responding to negative perceptions towards polio vaccines through increased efforts in social mobilization and communications using media and additional staff at the local level. The project will strengthen the existing strategy through the implementation of well-planned local communications efforts and media campaigns involving CSOs, media, and

⁷ World Bank analysis

⁸ National comprehensive multiyear plan for immunization, 2014

religious and opinion leaders in these conservative communities. The project will also boost demand for immunization services through an incentive scheme as part of Component 3.

46. *Fiduciary*: A financial management assessment of the federal and four provincial EPI cells rated the financial management risk as ‘High’ and noted major weaknesses outlined below. Procurement, particularly of vaccines, has been inefficient and at times ineffective. A significant area under the project will be to strengthen fiduciary capacity for EPI at the federal and provincial levels. The project will strengthen overall financial management, procurement and inventory management by undertaking deeper diagnostics and enhancing the efficiency, effectiveness and dependability of the existing government system. The World Bank is also supporting the development and implementation of a Fiduciary Risk Management Plan at the provincial level.

47. *Institutional Capacity for Implementation and Sustainability*: Persistent uncertainties in the responsibility for EPI at the federal level and the oversight process between federal and provincial authorities poses substantial risk to the implementation of the program. The implementing agency of the project at the federal level is developing the capacity to fully execute the roles needed for effective implementation of EPI. Lack of leadership and frequent change of the National Program Manager for EPI has further weakened the Government’s response. While the World Bank, in collaboration with development partners, will continue high-level dialogue and advocacy on defining the federal roles and responsibilities, the project supports strengthening the capacity of the EPI Cell for better oversight and coordination between federal and provincial levels of government.

VI. APPRAISAL SUMMARY

A. Economic Analysis

48. Immunization is a highly cost effective way of increasing the national stock of health capital. The World Bank classified vaccination as one of the most cost-effective public health interventions in its 1993 World Development Report. The enhanced human capital improves the welfare of the society, increases labor productivity and ultimately, reduces poverty. The net present value of the proposed interventions, though difficult to estimate precisely, is expected to be positive. Excepting the ultimate increase in coverage ratio, the benefits of the project, especially in terms of demand generation, enhanced capacity of the concerned staff and improved governance, cannot be easily translated into monetary terms. Therefore, the economic analysis makes use of quantitative as well as qualitative analysis (see Annex 6 for full economic analysis).

49. The project intends to increase the coverage ratio from 54% in 2012-13⁹ to 80% by the end of the project. The success of immunization programs depends heavily upon the high immunization coverage of the target group. The project sets coverage targets for the next five years. The economic analysis is based on three scenarios of burden of disease from VPD for the under 5 population. An analysis by the Institute for Health Metrics and Evaluation “*Global*

⁹ Pakistan Demographic and Health Survey (PDHS)

Burden of Diseases, Injuries, and Risk Factors Study 1990-2010”, published in August 2013 included results for Pakistan. This analysis assumes three scenarios with different Disability Adjusted Life Years (DALYs): i) low scenario of 39,156 DALYs per 100,000 ii) mean scenario of 56,984 DALYs and iii) high scenario of 85,229 DALYs per 100,000.¹⁰

50. According to the high scenario, the project will save about 1.16 million DALYs¹¹ over the five years of the project. The minimum discounted¹² economic value of this achievement is \$1,719 million¹³. The total present value of the benefits would be many times higher than the above figure as benefits will continue beyond the five years of the project. For instance, the total DALYs saved over the next 16 years (until 2030) are estimated at 3.34 million. These would contribute \$5,491 million in present value terms. The estimated DALYs averted, according to mean scenario, are 0.4 million over the next five years and about 1.7 million by the end of 2030. The corresponding figures of economic gains are \$590 million and \$2,816 million. Finally, under the low scenario, the project is expected to save 0.27 million DALYs over the life of the project and 1.17 million by the end of 2030. The corresponding monetary gains are \$405 million and \$1,935 million, respectively. In all scenarios, benefits greatly exceed cost. The project is therefore economically justified and represents efficient use of resources.

B. Technical

51. *Focus on performance and accountability:* The Government of Pakistan (GOP) recognizes that the fundamental barrier to improving immunization coverage, reducing childhood deaths and interrupting polio transmission is not primarily financial - it is rather the performance of the EPI program. The proposed project will focus on strengthening core program capacities for implementation at the provincial level, in addition to competencies in oversight, coordination and reporting which are required federally. Central to this are the proposed investments in strengthening governance, accountability and mid-level management, as well as the information systems to guide this oversight.

52. *Provincial Implementation:* Devolution has presented a stimulus to provincial DOHs and opened opportunities for increased access, accountability, ownership and equity in immunization programs through provincial ownership. NISP project design is in response to the GOP's firm intention to strengthen provincial implementation - with the bulk of the finance intended to flow directly to the provinces under a performance-based structure.

53. *Polio Program Capacity and Legacy:* Despite the monumental challenges faced in the eradication of polio, the program has made enormous gains in the systems developed for planning, supervision, accountability and surveillance. The GOP and technical partners at the national and international level have emphasized the importance of developing synergies with these existing system elements both to coordinate and strengthen the EPI program, and to prepare an eventual route for sustainability of those elements in the Polio Eradication legacy period.

¹⁰ <http://ghdx.healthdata.org/global-burden-disease-study-2010-gbd-2010-data-downloads>

¹¹ Calculations of DALYs are based on the project's target of 80% coverage ratio.

¹² Economic analysis assumes 3 percent discount rate.

¹³ DALYs saved are multiplied by the discounted value of per capita GDP. The maximum gain can be found by multiplying DALYs saved by three times per capita GDP.

54. *Economic Imperative:* The relatively modest investments under NISP should deliver substantial returns in reduced morbidity and mortality - in turn reducing poverty by decreased financial risk from vaccine preventable illness. NISP will also have the effect to promote and sustain interruption of polio transmission - thereby protecting the very large investments which have been made towards this end by the GOP, the World Bank and the international community.

55. *Financing Instrument:* The DLI approach will incentivize results, create flexibility in the use of indicators tailored to individual provincial need and capacity, promote strengthening of regular government systems, and institute a rigorous system of independent performance review. The substantial investments in cold chain capacity and technical assistance in Components 4 and 5 will support the necessary enabling system strengthening to achieve the DLI targets.

C. Financial Management

56. A significant area under the NISP will be to strengthen fiduciary capacity for EPI at federal and provincial levels. The project will strengthen overall financial management, procurement and inventory management by undertaking deeper diagnostics and enhancing the efficiency, effectiveness and dependability of the existing government system, with some minor additional interventions for standardization. A financial management assessment covered the federal and four provincial EPI Cells, and several selected districts. The assessment rated the financial management risk as 'High' and noted major weaknesses in the existing financial management system of EPI including:

- No approved FM policy framework for EPI is available at national or provincial level.
- There is no system available to prepare EPI financial reports at the district, provincial, and federal levels.
- In-kind grants provided by the donors are not reflected in the EPI/government accounts.
- There is limited budget allocation for operating expenses that impacts delivery of the program and has also resulted in accumulated arrears.
- Approval of schemes and release of funds are delayed because EPI is budgeted as development expenditure by all the provinces except Punjab.
- Asset and inventory management systems have weaknesses.

57. *Mitigation Measures:* A detailed FM assessment is provided in Annex 3, including a range of mitigation measures. With the technical assistance of the World Bank, government has prepared a detailed implementation plan to address the fiduciary risk and strengthen financial management capacity that will be adopted within 3 months of effectiveness and subsequently implemented. The Components 4 and 5 will help in developing the capacity for project implementation. In addition, the project includes a DLI on budgeting reforms.

58. The financing of components 4 and 5 available for technical assistance and health systems strengthening will flow to the federal EPI cell only, under the same Financing Agreement and MDTF Grant Agreement. Disbursements for Components 4 and 5 will be transaction-based using statements of expenditure/summary sheets. For DLI components, the disbursements will be report based where funds will be disbursed/reimbursed annually up to the price of DLIs achieved subject to equivalent government expenditure on Eligible Expenditure Programs (EEPs), as reported in the Interim Financial Reports (IFRs). The federal EPI Cell will be responsible to prepare project level IFRs and annual financial statements. The auditor general

will conduct the project audit annually and submit the audited financial statements to the World Bank within 6 months of the close of the financial year.

D. Procurement

59. Components 1, 2, and 3 of the project will be financed using a results-based DLI approach and will not include procurable items. However, Components 4 and 5 of the proposed project will cover the selection of goods as well as consultancies, both firms and individuals. Hence, a procurement plan for this part of the project is required to cover Components 4 and 5 and has been prepared by the Federal EPI Cell. Procurement will be carried out in accordance with the World Bank's guidelines on procurement and employment of Consultants,¹⁴ as well as the provisions stipulated in the Financing Agreement/MDTF Grant Agreement. It is anticipated that substantial procurements financed under this component will be made in the first year of project implementation, through a US\$34 million contract with UNICEF supply division, which will utilize a proposed cold chain platform to be launched by Gavi. Appraisal of the procurement process and the ensuing contract will establish consistency with the World Bank's procurement policies. The Project also envisages engagement of private sector and non-governmental organizations (NGOs) for which appropriate procurement strategies will be instituted.

60. A detailed capacity review of federal and provincial EPI Cells was undertaken which focused on assessment of the capacity of the agency to carry out the different phases of procurement (Annex 3). The Federal EPI Cell will be responsible for carrying out procurement under the Vaccine Supply Chain and Technical Capacity components of the project. Federal EPI is a permanent establishment working as an administrative unit of the MONHSRC. The procurement functions of this entity will be performed in an environment which is marked by governance challenges and a general economic slowdown. It will therefore be essential to have a well-developed internal procurement function that detects and rectifies possible deviations in procurement process. Strengthening of procurement capacity at the federal EPI cell will be prioritized in the first year of the project.

61. The Provincial EPI Cells are at varying capacity levels and the procurement function is not fully established and recognized as an autonomous function, besides in Sindh. The office of the Director General Health Services (DGHS) is responsible to perform procurement and supply chain management. However, there is some delegation of administrative and financial powers in the EPI cell. Since procurements (including those for provincial EPIs) shall be carried by Federal EPI, a Procurement Operations Manual has been prepared by the Federal EPI cell which sets out procedures, processes and systems to be followed by the management and staff of Federal EPI and description of responsibilities of provincial EPIs at certain procurement and contract administration stages in accordance with World Bank policies.

E. Social (including Safeguards)

62. *Gender:* The Environmental and Social Management Plan (ESMP) prepared for the project acknowledges the issues identified in the social assessment undertaken and integrates the

¹⁴ Guidelines: Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits and Grants January 2011," "Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits and Grants by World Bank Borrowers January 2011.

measures for addressing them during project implementation. The ESMP indicates that vulnerable communities, particularly women, face considerably more constraints in terms of access due to norms and existing stereotypes. Women also tend to be more resource poor, socially excluded from the mainstream and have lack of access to public services in comparison to men. These difficulties are accentuated in female-headed households. The ESMP proposes gender specific measures to address inequities and identify gender issues in the project, identify options to maximize benefits and minimize adverse effects of project interventions, and to ensure the participation of women in all phases of project cycle. These include the provision of mobile, targeted services, civic engagement in service provision, advocacy, adaption of training materials and social mobilization around engagement of men as caregivers. The Gender Action Plan includes specific measures to address challenges faced by women especially in the context of their access to services and proposes strategies for engagement of women, enhancing access, skills and capabilities and improving gender sensitization. The equitable access to immunization services between genders will also be monitored through the first PDO Level Results Indicator.

63. *Civil Society and Citizen Engagement:* The project has two mechanisms for Citizen Engagement.

- (i) *Partnership with and implementation through CSOs.* With poor children as the major beneficiaries, the Project has a strong poverty focus. Citizen engagement through the involvement of CSOs is a key aspect of the project, and is part of the design under Components 2, 3, and 5. Detailed consultations with CSOs active at the Federal and Provincial levels occurred in workshops and meetings throughout Project preparation. There is an established CSO consortium for immunization in Pakistan, which will be supported to inform EPI policy. CSOs will be contracted at the federal and provincial level to inform policy and planning, conduct community engagement and awareness raising, social mobilization, analytical work and research, and service delivery. The project will particularly engage civil society, including CSOs, to ensure that neglected populations are reached by vaccination teams in remote and under-serviced areas. Within their contracts, the CSO role of collecting beneficiary feedback and providing this to the project will be explicitly included. This will be monitored via the intermediate outcome indicator “*Number of contracts by each province with CSOs for provision of immunization services in urban slums awarded*”. CSOs will be also represented in the MDTF governance mechanism as described earlier in paragraph 35. Providing regular feedback to the MDTF steering committee will be included in the terms of reference of the CSO representative.
- (ii) A Grievance Redress Mechanism has been designed by the Project and will be operational during implementation. The main objective of the Grievance Redress Mechanism is to investigate charges of irregularities and complaints received by the Federal and EPI cells and to provide an early, transparent and fair resolution. This will also provide an avenue for project beneficiaries to inform the implementing agencies of concerns. Details of the potential nature of grievances, the mechanism of complaint registration and the dissemination of information about the Grievance Redress Mechanism are in the ESMP. Given the political sensitivity and security risks surrounding immunization and polio in Pakistan, citizen engagement will be implemented in a manner that ensures no increased risk to providers and receivers of services.

F. Environment (including Safeguards)

64. Inappropriate practices during vaccine administration and associated activities can potentially cause health and safety hazards. These include not using safe/sterilized syringes and needles, vaccinators not observing appropriate safety protocols and not disposing used syringes and needles in a safe and environment-friendly manner. None of these impacts are however unprecedented and can be adequately mitigated with the help of appropriately designed and implemented mitigation and precautionary measures. Therefore, the project has been classified as Category B in accordance with the OP 4.01. No other safeguard policy is triggered.

65. The ESMP identifies and assesses the potentially negative environmental including public health and social impacts of the project activities, proposes appropriate mitigation and precautionary measures – most of which are already practiced by the EPI teams - to address these negative impacts, describes institutional and monitoring mechanisms to ensure effective implementation of the proposed mitigation and precautionary measures, and defines the associated documentation and reporting requirements. Stakeholder consultations were also carried out while preparing this ESMP in 2015. Focal points will be nominated at the federal and provincial levels and at the field level for the effective implementation of the ESMP during the project. The ESMP (dated March 2015) was disclosed on the World Bank Infoshop¹⁵ and in Pakistan, on March 27 and March 31, 2015, respectively.

G. World Bank Grievance Redress

66. Communities and individuals who believe that they are adversely affected by a World Bank supported project may submit complaints to existing project-level grievance redress mechanisms or the World Bank's Grievance Redress Service. The Grievance Redress Service ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the World Bank's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of World Bank non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and World Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service, please visit www.worldbank.org/grs. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

¹⁵ <http://documents.worldbank.org/curated/en/2015/03/24220660/pakistan-national-immunization-support-project-environmental-assessment-environmental-social-management-plan>

Annex 1: Results Framework and Monitoring

Country: Pakistan

National Immunization Support Project (P132308)

Project Development Objectives

PDO Statement

The proposed development objective is to increase equitable coverage of services for immunization against vaccine preventable diseases (VPD), including poliomyelitis, for children between 0 and 23 months in Pakistan.

Project Development Objective Indicators

Indicator Name	Unit of Measure	Baseline	Cumulative Target Values					Frequency	Data Source/ Methodology	Responsibility for Data Collection
			YR1	YR2	YR3	YR4	End Target			
Percent of children aged between 12-23 months old in each project province who are fully immunized, disaggregated by gender, income, province and district.	Percentage	Balochistan 16%	30%	40%	50%	55%	65%	Annual	PDHS and administrative data with year 3 and 5 Independent third party verification.	Provincial and Federal EPI cells
		KP 53%	60%	65%	70%	75%	80%			
		Punjab 66%	67%	69%	72%	75%	77%			
		Sindh 29%	47%	55%	65%	73%	80%			
Percentage of districts in each project province		Balochistan 0%	10%	25%	40%	50%	60%	Annual	PDHS and administrative data with year	

reporting at least 80% coverage of Penta3 immunization in children between 12-23 months old	Percentage	KP 52%	60%	65%	75%	85%	90%		3 and 5 Independent third party verification	Provincial and Federal EPI cells
		Punjab 25%	28%	33%	42%	50%	61%			
		Sindh 33%	35%	45%	55%	65%	75%			
Number of children reported as receiving Penta3 minus the number of children reported as receiving Penta1, as a percentage disaggregated at the provincial level (dropout rate).	Percentage	Balochistan 11%	<10%	<10%	<10%	<10%	<10%	Annual	PDHS and administrative data	Provincial EPI cells
		KP 10%	9%	9%	8%	8%	7%			
		Punjab 11%	<10%	<10%	<10%	<10%	<10%			
		Sindh 26%	23%	18%	15%	12%	8%			
Penta3 coverage in each province between the lowest and the highest wealth quintile		Balochistan 35%	32%	30%	28%	25%	20%	Less than Annual	Pakistan Social And Living Standards Measurement surveys annually.	
		KP 43%	35%	30%	25%	20%	15%			

	Percentage	Punjab 41%	38%	35%	33%	30%	28%			Federal EPI cell
		Sindh 30%	28%	25%	22%	19%	15%			

Intermediate Results Indicators

Indicator Name	Unit of Measure	Baseline	Cumulative Target Values					Frequency	Data Source/ Methodology	Responsibility for Data Collection
			YR1	YR2	YR3	YR4	End Target			
Percentage of districts in each province with functional cold chain equipment in place as per specifications >95% in each tier of health system (including at least 1 month buffer stock capacity at district level)	Percentage	Balochistan 63%	>95%	>95%	>95%	>95%	>95%	Annual	i) Baseline Effective Vaccine Management (EVM) assessment. ii) UNICEF Cold chain capacity assessment of all districts to be completed in year one iii) Provincial EPI cell vLMIS. iv) Year 1. Independent third party verification	Provincial and Federal EPI cells
		KP 89%	>95%	>95%	>95%	>95%	>95%			
		Punjab 73%	>95%	>95%	>95%	>95%	>95%			
		Sindh 56%	>95%	>95%	>95%	>95%	>95%			

Percentage of UC in each project province for which revised computerized UC level micro plans are in functional use at district and provincial levels	Percentage	Balochistan 0%	50%	80%	80%	80%	80%	Annual	Provincial EPI cell with year 2 Independent third party verification	Provincial EPI cells
		KP 0%	50%	80%	80%	90%	100%			
		Punjab 0%	80%	80%	80%	90%	100%			
		Sindh 0%	80%	80%	80%	80%	90%			
Number of Districts in each project province with at least 80% timely and complete reporting on vLMIS	Percentage	Balochistan 0%	20%	50%	50%	60%	70%	6 monthly	vLMIS with year 2 Independent third party verification	Provincial EPI cells
		KP 0%	80%	100%	100%	100%	100%			
		Punjab 0%	80%	100%	100%	100%	100%			
		Sindh 0%	80%	100%	100%	100%	100%			
Percentage of secure districts in		Balochistan 0%	0%	0%	0%	0%	0%		Federal EPI	Provincial EPI

each province with functional electronic tracking of the vaccinators and supervisors	Percentage	KP 0%	5%	10%	10%	15%	15%	Annual	Cell	cells
		Punjab 0%	100%	100%	100%	100%	100%			
		Sindh 0%	10%	20%	30%	30%	30%			
Percentage of districts in each project province with their recognized surveillance sites having functional online surveillance systems for VPD and Adverse Events Following Immunization (AEFI)	Percentage	Balochistan 0%	60%	65%	75%	80%	80%	Annual	Federal EPI Cell	Provincial EPI cells
		KP 0%	60%	65%	75%	80%	80%			
		Punjab 0%	60%	65%	75%	80%	80%			
		Sindh 0%	60%	65%	75%	80%	80%			
Percentage of total combined number of EDOs/EDO(H) in each province	Percentage	Balochistan 0%	25%	35%	50%	75%	80%	Annual	Federal EPI cell	Provincial EPI cells
		KP 0%	25%	35%	50%	75%	80%			

EDOs/EDO(H)s have attended mid-level management courses		Punjab 0%	25%	35%	50%	75%	80%			
		Sindh 0%	25%	35%	50%	75%	80%			
Percentage of UC in each province with at least two skilled staff capable of providing immunization	Percentage	Balochistan 70%	75%	80%	85%	95%	100%	Annual	Federal EPI cell	Provincial EPI cells
		KP 91%	95%	95%	95%	95%	100%			
		Punjab 96%	98%	98%	99%	99%	100%			
		Sindh 91%	95%	95%	95%	95%	100%			
Number of contracts by each province with CSOs for provision of immunization services in urban slums awarded	Number	Balochistan 0	1	1	1	2	2	Annual	Federal EPI cell	Provincial EPI cells
		KP 0	1	1	2	2	2			
		Punjab 0	1	2	2	4	4			
		Sindh 0	1	2	2	3	3			

Percentage of detailed UC supervisory plans implemented by district supervisors and made available to supervisor officers in each project province	Percentage	Balochistan 0%	80%	95%	100%	100%	100%	Annual	Federal EPI cell with year 1 Independent third party verification	Provincial EPI cells
		KP 0%	80%	95%	100%	100%	100%			
		Punjab 0%	80%	95%	100%	100%	100%			
		Sindh 0%	80%	95%	100%	100%	100%			
Percentage of children under two years of age with vaccination card available in each project province	Percentage	Balochistan 8%	15%	25%	30%	35%	50%	Annual	Federal EPI cell with year 4 Independent third party verification	Provincial EPI Cell
		KP 39.7%	45%	55%	65%	75%	80%			
		Punjab 40.7%	45%	55%	65%	75%	85%			
		Sindh 25.9%	35%	45%	55%	65%	75%			

National Immunization Support Project (P132308)
Annex 1.1 Disbursement Linked Indicators Schedule and total DLI values

Indicator ¹⁶	Year 1	Year 2	Year 3	Year 4	Year 5	Total
1. Percent of children aged between 12-23 month old in each project province who are fully immunized			6.43		6.44	12.87
2. Percentage of UC in each project province for which revised computerized UC level micro plans are in functional use at district and provincial levels		6.43				6.43
3. Percentage of districts in each project province reporting at least 80% coverage of Penta3 immunization in children between 12-23 month old, as validated by third party			6.44		6.45	12.89
4. Number of Districts in each project province with at least 80% timely and complete reporting on vLMIS		6.43				6.43
5. Percentage of districts in each project province with their recognized surveillance sites having functional online surveillance systems for VPD and AEFI				6.44		6.44
6. Percentage of districts in each project province with at least 95% functional cold chain equipment in place as per specifications in each tier of the health system (including at least 1 month buffer stock capacity at district level)		6.43				6.43
7. Percent of detailed UC supervisory plans implemented by district supervisors and made available to supervisor officers in each project province	10.00					10.00
8. Percent of children under two years of age with vaccination cards available in each project province				6.44		6.44
9. Budget allocations for immunization are continuous, adequate and can be easily tracked within the provincial financial management information systems		6.43	6.44			12.87
DLI in each project year	1	4	3	2	2	80.80

¹⁶ The total price value of each DLI is shown, comprising disbursements from the MDTF and IDA credit in US\$ millions. The values at a provincial level from both financing sources are shown in Table 3, Annex 3. This table reflects the full MDTF grant amount of \$45.8 million for Components 1, 2 and 3, of which \$13.72 million is available as of March 2016.

National Immunization Support Project (P132308)
Annex 1.2 Disbursement Linked Indicators and Disbursement Protocols

DLI	Indicative timing of completion	Target	Source of Data	Verification															
DLI 1: Percent of <u>children</u> aged between 12-23 month old in each project province who are <u>fully immunized</u>	Yr 3 and Yr 5	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Yr 3</th> <th>Yr 5</th> </tr> </thead> <tbody> <tr> <td>Balochistan</td> <td>35</td> <td>50</td> </tr> <tr> <td>KP</td> <td>75</td> <td>80</td> </tr> <tr> <td>Punjab</td> <td>75</td> <td>80</td> </tr> <tr> <td>Sindh</td> <td>65</td> <td>80</td> </tr> </tbody> </table>		Yr 3	Yr 5	Balochistan	35	50	KP	75	80	Punjab	75	80	Sindh	65	80	<ul style="list-style-type: none"> • Baseline: PDHS 2012-13 (provinces) and admin data (other areas) • Source of data: EPI Program Report, with national demographic estimates (projections of the 1998 Census) 	(1) PDHS, (2) if PDHS is not available, then independent third party verification (TPV) contracted by World Bank and reviewed by the World Bank and co-financing partners
	Yr 3	Yr 5																	
Balochistan	35	50																	
KP	75	80																	
Punjab	75	80																	
Sindh	65	80																	
<p>Definitions/Details</p> <ul style="list-style-type: none"> • “<u>Percent of children</u>” is calculated as the number of those documented to have received the services according to the survey divided by the estimated size of the provincial age cohort according to projections of the latest census report. • Record and recall basis • Definition of “<u>fully immunized</u>”: Children are considered fully immunized when they have received one dose of the vaccine against tuberculosis (BCG); three doses of the vaccine against diphtheria, pertussis, tetanus, HiB, Hepatitis B (pentavalent) and three doses of PCV 10; three doses of oral polio vaccine (excluding polio vaccine given at birth); and one dose of measles vaccine. All children should receive the suggested number of doses of BCG, pentavalent, oral polio vaccine, and measles vaccines during their first year of life. BCG is given at birth or at first clinical contact; Penta and polio require three doses at approximately age 6, 10, and 14 weeks; and measles vaccine is given soon after age 9 months. All of the vaccines in the routine immunization schedule are provided free of cost in all public health facilities in Pakistan. • Denominator: The figure used in the EPI Program Report 																			
DLI 2: Percentage of UC in each project province for which <u>revised computerized UC level micro plans</u> are in <u>functional use</u> at district and provincial levels	Yr 2	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Yr 2</th> </tr> </thead> <tbody> <tr> <td>Balochistan</td> <td>40</td> </tr> <tr> <td>KP</td> <td>60</td> </tr> <tr> <td>Punjab</td> <td>80</td> </tr> <tr> <td>Sindh</td> <td>100</td> </tr> </tbody> </table>		Yr 2	Balochistan	40	KP	60	Punjab	80	Sindh	100	Provincial and Federal EPI cell	Independent third party verification (TPV) contracted by Federal EPI cell and reviewed by the World Bank and co-financing partners					
	Yr 2																		
Balochistan	40																		
KP	60																		
Punjab	80																		
Sindh	100																		
<p>Definitions/Details</p> <ul style="list-style-type: none"> • “<u>Revised computerized micro plans</u>” are the lowest level i.e. UC level plans including all the villages based upon a local situation analysis through the RED/REUC approach which involves every health facility and through them the community that they serve. The plan lists all required resources including vaccination teams, by team area, vaccination points and the days of the calendar, transport, supervision. The micro plans that 																			

are currently being used for Polio/measles SIA will be used with additional information for routine immunization and these plans will be automated from the lowest level.

- “Functional use” is defined as the micro plans are found to be populated with current (annual) data and their outputs are documented to be used in defining vaccinator work plans and allocation of resources at district and provincial levels.
- Percent of UCs is calculated as the number of UCs with a revised computerized micro plan in functional use divided by the total number of UCs in the province or territory.

DLI 3: Percentage of districts in each project province reporting at least 80% coverage of Penta3 immunization in children between 12-23 month old, as validated by a third party	Yr 3 and Yr 5		Yr 3	Yr 5	District level reported data and cluster sampling by district and provincial supervisors	Independent third party verification (TPV) contracted by World Bank and reviewed by the World Bank and co-financing partners
		Balochistan	20	35		
		KP	40	60		
		Punjab	75	80		
		Sindh	70	80		

Definitions/Details

- “Full immunization” is defined under DLI 1.
- “Coverage of Penta3” is calculated as the number of those children aged between 12 to 23 months documented to have received the services according to number of children immunized according to the Program data (permanent register) divided by the estimated size of the UC age cohort according to the population estimates submitted by provinces/territories during the 1st year of the project
- Percent of UCs is calculated as the number of UCs with at least 80% coverage of full immunization divided by the total number of UCs in the province or territory.

DLI 4: Number of Districts in each project province with at least 80% <u>timely and complete</u> reporting on <u>vLMIS</u>	Yr 2		Yr 2	vLMIS website as monitored by provincial and federal EPI cell	Independent third party verification (TPV) contracted by Federal EPI cell and reviewed by the World Bank and co-financing partners
		Balochistan	15/30 districts		
		KP	20/25 districts		
		Punjab	36/36 districts		
		Sindh	20/28 districts		

Definitions/Details

- “vLMIS” is an electronic information system that manages the logistics and inventory of vaccines and/or other commodities
- “Timely and complete” reporting is calculated as the number of data points in the districts where vLMIS is operational for the last three months submitted on time (timeliness) which are available (completeness) on inspection at the provincial level, divided by the total number of potential data points.

DLI 5: Percentage of districts in each project province with their recognized surveillance sites having <u>functional online surveillance</u> for Vaccine Preventable Diseases (VPD) & Adverse Events Following Immunization (AEFI)	Yr 4	<table border="1"> <thead> <tr> <th></th> <th>Yr 4</th> </tr> </thead> <tbody> <tr> <td>Balochistan</td> <td>30</td> </tr> <tr> <td>KP</td> <td>40</td> </tr> <tr> <td>Punjab</td> <td>80</td> </tr> <tr> <td>Sindh</td> <td>70</td> </tr> </tbody> </table>		Yr 4	Balochistan	30	KP	40	Punjab	80	Sindh	70	Provincial DG office	Independent TPV contracted by Federal EPI cell and reviewed by the World Bank and co-financing partners
	Yr 4													
Balochistan	30													
KP	40													
Punjab	80													
Sindh	70													
Definitions/Details <ul style="list-style-type: none"> • “<u>Functional online surveillance</u>” is defined as current (last three months) reporting data (including reports of zero events) available from a surveillance site upon inspection at the provincial level. • Percent of districts is calculated as the number of districts having 90% of recognized surveillance sites with functional online surveillance data, divided by the total number of districts. 														
DLI 6: Percentage of districts in each project province with at least 95% functional cold chain equipment in place as per specifications in each tier of the health system (including at least 1 month buffer stock capacity at district level)	Yr 2	<table border="1"> <thead> <tr> <th></th> <th>Yr 2</th> </tr> </thead> <tbody> <tr> <td>Balochistan</td> <td>80%</td> </tr> <tr> <td>KP</td> <td>80%</td> </tr> <tr> <td>Punjab</td> <td>80%</td> </tr> <tr> <td>Sindh</td> <td>80%</td> </tr> </tbody> </table>		Yr 2	Balochistan	80%	KP	80%	Punjab	80%	Sindh	80%	(1) EVM assessment. (2) EPI program data (system to conduct EVM annual basis within the Program required)	Independent TPV contracted by Federal EPI cell and reviewed by the World Bank and co-financing partners
	Yr 2													
Balochistan	80%													
KP	80%													
Punjab	80%													
Sindh	80%													
Definitions/Details <ul style="list-style-type: none"> • <u>EVM</u> will be done using the standard WHO/UNICEF EVM assessment tool. 														

DLI 7: Percent of detailed UC supervisory plans implemented by district supervisors and made available to supervisor officers in each project province.	Yr 1	<table border="1"> <thead> <tr> <th></th> <th>Yr 1</th> </tr> </thead> <tbody> <tr> <td>Balochistan</td> <td>30</td> </tr> <tr> <td>KP</td> <td>50</td> </tr> <tr> <td>Punjab</td> <td>80</td> </tr> <tr> <td>Sindh</td> <td>80</td> </tr> </tbody> </table>		Yr 1	Balochistan	30	KP	50	Punjab	80	Sindh	80	Web based	Independent TPV contracted by Federal EPI cell and reviewed by the World Bank and co-financing partners					
	Yr 1																		
Balochistan	30																		
KP	50																		
Punjab	80																		
Sindh	80																		
Definitions/Details <ul style="list-style-type: none"> • “A Detailed supervisory plan” is defined as a current (month of inspection) plan on a monthly basis (for 15 working days per month at the district and tehsil level) indicating field visits to vaccination sites including community, issues to be addressed and weak areas including means of transportation and on aggregate covering at least every UC at least once in 3 calendar months. • “Made Available” is defined as accessible on inspection at the provincial EPI cell. • “District supervisors” are defined as District Officers including EDOH/EDO(H) , and their assignees for EPI monitoring and supervision 																			
DLI 8: Percent of children under two years of age with vaccination cards available in each project province	Yr 4	<table border="1"> <thead> <tr> <th></th> <th>Yr 4</th> </tr> </thead> <tbody> <tr> <td>Balochistan</td> <td>30</td> </tr> <tr> <td>KP</td> <td>55</td> </tr> <tr> <td>Punjab</td> <td>50</td> </tr> <tr> <td>Sindh</td> <td>60</td> </tr> </tbody> </table>		Yr 4	Balochistan	30	KP	55	Punjab	50	Sindh	60	Surveys	Independent TPV contracted by World Bank and reviewed by the World Bank and co-financing partners					
	Yr 4																		
Balochistan	30																		
KP	55																		
Punjab	50																		
Sindh	60																		
Definitions/Details <ul style="list-style-type: none"> • “Percent of children” is calculated as the number of those documented according to the survey whose primary caregiver can produce their vaccination card for inspection on interview at their household divided by the estimated size of the provincial age cohort according to projections of the latest census report. 																			
DLI 9: Budget allocations for immunization are continuous, adequate and can be easily tracked within the provincial financial management information systems	Yr 2 and Yr 3	<table border="1"> <thead> <tr> <th></th> <th>Yr 2</th> <th>Yr 3</th> </tr> </thead> <tbody> <tr> <td>Balochistan</td> <td>Yes</td> <td>Yes</td> </tr> <tr> <td>KP</td> <td>Yes</td> <td>Yes</td> </tr> <tr> <td>Punjab</td> <td>Yes</td> <td>Yes</td> </tr> <tr> <td>Sindh</td> <td>Yes</td> <td>Yes</td> </tr> </tbody> </table>		Yr 2	Yr 3	Balochistan	Yes	Yes	KP	Yes	Yes	Punjab	Yes	Yes	Sindh	Yes	Yes	District & Provincial budgets	Independent TPV contracted by Federal EPI cell and reviewed by the World Bank and co-financing partners
	Yr 2	Yr 3																	
Balochistan	Yes	Yes																	
KP	Yes	Yes																	
Punjab	Yes	Yes																	
Sindh	Yes	Yes																	

Definitions/Details

- Year 2: EPI budget for FY 2017-18 allocated on the current side using newly created specific cost centers/DDO codes.
- Year 3: EPI budget for FY 2018-19 include provision for operating costs as per the notified standards.

Annex 2: Detailed Project Description

PAKISTAN: National Immunization Support Project

1. The proposed project will incentivize results and address bottlenecks in support of the US\$1,580M Pakistan national EPI program, which is articulated in the National Comprehensive Multi-Year Plan for the Immunization Program of Pakistan, 2014. The project will coordinate government and development partner support within a results-based structure with an emphasis on strengthening provincial capacity by:

- (i) Providing a single financing platform to coordinate sources of international support for Routine Immunization;
- (ii) Using standard government budgetary and accounting mechanisms to deliver the majority of project funds directly to the federal Ministry of Finance and provincial Departments of Finance;
- (iii) Employing a performance-based financing structure to incentivize outcomes; and,
- (iv) Channeling catalytic finance and technical assistance to address specific health system bottlenecks and building management and reporting systems to enhance accountability.

Pakistan's National EPI Program

2. Pakistan has a window of opportunity offered by the orderly democratic political transition that brought a new Government with a strong reform mandate. The 18th Constitutional Amendment reshaped federal and provincial relations in terms of roles and responsibilities. In parallel, a new redistribution formula shifted greater funding to the provinces and added weight to poverty, provincial tax effort, and population density to the previous single criteria of population. Further change will continue to stem from local and provincial government elections. Pakistan's security environment and law and order situation remains volatile, with continuous uncertainty over emerging geopolitical scenario in the region.

3. Pakistan is the world's sixth most populous country, with a population of 180 million. With a per-capita income of US\$1,410 in 2014, Pakistan is classified as a lower middle-income country. Pakistan faces significant economic challenges. The country's recovery from the 2008-09 global financial crises was the weakest in South Asia, with GDP growth averaging 2.9 in the FY09-13 period. Political challenges, natural disasters of 2010 and 2011 and ongoing security challenges continue to limit economic growth. The poverty rate fell by half from 34.7% in 2002 to 13.6% in 2011. Poverty reduction has been led by rural areas, where poverty has decreased by 23.2 percentage points (versus 14.7 percent in urban areas).

4. Pakistan has had to face multiple challenges over the last decade including natural and man-made disasters as well as an unstable macroeconomic situation. As evident from the latest surveys like PDHS 12-13, and the Pakistan Social And Living Standards Measurement (PSLM), Pakistan will be unable to achieve the health related MDGs. Immunization coverage has stagnated over the last decade and proportion of children who are fully immunized is approximately 43 to 62 percent (depending on the survey and year). The country comprehensive multiyear plan for immunization (cMYP 2014) assigns a baseline national coverage in 2012 of 53%, which is a reasonable consensus estimate. Evidence suggests that underachievement of the EPI is due to a combination of factors including : inadequate performance in the areas of service

delivery, program management, monitoring and evaluation, logistics control, human resource and financial management as well as community health-seeking behaviors and other demand side issues. Another reason for the poor performance is the reduced focus on EPI (funding and technical assistance) in relation to polio campaigns.

5. In line with international standards, the Expanded Program on Immunization (EPI) in Pakistan aims to immunize all children between 0 and 23 months against eight vaccine preventable diseases that include tuberculosis, poliomyelitis, diphtheria, pertussis, tetanus, hepatitis B, haemophilus influenza type b (Hib), and measles. Newer vaccines which will expand EPI are either in the process of roll out (pneumococcal vaccine, inactivated polio

Table 1: Pakistan EPI Schedule

Age	Vaccines	
At birth	BCG and OPV 0	
6 weeks	OPV 1	Pentavalent 1
10 weeks	OPV 2	Pentavalent 2
14 weeks	OPV 3	Pentavalent 3
9 months	Measles	
Second year of life	Measles	

vaccine) or under planning (rotavirus vaccine).

6. Before the 1990's immunization was financed by the support extended from USAID which came to a halt in the early 1990s and that's when the World Bank support (along with some other donors) bridged the financing gap till 2003. Gavi support became available for the procurement of vaccines from 2005-06 onwards in the country. Prior to 2001, Pakistan followed a federally/provincially managed structure to deliver health services. In 2001, some of the powers were devolved to the district governments, and EPI was integrated into district-level preventive programs. Later the Constitutional Amendment 18 became law on April 8, 2010, and much of the management of health services including immunization was devolved to the provinces. Since then, the provinces are expected to plan and manage their own provincial budgets for EPI.

7. Post devolution provinces have shown less than desired results due to lack of human resource capacity, low budget allocation and non-integration of program in provincial health delivery system. The federal government is financing the cost of vaccines and consumables as per Council of Common Interest decision and it will continue to do so till the end of 7th National Finance Commission award. Another important contextual factor is the fluid situation regarding role of local governments in service delivery. Each province is in the process of enacting local government act with varied mandate and there is still confusion around the devolved health related responsibilities to district governments. In FY 2011-12 government of Pakistan spent PKR 9 Billion (USD 90 Million) on routine immunization (not including new vaccines). Federal government shared PKR 5.2 Billion and provincial governments provided PKR 3.8 billion from their respective budgets.

8. The federal share mainly comprised vaccine and disposables that accounted for 98% of its contribution while the remaining 2% covered program management cost at federal EPI cell including central control storage. Out of provincial budgets, Punjab expenditure on immunization accounts for 53% of the total immunization spending followed by Sind (21%). Overall, Government of Pakistan funds accounted for 52% of EPI expenditure and the donors shared remaining 48%.

9. Financing for EPI is largely under the development budget, and is articulated in federally and provincially approved Planning Commission documents (PC-Is). The PC-Is detail the financing to be provided for salaries, management and operational support, vaccine costs, vaccine supply chain, surveillance and demand generation. The Executive Committee of the National Economic Council approved the federal PC-I for EPI over the project period on the 8th of March 2016. Government financing estimates based on provincially approved planning documents (PC-Is) total US\$1,581.20. This may increase based on future requirements (e.g. Punjab has costed the new Rotavirus Vaccine introduction while other provinces have not reflected it). The PC-Is detail the financing to be provided for the EPI program under the development budget for management and operational support (US\$16.02 million), vaccine costs (US\$1,485.28 million), vaccine supply chain (US\$34.68 million) and surveillance, monitoring and demand generation (US\$45.22 million). In addition the program is supported within the regular health budget by salary costs (US\$46.65 million).

Project Results Areas

10. In 2012, the World Bank conducted a review of EPI in Pakistan, based on an independent analysis, and offered recommendations to improve the program's performance. The proposed NISP builds on these recommendations and reflects the action plans for EPI that have been developed by the provincial governments, as well as the updated National EPI Policy (2013). The proposed project is firmly anchored in the Comprehensive Multi Year Plan (cMYP) for Immunization prepared by the government in close consultation with WHO and UNICEF. The project is designed to avoid displacing government resources for EPI to ensure sustainability of the system at the end of project implementation.

11. This project addresses bottlenecks and incentivizes performance of the Pakistan EPI program. Rather than providing supplementary finance, it aims to regularize and strengthen the government systems supporting routine immunization with a focus at the provincial level. NISP is designed as a one off management and structural reform of EPI to renew the infrastructure, review and reorganize the management structures, review and adjust human resource requirements and streamline reporting mechanisms to enable real time reporting of data and enhance analytic capacities. New innovative approaches are proposed to increase immunization coverage in urban and peri-urban areas, including contracting out of service provision to CSO/NGOs, demand creation through voucher schemes, and the use of enhanced planning and monitoring tools (such as electronic tracking).

12. The project is comprised of components which support both the federal and provincial levels, with much of the finance to be delivered through a performance based structure. At the federal level, overall project monitoring will be the responsibility of the EPI unit within

MONHSRC. Each provincial Department of Health will be responsible for independent program implementation, with coordination being provided by the federal body. The first three project components take a results-based approach using Disbursement Linked Indicators (DLIs) to incentivize provincial implementation of agreed results. The fourth and fifth finance the Federal EPI cell and partner agencies in national coordination, project management, technical assistance and analytic capacities as well as Health System Strengthening elements (particularly cold chain equipment) to catalyze these provincial results.

13. The NISP investment will use a results-linked buy down instrument. The financing package includes US\$50 million IDA credit and US\$79.6 million in grant co-financing from Gavi and USAID. The BMGF have also committed to financing a partial results-linked buy-down of the credit of up to US\$25 million. Such an agreement would operate to provide an incremental contribution over the lifetime of the project period, proportionately determined by the achievement of the same DLIs. At the completion of the project, the credit would be partially bought down to the extent of the total Gates contribution – which would comprise at maximum a US\$10.29 million buy-down for interest and service charge and US\$14.71 million buy-down for the principal (current estimates). Therefore, the US\$50 million credit would be converted into a US\$31.3 million credit with zero coupon (current estimate).

14. Capacity in program management is variable across the provincial health departments, particularly in planning, policy making, procurement, surveillance, monitoring and reporting. This project will address these through the provision of training and technical assistance. In Punjab, there is increasing familiarity with results-based financing mechanisms, through the new Health Sector Reform Project; however, this capacity will require strengthening in other provinces, particularly in reporting systems, payment mechanisms and data validation. District level facilities are the principal sites of service delivery; however, they have limited capacity for provision of immunization through fixed or outreach services - with key barriers being human resources, systems for timely reporting and demand creation. Successful implementation of an RBF approach will require strengthening each of these areas through training and technical assistance, as well as the support for independent third party validation of program performance data.

15. There is some capacity in the MONHSRC for project management, and monitoring and coordination of provincial EPI, as well as program implementation in the federally administered territories. These functions will require strengthening and broadening to include policy support, technical assistance in specific areas, information collection and analysis and international reporting.

16. Component 1: Strengthening Provincial Management, Governance and Stewardship Functions (total cost US\$40.3 million).

17. This component has the objective of addressing the fundamental systemic weaknesses that underlie the poor performance and accountability of EPI in Pakistan. Strengthened oversight, informed by rigorously generated information, will target bottlenecks in program management and oversight. The projects engagement will focus on the following thematic areas:

- (i) *Robust monitoring & evaluation mechanisms.* The system to support EPI management with timely and reliable program data will be comprehensively strengthened at the

provincial and district levels. The activities will comprise collation and analysis of data from the following program functions: vaccine utilization and reported coverage, trends of immunization coverage at the UC level, plans and actual performance of campaign activities during SIAs, supervisory reports from district & provincial supervisors, third party reports and other national/regional surveys. The latest technological approaches which have been successfully applied in some areas of the country will be more broadly introduced. Internal monitoring of the routine immunization activities will be complimented and validated annually by independent third party monitoring to be conducted by firms hired on competitive basis.

- (ii) *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 and logistic support. The goal of this strengthening is a well-functioning and sustained EPI and vaccine preventable disease reporting system in 3 years encompassing surveillance, online reporting and response. The strengthening will build on the capacities and experience of the system for surveillance of acute flaccid paralysis supported by WHO, which rapidly and comprehensive assembles data from the basic health facility through to provincial and national levels. The national core capacities for surveillance and outbreak response will be integrated with this system.
- (iii) The provincial expansion/maintenance of the *vaccine logistics management information system* (vLMIS) will be supported. An effective and sustainable vLMIS will ensure adequate quality and quantities of vaccines are available at the service delivery point.
- (iv) *Oversight, Coordination and stewardship functions*. As a first step in ensuring accountability of the program, systems will be strengthened for the rigorous monitoring by the development partners¹⁷ and civil society at the national and provincial levels. All provincial EPI programs will be supported to contribute to the effective functioning of the national ICC, including representation by the provincial EPI managers, to assess program performance against agreed milestones and targets and address vulnerable areas for improvements. As detailed in the governance arrangements of the MDTF, the ICC shall play the central role in coordinating the overall monitoring and reporting of implementation of the NISP. Its functions will also include quarterly review meetings for consensus decisions on resource allocation, policy review and setting of guidelines, decisions on new vaccine introduction (including relevant research), campaign planning & review and resource mobilization. There will be quarterly review meetings at the provincial level formalized as a provincial monitoring/ technical committee chaired by the Secretary of Health to evaluate performance of the routine program and polio/measles eradication activities. The oversight by provincial committees will be supplemented by monthly review meetings held at the district level. To support the activities of the ICC and related provincial councils, 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, coordination with development partners, consolidation of national plans and reports, synthesis and analysis of all data from surveillance, research, logistics systems and independent reviews. In

¹⁷ Development partners include Technical Agencies: WHO, UNICEF, as well as USAID, Department of Foreign Affairs and Trade, Australia, Japan International Cooperation Agency, DFID, Gavi, the BMGF and the World Bank

addition the capacity of the Federal EPI cell will be strengthened to provide training (development of updated modules/manuals, guidelines, conduct review meetings), technical support, operational research, respond to litigations and perform national level coverage surveys.

18. **Component 2: Improving Service Delivery Performance** (total cost US\$19.75 million). In Pakistan, an historical disconnect persists between the distribution of population (demand) and the focus of the EPI program infrastructure for service delivery (supply). Recent urban population growth has been very high - which has changed urban and rural population ratio from historical 30:70 to 45:55 in 2013. However in many districts the provision of services has not kept pace with this demographic shift through the strengthening of EPI services in static health facilities. Consequent low availability is compounded by poor governance and management systems, unreliable supply chains, lack of availability and retention of skilled staff and poor linkages between communities and health facilities. 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 micro plans with much greater detail, based on the format used by the polio microplans, and integrated with this system. An online database will be created to enable data entry of the micro-plans in the agreed format by union council. The micro-plan will have a very precise coverage estimate for each Union Council. As a policy, LHW and vaccinators will prepare joint micro-plans for immunization in each UC. The database shall have the capacity to consolidate data by district/province as well as provide detailed information by union council upon query. Technical support and training will be provided to the District Superintendent Vaccination (DSV) and vaccinators to enter the annual and monthly UC level micro-plans at district and provincial level. An important aspect will be the development of integrated EPI staff workplans encompassing 14-16 workdays per month, with the remainder set aside for other activities like administrative meetings, catchup days, tracing defaulters, and other vaccination campaigns.
- (ii) *Availability and Management of skilled human resources*: Adequate numbers, allocation and quality of human resources are most critically required to handle the additional workload and responsibilities assumed by the provincial EPI cells after devolution. The expanded provincial activities will be extremely various - ranging from community outreach sessions, capacity building, maintenance of cold chain equipment, through to social mobilization. Hence the provincial EPI cell requires an expanded variety of qualified personnel on both the technical and managerial sides. The draft National EPI Policy states that two skilled persons (vaccinators) should be deputed per union council, and that recruitments will be done at the PHC level to meet this standard. As a policy additional staff will be not be recruited on contract basis. Any such new posts will be created under the regular provincial budget to allow for continuity of the program. Regular training of provincial and district EPI staff (managers, EPI technicians and other health care providers) is necessary to maintain the quality of service delivery for immunization. Under this component, 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.

- (iii) *Effective supervisory systems for EPI:* One aspect of weak program management has been the lack of quality data on EPI performance, which is addressed above. This subcomponent supports the availability of these data and the institution of supervisory systems to allow their effective use. **Systematic prioritization of poorly performing areas.** The provincial EPI Cell, as part of the provincial plan, will monitor all the districts based on achieved immunization coverage data collected through routine reporting, Lot Quality Assurance Sampling (LQAS) and coverage surveys and maintain consolidated reports by district/division/province. Similarly the UCs within a district will also be ranked based on their achievement of immunization coverage. This will inform program responses at the province/district/UC levels to prepare and improve micro-plans focusing on the weaker areas. At the UC level, the **quality of micro-plans** prepared by DSV will also be monitored and improved by training and routine involvement of vaccinators, LHWs and provision of technical support. The project will address the issue of poor **availability and quality of program data** through establishment of an automated immunization MIS. As a result EPI officials will be able to review accurate vaccination data from each district and have a clear understanding of cold chain issues, immunization worker absenteeism, and coverage and vaccine management issues. Reported MIS data will be validated at the district level by LQAS sampling of at least 30% of the Union Councils every month. LQAS is a rapid survey method to assess the quality of vaccination coverage using a small sample size, and has been successfully applied in the management of polio eradication campaigns. The provincial EPI will be responsible for sampling at the district/ tehsil level while districts will sample at the UC level particularly the validation of the UCs having less than 40 percent verified coverage. A second level of validation will be instituted at the federal level, which will also sample at district level to cross-validate the provincial data. At the district level, field staff will submit **online monthly monitoring reports** to the EDO(H) in a structured format to be designed by the monitoring unit at the provincial EPI cell with technical assistance from the federal EPI cell. The online monitoring reporting format will highlight program performance issues and progress on the status of recommended remedial actions.
- (iv) *Enhanced linkage to communities:* Linkages will be established by provincial EPI cells with private sector health providers and health related NGOs and CSOs working in low coverage catchment areas - especially urban slums. The private sector will be offered a venue to work with the provinces in developing policy guidelines covering joint activities such as micro-planning, contract management between the government and the NGO/private sector and integration with other health programs. The project will create synergies between public and private sectors at the provincial level for enhancing coverage while avoiding duplication in service provision. Models will be developed for sustainably financed CSO engagement in service provision in the following areas: Service delivery, supervision and reporting, Training, Research and Behavior Change Communication (BCC).

19. **Component 3: Demand Generation** (total cost US\$20.75 million). Increasing the demand for vaccines at the population level will be essential to increase immunization coverage in Pakistan. 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. These innovations will be supported by rigorous evidence and high level advocacy. CSOs will be key partners in this project component.

- (i) *Social mobilization and community awareness*: The activities which will be carried out by the provinces include awareness creation through electronic and print media along with radio broadcasts highlighting the importance and benefits of immunization will be utilized across the country. Specific EPI centers will be targeted to conduct local community awareness activities (advertisements, activities for active participation of the local community, rebranding of EPI centers). The focus will be supporting CSOs to take an active role to increase LHWs/CMWs involvement provided to the community to motivate the parents to bring children and pregnant women to EPI centers for immunization, to restore service utilization rates in these facilities.
- (ii) *Advocacy*: The Federal EPI cell will develop a plan to sensitize political bodies and senior religious figures on the benefits of routine immunization, which will be implemented locally by the Provinces. A sustained communication presence will be ensured at all levels to achieve the program objectives. Advocacy activities will be coordinated with the social mobilization messaging – and raise political awareness to support these activities designed to enhance awareness of parents regarding the importance of immunization, increase the involvement of community and political leadership in immunization and improve the motivation and interpersonal skills of vaccination staff.
- (iii) *School Curriculum*: Awareness of immunization and its importance to improve child health outcomes will be added as a component of the standard school curriculum. It will be the first component of the curriculum to deal with a public health issue. This will be introduced at the secondary level in a step-wise manner, with development of the module in coordination by the federal and provincial EPI cells, in consultation with the relevant departments of education.

20. **Component 4: Vaccine Supply Chain** (total cost US\$34 million). An assessment of provincial cold chain capacity has noted provinces have insufficient or outdated cold rooms, not sufficient to support the provincial coordination of vaccines which requires a minimum capacity of six month's supply. This component will support the national procurement of essential equipment to strengthen the capacity and performance of the national and provincial vaccine supply chains. This will include purchase of cold rooms, and ice lined refrigerators. It is anticipated that the majority of procurements financed under this component will be made in the first year of project implementation, through a contract with UNICEF supply division. Subject to an approved request from Government, this procurement could be retroactively financed, accelerating the availability of these critical components.

21. **Component 5: Improving Capacity for Increased Immunization Coverage** (total cost US\$14.8 million). This component will finance strengthening of national coordination, project management and analytic capacities.

- (i) *Capacity of Federal and Provincial EPI Cells:* This component will support capacity building activities to strengthen the ability of the Federal EPI Cell within MONHSRC to implement the project, including in the areas of: financial management, procurement, environmental and social management, and monitoring and evaluation. It will also support the regular, effective functioning of the ICC in coordination of the national EPI programs, and overall supervision and reporting of the NISP, facilitating regular provincial program reviews, standard setting, consolidation of national data and international reporting.
- (ii) *Research and Evaluation:* A significant investment will be made to support analytical work and research to provide evidence for policy. This will include operational research to develop improved measures of immunization coverage, and national level surveys. It will also support a pilot Conditional Cash Transfer Scheme to provide incentives for accessing immunization services to mothers and health care providers, which will be piloted in the state of Punjab under the Punjab Health Sector Reform project. Based on evidence of performance in creating awareness and mobilizing demand, it is intended to expand this scheme within Punjab and to adapt it for national implementation. It is expected that this subcomponent will also receive the future financial support of the GFF in the second year of project implementation.
- (iii) *DLI Certification.* Institution of a comprehensive system of independent third party assessment of program performance will be also be supported to verify achievement of DLIs. As requested by the Government of Pakistan, these TPVs will be implemented by the Federal EPI cell and by the World Bank. The World Bank shall contract a firm to undertake a yearly coverage evaluation survey, to validate program data generated in the districts, and collated at the provincial and national levels. The TPV of components not requiring coverage evaluation will be the responsibility of Federal EPI, as detailed in the DLI schedule (Annex 1). As requested, for specific DLIs the World Bank may agree to hire a Third party to provide validation to shorten the delays in disbursement resulting from any procedural bottlenecks that may occur in the Federal EPI cell. The World Bank shall not be responsible for the generation, or contracting to generate, of any program or official data. Regardless of the mode by which TPVs are contracted, the validation reports shall be reviewed by the World Bank and co-financing partners, before presentation to the ICC.
- (iv) *MDTF financing of Gavi Partners.* Part of the contributions to the new MDTF will be transferred on a "pass-through" basis by the World Bank to WHO and UNICEF for the financing of technical assistance activities consistent with the objectives of the Trust Fund and the project to be executed by the specific institution, as set forth in the relevant transfer agreement to be executed between the institution and the Bank. The activities to be financed include: mid-level management training for EPI and health staff at district level, technical assistance in data quality, training of vaccinators, cold chain assessments, development of a communication strategy, and technical assistance in developing a strategy for improving service access in urban slum areas. The MDTF will also support provision of activities by civil society organizations (CSOs) in implementing the strategy

for improving service access in urban slum areas. It will also support activities executed by the World Bank, including validation of the performance framework, technical assistance for capacity development in financial management and procurement, analytic work and donor coordination.

Lending Instrument and Results-Linked Buy Down

22. An innovative financing instrument is proposed, which aligns incentives for program performance at the provincial and national levels in both health and finance. This is achieved by the use of a DLI schedule to govern disbursement of the majority of the credit and grant resources, complemented by a “results-linked buy down”, which will incrementally cancel the credit fees, service charges and part of the principle, subject to achievement of the same DLI targets over the life of the project.

23. The **IDA Credit of US\$50 million** will be financed through Investment Project Financing, using a programmatic approach, focusing on results with well-defined qualitative and quantitative targets for a five-year period. The project will use two disbursement modalities: (a) reimbursement against the selected EEPs of the annual national and provincial budgets, subject to the achievement of DLIs, for Components 1, 2, and 3. The EEPs consist of pay and allowances for employees of the Health Staff working on immunization at the districts in the provinces. The EEPs are part of the Provinces and Districts recurrent budget for the government EPO program’s activities; (b) Interim Financial Reports (IFR)-based payments under Components 4 and 5.

24. The project will be co-financed with **US\$79.6 million grant through a Bank-administered Multi-Donor Trust Fund** with contributions from Gavi and USAID, potentially followed by other development partners. Gavi has committed to graduated contributions to the MDTF grant in FY16, FY17 and FY18. Therefore at this time only US\$39.68 million is available. In addition, US\$20 million will be sought from the GFF in the second year of the project for national scale up of the demand-side interventions.

25. The BMGF has been a strong supporter of immunization in Pakistan for more than 10 years – particularly as a partner in the Global Polio Eradication Initiative, and through innovative financing of the World Bank-supported Partnership for Polio Eradication Program which has “bought-down” the credits provided by the IDA and the Islamic Development Bank to the country for polio eradication. Recognizing the crucial role which strong routine immunization systems play in achieving interruption of polio virus transmission, the Gates Foundation have committed support to the Government of Pakistan through the NISP. This proposed contribution by the Gates Foundation, made over the 5-year life of the project, will be solely used to write-off a portion of the fees, service charges and principal of the credit (“partial buy down”) upon project completion, and thus support substantially increasing the concessionality of the credit while being linked to the clients’ performance.

26. The BMGF has committed financing up to **US\$25 million for a partial, results-linked buy-down of the credit**. These funds will be held by the World Bank in a dedicated debt-service trust fund. The majority of the NISP Credit (US\$35 million out of US\$50 million total) and a majority of the US\$79.6 million MDTF grant will be disbursed conditionally on the achievement

of an agreed set of DLI. The buy-down amount deployed will be proportionately determined by the amount of credit disbursed against these DLIs. Therefore, if all DLIs are achieved, at the completion of the project the credit would be bought down to the extent of the total US\$25 million contribution, and be converted into a US\$31.3 million credit with zero coupon (current estimate). If 50% of the DLIs are achieved the buy-down amount would be US\$12.5 million, and so forth. This approach aligns the incentives for program performance, credit financing, grant financing and loan concessionality. An estimate of the buy-down eligibility accrued will be provided annually to the Government of Pakistan as part of project supervision.

Annex 3: Implementation Arrangements
PAKISTAN: National Immunization Support Project

I. Institutional and Implementation Arrangements

1. The implementation arrangements for the project are the same as those for the government's EPI program. The program will have five implementing Agencies: EPI cell with responsibility for the federal territories, under MONHSRC at the federal government level and the four provincial DOHs through EPI cells established in the office of the DGHS in each province. The implementing entities will coordinate with the Department of Planning and Development and the Finance Departments, the Accountant General and the concerned offices of the Auditor General of Pakistan. It is envisaged that overall project management and monitoring will be the responsibility of the Federal EPI Cell.

2. ***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, coordination (development partners, international and interprovincial), technical support, operational research, litigations and national coverage surveys.

3. ***Provincial/Regional Level Roles and Responsibilities:*** Monitoring, supervision, planning, reporting, data analysis, surveillance, procurement, logistics, financial management, vaccine management, HR management, Trainings, Review meetings, HE, Social mobilization, Advocacy, coordination, technical support, IT solutions, engagement of CSO/private sector, operational research and litigations.

4. ***District Level Roles and Responsibilities:*** Monitoring, supervision, planning, reporting, data analysis, surveillance, logistics, financial management, vaccine management, human resource management, training, review meetings, health education, social mobilization, advocacy, coordination, engagement of CSO/private sector and data validation.

5. ***Union Council Level Roles and Responsibilities:*** Planning, implementation, supervision, monitoring, reporting, logistic management, vaccine management, social mobilization and CSO.

6. There are notified steering committees within the DOH at the federal and provincial levels which will meet bi-annually to review the physical and financial progress as well as 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, training, coordination, data validation etc.

7. The design of the program relies on district-led program implementation and regular monitoring where the activities are coordinated by Executive District Officer (Health) - EDO(H) of each district. Keeping in view the current implementation challenges the program will support measures to improve the capacity of both provincial and district managers for effective program implementation.

8. 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 to achieving the project 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 of the EEPs, with individual transfers to each of the five entities, contingent on their individual achievement of DLIs.

II. Financial Management, Disbursements and Procurement

Financial Management

9. A financial management assessment of EPI has been carried out as part of the preparation of the NISP. This provided an overview of the existing financial management arrangements at the EPI as well as relevant financial management risks for NISP. For the assessment, the FM team visited Federal, Punjab and Sindh EPI cells as well as selected districts in Punjab and Sindh provinces for data collection and review of the existing systems. Meetings with the officials of EPI Cells in Khyber Pakhtunkhwa and Balochistan provinces were held at Islamabad.

10. **Risk and Mitigating Measures:** The financial management risk for the project is assessed as “**High**”. The detailed risk assessment is available in the project files. A summary of the constituent elements of the overall risk and the respective mitigating measures is provided in the table below. To address the FM risk, federal and provincial governments, with the technical assistance of the Bank, have drafted a detailed implementation plan. The implementation plan also aims to strengthen the financial management capacity of MONHSRC, its Federal EPI Cell, and the DoHs and EPI Cells of the participating Provinces. It was agreed that the implementation plan will be adopted within three months of project effectiveness and will be subsequently implemented (Legal Covenant). The Bank will review implementation of the plan, as part of periodic implementation support missions. In addition, the project includes a DLI on budgeting reforms.

Table 1: Risk Mitigation Matrix

	Risk/ Issue	Proposed Mitigating Measure
1.	The EPI budgeting process, which is segmented between federal and provinces, does not follow any approved policy framework. The Federal EPI cell along with provincial counterparts is in the process of updating comprehensive Multi Year Plan (cMYP 2010-15). However, cMYP does not have any statutory status to ensure that federal and provincial governments allocate resources for	<ul style="list-style-type: none"> • Preparation and approval of national level policy framework for immunization by end of year-1 that provides immunization targets and annual resource requirements for each province. • Federal and provincial EPI budgets based on approved policy framework from year-2 onwards.

	Risk/ Issue	Proposed Mitigating Measure
	immunization milestones. Therefore, there is incongruity between federal and provincial EPI budgets underscoring the risk that provinces may not budget adequate funds in line with immunization targets.	
2.	There is lack of visibility of EPI budget and expenditure information in country financial management system. Part of current expenditure relating to salaries and operating cost included in DGHS and DOH Budgets are not separately identifiable. This affects the financial reporting and expenditure tracking of EPI, thus, undermining informed decision making.	<ul style="list-style-type: none"> • By end of year-1 separate create a separate sub-function for immunization in the national Chart of Accounts and also create separate DDO codes for EPI. • Provincial and district budgets to include separate DDO Codes/ Cost Centers for EPI budget by end of year-2. Directly attributable costs of the EPI to be budgeted against these newly created DDO Codes and the newly created immunization sub-function.
3.	Major EPI expenditure (including recurrent) is part of development budget in the provinces of Sindh, Khyber Pakhtunkhwa and Baluchistan. Development budget is more sensitive to change in priorities when seen in political economy context. Similarly, in case of development projects, the PC-1 approval time may run deep into the financial year causing further delays. The release procedure for development funds takes more time than current side releases.	<ul style="list-style-type: none"> • EPI recurrent expenditure to be made part of the current budget in the provinces of Sindh, Khyber Pakhtunkhwa and Balochistan.
4.	Adequate allocations for operating cost are not made as part of provincial and district health budgets. EPI activities are carried out as part of overall health mandate in the province; therefore, inadequate allocations adversely impact the ability to deliver immunization services.	<ul style="list-style-type: none"> • Define standard for proportion of operating costs. • Adequate allocation for operating cost to be made for the EPI activities in the provincial and district budgets.
5.	Consolidated Program Level Financial Reports are not Prepared. Financial Reporting is limited to Budget Execution Reports (BERs) prepared for each cost center/ Drawing and Disbursing Officer (DDO).	<ul style="list-style-type: none"> • Federal EPI Cell to hire a Financial Reporting Specialist to prepare periodic national level program reports and annual financial statements within three months of loan effectiveness. • Hiring of a Financial Reporting Specialist by each provincial EPI Cell to prepare periodic provincial level program reports and annual financial statements by the

	Risk/ Issue	Proposed Mitigating Measure
		<p>end of year-1.</p> <ul style="list-style-type: none"> • Prepare a roadmap to and subsequently implement the program reporting functionality within National FMIS within six (6) months of the loan effectiveness.
6.	<p>Various donors have provided in-kind grants for government routine immunization program. These grants mostly include vaccine and cold chain equipment and have remained outside the country financial management system. This not only results in under reporting of expenditure but also reduces government oversight over donor investment.</p>	<ul style="list-style-type: none"> • Mechanism to incorporate all in-kind grant in the country financial management system by the end of year-1. • All in-kind grants for EPI activities to be part of government budgeting system from year -2 onwards.
7.	<p>As per EPI Punjab no Gavi funds have been received since 2010. These funds were disbursed during FY 2010-11 to Federal Government, which only forwarded Rs. 263M to government of Punjab since then.</p>	<ul style="list-style-type: none"> • Transparent fund flow between federal and provincial government within six months of the project effectiveness. • Mechanism to track donor funds through country financial management system in place by the end of year-1.
8.	<p>Standard for vaccine inventory management varies across provinces and districts. There is no underlying inventory reporting mechanism to monitor flow of vaccines from federal to provincial to district level. Similarly, fixed asset registers are no maintained and coding has not been carried out.</p>	<ul style="list-style-type: none"> • Issuance of standardized inventory management guidelines by Federal EPI by end of year-1. • Introduction of asset register, coding and mechanism for annual inventory inspection by the end of year-2.

Proposed Financial Management Arrangements for NISP

11. *Implementing entity:* The five implementing agencies will be Extended Program for Immunization EPI cell under MONHSRC at Federal Government level and the four provincial DOHs through EPI cells established in the office of the DGHS in each province. The implementing entities will coordinate with the Department of Planning and Development and the Finance Departments office and the concerned offices of the Auditor General of Pakistan. At the federal level, it is envisaged that overall project management and monitoring will be the responsibility of the EPI unit within MONHSRC. Federal EPI cell will also be responsible for processing and submitting of withdrawal applications on behalf of all four provinces. Each provincial EPI cell will be responsible for independent program implementation, with coordination being provided by the federal body.

12. *Resources/Personnel:* The existing financial management team at federal EPI consists of four government officials headed by account officer. The FM team will be strengthened by hiring a FM Specialist within three (3) months of effectiveness, as per Terms of Reference agreed with the Bank. At present, provincial EPI cells have limited capacity of financial planning and analysis for management decision making. The FM services are provided by the Budget and Account section of the DGHS office. A dedicated FM specialist will also be hired at each provincial EPI cell to strengthen the cell's FM capacity. Accountant General at the provincial level will undertake recording, accounting and reporting functions through government's FMIS and will be responsible for budget execution and monitoring.

13. *Budgeting:* The federal government will provide fund through PC-1 prepared for EPI cell under the development budget of MONHSRC. All four provinces will provide funding for the core project activities through separate PC-1 and will finance recurrent expenditure of immunization activities from non-development side allocation in the DOH budget using detailed object and functional classification prescribed in the Chart of Accounts. In case where district governments are involved, the district government will provide funds for corresponding activities from current side of the district health budget. Newly created DDO Codes/ Cost Centers for EPI will be used from the second financial year for budget preparation at the federal and provincial level.

14. The federal and provincial governments follow a detailed budget calendar and budget call circular including detailed instructions is circulated during the year. This calendar provides deadlines for all the steps involved to ensure that there is sufficient time to receive, review, discuss, and compile the inputs from all districts. The consolidated budget is prepared by the federal finance division and provincial finance departments for submission to the legislature.

15. *Accounting and Financial Reporting:* Accounting records for DLI component will be maintained using the government's FMIS and in accordance with the country accounting procedures and policies defined in the New Accounting Model. These policies and procedures are being progressively and consistently applied at the federal, provincial as well as district government levels. Use of New Accounting Model policies and procedures conforms to international standards and is acceptable to the Bank. For Components 4 and 5, the Federal EPI Cell will manually maintain the following accounting records:

- (a) Cash/ Bank Book – to record all cash/ bank receipts and payments
- (b) General Ledger – to record all receipts and payments by object code
- (c) Asset Register – to maintain up to date record of assets procured
- (d) Invoice Register – to track payments
- (e) Contract Register – to record all contract payments
- (f) Vouchers for all receipts and payments

16. The system-generated accounting records and the manual records maintained by the Federal EPI Cell will be the basis for preparation of the EPI Budget Execution Reports, including program expenditures financed under the credit. The Project Financial Reports (interim and annual) will also be produced, showing the sources of project funds and their uses. The Project Financial Reports will take the form of biannual IFRs and Annual Financial Statements. Cash Basis IPAS will be used to prepare the Annual Financial Statements. Federal EPI Cell will have

primary responsibility for preparing and submitting the financial reports to the Bank. IFRs will be submitted to the Bank within 45 days of the close of the six month period ending December 31 and June 30 each financial year. Audited Financial Statements will be submitted to the Bank within 6 months of the close of the financial year.

17. *Internal Controls:* As with other government expenditure transactions, DLI Component payments under the project will be subject to the normal pre-audit verification at accounting offices before payments from the single treasury account are approved. Federal Component funds will be managed by the EPI Cell using the Designated Accounts. Majority of the expenditure under Federal Component will constitute monitoring, supervision and consulting services for data validation and will be expended using the Bank's procurement guidelines. Internal control activities for the project will at minimum include:

- (a) ***Authorization and Approvals:*** For payments to be made from a Designated Account (DA), the financial and administrative authority will be exercised in accordance with the approved delegation of powers.
- (b) ***Verifications:*** For each payment the FM section will review that the payment claim is appropriately supported by documents, is in compliance with approved policies and has been approved by the competent authority.
- (c) ***Segregation of Duties:*** The FM function will be independent of procurement and administration. There will be dual bank signatories, one of which will be from a unit other than FM.
- (d) ***Physical Controls:*** The Federal EPI Cell will maintain a fixed assets register for assets procured from credit and grant proceeds. All assets will be tagged and periodically verified.
- (e) ***Reconciliations:*** Expenditure reconciliation with the Accountant General and bank reconciliation will be carried out on a monthly basis. Any difference in the reconciliation will be reviewed and the reasons for the difference will be documented.
- (f) ***Supervisory Controls:*** Monthly reconciliations with the Accountant General and the Bank, physical stock verifications reports and periodic financial reports will be reviewed by the Project Director.

18. *External Audit:* The annual financial statements of the program will be audited by the Auditor General of Pakistan. The audited financial statements will be submitted to the Bank within six months after the close of the financial year. The audit will be carried out in accordance with Financial Audit Manua, which is based on INTOSAI Auditing Standards and international best practices and is generally compliant with International Auditing Standards. The project level audit will involve multiple audit offices of the Auditor General of Pakistan and Federal EPI Cell will be responsible to coordinate with the auditors for timely initiation and completion of audit.

19. For each financial year closing on June 30, acceptable audited financial statements of the project along with Management Letter will be submitted to the Bank by December 31, i.e. within six months of the close of the financial year.

20. There are no overdue audit reports or unsettled ineligible expenditure in respect of the project implementing entities.

21. *Disbursement Arrangements*: The following table summarizes the project’s disbursement arrangements.

Table 2: Disbursement Arrangements

Disbursement Categories	Amount of Credit	Amount of Grant**	%age of Expenditure to be Financed	Disbursement Cycle	Disbursement Condition
(1) Eligible Expenditure Program (“EEP”)	US\$ 35 million	US\$ 45.8 million	100%	Annual Reimbursement of eligible expenditure based on certification of DLIs achieved and expenditure reported in annual IFRs	Achievement of DLI targets
(2) Goods, Non-Consulting Services, Consultants’ Services, Incremental Operating Costs, Training and Workshops	US\$ 15 million	US\$ 33.8 million	100% exclusive of taxes, customs duties, tolls or other charges on importation of vaccines and related supplies	Annual Advance to Designated Accounts	None
TOTAL	US\$ 50 million	US\$ 79.6 million			

** For MDTF grant of US\$79.6 million, only US\$39.68 million is available for commitment, with US\$ 13.72 million allocated to category 1 (DLI component) and US\$25.96 million allocated to category 2 (Components 4 and 5). Restructuring will be undertaken to adjust the amounts under categories 1 and 2 once further contributions from the donors become available.

22. Retroactive Financing of SDR 7,200,000 of the credit is allowed from January 1, 2016 till the date of signing of the financing agreement against expenditures to be incurred under the Components 4 and 5. From the grant retroactive financing of US\$7.936 million is allowed from the date of effectiveness of the administration agreement of the MDTF (March 3, 2016) until the date of signing of the financing agreement against expenditures to be incurred under Components 4 and 5. Retroactive financing for procurable items is only allowed if items are procured in accordance with applicable World Bank procurement guidelines/procedures.

23. For Components 4 and 5, two segregated designated accounts, one for the IDA Credit and the other for Grant, will be established in United States Dollars at the National Bank of Pakistan at the federal level. These two designated accounts will be managed by the Federal EPI Cell.

World Bank financing (both IDA credit and grant funds) for this component will be 100% for goods, non-consulting services, consultants' services, incremental operating cost, training and workshops. However, taxes related to the importation of vaccines and related supplies are not eligible for financing. Financing of expenditures under the components 4 and 5 by IDA and MDTF will be at 100% respectively, in line with the procurement plan agreed during negotiations. This procurement plan will be subsequently updated to reflect the funding source for items included in the plan and made available to the Bank before the first payment under these components is made. Disbursement under this component will be made according to the transaction-based disbursement procedures that include the use of statements of expenditures and/or summary sheet. The ceiling for advance to each DA will be US\$5 million with monthly replenishment. The statement of expenditure and summary sheet will be the basis for documentation of expenditure against earlier advances to the designated accounts and their replenishment. Once the project's capacity is raised to a satisfactory level, the project may then switch to report-based disbursement and a set of IFRs will form the basis of disbursement. Withdrawal applications and replenishments of the designated accounts will be prepared and sent by authorized signatories.

24. The disbursements for Category 1 (i.e., the DLI component) are conditional on the achievement of reform actions or results. These are identified as DLIs. A certain amount of credit and grant proceeds has been allocated to each DLI, referred to as the DLI price, which is the amount that the government can claim as disbursements against EEPs if that DLI has been achieved and verified. The price for each DLI has been agreed to as shown in Table 3 below. The first year DLI (DLI 7) is priced as US\$10 million, while the rest of other DLIs are equally priced at US\$6.44 million.

25. For DLI-based disbursements, though withdrawal applications will be at the project level and prepared and submitted by the Federal EPI Cell, the World Bank disbursements for this component will be made directly to the Consolidated Fund Account No. 1 (non-food) of each Provincial government. As such, separate withdrawal applications will be prepared for the IDA credit and MDTF grant respectively and submitted by the Federal EPI Cell for each of the 4 participating provinces. A one-time advance of US\$10 million (US\$4.3 million from the IDA portion and US\$5.7 million from the grant portion) will be provided upon project effectiveness against forecasted EEPs for the next two quarters. The advance will be subsequently documented against relevant actual EEPs conditional on achievement of DLIs. However, further advance may be provided if financing needs are justified for this DLI component. For the World Bank's disbursement purposes, these provincial Consolidated Fund Accounts No. 1 (non-food) will be treated as pooled designated account and may include four such provincial accounts for the IDA portion and four such accounts for the grant portion. The Bank will then reimburse eligible expenditures as reported in the annual IFRs capped to the price of DLIs achieved. Disbursement from the credit and grant proceeds in US Dollars will be translated to Pakistani Rupees by the State Bank of Pakistan, and the local currency shall form the transaction basis for the operation's accounting and reporting.

26. Annually, federal EPI cell will submit separate Withdrawal Applications for each province (and for the IDA credit and MDTF grant, respectively) duly signed by an authorized representative of EPI cell along with IFRs and DLI results report to the World Bank for disbursements and documentation of expenditure. The template of Interim Financial Reports

(IFRs) has been agreed during negotiations and will be used to document advances and actual project expenditure incurred against the eligible expenditure supported by the Bank under the project.

27. The World Bank will disburse the US\$35.0 million IDA Credit and the US\$45.8 million¹⁸ grant against achievement of DLIs. Where achievement of a DLI cannot be certified by the end of the fiscal year expected to be achieved, an amount equivalent to the unitary DLI price will be withheld. With respect to the amount withheld, the World Bank will have full discretion to decide whether to partially release it, disburse it in full at a later day upon achievement of the DLI, cancel or reallocate it to another disbursement category. Table 4 presents an indicative disbursement schedule for DLI-based disbursement.

¹⁸ Of this amount, only US\$13.72 million is available for commitment.

Table 3: DLI pricing (This table reflects the full MDTF grant amount of \$45.8 million for Components 1, 2 and 3, of which \$13.72 million is currently available).

DLI	Province	IDA Credit + MDTF Grant						IDA Credit						MDTF Grant					
		FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	TOTAL	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	TOTAL	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	TOTAL
		US\$ in Millions						US\$ in Millions						US\$ in Millions					
Total for all DLIs	Punjab	4.45	11.46	8.60	5.74	5.74	36.00	2.21	5.74	4.30	2.87	2.87	18.00	2.24	5.72	4.30	2.87	2.87	18.00
	Sindh	3.22	8.27	6.21	4.14	4.15	26.00	1.11	2.87	2.15	1.43	1.44	9.00	2.12	5.40	4.06	2.71	2.71	17.00
	KP	1.49	3.82	2.87	1.91	1.91	12.00	0.61	1.59	1.20	0.80	0.80	5.00	0.87	2.23	1.67	1.12	1.12	7.00
	Balochistan	0.84	2.16	1.63	1.08	1.08	6.80	0.37	0.96	0.72	0.48	0.48	3.00	0.47	1.21	0.91	0.61	0.61	3.80
	Total	10.00	25.72	19.31	12.88	12.89	80.80	4.30	11.16	8.37	5.58	5.59	35.00	5.70	14.56	10.94	7.30	7.30	45.80
1. Percent of children aged between 12-23 months in the province or territory who are fully immunized	Punjab	-	-	2.87	-	2.87	5.73			1.43		1.43	2.87			1.43		1.43	2.87
	Sindh	-	-	2.07	-	2.07	4.14			0.72		0.72	1.43			1.35		1.35	2.71
	KP	-	-	0.95	-	0.96	1.91			0.40		0.40	0.80			0.56		0.56	1.11
	Balochistan	-	-	0.54	-	0.54	1.08			0.24		0.24	0.48			0.30		0.30	0.60
	Total	-	-	6.43	-	6.44	12.87			2.79		2.79	5.58			3.64		3.65	7.29
2. Percentage of UC in each province for which revised computerized UC level micro plans are in functional use at district and provincial levels	Punjab	-	2.87	-	-	-	2.87		1.43				1.43		1.43				1.43
	Sindh	-	2.07	-	-	-	2.07		0.72				0.72		1.35				1.35
	KP	-	0.95	-	-	-	0.95		0.40				0.40		0.56				0.56
	Balochistan	-	0.54	-	-	-	0.54		0.24				0.24		0.30				0.30
	Total	-	6.43	-	-	-	6.43		2.79				2.79		3.64				3.64
3. Percentage of districts in each province reporting coverage of >80% Penta3 in children between 12-23 months which have these reports validated	Punjab	-	-	2.87	-	2.87	5.74			1.43		1.44	2.87			1.43		1.43	2.87
	Sindh	-	-	2.07	-	2.07	4.15			0.72		0.72	1.44			1.35		1.35	2.71
	KP	-	-	0.96	-	0.96	1.91			0.40		0.40	0.80			0.56		0.56	1.12
	Balochistan	-	-	0.54	-	0.54	1.08			0.24		0.24	0.48			0.30		0.30	0.61
	Total	-	-	6.44	-	6.45	12.89			2.79		2.80	5.59			3.65		3.65	7.30
4. Percentage of Districts in each province with at least 80% timeliness and completeness reporting on vLMIS	Punjab	-	2.87	-	-	-	2.87		1.43				1.43		1.43				1.43
	Sindh	-	2.07	-	-	-	2.07		0.72				0.72		1.35				1.35
	KP	-	0.95	-	-	-	0.95		0.40				0.40		0.56				0.56
	Balochistan	-	0.54	-	-	-	0.54		0.24				0.24		0.30				0.30
	Total	-	6.43	-	-	-	6.43		2.79				2.79		3.64				3.64
5. Percentage of districts in each province with their recognized surveillance sites having functional online surveillance for Vaccine Preventable Diseases (VPD) & Adverse Events Following Immunization (AEFI)	Punjab	-	-	-	2.87	-	2.87				1.43		1.43					1.43	1.43
	Sindh	-	-	-	2.07	-	2.07				0.72		0.72					1.35	1.35
	KP	-	-	-	0.96	-	0.96				0.40		0.40					0.56	0.56
	Balochistan	-	-	-	0.54	-	0.54				0.24		0.24					0.30	0.30
	Total	-	-	-	6.44	-	6.44				2.79		2.79					3.65	3.65

Table 3 continued: DLI pricing (This table reflects the full MDTF grant amount of \$45.8 million for Components 1, 2 and 3, of which \$13.72 million is currently available).

6. At least 80% score will be achieved in all components in the effective vaccine management (EVM) assessment at provincial level	Punjab	-	2.87	-	-	-	2.87		1.43				1.43		1.43				1.43
	Sindh	-	2.07	-	-	-	2.07		0.72				0.72		1.35				1.35
	KP	-	0.95	-	-	-	0.95		0.40				0.40		0.56				0.56
	Balochistan	-	0.54	-	-	-	0.54		0.24				0.24		0.30				0.30
	Total	-	6.43	-	-	-	6.43		2.79				2.79		3.64				3.64
7. Percent of detailed UC supervisory plans available for all district supervisors to all provincial supervisor officers	Punjab	4.45	-	-	-	-	4.45	2.21					2.21	2.24					2.24
	Sindh	3.22	-	-	-	-	3.22	1.11					1.11	2.12					2.12
	KP	1.49	-	-	-	-	1.49	0.61					0.61	0.87					0.87
	Balochistan	0.84	-	-	-	-	0.84	0.37					0.37	0.47					0.47
	Total	10.00	-	-	-	-	10.00	4.30					4.30	5.70					5.70
8. Percent of children under two years of age with vaccination card available	Punjab	-	-	-	2.87	-	2.87				1.43		1.43					1.43	1.43
	Sindh	-	-	-	2.07	-	2.07				0.72		0.72					1.35	1.35
	KP	-	-	-	0.96	-	0.96				0.40		0.40					0.56	0.56
	Balochistan	-	-	-	0.54	-	0.54				0.24		0.24					0.30	0.30
	Total	-	-	-	6.44	-	6.44				2.79		2.79					3.65	3.65
9. Budget allocations for immunization are continuous, adequate and can be easily tracked within the government financial management information system	Punjab	-	2.87	2.87	-	-	5.73		1.43	1.43			2.87		1.43	1.43			2.87
	Sindh	-	2.07	2.07	-	-	4.14		0.72	0.72			1.43		1.35	1.35			2.71
	KP	-	0.95	0.96	-	-	1.91		0.40	0.40			0.80		0.56	0.56			1.11
	Balochistan	-	0.54	0.54	-	-	1.08		0.24	0.24			0.48		0.30	0.30			0.60
	Total	-	6.43	6.44	-	-	12.87		2.79	2.79			5.58		3.64	3.65			7.29

Table 4: Indicative Disbursement Schedule – DLI-Based Disbursement (IDA credit + MDTF full grant amount)

Performance & IFRs Period	No. of DLIs to be Achieved	Review by ICC and submission of DLI results report to the SC and Bank along with IFR & WA	Verification of the results by the Bank	Discussion & Agreement on DLI results between the Bank and Government	Disbursement to Government	Amount to be Disbursed (US\$)
	Advance	Effectiveness			Effectiveness – expected: May 2016	10 million
	1	Jun 30, 2017	Jul 31, 2017	Aug 15, 2017	Aug 31, 2017	Advance of \$ 10 million will be adjusted.
Total Disbursement during the 1st Year						US\$10mil
	4	Jun 30, 2018	Jul 31, 2018	Aug 15, 2018	Aug 31, 2018	
Total Disbursement during the 2nd Year						US\$25.7 mil
	3	Jun 30, 2019	Jul 31, 2019	Aug 15, 2019	Aug 31, 2019	
Total Disbursement during the 3rd Year						US\$19.3mil
	2	Jun 30, 2020	Jul 31, 2020	Aug 15, 2020	Aug 31, 2020	
Total Disbursement during the 4th Year						US\$12.9mil
	2	Jun 30, 2021	Jul 31, 2021	Aug 15, 2021	Aug 31, 2021	
Total Disbursement during the 5th Year						US\$12.9mil

28. Expenditures against which the Bank will disburse upon achievement of DLIs are referred to as EEPs (eligible expenditure programs) and are a part of the Provinces and Districts recurrent budget of the eligible activities in respect of EPI activities. These expenditures are clearly identifiable in the government budget, FMIS and the Chart of Accounts. The Bank funds would not be separately tracked and the Bank will accommodate withdrawal applications from the project as long as the overall expenditures eligible under the EEPs are more than or equal to the amount to be withdrawn from the credit/grant. A brief description of EEPs is provided below:

- a. Description: Pay and allowances for employees of the Health Staff working on immunization at the districts in the provinces.
- b. Oversight: The budget for pay and allowances for health staff working on immunization within each district is assigned to each department. Direct responsibility for pay and allowances lies with the Drawing and Disbursing Officer (DDO) where expenditures are incurred. Salaries are processed through the government’s FMIS and are subject to overall payroll controls which are considered adequate. Amounts are transferred by the respective District Accounts Office to the personal bank accounts of employees. Few employees receive their salaries in cash through DDOs but efforts are being made to eliminate such cases.

Province	District	Budgetary Grant No.	Object Code & Description	Function Code & Description
Punjab	Attock	AK21C16	A01: Employee Related Expenses	07: Health
	Bhawal Nagar	BH21C16	A01: Employee Related Expenses	07: Health
	Bhukkar	BK21C16	A01: Employee Related Expenses	07: Health
	Bahawalpur	BR21C16	A01: Employee Related Expenses	07: Health
	Chakwal	CH21C16	A01: Employee Related Expenses	07: Health
	Chiniot	CT21C16	A01: Employee Related Expenses	07: Health
	D.G. Khan	DG21C16	A01: Employee Related Expenses	07: Health
	Faisalabad	FD21C16	A01: Employee Related Expenses	07: Health
	Gujranwala	GA21C16	A01: Employee Related Expenses	07: Health
	Gujrat	GT21C16	A01: Employee Related Expenses	07: Health
	Hafizabad	HF21C16	A01: Employee Related Expenses	07: Health
	Jhang	JG21C16	A01: Employee Related Expenses	07: Health
	Jhelum	JM21C16	A01: Employee Related Expenses	07: Health
	Khushab	KB21C16	A01: Employee Related Expenses	07: Health
	Kasoor	KS21C16	A01: Employee Related Expenses	07: Health
	Khaniwal	KW21C16	A01: Employee Related Expenses	07: Health
	Lodhran	LN21C16	A01: Employee Related Expenses	07: Health
	Lahore	LO21C16	A01: Employee Related Expenses	07: Health
	Layyah	LY21C16	A01: Employee Related Expenses	07: Health
	Mandi Bahudin	MB21C16	A01: Employee Related Expenses	07: Health
	Muzaffar Garh	MH21C16	A01: Employee Related Expenses	07: Health
	Mianwali	MI21C16	A01: Employee Related Expenses	07: Health
	Multan	MN21C16	A01: Employee Related Expenses	07: Health
	Nankana Sahib	NK21C16	A01: Employee Related Expenses	07: Health
	Narowal	NL21C16	A01: Employee Related Expenses	07: Health
	Okara	OK21C16	A01: Employee Related Expenses	07: Health
	Pak Patan	PK21C16	A01: Employee Related Expenses	07: Health
	Rawalpindi	RI21C16	A01: Employee Related Expenses	07: Health
	Rahim Yar Khan	RN21C16	A01: Employee Related Expenses	07: Health
	Rajanput	RP21C16	A01: Employee Related Expenses	07: Health
	Sheikhupura	SA21C16	A01: Employee Related Expenses	07: Health
	Sarghoda	SG21C16	A01: Employee Related Expenses	07: Health
	Sahiwal	SL21C16	A01: Employee Related Expenses	07: Health
Sialko	ST21C16	A01: Employee Related Expenses	07: Health	
Toba Tek Singh	TS21C16	A01: Employee Related Expenses	07: Health	
Vehari	VR21C16	A01: Employee Related Expenses	07: Health	
Sindh	Badin	BN21C25	A01: Employee Related Expenses	07: Health
	Dadu	DU21C25	A01: Employee Related Expenses	07: Health
	Ghotki	GH21C25	A01: Employee Related Expenses	07: Health
	Hyderabad	HD21C25	A01: Employee Related Expenses	07: Health
	Jacubabad	JD21C25	A01: Employee Related Expenses	07: Health
	Jamshoro	JS21C25	A01: Employee Related Expenses	07: Health
	Karachi	KA21C25	A01: Employee Related Expenses	07: Health
	Kashmore	KE21C25	A01: Employee Related Expenses	07: Health
	Khairpur	KP21C25	A01: Employee Related Expenses	07: Health
	Larkana	LA21C25	A01: Employee Related Expenses	07: Health
	Matiari	MQ21C25	A01: Employee Related Expenses	07: Health
	Mirpurkhas	MS21C25	A01: Employee Related Expenses	07: Health
	Mitthi	MT21C25	A01: Employee Related Expenses	07: Health
	Naushero Feroz	NF21C25	A01: Employee Related Expenses	07: Health
	Nawab Shah	NH21C25	A01: Employee Related Expenses	07: Health

Province	District	Budgetary Grant No.	Object Code & Description	Function Code & Description
	Shahdadkot Kambar	SD21C25	A01: Employee Related Expenses	07: Health
	Sukkur	SK21C25	A01: Employee Related Expenses	07: Health
	Shikar Pur	SP21C25	A01: Employee Related Expenses	07: Health
	Sanghar	SR21C25	A01: Employee Related Expenses	07: Health
	Thatta	TA21C25	A01: Employee Related Expenses	07: Health
	Tandoallahyar	TD21C25	A01: Employee Related Expenses	07: Health
	Tando Muhammad Khan	TM21C25	A01: Employee Related Expenses	07: Health
	Umerkot	UK21C25	A01: Employee Related Expenses	07: Health
Khyber Pakhtunkhwa	Abbotabad	AD21C17	A01: Employee Related Expenses	07: Health
	Bunair	BD21C17	A01: Employee Related Expenses	07: Health
	Batagram	BM21C17	A01: Employee Related Expenses	07: Health
	Bannu	BU21C17	A01: Employee Related Expenses	07: Health
	charsada	CA21C17	A01: Employee Related Expenses	07: Health
	Chitral	CL21C17	A01: Employee Related Expenses	07: Health
	Dir Lower	DA21C17	A01: Employee Related Expenses	07: Health
	Dera Ismail Khan	DI21C17	A01: Employee Related Expenses	07: Health
	Dir Upper	DP21C17	A01: Employee Related Expenses	07: Health
	Hungu	HG21C17	A01: Employee Related Expenses	07: Health
	Haripur	HR21C17	A01: Employee Related Expenses	07: Health
	Kohistan	KD21C17	A01: Employee Related Expenses	07: Health
	Karrak	KK21C17	A01: Employee Related Expenses	07: Health
	Kohat	KT21C17	A01: Employee Related Expenses	07: Health
	Lakki	LK21C17	A01: Employee Related Expenses	07: Health
	Manshera	MA21C17	A01: Employee Related Expenses	07: Health
	Malakan	MD21C17	A01: Employee Related Expenses	07: Health
	Mardan	MR21C17	A01: Employee Related Expenses	07: Health
	Nowshehra	NR21C17	A01: Employee Related Expenses	07: Health
	Peshawar	PR21C17	A01: Employee Related Expenses	07: Health
	Shangla	SH21C17	A01: Employee Related Expenses	07: Health
	Swabi	SU21C17	A01: Employee Related Expenses	07: Health
	Swat	SW21C17	A01: Employee Related Expenses	07: Health
	Tor Ghar	TG21C17	A01: Employee Related Expenses	07: Health
Tank	TK21C17	A01: Employee Related Expenses	07: Health	
Balochistan		BC211018	A01: Employee Related Expenses	07: Health

III. Procurement

29. Component 1, 2, and 3 of the project will be financed using a results-based DLI approach and EEPs related to ‘non-procurable’ expenditures and thus may not include activities that may require following a procurement process. However, if an activity is identified that may warrant a procurement process, World Bank’s guidelines on procurement and employment of Consultants,¹⁹ shall apply. Component 4 of the proposed project will be carried out in accordance with the World Bank’s guidelines on procurement and employment of Consultants, as well as the provisions stipulated in the Financing Agreement and MDTF Grant Agreement.

¹⁹ Guidelines: Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits and Grants January 2011,” “Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits and Grants by World Bank Borrowers January 2011.

Component 4 and 5 procurements, which will support associated activities for achievement of DLIs, would cover the selection of consultancies, both firms and individuals, besides some goods. A procurement manual has also been prepared by Federal EPI which sets out procedures, processes and systems to be followed by the management and staff of the project and other provincial entities associated in the implementation of the project in accordance with World Bank policies. The procurement manual also spells out coordination mechanisms between Federal EPI and provinces. A detailed capacity review of Federal and provincial EPI Cells was undertaken which focused on assessment of the capacity of the agency to carry out the different phases of procurement. The assessment looked into the organizational aspects, skills of the staff, quality and adequacy of supporting and control systems, and suitability of the laws, rules and regulations applicable to the agency. As a result of the project implementation the entity²⁰ shall have an extended exposure to the World Bank's and other procurement systems which will assist in enhancement of procurement functions and result in cost savings: (i) by re-examining requirements, and where appropriate challenging demand at source, so as to avoid procurement in excess of needs; (ii) reducing end of life disposal costs; (iii) instituting visible, efficient and trustworthy supply chain operations. The combined effect of these measures will supplement the financial sustainability of vaccine procurement. Following are the details of the assessment of the Federal EPI Cell, including a summary of the mitigation measures proposed.

Procurement of Goods

30. Goods (cold chain equipment office equipment, furniture, vehicles, etc.) will be packaged and awarded in accordance with various methods provided in Procurement Guidelines. International Competitive Bidding (ICB) for goods is expected for contract estimated to cost more than US\$300,000 equivalent. The project will consist of some shopping contracts for each of the implementing agencies for procurements estimated to cost up to US\$100,000 equivalent. There will also be goods contracts procured under National Competitive Bidding (NCB) for estimated cost of up to US\$300,000 equivalent. Direct contracting may be used for any urgently required goods or in situations where the supplier is uniquely qualified after prior approval of the World Bank. It is anticipated that substantial procurements financed under this component will be made in the first year of project implementation, through a US\$34 million contract with UNICEF supply division (also expected to be financed retroactively) which will utilize a proposed Cold Chain Platform to be launched by Gavi. Appraisal of the procurement process and the ensuing contract will establish consistency with World Bank's procurement policies. The project also envisages engagement of private sector and NGOs for which appropriate procurement strategies will be instituted.

Additional Provisions and Procedures for National Competitive Bidding

31. When procuring goods, non-consultant services and works, the following additional provisions will be applied for procurements by Federal EPI Cell under Public Procurement Rules, 2004 (PPR-2004):

- i. Invitations to bid will be advertised in at least one (1) national newspaper with a wide

²⁰ The term "entity" refers to the Federal EPI cell with MONHSRC – which is still managing procurement on behalf of subnational governments by following the procurement processes mandated by Federal Government's Public Procurement Rules which were enunciated in June 2004

- circulation, at least thirty (30) days prior to the deadline for the submission of bids.
- ii. Bid documents will be made available, by mail or in person, to all who are willing to pay the required fee.
 - iii. Foreign bidders will not be precluded from bidding and no preference of any kind will be given to national bidders in the bidding process.
 - iv. Bidding will not be restricted to pre-registered firms.
 - v. Qualification criteria will be stated in the bidding documents.
 - vi. Bids will be opened in public, immediately after the deadline for submission of bids.
 - vii. Single bids will also be considered for evaluation.
 - viii. Bids will not be rejected merely on the basis of a comparison with an official estimate without the prior concurrence of the World Bank.
 - ix. Before rejecting all bids and soliciting new bids, the World Bank's prior concurrence will be obtained.
 - x. Contracts will not be awarded on the basis of nationally negotiated rates.
 - xi. Contracts will be awarded to the lowest evaluated and qualified bidder.
 - xii. Post-bidding price negotiations will not be allowed with the lowest evaluated or any other bidders.
 - xiii. Bids will be solicited and works contracts will be awarded on the basis of unit prices and not on the basis of a composite schedule of rates.
 - xiv. Draft NCB contract would be reviewed by the World Bank in accordance with the prior review procedures.
 - xv. A firm declared ineligible by the World Bank, based on a determination by the World Bank that the firm has engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for or in executing a World Bank-financed contract, will be ineligible to be awarded a World Bank-financed contract during the period of time determined by the World Bank.
 - xvi. Each contract financed from the proceeds of the Grant will provide that the suppliers, contractors and subcontractors will permit the World Bank, at its request to inspect their account and records audited by auditors appointed by the World Bank. The deliberate and material violation by the supplier, contractor or subcontractor of such provision may amount to obstructive practice.
 - xvii. State-owned enterprises will be eligible to bid only if they can establish that they are legally and financially autonomous, operate under commercial law, and are not a dependent agency of the Recipient.
 - xviii. The World Bank will declare a firm ineligible, either indefinitely or for a stated period, to be awarded a contract financed by the World Bank, if it at any time determines that the firm has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for or executing a contract financed by the World Bank.

Procurement of non-consulting services

32. Non consulting services are not yet fully defined ICB method will be followed for contract estimated to cost more than US\$300,000 equivalent and NCB method for contracts estimated up to US\$300,000 equivalent. For procurements estimated to cost up to US\$100,000 equivalent shopping method will be followed.

Selection of Consultants

33. There will be number of consultancy assignments for each of implementing agencies under this project. The majority will be through Selection Based on Consultants Qualification (CQS) or FBS, while others will be individual consultancies. Single Source Selection is also an option.

34. The Bank's procurement guidelines will be followed for selection of consultants. Contracts with consulting firms will be procured in accordance with Quality and Cost Based Selection procedures or other methods given in Section III of the Consultants' Guidelines. Consulting services selection would be carried out through Quality and Cost Based Selection (QCBS) for contracts with consulting firms costing more than US\$300,000 equivalent, and through CQS for contracts costing up to US\$300,000 equivalent. Other methods as mentioned in Section III of Consultants' Guidelines will be used as required.

Individual Consultants

35. Procurement of individual consultants is envisaged to cater for any full-time or part-time specialized technical assistance required for the project. Services for assignments that meet the requirements set forth in paragraph 5.1 of the Consultant Guidelines may be procured under contracts awarded to individual consultants in accordance with the provisions of paragraphs 5.2 through 5.3 of the Consultant Guidelines, which stipulate that the selection should be made through comparison of at least 3 CVs that meet the requirements of the Terms of Reference including those for qualifications and experience. Under the circumstances described in paragraph 5.4 of the Consultant Guidelines, such contracts may also be awarded to individual consultants on a single source selection basis.

Assessment of Proposed Institutional Arrangements:

36. The Federal EPI Cell will be responsible for carrying out the procurements under the components 4 and 5 of the project. Federal EPI is a permanent establishment working as an administrative unit of the MONHSRC. It has a documented legacy of independently performing the procurement function for various vaccines and associated items and administrative procurement through Public Procurement Rules 2004 (PPR-2004). The National Program Manager is vested with some financial powers; delegated by the Principal Accounting Officer to perform support the functions of procurement. Presently EPI Cell has staffing capacity constraints as the key procurement staff is not on EPI's regular payroll. The EPI Cell has taken commendable steps by initiating, *inter alia*, recruitment of professional regular procurement staff in regular staff cadre.

37. *Procurement Cycle Management:* On an annual basis, the entity runs a full-cycle National Competitive Bidding for procurement of vaccines and ancillary items. Thus the entity has extensive exposure to large value and volume procurement. Based on the quality of documentation, notwithstanding the absence of a dedicated and trained procurement resource, the procurement cycle management was determined to be adequate for the purposes of procurement envisaged under NISP to be consistent with World Bank standards adequate.

38. *Procurement Planning:* A realistic procurement plan is prepared as a matter of course in the agency based on the requirements, justifiable quantities, realistic market prices, timing of delivery, storage and approved formally by the NPM. The entity sends Procurement Plan (PP) to Public Procurement Regulatory Authority in July-August for publication in a freely accessible website. The PP of 2013 appeared to be free from all splitting and other violations. However there was no evidence whether the PP is also put through checks for collusion or other red flags. The World Bank could assist the entity in such reviews as the supplier base (notwithstanding other factors) has continued to remain small and has not substantively changed over a long period of time.

39. *Advertisement, Pre-bid/proposal Conference and Bid/Proposal Submission:* Bids/proposals are consistently advertised in national daily newspapers and uploaded on Public Procurement Regulatory Authority websites and are easily accessible to potential bidders. The publications are in conformity with principles of the Bank's Guidelines. Timely and non-ambiguous clarifications to bidding/proposal documents are provided to all potential bidders. Mostly bidders attend in person - otherwise bidders send email/facsimiles which are responded to. The entity does not hold a pre-bid/proposal conference but involves potential suppliers at the planning stage. The bid documents are made available to all interested bidders without prescribing any pre-conditions. The number of bids received has been reasonable as compared to the number of bidding document purchased/number of pre-qualified bids and the bid sold and bid received is consistent.

40. *Bidding Documents:* Bidding documents containing instructions to bidders, pre-qualification, shortlisting, and evaluation criteria along with a very elementary draft contract agreement were developed in 2008 and are still in use. Presently a scoring approach on a two envelope method is the main approach for procurement of syringes and vaccines. For off-the-shelf items where technical specifications and qualification criteria can be defined in most granular detail, the pass/fail criteria would ensure transparency, whereas the current scoring method with two temporally apart technical and financial proposals may compromise the integrity of process.

41. *Evaluation and Award of Contract:* The Secretary of MONHSRC has constituted a Procurement Committee and a Technical Evaluation Committee with very clearly defined terms of reference. However, the members are largely drawn from the ministry or its controlled subsidiaries and do not have "independent eyes and ears." The members may have acquired skills through learning but the additional presence of an area specialist would probably be helpful. Evaluations are well documented and contracts are awarded in time and are broadly consistent with the procurement guidelines.

42. *Review of Procurement Decisions and Resolution of Complaints:* Complaints are reported to be rare however redress is provided through provisions of PPR-2004 and some guidance is also provided in Standard Bidding Document. The complaint management system appeared to be lacking a formal structure and would need some support for improvement.

43. *Contract Management and Administration:* Adequate mechanisms are in place for procurement and/or contract monitoring. The supplies and payments generally follow the time

periods agreed in the contract agreement. There was no evidence of downgrading specifications, or compromise on delivery schedule or excessive changes in scope or price.

44. *Procurement Oversight:* The procurement decisions are regularly reviewed by Auditor General of Pakistan. Various reports are regularly submitted to National Accountability Bureau and Public Procurement Regulatory Authority. Transparency International also maintains a regular horizontal fiduciary oversight. Additionally the controlling ministry, in performing the principal accounting function, incrementally reviews all procurement and contract administration decisions. It also complies with the government’s regulations for Code of Conduct and Anti-Corruption. The accountability for procurement decisions is well documented in the notified instructions - however these are not freely accessible to all of the staff of EPI due to the absence of any intranet facility. However the entity could benefit from further advice from the World Bank, including relevant technical literature to further improve in this key area.

45. *Record-keeping:* Based on a walkthrough of a completed procurement cycle it was determined that record of proceedings was available. However with an overall improvement in the procurement capacity of EPI, the completeness of procurement records and files would be better assured. In addition overall availability of data on numbers, types, values and dates of contracts awarded and names of awardees, will improve.

Table 5. Summary of Proposed Mitigation Measures

Issues		Action	Timeline	Responsibility
(a)	Empowerment	Delegation of administrative and financial powers to National Program Manager	By Effectiveness	MoF and MONHSRC
(b)	Improving Procurement Planning & Monitoring	Bank will provide hands on support for adequate planning and monitoring of Procurement Plan including use of simple IT tools	Ongoing	Bank and EPI
(c)	Upfront Actions	Hiring/identification of respective Procurement Specialist	Three months after Effectiveness	EPI
(d)	Procedural clarity	Development of Procurement Operations Manual	Complete	EPI and Bank
(c)	Bid Evaluation Capacity	(i) Providing detailed SOPs and workflows in Procurement Operations Manual (ii) Training	(i) Complete (ii) Ongoing	EPI and Bank
(d)	Market Constraints	(i) Adequate packaging (ii) Wide circulation	(i) Ongoing (ii) Ongoing	EPI with Bank’s assistance
(e)	Transparency	(i) Functional web site (ii) Intranet (iii) Disclosure of procurement information on website (iv) Procurement Clinics with focus on detecting red flags	Three months after effectiveness As required	EPI
(f)	Complaints	Independent complaint redressal mechanism	Three months after effectiveness	MONHSRC

Procurement Plan

46. The implementation agency has developed procurement plan for project implementation which provide the basis for the procurement methods. The plan is available in the project's database and the Bank's external website. The procurement plan will be updated in agreement with the project team annually or as required to reflect the actual project implementation needs and improvements in institutional capacity.

Frequency of Procurement Supervision

47. The Bank's review missions will be carried out every six months, and more frequently in the early stages of the project, with a procurement specialist participating.

Review of Procurement by the Bank

48. In addition to the prior review supervision to be carried out from Bank offices, supervision missions will be carried out to visit the field for the purpose of post review of procurement actions by the implementing agencies.

49. Thresholds for prior review of contracts under eligible expenditures are given in the table below. All other contracts will be subject to Post-Review by the World Bank. The project will send to the World Bank a list of all contracts for post-review on a quarterly basis. Post-reviews as well as the implementation reviews would be done every six months. Such review of contracts below threshold will constitute a sample of 20 percent of the contracts.

Table 6: Procurement Methods

Procurement Category	Contract Value (Threshold) US \$	Procurement Method	Contracts Subject to Prior Review US\$ thousands
1. Goods & Non-consulting Services	>300,000	ICB	All
	<300,000	NCB	First Contract and all subsequent contracts estimated to cost > 200,000
	<100,000	Shopping	First Contract
	Regardless of value	Direct Contracting	All
2. Consulting Services (Firms)			All Terms of Reference and Training Programs to be prior reviewed by Bank's Task Team Leader regardless of value and review threshold
	>300,000	QCBS/QBS /FBS/LCS	All

	<300,000	CQS,	First contract
	Regardless of value	Single Source Selection	All
Individual Consultants	> 50,000	Comparison of 3 CVs	All
	< 50,000	Comparison of 3 CVs	First contract
	Regardless of value	Single Source Selection, Contracts for: procurement of Project Coordinator, Procurement/FM Specialists, Procurement Agent and Legal Expert (as applicable)	All.

Table 7. Summary of Identified Major Procurements

No.	Description of Procurement	Estimated Cost (US \$) in Million	Selection Method
A	Goods		
	Cold Chain Equipment	31	ICB
	Refrigerated Vans	3	ICB
B	Consulting Services		
	Hiring of Consultant Firms for Strengthening Provincial Management, Governance and Stewardship Functions	1.5	QCBS
	Hiring of Consultant Firms for BCC	2.5	QCBS
	Hiring of Consulting Firm for Third Party Evaluation (Surveillance)	0.610	QCBS

IV. Environmental and Social (including safeguards)

50. The project has prepared, in accordance with the OP 4.01, an ESMP to address the potentially negative environmental and social risks and impacts of the proposed activities. A summary of the environmental and social risks identified in the ESMP and their mitigation is presented in the table below.

Table 8. 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, Tuberculosis)	Use of revised National EPI Policy and Strategic Guidelines for vaccine administration, management (including procurement, quality and supply) and storage 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, Medical Technicians, Female Medical Technicians , mid-wives, LHWs and medical doctors
Use of syringes for immunization	Sharp waste (environmental hazard) 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 syringes for conducting vaccination. Using personal protective equipment while handling sharps Provision of information posters at needle exchange places indicating safe handling Collecting the sharp waste generated during the immunization in dedicated safety boxes for safe disposal. Using pit ²¹ burial for all sharp waste generated
	Lack of resources for safe disposal of sharps.	Procuring WHO pre-qualified auto-disable syringes and safety boxes
	Lack of awareness on environmental and health issues hence created (project team, staff at the project facilities, project partners, NGOs, patients and others).	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	Waste generated from the facilities at the district and sub district levels.	Use of the Hospital Waste Management Rules 2005 and National EPI Policy and

²¹ Pits should ideally be located at places away from the reach of general public especially children.

Project Activities	Significant Aspects	Mitigation Measures
		<p>Strategic Guidelines for proper waste management.</p> <p>Using personal protective equipment while collecting and disposing of waste</p> <p>Provision of information posters at waste collection and storage sites indicating safe handling and disposal</p> <p>All containers, safety boxes, and waste bags to be collected and sent for pit burial²²Conducting monitoring of waste handling, storage and disposal to ensure proper implementation of waste management system.</p>
	Lack of resources for waste management.	<p>Provision of WHO pre-qualified Auto-disable syringes, safety boxes, and other necessary equipment/materials needed for proper waste management/disposal.</p> <p>Construction of safe disposal burying pits</p>
	Lack of awareness among the project staff, district health authorities and facilities staff, healthcare extension workers, and others.	<p>Development of awareness material</p> <p>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.</p> <p>Ensure safe disposal by burying the waste into pits</p>
Possible Adverse Events Following Immunization (AEFI)	Continued risk of infections, denial by communities to continue with immunization, and/or increased child morbidity	<p>Development of efficient AEFI reporting and surveillance system, as per guidelines of the revised National EPI Policy and Strategic Guidelines, and system for recording response following an AEFI.</p> <p>Conducting trainings of the project staff and health care extension workers on reporting and managing AEFIs.</p>
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.

²² 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 9. Handling and Disposal of Wastes for Vaccine Extension Workers at Community level

Type of Waste	Handling of Material Prior to Use	Handling of Used Material/Waste	Storage/Disinfection of Waste	Final Disposal
Used syringes, Used gloves	<p>Extension workers/field staff should:</p> <p>Always use WHO pre-qualified AD syringes and ensure non-reuse</p> <p>Avoid accidental pricking.</p> <p>Avoid leaving unpacked syringes/sharps unguarded.</p> <p>In-charge should:</p> <p>Provide posters at needle exchange places indicating the methods of use and cleansing and disposal of waste.</p>	Collect the sharp waste generated in dedicated safety boxes for safe disposal.	<p>Wear non-pierceable gloves when handling the sharps.</p> <p>Transfer sharps in puncture-resistant safety boxes.</p> <p>Disinfect (him/herself & used equipment) as per recommended guidelines and procedure provided by NISP.</p>	All containers, safety boxes, and waste bags to be collected and sent for pit burial and burning ²³

Table 10. Handling and Disposal of Wastes for Tertiary (District/Tehsil) level Healthcare Facilities

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	<p>Always use WHO pre-qualified AD syringes and ensure non-reuse</p> <p>Avoid accidental pricking</p> <p>Avoid leaving unpacked syringes/sharps unguarded</p> <p>Provide posters and guidelines at visible places demonstrating recommended methods of material usage and disposal of waste</p>	<p>Collect the sharp waste generated in dedicated safety boxes for safe disposal.</p> <p>Collect used gloves, masks, waste cotton, bandages, and other waste contaminated with child's fluids in dedicated bags</p>	<p>Wear non-pierceable gloves when handling the sharps and needle containers.</p> <p>Transfer sharps in puncture-resistant safety boxes</p> <p>Collect and store all infectious materials in separate dedicated bags.</p> <p>Disinfect (him/herself & used equipment) as per recommended guidelines and procedure provided by NISP.</p>	All containers, safety boxes, and waste bags to be collected, buried and burnt using a dedicated pit

51. Institutional arrangements for ESMP implementation. Overall coordination and implementation of ESMP will be the responsibility of National Program Manager, EPI who will

²³ 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.

designate an ESM Focal Point 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 Focal Point. Each partner hospital/tertiary healthcare units will also nominate a focal person to ensure implementation of ESMP.

52. The primary responsibilities of the national level ESM Focal Point 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 and maintain all reports and records.
 - Coordinate and ensure development of training material and implement of trainings sessions.
 - Coordinate and ensure development of awareness material
 - Conduct environmental compliance audit for the program
 - Commission annual validations of partner hospital/tertiary healthcare unit
 - Prepare Quarterly Progress Reports for the entire project.

53. The responsibilities of the provincial level ESM Focal Point 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 material and disinfectant equipment/chemicals
 - Conduct monitoring tasks in coordination with national level Focal Point and submit reports to National Program Manager, EPI.
 - Implement training sessions in provinces
 - Facilitate and coordinate validations in the province.
 - Prepare provincial Quarterly Progress Reports

54. 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
 - Prepare Monthly Immunization Waste Management Reports (MIWMR)
 - Tally the records with the permanent registers maintained by the vaccinators
 - Conduct monitoring tasks 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 Quarterly Progress Reports for the facility

In order to ensure effective implementation of the mitigation measures tabulated above, ESMP monitoring will be carried out in accordance with the following arrangement:

Table 11. ESMP Monitoring

	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	Daily at the UC level Monthly at the District Level	Daily at the UC level Monthly at the district level	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) Immunization Performance Reports Quantities of safety boxes received per health facility (numbers to be recorded Health	Daily at the UC level Monthly at the District Level	Daily at the UC level Monthly at the district level	Vaccinators District Surveillance Coordinator / In charge Health Facility

	Monitoring parameters	Monitoring Tool	Frequency of Monitoring	Reporting Frequency	Responsibility
		Facility Waste Management Plan ²⁴)			
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 Facilities, District Surveillance Coordinator, Provincial EPI Manager
9.	Training sessions	Training Plans Training workshop reports Training Modules Attendance Sheets	Bi Annually	Bi Annually	Provincial EPI Manager/National Program Manager EPI

V. Monitoring & Evaluation

55. The EPI Programs at the Federal and Provincial levels face an array of challenges to fully functionalize a results-based culture, which requires an effective monitoring and evaluation (M&E) system. The key areas to strengthen M&E include: data quality, on-line reporting, data validation, surveillance, LQAS, regular dissemination of results to the public and the media for accountability, and third party evaluation. Currently the monitoring of routine EPI services by the province and district is weak and almost non-existent. No structured approach is followed to monitor the field activities, and feedback is not very effective. The existing MIS of the EPI although timely is lacking in terms of reliability and validity usually in the form of over reporting and lack of internal consistency. At present the data is generated by the vaccinators in the course of fieldwork and is aggregated at District level from where it is sent to the provincial directorate in the first week of the next month. At the provincial directorate the data is aggregated for the whole province and cumulative coverage figures are generated. The feedback system is currently not functioning.

56. There is a need to review and revise the existing micro plans, data reporting systems and analysis of the data to ensure an acceptable level of quality within the reports generated by the EPI cells. With the assistance of technological advancements, (i.e., android solutions, global

²⁴ 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

position tracking systems) live data will flow from the lower to the higher levels helping in timely compliance of data reporting and in efficient area mapping of the catchment area for micro-planning exercise. These tools have been successfully applied in the Polio Eradication Program and elsewhere.

57. At present there is inadequate capacity to manage vaccine logistics and cold chain effectively, and data for decision making on vaccine supply management is very limited, resulting in virtually no visibility into vaccine supply chain performance below the national level. With the introduction of new vaccines into the country the costs have escalated significantly requiring that there is an effective monitoring system at all levels. In recognition of the challenges with vaccine management, the federal and provincial governments have identified the need for a web-based vLMIS as a priority for mitigating poor data visibility challenges across the supply chain. An effective and sustainable vaccine vLMIS will ensure adequate quality and quantities of vaccines are available at the service delivery point and will give access to demand forecasting, capacity planning, analysis and modeling based on consumption; accurate, timely and routine consumption and stock status data; and real-time supply chain management capabilities covering from point of origin to point of consumption throughout the logistics cycle. The national development of this system is through the USAID DELIVER program, supporting the EPI Coordination and Planning Resource Centre. This will be replicated at the provincial levels. The main objectives of the Resource Centre are:

- Support hosting of web-based LMIS applications for health commodities logistics data in a central repository and to keep servers up and running 24x7 to serve all provincial & regional health and population departments;
- Liaison and coordination with all provinces and regions for all EPI matters and implementation of web-based vaccine LMIS up to Union Council level; and
- Support the provinces and regions for improving vaccine and cold chain logistics management system across the country.

58. The vLMIS has been developed and is being tested in collaboration with federal, provincial and district governments and development partners. It has been launched in 54 prioritized and high risk districts of Pakistan and later will be extended to all districts of the country by year 2 of implementation.

59. Data quality is a major issue in the program with little or no credence given to the administrative data reported by the program even by the program itself, thus there is a need to substantially overhaul the data reporting systems and consolidation and analysis of the data to ensure an acceptable level of quality within the reports. At present there is a discrepancy in program reported data and the survey data due to lack of a proper MIS, with limited monitoring and oversight by the EPI Cell and EDO(H) s/DSVs. This will be addressed through establishment of automated MIS; validation by the District Health office by having LQAS sampling of at least 30% of the Union councils every month by the DSV, ASV/TSV and district health managers. Regular assessment of the data quality at different levels using the standard WHO Data Quality Self-assessment tool will be used to identify the gaps in the routine immunization data monitoring and reporting system. Information will be generated through analysis of the online reports submitted through the monitoring systems and surveys. For the provincial level analysis of data quality, the following surveys will be compared for validation:

a) concurrence between LQAS, b) LQAS and third party (district and province), c) administrative data and third party, d) administrative data, vLMIS and LQAS. This information would be widely shared through feedback newsletters, web updates, press releases and news updates. The feedback information would also importantly inform the provincial review meetings. Collated data would also be disseminated locally and nationally for the purposes of advocacy and to generate political attention and motivation for program improvement. The feedback reports would highlight the achievements of the good performing districts and UCs to improve staff motivation. The data generated through the monthly reports will also be analyzed at the district level and the analysis report reviewed by the District Review Committee.

60. The capacity for surveillance is to be greatly enhanced, with the function taken up by provinces/regions and the Federal EPI cell providing technical and logistic support. Similarly the provinces would report surveillance data to the federal EPI cell who would collate such data on monthly basis. (Zero report included). In order to strengthen disease surveillance in the country, the national core capacities for surveillance and outbreak response, will be strengthened to implement all surveillance systems. The goal of EPI surveillance activities is a well-functioning and sustained EPI and vaccine preventable disease (VPD) reporting system in 3 years to ensure VPD surveillance, online reporting and response. Currently, the detailed case information is arranged at a higher level compilation and reported by age group and immunization status for acute flaccid paralysis which is being run/financed by WHO.

61. A monthly AEFI surveillance system was introduced to Pakistan as a separate system and needs to be integrated and strengthened. The EPI reporting system collects data from basic health unit, rural health centers, Tehsil (sub district) hospitals, district hospital and some teaching hospitals. The Adverse Events Following Immunization (AEFI) data will be monitored at district level and by the facility in-charge. At the provincial level it will be reviewed by the epidemiologist. Initial training has been conducted and steps to integrate AEFI and VPD reporting into the regular reporting system will be a mainstay of the assessment of immunization service delivery. Online reporting will be available in the third year of implementation.

62. The Federal EPI cell will be responsible to arrange for a component of independent 3rd party evaluations for the program. A panel design set-up on quarterly basis (25% districts each time) will be put in place for the purposes of assessment of immunization coverage in a province across all districts using a 30 cluster method. The results will form the basis for performance based bonuses to the staff of the program at the Union Council/district level and will inform achievement of the disbursement linked indicators at the provincial level. The Federal and the Provincial EPI cells will prepare a semiannual DLI Results Report (the format of the DLI results report to be agreed with the Bank) for the previous six months, ending December and June of each year. This report will be shared with the bank by the end of January and July for the Bank's biannual implementation review.

Annex 4: Implementation Support Plan
PAKISTAN: National Immunization Support Project

Strategy and Approach for Implementation Support

1. The strategy for implementation support has been developed based on the nature of the project and its risk profile. It aims to make implementation support to the client more flexible and efficient, and focuses mainly on implementation of the risk mitigation measures defined in the ORAF.

2. The implementation support strategy is based on several mechanisms that will enable enhanced implementation support to the government, and timely and effective monitoring. The implementation support thus comprises: (a) Joint Review Missions; (b) regular technical meetings and field visits by the Bank between the formal joint review missions; (c) regular reporting based on the federal EPI cell's regular monitoring and third party monitoring system; (d) independent third party monitoring/validation; and (e) internal audit and FM reporting.

3. **Joint Review Missions.** The Bank, together with the donor partners including the Gates Foundation, Gavi, USAID and WHO, in collaboration with the federal and provincial EPI cells, will formally review NISP implementation semi-annually, with more frequent missions expected at least in the first year of the project life. These joint review missions will be complemented by: (i) visits from the Bank's Islamabad Country Office staff and technical consultants; and (ii) continuous communication and follow-up between missions.

4. Each joint mission will focus on assessing progress towards DLI targets and progress in implementation of technical assistance, reviewing the FM reports, conduct a comprehensive review of TESP performance against the Results Framework and agreement on planned actions. The scope of the supervision will also include monitoring the government's compliance with legal covenants, fiduciary responsibilities, and environmental and social safeguards requirements. In addition, missions will review the status of progress and issues related to M&E. One month prior to the joint review mission, the federal EPI cell will provide to the World Bank a comprehensive progress report on program activities.

5. **Technical Missions.** In addition to the joint implementation missions, several technical missions may be carried out especially during the first two years of the Project as implementation accelerates to provide implementation support. During the joint review missions and technical missions, extensive field visits will be undertaken to determine reform outcomes, and to take corrective actions for improvement at the national and institutional levels. To ensure a high quality of supervision, the Bank team will comprise not only health specialists, but also specialists in FM, procurement, and safeguards, and economist, with the specific team composition for each mission determined based on supervision requirements at that time.

6. If the security situation deteriorates to the extent that joint review missions are not possible or the scope of supervision during these missions has to be limited, the following measures are proposed to maintain continuity in the extent and quality of supervision: (i) intensification of supervision from the Bank country office via regular audio and video conferences as well as continuous communication via emails; and (ii) expansion of the

monitoring work performed by third parties, including additional field visits by these third parties. If the need arises, additional measures will be devised and tested as the Bank team's experience operating in a relatively challenging security environment grows.

Implementation Support Plan

7. Most of the Bank team members will be based in the Pakistan Country Office to ensure timely, efficient and effective implementation support to the client. Formal supervision and field visits will be carried out semi-annually, with more frequent technical implementation support missions during the first year of the Project.

8. The main focus of implementation support is summarized below.

Focus	Skills Needed	Resource Estimate	
		First 12 months	12-48 months (per annum)
Team leadership and coordination	Task Team Leader	9 SWs	6 SWs
Technical Reviews and support, including data analysis and health systems	Health Specialists	18 SWs	12 SWs
Institutional arrangement and DLI review	Operations Specialist	6 SWs	4 SWs
FM training and review	FM Specialist	8 SWs	4 SWs
Procurement training and review	Procurement Specialist	8 SWs	4 SWs
Implementation of ESMP	Environmental Specialist	4 SWs	3 SWs
Social accountability	Social Specialist	4 SWs	3 SWs

Annex 5: Economic Analysis²⁵

PAKISTAN: National Immunization Support Project

1. **Introduction:** Childhood immunization against vaccine preventable diseases presents a highly cost effective intervention - delivering significant reductions in morbidity and mortality from inexpensive and standardized interventions. There is ample literature available to support this inference.²⁶ It remains one of the most fundamental competencies of public health programs.

2. The World Bank's annual flagship report "Investing in Health" highlighted that in most developing countries immunization for vaccine preventable disease in the first year of life would have the highest cost-effectiveness of any health measure available²⁷. A recent systematic reviews of 108 articles from 51 countries on cost effectiveness and economic analysis once again testifies that immunization remains cost effective. The review assembled evidence that the economic benefits accrue from future wages-earnings as well, in low- and middle-income countries (Mirelman et al (2011)²⁸. The review found that in 86 percent of the studies (covering a time period 2000-2010) the vaccines cost less than less than US\$1000 per DALY averted. In 2012, the Copenhagen Consensus, comprising panel of expert economists, listed childhood immunization among the most pressing global issues.

3. **Cost-effectiveness analysis:** According to Grossman (1972), health has the dual characteristics of consumption good as well as an investment good. Therefore, improved health status can increase utility of individuals directly as well as indirectly through higher labor income and thus expanded consumption basket. At national level, immunization is a cost effective way of improving health status of the contemporary and future generations which results in increasing national stock of health capital. Immunization helps save lives, prevents serious illnesses, and is recognized as one of the most effective public health interventions. The enhanced human capital through this sort of intervention improves welfare of the society (the ultimate goal of any public intervention) through spending less time in bad health and increases labor productivity through acquisition of more stock of health capital. All this, ultimately, results in better living standard of the nation.

4. The net present value of the proposed interventions, though difficult to estimate, is positive. The proposed project, "*National Immunization Support Project*" will improve the immunization coverage by strengthening management, governance and stewardship functions through addressing the fundamental systemic weaknesses that underlie the poor performance and accountability of EPI in Pakistan; by improving service delivery performance through increasing equitable access to EPI services at the UC level by improved planning, management of human resources and strengthened supply chain management at the point of service delivery; by demand

²⁵ This annex is an extract summary of *The Pakistan Expanded Program on Immunization and the National Immunization Support Project: An Economic Analysis*, Discussion Paper, GHNDR, World Bank, 2016

²⁶ One of the criterion to analyze the cost effectiveness of such interventions is to see whether each healthy year of life gained costs less than three times the average annual income per capita produced. But some of the literature asserts that only taking into account economic benefits under estimates the actual gains. Any analysis should also take into consideration cognitive benefits and increase in labor productivity.

²⁷ World Development Report 1993. *Investing in Health*

²⁸ Ozawa S, Mirelman A, Stack ML, Walker DG, Levine OS. "Cost-effectiveness and economic benefits of vaccines in low- and middle-income countries: a systematic review." *Vaccine*. 2012 Dec 17;31(1):96-108

generation through exploring and expanding innovative strategies to empower communities to access immunization services and promote positive behaviors for acceptance and seeking of immunization services; by improving capacity in technical areas for increased immunization coverage through strengthening of the Federal EPI cell in national coordination, project management and analytic capacities as well as Health System Strengthening elements

5. Except the ultimate increase in coverage ratio, the benefits of the project, especially in terms of demand generation, enhanced capacity of the concerned staff and improved governance, cannot be easily translated into monetary terms. Therefore, the economic analysis makes use of the quantitative data along with using qualitative analysis. The overall benefits of the project include better use of public and donors' funds for immunization, improved service delivery, result based management, better micro plans based planning, and enhanced demand for immunization. The project aims at improving capacity in technical areas and better management of human resources which will improve internal capacity and more qualified workforce will be available to run the business of the Federal EPI cell. Furthermore, the more informed decisions would be taken regarding planning at UC level. The strengthened supply chain management along with the positive behaviors of the communities for acceptance and seeking of immunization services, will increase the overall coverage ratio.

6. **The project intends to increase the coverage ratio from 54% in 2012-13 (PDHS) to 80% by the end date of the project.** The success of immunization programs depends heavily upon the high immunization coverage of the target group. The project sets coverage targets for next five years. The economic analysis is based on three scenarios of burden of disease from Vaccine Preventable Disease (VPD) for under five-year aged population. Based on analysis by Institute for Health Matrix and Evaluation "Global Burden of Diseases, Injuries, and Risk Factors Study 1990-2010" wherein results for Pakistan were published in August 2013; this analysis assumes three scenarios with different DALYs: i) Low scenario of 39,156 DALYs per 100,000 ii) mean scenario of 56,984 DALYs and iii) high scenario of 85,229 DALYs per 100,000.²⁹

7. According to the high scenario, the project will contribute to save about 1.16 million DALYs³⁰ over the five years of the project. The minimum discounted³¹ economic value of this achievement is \$1719 million³². The total present value of the benefits would be many times higher than the above figure as benefits will not increase only for five years. For instance, total DALYs saved over the next 16 years (till 2030) are estimated 3.34 million which would contribute, in present value terms, \$5491 million. The estimated DALYs averted, according to mean scenario, are 0.4 million over the next five years and about 1.7 million by the end of 2030. The corresponding figures of economic gains are \$590 million and \$2816 million. Finally, under the low scenario, the project is expected to save 0.27 million DALYs over the life of the project and 1.17 million by the end of 2030. The corresponding monetary gains are \$405 million and \$1935 million, respectively. In all scenarios, benefits greatly exceed cost. The project is therefore economically justified and represents efficient use of resources.

²⁹ <http://ghdx.healthdata.org/global-burden-disease-study-2010-gbd-2010-data-downloads>

³⁰ Calculations of DALYs are based on the project's target of 80% coverage ratio.

³¹ Economic analysis assumes 3 percent discount rate.

³² DALYs saved are multiplied by the discounted value of per capita GDP. The maximum gain can be found by multiplying DALYs saved by three times per capita GDP.

Table 1: Economic Benefit Analysis

Fiscal year	Per capita GDP (US\$)	Scenario 1 (Low)		Scenario 2 (Mean)		Scenario 3 (High)	
		DALYs saved by NISP	Annual Economic Value (\$)	DALYs saved by NISP	Annual Economic Value (\$)	DALYs saved by NISP	Annual Economic Value (\$)
2014	1,386	21,908	30,364,597	31,883	44,189,810	55,900	77,477,682
2015	1,455	32,944	46,547,128	47,944	67,740,360	84,059	118,768,695
2016	1,528	44,035	63,425,764	64,084	92,303,956	241,119	347,295,260
2017	1,604	54,941	80,671,137	79,956	117,401,268	260,358	382,288,190
2018	1,685	65,659	98,279,894	95,554	143,027,415	278,897	417,460,219
2019	1,769	76,144	116,188,216	110,814	169,089,521	296,722	452,764,945
2020	1,857	86,374	134,356,102	125,700	195,529,372	154,761	240,734,358
2021	1,950	85,804	136,060,933	124,871	198,010,425	164,972	261,600,434
2022	2,048	84,897	137,236,503	123,550	199,721,240	174,647	282,318,949
2023	2,150	83,864	138,199,366	122,047	201,122,501	183,802	302,887,510
2024	2,258	82,735	138,986,419	120,405	202,267,905	192,455	323,306,115
2025	2,371	81,547	139,650,152	118,675	203,233,840	200,659	343,632,988
2026	2,489	80,485	140,509,302	117,131	204,484,167	208,576	364,126,244
2027	2,614	79,187	140,926,476	115,241	205,091,284	215,857	384,155,128
2028	2,744	77,831	141,203,722	113,268	205,494,762	222,627	403,895,943
2029	2,881	76,415	141,326,651	111,208	205,673,661	228,850	423,249,158
2030	3,025	74,941	141,291,453	109,062	205,622,438	234,511	442,140,605

Source: World Bank calculations

8. **Costs:** The cost of interventions were estimated at various coverage scenarios. Table 2 shows the percent of children who will be fully immunized given assumed scenarios. It is assumed that 80 percent coverage targets for all provinces in FY19-20 will be achieved.

Table 2. Percent of Fully Immunized Children by Different Levels of Coverage Scenario

Region	Scenario	2014-15	2015-16	2016-17	2017-18	2018-19	2024-25	2029-30
Pakistan	S1	52	53	54	55	56	62	67
	S2	60	64	68	72	76	85	90
Punjab	S1	63	64	65	66	67	73	78
	S2	68	70	73	75	78	85	90
Sindh	S1	31	32	33	34	35	41	46
	S2	48	54	61	67	74	85	90
KP	S1	55	56	57	58	59	65	70
	S2	62	66	69	73	76	85	90
Balochistan	S1	18	19	20	21	22	28	33
	S2	39	48	56	64	72	85	90

S1= Follow past trends.

S2 = NISP intervention.

9. Table 3 shows total coverage costs under the two scenarios, as well as additional costs incurred as a result of improved coverage, with respect to the coverage differences in S2 and S1

scenarios. These estimated unit costs vary by province. Pakistan will require expenditures of USD \$257 million to USD \$412 annually until 2025 if it follows scenario S2. In contrast, to reach 90 percent coverage targets, Pakistan would need an investment of USD \$731 million in the terminal year of this analysis (see Table 3). If the past trend (S1) continues and minimal increases in coverage rate are achieved, then Pakistan will require USD \$218-288 million for the next five years until FY 2018-19. This in effect constitutes baseline spending on vaccination. Therefore, an additional USD \$38 to 111 million per annum are necessary to increase EPI coverage of the country from 57 percent in 2014-15 to 76 percent in FY 2018-19 to achieve S2 targets. This increased investment estimate reflects declining FIC unit costs due to vaccine wastage reductions.

Table 3. Cost of FIC by Different Levels of Coverage Scenario (in million USD)

Region	Scenario	2014-15	2015-16	2016-17	2017-18	2018-19	2024-25	2029-30
Pakistan	S1	218.4	234.8	252.0	269.8	288.2	411.9	534.0
	S2	257.1	289.4	323.9	360.4	399.1	575.7	730.8
	DIF	38.7	54.6	71.9	90.6	110.9	163.8	196.8
Punjab	S1	144.3	153.9	164.6	175.6	186.9	261.1	332.7
	S2	154.6	168.3	183.6	199.5	216.2	304.1	383.9
	DIF	10.3	14.4	19.0	23.9	29.3	42.9	51.2
Sindh	S1	32.4	35.3	38.4	41.5	44.8	67.8	91.3
	S2	49.6	59.6	70.3	81.9	94.2	140.6	178.6
	DIF	17.2	24.3	32.0	40.3	49.3	72.8	87.3
KP	S1	36.6	39.9	42.7	45.7	48.7	70.1	91.6
	S2	41.6	47.1	52.3	57.7	63.5	92.1	118.3
	DIF	5.1	7.2	9.5	12.0	14.7	22.0	26.6
Balochistan	S1	5.1	5.8	6.4	7.0	7.7	12.8	18.3
	S2	11.2	14.4	17.7	21.4	25.3	38.9	50.0
	DIF	6.1	8.6	11.4	14.3	17.5	26.1	31.7

Source: World Bank calculations

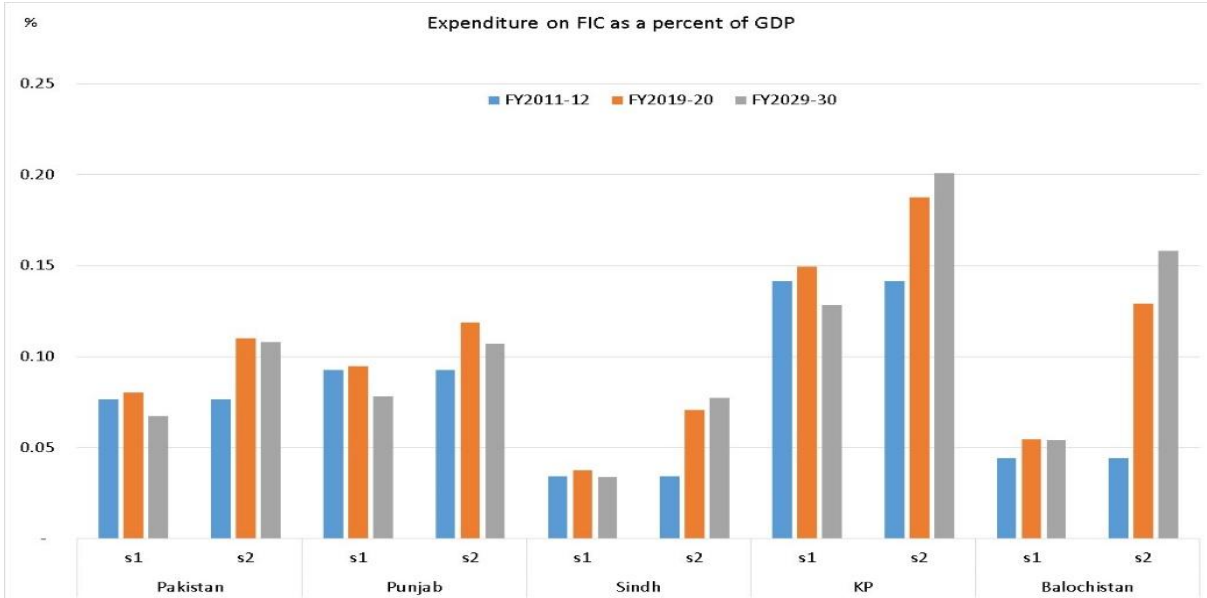
S1 = Follow past trends.

S2 = NISP intervention.

Dif = Difference in cost due to increased coverage (net cost in million USD).

10. Figure 1 shows EPI expenditure as a percentage of GDP under different scenarios for Pakistan and its provinces. Notably, the expenditures remain below 0.2 percent throughout the period of analysis for Pakistan and for all provinces under both scenarios. Over time, the EPI outlays increase due to rising annual birth cohorts in initial years, and then gradually fall as total fertility rates decrease and the size of birth cohorts consequently falls as well. Though the impact of decreases in fertility rates is more prominent in Punjab, where outlays fall as a percentage of GDP, these have significant impact at the national level as well. Because of this decrease, even after doubling the cost of immunization, EPI expenditures as percent of GDP would remain less than 0.40 percent.

Figure 1. Expenditure on EPI as a Percentage of Provincial GDP by Coverage Scenario



11. **The provincial EPI offices will ensure the conversion of the current EPI tour plans into computerized micro plans with much greater detail, based on the format used by the Polio micro plans, and integrated with this system.** The NISP aims at produce revised computerized union council level micro plans for 80% of union councils at district and provincial level, 100% districts reporting on LMIS with 80% timeliness & completeness, and Online surveillance including zero reporting for VPD & AEFI system for 80% of all HF within district. Micro plans that have area maps, estimation of target population in each community, vaccine logistics and HR requirements are an important ingredient of equitable planning and reaching every district. Calculation for coverage, identification of high risk areas, procurement of vaccines and syringes is also made easy through effective planning and management. It will reduce vaccine wastage when these plans are used by trained staff. NISP will improve effective use of micro plans by computerization of each plan and will ensure training of staff to prepare and use these. Their timely aggregation at the UC level will improve management function. The detailed computerized plans will show underserved, hard to reach and left out areas. Thus data will be readily available for monitoring and analysis of UC coverage and can be aggregated up-stream to see *tehsil* and *district* level coverage. This will directly benefit efficacy and accountability in the system. Integration of computerized micro plans into existing health management information system (HMIS) will improve management function and evidence-based decision making thus bringing positive returns.

12. **The disbursement requires at least 95% of functional cold chain equipment as per specifications at ALL health facility levels.** The success of immunization programs depends heavily upon the vaccine inventory management, including proper storage and handling of vaccines. This will increase benefits of vaccination as failure to adhere to cold chain requirements may reduce vaccine’s efficacy, resulting in lack of protection against vaccine preventable diseases. The loss of vaccine effectiveness due to nonfunctional cold chain is

cumulative, permanent and irreversible. The proposed intervention will prove cost saving strategy as vaccines may be wasted if they are exposed to extremely low or high temperature which results in increased costs to replace the wasted vaccines, human services and specialized transportation. Indirectly, this intervention is also expected to bring net positive economic returns through improvement in system efficiency.

13. **Finally, the project plans to spend on public awareness campaigns through electronic media, disaggregated by provinces.** The low coverage ratio in Pakistan pertains not only to supply side problems, but there exist serious demand related issues as well. A significant number of parents, especially in rural and tribal areas, are illiterate or at least health-illiterate. Data reveals that among non-immunized children, 45 percent were not immunized due to a misconception about the efficacy of immunization, fear about side effects and lack of knowledge. Parents ignore the importance of vaccination against VPD and are generally unaware of the consequences of not immunizing their children. Therefore, their children are vaccinated only if the facility is provided at their doorstep as they do not take it as responsibility to get their children immunized.

Table 4: Reasons for not immunizing a child by province

Reasons for never immunizing a child	Province				Total
	Punjab	Sindh	KP	Balochistan	
Cannot afford it	.5	3.5	2.0	4.1	1.8
No team has visited	32.3	21.6	14.9	15.2	24.8
Facility too far away	9.3	6.0	4.4	11.6	8.7
Do not know about immunization	8.7	8.1	.5	14.5	8.6
Child will get sick	18.1	15.8	39.0	18.8	21.5
No female staff	.5	0.0	0.0	.1	.3
No answer	2.6	3.0	9.8	8.0	5.0
Unnecessary	10.8	36.2	13.2	24.6	16.3
Other	17.3	5.9	16.2	3.1	13.1
Total	100.0	100.0	100.0	100.0	100.0

Source: PSLM/ HIES 2011-12, WBG calculations

Some of the parents do not want to immunize their children, even if the facility is provided by the government. Moreover, in Pakistan, security threats prevail for vaccinators so, unless protected by communities, they are unable to provide facility in risky areas. The project intends to educate the parents, through electronic media, on the importance of immunization. Once the parents are ready to get their children immunized, only then the efforts to improve coverage can be fruitful. The Project will directly address these issues through Behavioral Change Communication (BCC) campaign particularly addressing the misconception and myths. This component, in alignment with supply side intervention is expected to bring positive economic returns through improved coverage and higher DALYs saved.