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Report No: PAD4779

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED LOAN
IN THE AMOUNT OF US$500 MILLION

TO THE

REPUBLIC OF PERU

FOR

PERU COVID-19 VACCINATION PROJECT

UNDER THE
COVID-19 STRATEGIC PREPAREDNESS AND RESPONSE PROGRAM (SPRP)

USING THE MULTIPHASE PROGRAMMATIC APPROACH (MPA)
WITH A FINANCING ENVELOPE OF

UP TO US$ 6 BILLION APPROVED BY THE BOARD ON APRIL 2, 2020 AND
UP TO US$ 12 BILLION ADDITIONAL FINANCNG APPROVED BY THE BOARD
ON OCTOBER 13, 2020

Health, Nutrition & Population Global Practice
Latin America And Caribbean Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective November 29, 2021)

Currency Unit =	Peruvian Soles Nuevos
PEN 4.0439 =	US$1

FISCAL YEAR
January 1 - December 31

Regional Vice President:	Carlos Felipe Jaramillo
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ABBREVIATIONS AND ACRONYMS

AF	Additional Financing
CENARES	National Center for the Supply of Strategic Health Resources (*Centro Nacional de Abastecimiento de Recursos Estratégicos en Salud*
CERC	Contingent Emergency Response Component
COVAX	COVID-19 Vaccines Global Access Facility
COVID-19	Coronavirus Disease 2019
CPF	Country Partnership Framework
DGTP	Treasury General Directorate *(Dirección General de Tesoro Público)*
EHS	Environmental, Health, and Safety
EHSS	Environmental, Health, Safety and Social
E&S	Environmental and Social
ESCP	Environmental and Social Commitment Plan
ESF	Environmental and Social Framework
ESMF	Environmental and Social Management Framework
FFAA	Armed Forces *(Fuerzas Armadas)*
FFPP	Police Forces *(Fuerzas Policiales)*
FM	Financial Management
FTCF	Fast Track COVID-19 Facility
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GoP	Government of Peru
HMIS	Health Management Information Systems
IBRD	International Bank for Reconstruction and Development (World Bank)
IDA	International Development Association (World Bank)
IFC	International Finance Corporation
IFRs	Interim Financial Reports
INS	National Institute of Health (*Instituto Nacional de Salud)*
IPF	Investment Project Financing
IPR	Implementation Progress Reports
IPRESS	Health Service Providers (*Instituciones Prestadoras de Servicios de Salud)*
LAC	Latin American and the Caribbean
MEF	Ministry of Finance *(Ministerio de Economía y Finanzas)*
M&E	Monitoring and Evaluation
MINSA	Ministry of Health (*Ministerio de Salud)*
MPA	Multiphase Programmatic Approach
NCDs	Non-Communicable Diseases
NPV	National Plan for Vaccination against COVID-19
NVR	National Vaccination Registry
PAD	Project Appraisal Document
PCR	Polymerase Chain Reaction
PDO	Project Development Objective
PIU	Project Implementing Unit

POM	Project Operational Manual
PPE	Personal Protective Equipment
PPSD	Project Procurement Strategy for Development
RENIEC	National Registry of Identification and Civil Status *(Registro Nacional de Identificación y Estado Civil)*
RF	Retroactive Financing
SIAF	Public Financial Information System (*Sistema Integrado de Administración Financiera*)
SIS	*Integral Health Insurance (Seguro Integral de Salud)*
SOE	Statement of Expenditure
SPRP	Strategic Preparedness and Response Program, also known as Global COVID-19 MPA
STEP	Systematic Tracking of Exchanges in Procurement
SUSALUD	National Health Superintendency *(Superintendencia Nacional de Salud)*
US	United States
UNICEF	United Nations Children's Fund
VAC	Vaccine Approval Criteria
VIRAT	Vaccine Introduction Readiness Assessment
VRAF	Vaccine Readiness Assessment Framework
WB	World Bank (International Bank for Reconstruction and Development)
WBG	World Bank Group
WHO	World Health Organization

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DATASHEET

BASIC INFORMATION

Country(ies)	Project Name	
Peru	Peru COVID-19 Vaccination Project	
Project ID	**Financing Instrument**	**Environmental and Social Risk Classification**
P178181	Investment Project Financing	Substantial

Financing & Implementation Modalities

[✓] Multiphase Programmatic Approach (MPA)	[ ] Contingent Emergency Response Component (CERC)
[ ] Series of Projects (SOP)	[ ] Fragile State(s)
[ ] Performance-Based Conditions (PBCs)	[ ] Small State(s)
[ ] Financial Intermediaries (FI)	[ ] Fragile within a non-fragile Country
[ ] Project-Based Guarantee	[ ] Conflict
[ ] Deferred Drawdown	[✓] Responding to Natural or Man-made Disaster
[ ] Alternate Procurement Arrangements (APA)	[ ] Hands-on Enhanced Implementation Support (HEIS)

Expected Project Approval Date	Expected Project Closing Date	Expected Program Closing Date
20-Dec-2021	30-Jun-2023	31-Mar-2025

Bank/IFC Collaboration

No

MPA Program Development Objective

The Program Development Objective is to prevent, detect and respond to the threat posed by COVID-19 and strengthen national systems for public health preparedness

MPA Financing Data (US$, Millions)

MPA Program Financing Envelope	18,000.00

Proposed Project Development Objective(s)

To increase COVID-19 vaccination coverage among the population of Peru.

Components

Component Name	Cost (US$, millions)
COVID-19 Vaccines	500.00
Project Management and Monitoring	3.00

Organizations

Borrower:	Republic of Peru
Implementing Agency:	Ministry of Economy and Finance

MPA FINANCING DETAILS (US$, Millions)

Board Approved MPA Financing Envelope:	18,000.00
MPA Program Financing Envelope:	18,000.00
of which Bank Financing (IBRD):	9,900.00
of which Bank Financing (IDA):	8,100.00
of which other financing sources:	0.00

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Project Cost	503.00
Total Financing	503.00
of which IBRD/IDA	500.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Bank for Reconstruction and Development (IBRD)	500.00

Non-World Bank Group Financing

Counterpart Funding	3.00
Borrower/Recipient	3.00

Expected Disbursements (in US$, Millions)

WB Fiscal Year	2022	2023	2024
Annual	320.00	160.00	20.00
Cumulative	320.00	480.00	500.00

INSTITUTIONAL DATA

Practice Area (Lead)

Health, Nutrition & Population

Contributing Practice Areas

Climate Change and Disaster Screening

This operation has been screened for short and long-term climate change and disaster risks

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

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

7. Environment and Social	Substantial
8. Stakeholders	Moderate
9. Other	
10. Overall	Substantial
Overall MPA Program Risk	High

COMPLIANCE

Policy

Does the project depart from the CPF in content or in other significant respects?

[ ] Yes [✓] No

Does the project require any waivers of Bank policies?

[ ] Yes [✓] No

Environmental and Social Standards Relevance Given its Context at the Time of Appraisal

E & S Standards	Relevance
Assessment and Management of Environmental and Social Risks and Impacts	Relevant
Stakeholder Engagement and Information Disclosure	Relevant
Labor and Working Conditions	Relevant
Resource Efficiency and Pollution Prevention and Management	Relevant
Community Health and Safety	Relevant
Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Not Currently Relevant
Biodiversity Conservation and Sustainable Management of Living Natural Resources	Not Currently Relevant
Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Relevant
Cultural Heritage	Not Currently Relevant
Financial Intermediaries	Not Currently Relevant

NOTE: For further information regarding the World Bank's due diligence assessment of the Project's potential environmental and social risks and impacts, please refer to the Project's Appraisal Environmental and Social Review Summary (ESRS).

Legal Covenants

Conditions

Type	Financing source	Description
Effectiveness	IBRD/IDA	Article IV 4.01 (a). The Project Operational Manual has been finalized and, thereafter, adopted by DGTP with support from MINSA, in a manner acceptable to the Bank.
Type	Financing source	Description
Effectiveness	IBRD/IDA	Article IV 4.01 (b).

		The Borrower has appointed within MINSA: (i) A full-time socio-environmental specialist with responsibility for managing the environmental, social, health and safety risks and impacts of the Project in coordination with the PIU; and (ii) A social specialist and an environmental health specialist to support and coordinate with the socio-environmental specialist referred to in paragraph (i) above as needed during Project implementation; in each case with functions, experience, responsibilities and qualifications acceptable to the Bank.
Type Effectiveness	Financing source IBRD/IDA	Description Article IV 4.01 (c). The Borrower has appointed to the PIU one part-time procurement specialist and one part-time financial management specialist, each with qualifications, experience and functions acceptable to the Bank, with responsibility for ensuring timely and suitable implementation of procurement and financial management of Project activities, respectively.
Type Disbursement	Financing source IBRD/IDA	Description Schedule 2 Section III B 1. No withdrawal shall be made for payments made prior to the Signature Date, except that withdrawals up to an aggregate amount not to exceed two hundred fifty million Dollars ($250,000,000) may be made for payments made prior to this date but on or after January 1, 2021 but in no case more than one year prior to the Signature Date, for Eligible Expenditures consisting of Goods under Category (1), provided, however, that no such withdrawal shall be made under

		this paragraph for Eligible Expenditures consisting of purchases of vaccines the deployment of which occurs before the ESMF has been adopted in accordance with the ESCP, until a Rapid E&S Audit has been carried out and finalized in accordance with the ESCP and in form and substance acceptable to the Bank.

I. PROGRAM CONTEXT

A. Introduction

1. This Project Appraisal Document (PAD) describes the emergency response to Peru under the COVID-19 Strategic Preparedness and Response Program (SPRP) using the Multiphase Programmatic Approach (MPA), approved by the World Bank (WB)'s Board of Executive Directors on April 2, 2020 (PCBASIC0219761) with an overall Program financing envelope of up to US$6.00 billion, and the Additional Financing (AF) to the SPRP approved on October 13, 2020.[1] The primary objectives of the proposed Project are to enable affordable and equitable access to COVID-19 vaccines and help ensure effective vaccine deployment in Peru. The economic rationale for investing in the MPA interventions is strong, given that success can reduce the economic burden suffered both by individuals and countries. The Project would contribute to the implementation of the World Bank Group (WBG) Latin America and the Caribbean (LAC) Regional Strategy by providing support to building human capital and strengthening resilience. The project complements both WBG' and development partners' other investments in health systems strengthening, disease control and surveillance.

2. The purpose of the proposed Investment Project Financing (IPF) is to provide upfront financing to help the Government of Peru (GoP) purchase and deploy COVID-19 vaccines that meet the Bank's Vaccine Approval Criteria (VAC)[2] and to strengthen relevant health system functions that are necessary for successful deployment and to prepare for the future. The proposed financing will cover about 40 million vaccine doses, including pediatric doses, while the GoP with its own funds will cover enough doses to cover the entire population including children and booster doses by the end of 2022. To this purpose, Peru has agreements for 138 million vaccine doses. The GoP is providing free of cost vaccination to all residents above 12 years of age, including nationals and non-nationals.

3. The need for additional resources amounting to US$500 million to expand the COVID-19 response was formally conveyed by the GoP on October 22, 2021. Support from the WBG for vaccine financing will be highly valuable, as Peru is one of the countries most affected by the COVID-19 pandemic in the world. In the last few months, Peru was able to secure vaccines mainly from Gavi Alliance/COVAX (agreement for 13.1 million doses) and bilateral agreements with Pfizer S.A., Sinopharm International HK and AstraZeneca Limited UK. Nevertheless, the delivery of doses in these agreements is suffering significant delays. For this reason, the GoP has established additional agreements to secure enough doses to be able to cover the entire population including booster shots in 2022. Booster shots and additional doses will be used following World Health Organization (WHO) guidance prioritization (i) immunocompromised (ii) elderly and (iii) whole virus vaccine recipients.[3] The Ministry of Health (Ministerio de Salud - MINSA) has carried out a significant investment plan of US$800 million for vaccination logistics, and vaccine deployment including cold chain, that substantially increased the MINSA capacity to the

[1] Strategic Preparedness and Response Program (SSRP), also known as Global COVID-19 MPA. The WB approved a US$12 billion WBG Fast Track COVID-19 Facility (FTCF or "the Facility") to assist IBRD and IDA countries in addressing the global pandemic and its impacts. Of this amount, US$6 billion came from IBRD/IDA and US$6 billion from the International Finance Corporation (IFC). The IFC subsequently increased its contribution to US$8 billion, bringing the FTCF total to US$14 billion. The Additional Financing of US$12 billion (IBRD/IDA) was approved on October 13, 2020 to support the purchase and deployment of vaccines as well as strengthening the related immunization and health care delivery system.

[2] https://extranet.who.int/pqweb/sites/default/files/documents/Status_COVID_VAX_20Oct2021.pdf

[3] Inactivated vaccines that contain viruses whose genetic material has been destroyed by heat, chemicals or radiation so they cannot infect cells and replicate, but can still trigger an immune response

level that no further investments are needed in the short run.[4] The GoP, having invested heavily in upstream COVID-19 response and in vaccine deployment capacity, is now in need of financial support to cover the vaccine acquisition costs. The government received 4.2 million doses of vaccine donations but is not receiving any other financial support to finance the health services to respond to the COVID-19 pandemic. The proposed IPF will form part of an expanded support for the health sector in Peru that also includes the *Strengthening of The Public Health Emergency Preparedness and Response Project* (P174177) approved on June 24, 2021 that is mainly focused on strengthening public health prevention and epidemiological surveillance. Additional WB financing will provide essential resources to enable the expansion of a sustained and comprehensive pandemic response that appropriately includes vaccination in Peru. Critically, the operation seeks to enable the acquisition of vaccines, including pediatric doses, mainly from two bilateral providers (Pfizer S.A. and Moderna Switzerland GMBH) that will be delivered during the first semester of 2022.

B. MPA Program Context

4. **The COVID-19 pandemic has had massive global impact and continues to spread.** Since December 2019, following the diagnosis of the initial cases in Wuhan, Hubei Province, China, the number of cases has increased rapidly. On March 11, 2020, the WHO declared a global pandemic. As of November 1, 2021, more than 247.8 million people have been infected and over 5 million have died. The pandemic has caused the largest global economic contraction since the Great Depression in 1929, driving millions of people into poverty. Furthermore, many countries are seeing a "third wave" with the rapid spread of the Delta variant, and currently many fear a “fourth wave” from the recent surge in cases of the Omicron variant.

5. **The World Bank’s response to the pandemic was swift.** On March 3, 2020, the WBG Board of Executive Directors endorsed urgent actions supporting client countries’ response to the COVID-19 pandemic. Subsequently, the Board approved the establishment of a US$12 billion WBG Fast Track COVID19 Facility (FTCF or “the Facility”) to assist IBRD and IDA countries in addressing the global pandemic and its impacts. Of this amount, US$6 billion came from IBRD/IDA and US$6 billion from the International Finance Corporation (IFC). The IFC subsequently increased its contribution to US$8 billion, bringing the FTCF total to US$14 billion. On March 17, 2020, the Board granted approval of specific waivers and exceptions required to enable the rapid preparation and implementation of country operations under the Facility. On April 2, 2020, the Board approved the SPRP with a US$6 billion financing envelope of which up to US$4 billion for health financing (up to US$1.3 billion IDA and up to US$2.7 billion under IBRD). The SPRP utilizes MPA, to be supported by the FTCF. On April 2, 2020, the Board also approved 25 country projects.

6. **Since the initial FTCF response, the WBG has significantly expanded its support for countries as they respond to the COVID-19 pandemic and its overall impacts.** Since the start of the COVID-19 crisis, the Bank Group has committed over $157 billion to fight the impacts of the pandemic. Provided from April 2020 to June 2021, this financing includes over $50 billion of IDA resources on grant and highly concessional terms. On May 19, 2020 the WBG announced that Bank-financed emergency COVID operations have reached 100 developing countries – home to 70 percent of the world’s population. On October 13, 2020, $12 billion was approved by the WBG to finance the purchase and distribution of COVID-19 vaccines, tests, and treatments for developing countries. On June 30, 2021 President Malpass announced the expansion of financing available for COVID-19

[4] Salud con Lupa. Vacuna Covid: Los 6 retos logísticos que necesita superar el Perú. *https://saludconlupa.com/noticias/vacuna-covid-los-6-retos-logisticos-que-necesita-superar-el-peru/*

vaccine financing to $20 billion over the next 18 months, adding $8 billion to the previously announced $12 billion. By October 2021, The World Bank had supported the purchase of more than 2.5 billion doses across 62 countries.

7. **The vaccines AF to the SPRP, approved on October 13, 2020, will significantly expand the WB support to client countries for COVID-19 vaccination, with the aim to support vaccination of one billion people globally.** An effective and safe COVID-19 vaccine is the most promising path forward for the world to reopen safely, building on global efforts to develop treatments and to expand testing capacity. The timing of potential vaccine development was not known when the Global COVID-19 MPA was approved, but global vaccine development efforts have progressed rapidly. The approval of an envelope of US$12 billion (US$6 billion from the International Development Association -IDA- and US$6 billion from the International Bank for Reconstruction and Development -IBRD-) in financing is critical to expand affordable and equitable financing for vaccine purchase and deployment. It also sends a signal to potential suppliers that WB financing is available to respond to the demand for vaccines from Low and Middle-Income Countries (LMICs), providing an incentive for production capacity at levels that can also supply developing economies at affordable prices, not only high-income countries. The WB's Global COVID-19 MPA AF is expected to enable vaccination for up to 750 million people, with potential surge capacity for an additional 250 million people in the poorest countries (depending on the delivered price of approved vaccines) while scaling up support to strengthen immunization delivery, with design flexibility at the country level. The proposed Project will enable support to the GoP's COVID-19 vaccine efforts and will be a key contribution to the WBG's overall COVID-19 response.

C. Updated MPA Program Framework

Table 1. MPA Program Framework

Phase #	Project ID	Sequential or Simultaneous	Phase's Proposed DO*	IPF, DPF or PforR	Estimated IBRD Amount ($ million)	Estimated IDA Amount ($ million)	Estimated Other Amount ($ million)	Estimated Approval Date	Estimated Environmental & Social Risk Rating
2	P178181	Simultaneous	Please see relevant PAD	IPF	500	0	3	December 20, 2021	Substantial

D. Learning Agenda

8. In Peru, the learning agenda will benefit from the Peru: Strengthening of the Public Health Emergency Preparedness and Response Project (P174177) (approved in June 2021) that will implement in parallel the strengthening of the epidemiological surveillance system, support the expansion of the public health laboratory capacity across the country, as well provide as technical assistance and training in areas of One Health and capacity response to emerging public health threats. Furthermore, the WB is providing technical assistance to the Ministry of Health to strengthen its Health Management Information Systems (HMIS) through an Advisory Service and Analytics (P177822).

II. CONTEXT AND RELEVANCE

A. Country Context

9. **The hard-won gains in social outcomes that Peru achieved over the last decade are at risk as disparities across the population widen due to the COVID-19 pandemic.** For most of the 2000s, Peru's rapid economic growth, coupled with well-targeted social policies, boosted income growth among the poorest. As a result, national poverty rates halved from 42.4 percent in 2007 to 20.2 percent in 2019. Pre-pandemic progress in poverty reduction, however, was uneven: in 2020, the poverty rate in rural areas was 26.2 percentage points higher than in urban areas, 51.2 percent of the poor were women, and 34.9 percent were children and adolescents.[5] These inequalities will be further exacerbated by the socioeconomic context brought by the pandemic, which has had devastating effects for Peru. Peruvian households have also experienced one of the largest employment and income losses in the region.[6] Preliminary estimations suggest that poverty rates have reverted to pre-2012 levels, with children and adolescents living in rural areas experiencing the largest increase in poverty.[7] The most disadvantaged families, who could not cope with stay-at-home orders, faced unemployment (28 percent of workers lost their jobs), reduced income (81 percent of households had a drop in their total income), and food insecurity (43 percent of adults in households with children skipped a meal).

10. **Peru's development and health efforts are also challenged by the observed and anticipated impacts of climate change.** The country faces high exposure and risk of climate and natural disasters risks. Observed and projected climate change impacts in Peru include rising temperatures, extreme precipitation, and more frequent and severe occurrences of natural disasters, including flooding and droughts linked to the recurrent *"El Niño"* and *"El Niño Costero"* phenomena. Sea level is expected to rise 0.5 meters by the year 2100, posing additional threats to coastal urban populations. These changes are forecast to impact public health, natural ecosystems, and water availability. For example, flooding can indirectly contribute to infectious disease outbreaks and vector distribution. Climate impacts such as increased temperature, precipitation, and humidity can also exacerbate viral infections by altering vectors' life cycles and infection transmission patterns.[8] The source of increased Greenhouse Gas (GHG) emissions and other contributors to climate change pose additional health risks that could further compound COVID-19 impacts. Empirical findings note that air pollution, which is a contributor to climate change, can affect the COVID-19 pandemic in three ways: increasing transmission, causing susceptibility to rise, and worsening the severity of the infection.[9] Furthermore, environmental changes such as deforestation, agricultural intensification, and urbanization not only increase GHG emissions and climate impacts, but also exacerbate infectious disease transmission.[10] Among other reasons, this is because changes in land use lead to greater human encroachment on natural habitats, thus increasing our proximity to, and interactions with, wildlife disease reservoirs, potentially increasing the likelihood of zoonotic transmission.[11]

[5] INEI (2020). Resultados de la pobreza monetaria 2019. https://www.inei.gob.pe/media/MenuRecursivo/boletines/presentacion-del-jefe-del-inei.pdf
[6] World Bank "COVID-19 High Frequency Monitoring Dashboard." Round 1 - May 2020.
[7] UNICEF (2020). COVID-19: Impacto en la pobreza y desigualdad en niñas, niños y adolescentes en el Perú. Estimaciones 2021.
[8] WHO. 2015. Climate and Health Country Profile – Peru.
[9] World Bank. 2020. Air Pollution: Locked Down by COVID-19 but Not Arrested. *https://www.worldbank.org/en/news/immersive-story/2020/07/01/air-pollution-locked-down-by-covid-19-but-not-arrested?CID=ENV_TT_Environment_EN_EXT*
[10] WHO. Climate change and human health - risks and responses. Summary. *https://www.who.int/globalchange/summary/en/index5.html*
[11] Dobson, A. et al. 2020. "Ecology and economics for pandemic prevention." Science. *https://science.sciencemag.org/content/369/6502/379*

B. Sectoral and Institutional Context

11. **During the past two decades in Peru, there have been substantial reductions in maternal, infant and neonatal mortality, helping the country achieve several Sustainable Development Goals for 2030.**[12] Between 2000 and 2018, life expectancy at birth increased from 71.1 to 76.5, shortening the gap with the Organization for Economic Cooperation and Development (OECD) from 5.8 years to 3.6 years. This is related to the reduction in maternal mortality from 265 to 88 deaths per 100,000 live births between 1997 and 2017.[13] However, due to disrupted healthcare during the pandemic, in 2020, the largest number of maternal deaths since 1997 (429) was registered.[14] Advancing the COVID-19 vaccination campaign would help resume routine care for maternal health and, thus, reduce maternal deaths. In turn, infant and neonatal mortality had fallen to 25 and 10 deaths per 1,000 live births, respectively, by 2018.[15] Meanwhile, the burden of disease between 1990 and 2018 switched strongly towards Noncommunicable Diseases (NCDs) as compared to communicable, maternal, neonatal, and nutritional diseases.[16] In 2019, NCDs accounted for 68 percent of all Disability-Adjusted Life Years (DALYs) in Peru, compared to 36 percent in 1990. This is in line with the demographic and epidemiological transition that occurred in the country over this period. Nevertheless, the pandemic has affected routine care and aggravated the impact of NCDs. For example, even by July 2021, radiotherapy rates for cancer patients had not recovered, remaining 28 percent below the level for July 2019, even though cancer mortality had doubled in 2020 with respect to 2019 (from 7.2 to 14.8 per 100,000).[17]

12. **The public sector is the main provider of healthcare services among poor segments of the population.** Similar to other Latin American countries, Peru's healthcare services are fragmented between the public, social security, and private sectors. MINSA is the governing body of the Peruvian health system, responsible for the sector policy design and its implementation. The National Health Superintendency (*Superintendencia Nacional de Salud* – SUSALUD) is responsible for the supervision of health providers and insurers, as well as enforcement of legislation governing the whole sector. Multiple institutions administer health financing, including *Seguro Integral de Salud* (SIS), MINSA, social security health insurance providers (*Seguro Social de Salud* - EsSalud), and private insurers. Separate systems also exist for the Armed Forces and Police (*Sanidades de las Fuerzas Armadas y Policiales* – FFAA and FFPP). This fragmentation is mirrored in the supply of health services. In general terms, EsSalud provides services through its separate network of providers, while the public sector provides services through health service providers (*Instituciones Prestadoras de Servicios de Salud* – IPRESS) under the administration of either MINSA (in the Lima Metropolitan Area) or regional governments (in all 25 regions). Private insurers, meanwhile, are associated with private providers. MINSA facilities are mainly used by the uninsured and SIS subscribers, who together account for 71 percent of all users.[18] With average per capita incomes of US$2,372, this population is poorer than EsSalud members, whose average per capita income amounts to US$5,209.[19] The capacity of MINSA to effectively regulate and oversee health services is limited by

[12] Sustainable Development Goals Indicators reached: Neonatal mortality rate, Mortality rate under 5, New HIV infections, Age-standardized death due to NCDs. Sustainable Development Report (2021) *https://dashboards.sdgindex.org/profiles/peru*
[13] World Bank. World Development Indicators.
[14] Ascarza, Lucero. Emergencia desatendida: Muertes maternas aumentan en el Perú. *Salud con Lupa*, 2021.
[15] INEI. (2019a). Informe principal Encuesta Demográfica y de Salud Familiar 2019. Lima: INEI.
[16] Institute for Health Metrics and Evaluation. 2017. GBD Compare. *http://www.healthdata.org/data-visualization/gbd-compare*
[17] Ruiz de Castilla, Karla. *¿Cuál es situación de pacientes con cáncer en el Perú y qué retos debemos enfrentar como país producto del COVID - 19?* Esperantra. *https://peru21.pe/vida/cual-es-situacion-de-pacientes-con-cancer-en-el-peru-y-que-retos-debemos-enfrentar-como-pais-producto-del-covid-19-vacuna-contra-el-coronavirus-pandemia-noticia/?ref=p21r*
[18] World Bank staff calculations, based on "ENAHO 2017: Instituto Nacional de Estadística e Informática, "Encuesta Nacional de Hogares Sobre Condiciones de Vida y Pobreza 2017," 2018. *https://webinei.inei.gob.pe/anda_inei/index.php/catalog/613*
[19] World Bank staff calculations based on ENAHO 2017: Ibid.

the autonomy of Regional Governments (*Gobiernos Regionales*), which own the IPRESS in their respective regions.

13. **Peru is one of the countries most affected by the COVID-19 pandemic in the world.** As of November 30th, 2021, the country had registered a total of 2,334,075 cases. While a large number are concentrated in the Lima-Callao region (44 percent), infections have been reported in all 25 regions of Peru. The total death toll due to the virus amounts to 201,144, and accounts for the highest mortality rate in the world at 619 per 100,000. Mortality by COVID-19 has fallen disproportionately on men, who account for 64 percent of total deaths—for every female who died from COVID-19, two males died. About 20.2 million tests have been done, with a positivity rate of 8.0 percent (see Table 2.1 in Annex 2). The positivity rate varies between 5 percent and 30 percent across LAC, demonstrating the heterogeneity of different countries' experiences and the need for geographically targeted strategies to confront the pandemic.

14. **The COVID-19 pandemic has exposed the deficiencies of Peru's health system to prevent and control epidemic outbreaks.** The public sector laboratories' lack of capacity to provide timely Polymerase Chain Reaction (PCR) testing at scale (in the initial months of the pandemic, the capacity was 500 daily tests when demand was at 20,000 daily tests) prevented appropriate case detection and subsequent containment. The centralized public health approach for testing did not allow the public health system to deliver a timely response in Peru's 25 regions, all of which are very diverse socially, culturally, and geographically. The inability to deploy a nationwide response amplified the country's health crisis. Not only was the single National Institute of Health (INS) laboratory in Lima constantly overcrowded during the pandemic, but the laboratory also did not have the capacity to provide tailored responses for all of Peru's diverse regions. As a result, health authorities used antibody tests as the basis for the country's epidemiological information system. These tests require a latent period to become positive and are less sensitive and specific than PCR tests, which leads to a greater number of false-negative results and some false-positive results. The reliance on antibody tests significantly reduced the country's capacity for early detection. Contact tracing, quarantine and other efforts to minimize transmission were therefore much less effective in Peru than in countries with the capacity to implement PCR tests. Another key lesson from the ongoing pandemic is the importance of strengthening and deploying community-based surveillance as early as possible.

15. **The pandemic has also taken an unprecedented social toll on Peruvian society.** Peru was one of the first countries to issue mandatory lockdowns (March 2020) as a preventive measure against the spread of the disease. Relative to other countries, the government's lockdown measures have also been among the most stringent.[20] Among the largest costs which the pandemic has imposed in Peru are on the education sector. Given the high number of cases and deaths, and the country's inefficient response to the pandemic, schools have remained fully closed for over 66 weeks in Peru. By mid-July 2021, Peru was one of the few countries in America (together with Venezuela and Honduras), and one of the 12 countries in the world, with schools still closed due to COVID-19.[21] To date, schools remain partially closed and human capital losses continue to accumulate. Simulated loss in learning-adjusted years due to COVID-19 for 13 months in Peru amount to 8.6 years. In addition, WB simulations for Peru suggest that dropouts in private schools could increase by 25 percentage points between 2019 and 2020 due to the lower purchasing power of households.[22] Furthermore, learning outcomes are already

[20] As measured by University of Oxford, COVID-19 Government Response Tracker.
[21] UNESCO.
https://en.unesco.org/covid19/educationresponse?fbclid=IwAR2gcpNMFaFpiMynsz45aoxNkZb2zt3wCBGYMo4ftZn6lhpnzVdGEcSEKm0#schoolclosures
[22] The World Bank's COVID-19 learning losses simulation tool, currently in its version 6.0, allows estimating the effects of school

falling (satisfactory reading comprehension fell from 27.8 percent to 21.1 percent among students with access to computer and internet). Given low connectivity in Peru (69 percent of students in public schools don't have access to internet), there have been substantial impacts in equity.[23] Simulations show a decrease of seven percent in Program for International Student Assessment (PISA) learning outcomes of the poorest quintile translating into an increase of almost seven percent of the gap vis-à-vis the top quintile.

C. National Capacity and COVID-19 Vaccination Plan

16. **Peru has shown significant progress in vaccination against COVID-19 under its National Vaccination Plan.** A first National Vaccination Plan was approved in October 2020, laying the basic strategy for vaccination. The Plan divided vaccination into four phases prioritizing population groups according to their exposure and vulnerability to the virus based on demographic, epidemiological, and occupational characteristics. The first phase included health workers, police and armed forces, firefighters and Red Cross workers, security workers, health students, and designated electoral booth supervisors; in subsequent phases the population was prioritized according to age and comorbidities. Under this plan, the population was assigned to specific providers according to their health insurance (Public Health Insurance-SIS, Social Security-EsSalud, police and armed forces, and private insurers); however, this strategy proved inefficient due to fragmentation and lack of coordination between subsectors. Once the most exposed and vulnerable were vaccinated, a second National Vaccination Plan was approved in April 2021, moving to a territorial approach to vaccination and advancing at a greater pace. In six months, Peru went from only having 2 percent of the population fully vaccinated by May 1, 2021, to 55 percent by November 30, 2021. A total of 18,064,071 people have received full COVID-19 vaccines (65 percent of the population above 12 years of age) (Figure 2.1 in Annex 2). In terms of gender distribution, there is a higher vaccination rate among females (61 percent above 12 years of age have received full doses) than among males (52 percent above 12 years of age have received full doses).

i. Vaccine Readiness Assessment.

17. **The GoP has conducted a vaccine readiness assessment to identify gaps and options to address those gaps, as well as to estimate the cost of vaccine deployment, with the support of PAHO/WHO.** The assessment was conducted in December 2020 using the Vaccine Country Readiness Assessment Tool (VIRAT/VRAF 2.0). This assessment considers the Government's National Plan for Vaccination against COVID-19. The main results are highlighted in Table 2. The areas that required additional investments were *public trust and demand for vaccines* and *training activities*. Since then, MINSA has invested in these two areas and current conditions have improved significantly. Peru's rapid advancement in vaccination is mirrored by its swift and solid progress in vaccine purchases and vaccine readiness starting in the second trimester of 2021.

18. **Vaccine availability.** By December 2020, Peru had only secured 0.15 doses per inhabitant (the lowest number in Latin America among countries having secured any doses and, yet, by October 2021, the country has agreed to purchase 2.61 doses per person (the second highest number in Latin America only behind Chile (Table

closures and mitigation efforts on learning-adjusted years of schooling (LAYS) – a metric that combines the amount of schooling that children typically reach with the quality of learning during school years, relative to a benchmark. For closure of 10 months - already a reality for Peru, and considering a medium level of mitigation effectiveness, on average the loss of LAYS could be as high as 1.3 years. World Bank. Acting Now to Protect the Human Capital of Our Children: The Costs of and Response to COVID-19 Pandemic's Impact on the Education Sector in Latin America and the Caribbean. 2021

[23] MINEDU. Plan Nacional de Emergencia del Sistema Educativo Peruano. 2021. https://cdn.www.gob.pe/uploads/document/file/2209231/Plan%20de%20Emergencia%20del%20Sistema%20Educativo%20Peruano.pdf

2.2 in Annex 2), with this number only growing since.[24] In total, by November 2021, the country has agreed to purchase a total of 138 million vaccine doses. However, given vaccine market instability, it is expected that several of these agreements will not materialize. To date, a total of 50.6 million doses have arrived in the country. Contracts with Moderna and Pfizer proposed for WB financing have been signed and corresponding vaccines are expected to be delivered during the first semester of 2022. Furthermore, MINSA is carrying out an investment plan of US$800 million for vaccination logistics, including cold chain.[25] This has allowed the country to reach the maturity stage in the cold chain capacity assessment according to VIRAT/VRAF. Furthermore, vaccine hesitancy in the country is relatively low: among unvaccinated males, 28 percent said they would definitely not get a vaccine; among unvaccinated females, this proportion is 13 percent—given a large portion of the population has already been vaccinated, these percentages represent a less significant share of the total population. Of those who would not get vaccinated, 49 percent are concerned about possible side-effects.[26] The higher vaccination rates among women compared with men also appear to be related to time conflicts between vaccination and working hours, given there is a higher share of employment among men. To better understand and counteract the effect of vaccine hesitancy as a deterrent, the WB will support a collaborative effort in diagnosis and behavioral interventions to reduce vaccine hesitancy. At last, Peru has acquired a varied portfolio of COVID-19 vaccines including Pfizer, Moderna, Sinopharm, and AstraZeneca (Table 3). Although many of the contracts listed have already secured financing, WB financing under this operation would finance the most recently signed contracts with Pfizer and Moderna (September 2021), with deployment expected the first semester of 2022.

[24] Duke Global Health Innovation Center. Launch and Scale Speedometer. *https://launchandscalefaster.org/node/64*
[25] Salud con Lupa. Vacuna Covid: Los 6 retos logísticos que necesita superar el Perú. *https://saludconlupa.com/noticias/vacuna-covid-los-6-retos-logisticos-que-necesita-superar-el-peru/*
[26] Johns Hopkins. Center for Communication Programs. Covid Behaviors. https://covidbehaviors.org/

Table 2: Summary of Vaccination Readiness Findings from the VIRAT/VRAF 2.0 Assessment[27] December 2020

Readiness domain	Readiness of government	Key gaps to address before deployment
Planning and coordination	• Steering committee completed by supreme decree 079-2020 • A national plan for vaccination, NPV, has been developed • Plan for waste management in progress	• Need to develop scenarios for level of access to vaccines • Need to complete procurement procedures for equipment and supplies
Budgeting	• Costing of the NPV against COVID-19 has been completed.	
Regulatory	• Development of a rapid assessment mechanism for the national approval of vaccines in progress.	
Prioritization, targeting, surveillance	• The prioritization process of the initial phases has been completed. Key population groups for the initial phases have been identified. As the vaccination process advances and new vaccines become available, new priority groups will be added through MINSA technical guidelines.	• The MINSA needs to develop scenarios involving experts and stakeholders
Service delivery	• Protocols for safe vaccines administration and reduction of risks for health workers have been developed/updated. • Define agreement with different actors at national and subnational level the roles related to transportation of vaccines storage and management of waste	• MINSA is constantly updating all vaccine deployment guidelines. • Agreements at national and subnational levels achieved and under implementation
Training and supervision	• A human resources training plan is in early stages. • The training materials prepared by WHO are not yet translated • Training regarding use of PPE in early stages.	• Training of human resources in different aspects of vaccine deployment would be needed, particularly training on biological waste management. This gap is expected to be closed by December 2021.
Monitoring and evaluation	• The Monitoring and Evaluation framework is in early stages. • Development of monitoring tools is well advanced. The system includes nominal registry.	A new Monitoring and Evaluation framework was developed (Box 3)
Safety surveillance	• A special team for monitoring safety issues linked to the COVID-19 vaccine was created to work within the framework of the existing CoNaSeVa. This team evaluates all events reported in the safety surveillance system that is part of Health Integrated Information System.	• Further strengthening of pharmacovigilance for COVID-19 vaccines is still needed.
Demand generation and communication	• The NPV includes different strategies for communication campaigns, dissemination and social involvement • At national and subnational level all information from consultations are compiled and analyzed so that needed actions in response can be developed.	• Further communication efforts to reduce hesitancy and to provide information to vulnerable groups are still needed.

[27] A multi-partner effort led by WHO and UNICEF developed the Vaccine Introduction Readiness Assessment Tool (VIRAT) to support countries in developing a roadmap to prepare for vaccine introduction and identify gaps to inform areas for potential support. Building upon the VIRAT, the WB developed the Vaccine Readiness Assessment Framework (VRAF) to help countries obtain granular information on gaps and associated costs and program financial resources for deployment of vaccines. To minimize burden and duplication, in November 2020, the VIRAT and VRAF tools were consolidated into one comprehensive framework, called VIRAT-VRAF 2.0.

ii. National Vaccine Plan.

19. **National Vaccination against COVID-19 (NPV)**. A second version of the National Vaccination Plan was approved in April 2021,[28] switching the strategy to vaccination by age groups, comorbidities, and basing it on a territorial approach: the entire population above 12 years of age, including non-nationals, is included in a single National Vaccination Registry (NVR provided by RENIEC, the civil registry office) and assigned to vaccination sites based solely on their territorial proximity of the NVR, extending the current register to the entire adult population. As of November 16th, 2021, Vaccination coverage is very advanced among eligible groups—ranging from 86 percent with at least one dose for adults over 65 to 50 percent for the population between 12 and 16 years of age (coverage per age group is provided in Annex 2, Figure 2.4).[29] The NVR hosts relevant information from different government bodies, allowing centralized monitoring of the program and enabling the country to better respond to future diseases, including climate-induced ones. Data privacy and confidentiality will apply as per approved regulation that establishes the guidelines for implementation of the NVR.[30] In addition, to ensure safe disposal of hazardous material from vaccination, the NPV is governed by MINSA's technical norm 144-MINSA/2018/DIGESA "Integral solid waste management in health establishments" and includes personnel training on solid waste management and financing for the solid waste management component. Peru has an adequate institutional capacity to implement corresponding regulations on medical waste management. The Environmental Evaluation and Inspection Body (*Organismo de Evaluación y Fiscalización Ambiental)* OEFA has decentralized regional offices across the country to support oversight functions. In addition, the NPV has received the support of partners agencies in areas of technical assistance and financial support as included in Box 1.

Box 1: International Assistance to Peru's National Vaccination Effort Implementation

WHO/PAHO's role	Financing amount
Technical leadership for vaccine introduction and implementation of VIRAT.	Not applicable
Gavi/COVAX's role	
Financing and procurement of 13,188,800 COVID-19 vaccines doses.	US$139,141,840
UNICEF	
Facilitated the purchase of solar vaccine freezers for vaccine storage in remote communities with limited access to electricity, allowing for shorter negotiation and delivery time, and below-market prices.	Not applicable
Other partners/donors	
Vaccine donations from other national governments	4,232,330 doses

[28] El Peruano. Updated National Plan for Vaccination Against COVID-19. April 14th, 2020. *https://busquedas.elperuano.pe/normaslegales/aprueban-el-documento-tecnico-plan-nacional-actualizado-de-resolucion-ministerial-no-488-2021minsa-1943871-1/*

[29] MINSA, November 16th, 2021.

[30] RM 389-2021-MINSA approves the NVR and mandates that necessary measures are taken by MINSA's specialized General Office for Information Technologies (OGTI) to ensure data privacy and confidentiality. Furthermore, as indicated by Urgency Decree 009-2021, the NPV is governed by the Law for Protection of Personal Data (Law Nº 29733).

Table 3. National Vaccine Coverage and Acquisition Plan

Source of financing (IBRD, Govt, Other)	Population Targeted (Based on 2 doses scheme)		Vaccines				Number of doses agreed	Estimated total U$ (millions)	World Bank's VAC Status	Contract Status	Vaccines already arrived in the country	
	%	Number*	Source	Name	Price ($/dose)	Cost of shipping					Name	Doses
Phase 1: Frontline health workers and population above 85 years of age												
GoP	1.5	500,000		Sinopharm	--	--	1,000,000	--	TBC	Delivered	Sinopharm	1,000,000
GoP	30.3	10,000,575		Pfizer	--	--	20,001,150	--	Met	Delivered	Pfizer	20,001,150
P1 total	31.8	10,500,575					21,001,150					21,001,150
Phase 2: Population between 12 and 85 years of age												
GoP	21.3	7,020,000	Bilateral	AstraZeneca	--	--	14,040,000	--	Met	Delivered	AstraZeneca	---
GoP	5.8	1,905,930	COVAX	Pfizer	TBC	TBC	3,811,860	--	Met		Pfizer	
GoP	14.2	4,688,470	COVAX	AstraZeneca	TBC	TBC	9,376,940	--	Met		AstraZeneca	
GoP	19	6,250,725	Bilateral	Pfizer	--	--	12,501,450	--	Met		Pfizer	---
GoP	34.8	11,500,000	Bilateral	Sinopharm	--	--	23,000,000	--	TBC		Sinopharm	
GoP + WB	30.3	10,000,000	Bilateral	Moderna	--	--	20,000,000	--	Met		Moderna	---
GoP + WB	53.0	17,500,275	Bilateral	Pfizer	--	--	35,000,550	--	Met		Pfizer	---
Donations	6.4	2,116,165			--	--	4,232,330	Donations				2,533,060
P2 total		60,981,565					117,730,800					29,651,510
Phase 3: Population below 12 years of age and booster shots (has not started yet)												
P3 total												
GoP+WB	Vaccines from bilateral contracts with Moderna & Pfizer will be also use in Phase 3 for population below 12 years of age and booster shots											
NATIONAL TOTAL							**138,731,950***					**50, 652,660**

* Peru has reached agreements that cover more than 100% of its population with 2 doses. This is because of two main reasons: (i) Given vaccine market instability, it is expected that several of these agreements will not follow through (agreements with Pfizer and Moderna to be delivered in the first semester of 2022). (ii) Peru is currently advancing a third dose/booster strategy.

20. As part of the vaccine procurement and deployment, the GoP has addressed liability and indemnity issues, as described in Box 2 below.

Box 2: Liability and Indemnification Issues in Vaccine Acquisition and Deployment

General:

- The rapid development of vaccines increases manufacturers' potential liability for adverse effects following immunization.
- Manufacturers want to protect themselves from this risk by including immunity from suit and liability clauses, indemnification provisions, and other limitation of liability clauses in their supply contracts.
- Contractual provisions and domestic legal frameworks can all operate to allocate that risk among market participants, but no mechanism will eliminate this risk entirely.

For the vaccines acquired through COVAX:

- COVAX has negotiated model indemnification provisions with manufacturers for vaccines purchased and supplied under the COVAX Vaccines Advance Market Commitment (AMC).
- Existing legislation establishes that the GoP assumes the care of adverse effects due of vaccines and compensation without liability for cases of severe adverse effects of vaccines purchased by MINSA.

For vaccines purchased outside of COVAX:

- Existing legislation establishes that the GoP assumes the care of adverse effects due of vaccines and compensation without liability for cases of severe adverse effects of vaccines purchased by MINSA.
- Adoption of any such indemnification provisions or compensation scheme would have to be in accordance with Peru's own national strategy and framework.

21. **Vaccine deployment oversight and assurance.** The Project will use the existing institutional framework to provide oversight and assurance during the deployment of vaccines**.** The NPV monitoring scheme for surveillance and verification of vaccine deployment is implemented under the oversight of a board built with the support of three main actors: the National Health Superintendency; the Ombudsman's Office and the Office of the Comptroller General. Box 3 presents the main roles and main activities being implemented by each of the three agencies.

Box 3: Vaccine Deployment Oversight and Assurance Roles on Main Activities

National Health Superintendency – SUSALUD	Ombudsman's Office	Office of the Comptroller General of the Republic
Main Role		
Protection of the rights to health care of all the population and vigilance over public and private vaccination centers.	Oversight over the right to health care and proper management of vaccines for optimal use by beneficiaries in the country.	Supervision to ensure that vaccination against COVID-19 is carried out in compliance with current regulations, action plans, and specific provisions, as well as in accordance with the expected degree of efficiency, effectiveness, transparency and economy, thus resulting in a timely health response.
Main Activities		
• Monitoring of nationwide compliance with the immunization protocol as regulated by the MINSA, which must be fully implemented in all facilities authorized for vaccination against COVID-19, at the headquarters of the MINSA, EsSalud, private clinics and municipalities, as well as regional governments. • Communication of risks identified during the supervision of the vaccination centers, according to the provisions of the vaccination standard issued by MINSA to the Regional Health Directorates, Integrated Health Network Directorates, and directors of the health facilities (to which the vaccination personnel are mapped), so that these authorities, within the framework of their functions, can take immediate actions to improve and strengthen the service they provide. Management of complaints received by telephone and social media with respect to difficulties in accessing vaccination.	• Supervision of biosecurity protocols (physical distancing, temperature taking, alcohol dispensing) at vaccination sites nationwide. • Supervision of conditioning of vaccination sites (ramps, implementation of ventilated and adequate spaces). • Oversight of adequate and preferential treatment to people with disabilities. • Oversight of assistance by National Police and Armed Forces in maintaining order at the vaccination sites.	• Supervision to ensure that the acquisition of vaccines is carried out in accordance with current regulations and applicable provisions, as well as in a timely and adequate manner. • Supervise the storage, conservation, and cold chain process to ensure these are carried out under the established conditions and guarantee the immunological potency of vaccines. • Supervise the reception, distribution and transportation of vaccines at the national, regional and local levels to ensure these are carried out in accordance with current regulations. • Determine whether the eligible population were defined and covered according to current regulation and the phases established by MINSA in the National Vaccination Plan. • Determine if the application of vaccines is carried out in accordance with current regulations, in the established conditions and timeliness. • Determine if the vaccine safety surveillance, the Events Suspected to be Attributable to Vaccination and Immunization (ESAVis), and the management of solid waste from health facilities are managed according to current regulation.

D. Relevance to Higher Level Objectives

22. **The proposed Project is well aligned with the WBG's FY17-FY21 Country Partnership Framework (CPF) for Peru[31] and the Performance and Learning Review of Peru (Report No. 135267-PE).**[32] The second pillar of the CPF, focuses on "services for citizens across the territory." One of the objectives within this is to "modernize delivery of health and nutrition services for the poor." The CPF recognizes the progress made by Peru's health

[31] Report No. 135267-PE Discussed by the Executive Board of Directors on May 2, 2017.
[32] Report No. 135267-PE Discussed and approved by the Executive Board of Directors on April 25, 2019.

sector over the past decades. It also acknowledges calls for investment in the health service's modernization so that it can better respond to new epidemiological challenges, transform human resources management, reform the health insurance model, and address issues of malnutrition. Through the purchase of vaccines, this project significantly contributes to strengthen public health. Vaccines are the most effective tool to protect populations against the spread of infectious diseases that may arise from public health outbreaks and climate and natural disasters. Currently, widespread vaccination in Peru is the most effective strategy to mitigate human capital losses from the COVID-19 pandemic.

III. PROJECT DESCRIPTION

A. Development Objectives

The Project objectives are aligned to the results chain of the COVID-19 Strategic Preparedness and Response Program (SPRP).

Project Development Objective (PDO) statement: To increase COVID-19 vaccination coverage among the population of Peru.

PDO level indicators:

- Percentage of total population vaccinated with WB-financed vaccines (total and disaggregated by sex)
- Reduction of gender gap in COVID-19 vaccination ratio (female/male) disaggregated by age group.

B. Project Components

23. The proposed Project will focus on the financial and technical support to further implement the COVID-19 vaccination Plan in Peru. The Project will build on the experiences and achievements of similar projects under implementation in the region and around the world. The Project will have one technical component that will support the NPV and the procurement of COVID-19 vaccines, and a project management component.

24. **Component 1: COVID-19 Vaccines (US$500 million - IBRD).** This component will support the purchase of COVID-19 vaccines. Specifically, this will include the purchase of approximately 40 million doses of COVID-19 vaccines meeting the WB's VAC, for phase 2 (Table 4) from contracts signed in September 2021 with Pfizer and Moderna for vaccines that will be delivered in the first semester of 2022 (Table 6). This is expected to cover 20 million individuals with two doses including children. While the main use of the vaccines will continue to focus on increasing the vaccination coverage with two doses, a significant proportion of those doses could also be used as a third dose to boost immunity in the population that has already received two doses. The implementation of booster shots will follow WHO guidelines prioritizing (i) immunocompromised patients, (ii) elderly population, and (iii) population that have received whole virus vaccines. Given the significant investments implemented by the MINSA to support vaccine deployment (financed from other sources), it is not expected that investments are needed to support the cold chain, Personal Protective Equipment (PPE) or other supplies. While this component will not finance specific interventions such as communications campaigns, the component is supporting the NPV

and MINSA by reimbursing funds used to secure vaccines contracts, that MINSA will use to keep financing the NPV. This component will also finance the Financial Management (FM) audits.

Table 4. Priority Groups for Vaccination

	Population Group*	Number of people	Percentage of population	1st Dose Coverage	2nd Dose Coverage	3rd Dose Coverage
Phase 1	Health workers	699,998	2.1%	94.3%	91.7%	47.4%
	Police and armed forces	159,520	0.5%	88.2%	85.0%	2.2%
	Population above 80 years of age	744,758	2.3%	78.5%	75.2%	13.3%
Phase 2	Population with comorbidities, teachers and inmates	1,018,426	3.1%	13.7%	17.9%	0.0%
	Population between 60 and 80 years of age	4,432,793	13.4%	84.5%	80.7%	4.1%
	Population between 40 and 59 years of age	7,905,815	23.9%	83.8%	77.0%	-
	Population between 12 and 39 years of age	11,626,390	35.2%	74.1%	66.9%	-
Phase 3	Population below 12 years of age	6,447,604	19.5%	-	-	-

Source: Immunizations Office, MINSA (November 22, 2021).
* Population groups are mutually exclusive—all individuals in the NVR are mapped exclusively to a single group.

25. **A Retroactive Financing (RF) of up to 50 percent of the component funds will be available to allow for the financing of eligible expenditures incurred prior to the loan's signature date and after January 1, 2021, but no more than one year prior to the signature date.** The increased limit for RF will help the GoP to procure up to 20 million doses through this mechanism and recover the costs already incurred to secured contracts with Pfizer and Moderna for vaccines that meet the WB's VAC[33] and procurement standards and that are scheduled to be deployed during the first semester of 2022, after the approval and adoption of the Environmental and Social Management Framework (ESMF). In the case that the deployment of these vaccines occurs before the ESMF is in place, a rapid E&S audit would be conducted to assess the extent to which the corresponding activities were implemented in accordance with ESF requirements, good practice (WHO guidelines) and national law.

26. **Monitoring of the Vaccination Plan.** As mentioned before, in addition to the regular information collected and processed by the NPV, monitoring of the vaccination mechanisms is being implemented by three agencies outside MINSA: the National Health Superintendency, the Ombudsman's Office and the Office of the Comptroller General. This component will use the existing institutional framework and the reports published by

[33] The list of vaccines meeting the World Bank's Vaccine Approval Criteria (VAC) as of November 3, 2021 is included in Annex 1.

these agencies to provides inputs for project monitoring. Therefore, the component will not finance a parallel monitoring system.

27. **Component 2: Project Management and Monitoring (US$3 million - Borrower).** This component will support (a) the coordination, implementation, and management of project activities and (b) a series of activities aimed at increasing the demand of vaccines, increasing coverage in groups and areas with low vaccination rates, and narrowing the current gender gap in vaccination. The Project Implementation Unit (PIU) will be financed through Ministry of Finance (MEF) budget. The implementation of the NPV will be financed through MINSA budget.

Table 5. Costs and Financing of the Country Project

Program Components	Project Cost	IBRD or IDA Financing	Trust Funds	MEF and MINSA Funding
Component 1: COVID-19 Vaccines	US$500 M	US$500 M	--	--
Component 2: Project Management and Monitoring	--	--	--	US$3 M
Total Costs	US$500 M	US$500 M		US$3 M

Table 6. Summary of COVID-19 Vaccine Financing Sources and Bank Financing

<table>
<tr><th rowspan="2">National plan target population</th><th colspan="4">Source of vaccine financing and population coverage</th><th rowspan="2">Specific vaccines and sourcing plans</th><th rowspan="2">No. of doses to be purchased with Bank finance (2 doses assumed)</th><th rowspan="2">Estimated allocation of Bank financing</th></tr>
<tr><th>COVAX Grant</th><th colspan="3">Bank-financed</th><th>Direct purchase GoP</th></tr>
<tr><th></th><th></th><th>Through COVAX</th><th>Through AVAT</th><th>Through direct purchase</th><th></th></tr>
<tr><td>Phase 1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>21M</td><td>Sinopharm, Pfizer</td><td>0</td><td>0</td></tr>
<tr><td rowspan="2">Phase 2</td><td rowspan="2">0</td><td rowspan="2">0</td><td rowspan="2">0</td><td rowspan="3">US$500 million</td><td rowspan="2">78M</td><td>Sinopharm, AstraZeneca</td><td rowspan="3">40 million from Pfizer and Moderna</td><td rowspan="3">RF: US$208 million
Regular financing: US$292 million</td></tr>
<tr><td rowspan="2">Pfizer
Moderna</td></tr>
<tr><td>Phase 3</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
</table>

C. Project Beneficiaries

28. **The expected project beneficiaries are the at least 20 million inhabitants, or 62 percent of Peru's population, that are vaccinated with doses financed by the Project**. The entire population of Peru is also expected to benefit from increased vaccine coverage and potential herd immunity, both of which should reduce COVID-19 transmission.

Gender

29. **The proposed Project aims to narrow a significant gender gap in the vaccination rate of the population. For every two women above 12 years of age or older that have been fully vaccinated, only one man has received a complete vaccine course (61 percent compared to 52 percent, respectively).** There is mixed evidence regarding vaccine hesitancy trends among women and men. While the WB's High Frequency Surveys (HFS 2021) indicate higher hesitancy among women, recent data from the Facebook COVID-19 Trends and Impact Survey reveal a lower likelihood that unvaccinated men will get vaccinated. Importantly, the data suggest that the reverse gender gap in vaccination rates and in the likelihood of getting vaccinated is primarily related to the conflict between the hours of operation of vaccination centers and men's working hours, given that men have higher employment rates than women and also tend to allocate more hours to paid activities. In Facebook's COVID-19 Trends and Impact Survey, interviewed men identify "work" and "inconvenient times" as the main obstacles to getting vaccinated in a higher proportion than women.[34] This issue has also been reported in comparable countries, which have already put in place a series of measures to overcome these challenges. Based on these experiences, the project will support a series of activities aimed at narrowing the reverse gender gap in vaccination, including (but not limited to): (i) facilitating transport from working centers in the main employment hubs to vaccination sites, (ii) deploying vaccination brigades to employment hubs and densely populated residential areas, (iii) providing day-equivalent stipends for the population that turns up for vaccination in poor areas of the country, and (iv) providing information about hours of operation of vaccination centers, transportation services, etc. through communication campaigns targeting working men. Progress will be measured through the PDO indicator "Reduction of gender gap in COVID-19 vaccination ratio (Female/Male); Baseline (1.30); Target (1.10)."

Citizen Engagement (CE)

30. **Ongoing implementation of the current NVP will require tailored outreach and engagement mechanisms** when dealing with the full range of citizens eligible to be vaccinated, including not only the elderly but also children, people with underlying conditions, those in poverty, men, minority groups (i.e. indigenous peoples, Afro-Peruvians), Venezuelan migrants, and those with disabilities. The approaches taken will ensure that information is accessible via its translation into different languages (including indigenous tongues in addition to Spanish), while also accounting for illiteracy or disabilities. The draft SEP that has been developed for the Project outlines a systematic approach to stakeholder engagement that builds heavily on the CE dimensions in the NVP and its related communication plans.

31. **In order to track levels of engagement by those who stand to benefit directly from the Project, two Intermediary Results Indicators have been adopted.** The first measures beneficiary influence in terms of "Number of actions taken in vaccine deployment and distribution based on feedback from beneficiaries, Baseline (0.00); Target (15.00)." The second measures beneficiary satisfaction in terms of "Percentage of vaccine recipients satisfied with their experience (Total and disaggregated by sex and ethnicity), Baseline (0.00); Target (66.00)."

[34] Meta. COVID-19 Trends and Impact Survey. Facebook Data for Good. 2021. *https://dataforgood.facebook.com/dfg/tools/covid-19-trends-and-impact-survey*

IV. IMPLEMENTATION ARRANGEMENTS

A. Institutional and Implementation Arrangements

32. **The proposed Project will be implemented by the MEF with support from the MINSA.** Within MEF, the PIU will be the Treasury General Directorate through the Credit Directorate. The PIU will be responsible for project management in close coordination with the Immunization Directorate and the National Center for the Supply of Strategic Health Resources (CENARES) of MINSA. The Treasury General Directorate as shown in Figure 1, is the unit that oversees administration of all financial resources that are included in the public sector budget. It has the required experience and technical capacity to plan and execute project resources efficiently and effectively. The Treasury General Directorate will assign one part-time staff to ensure timely and suitable implementation of financial management project activities and of part-time procurement specialist, while the Immunization Directorate of MINSA will follow-up the vaccination plan implementation and CENARES will ensure the timely supply of vaccines and safety equipment for health staff. MINSA will be in charge of ensuring correct implementation and compliance of WB's environmental and social standards. A full-time socio-environmental specialist will be appointed within MINSA to be in charge of managing the environmental, social, health and safety risks and impacts of the Project, throughout implementation. Also, a social specialist and an environmental health specialist will be designated within MINSA to coordinate with, and provide support to, the socio-environmental specialist, on an as-needed basis, throughout implementation. The relationship between the PIU and MINSA (shown in Figure 2) aims to ensure effective and timely coordination. The specific technical and operational roles of the main PIU members and the appointed E&S specialists within MINSA will be detailed in the Project Operational Manual (POM). The POM, the appointment of part-time procurement and financial management specialists in the MEF's PIU, appointment of full-time socio-environmental specialist in MINSA, and designation of "on-call" social and environmental health specialists in MINSA are project effectiveness conditions.

Figure 1: Organization Chart of COVID-19 Vaccination PIU within MEF Structure

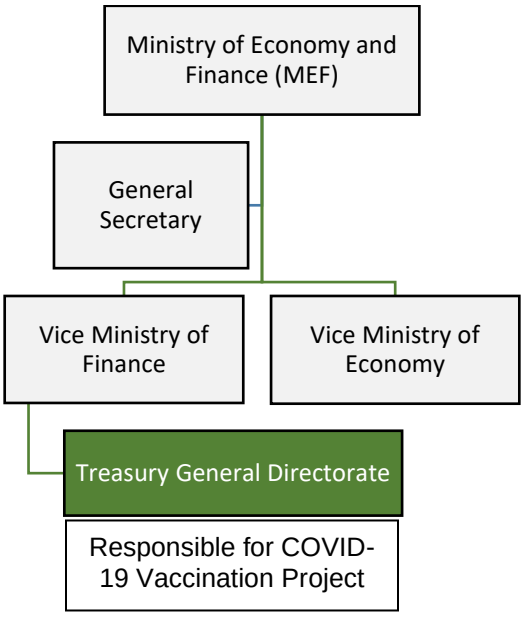
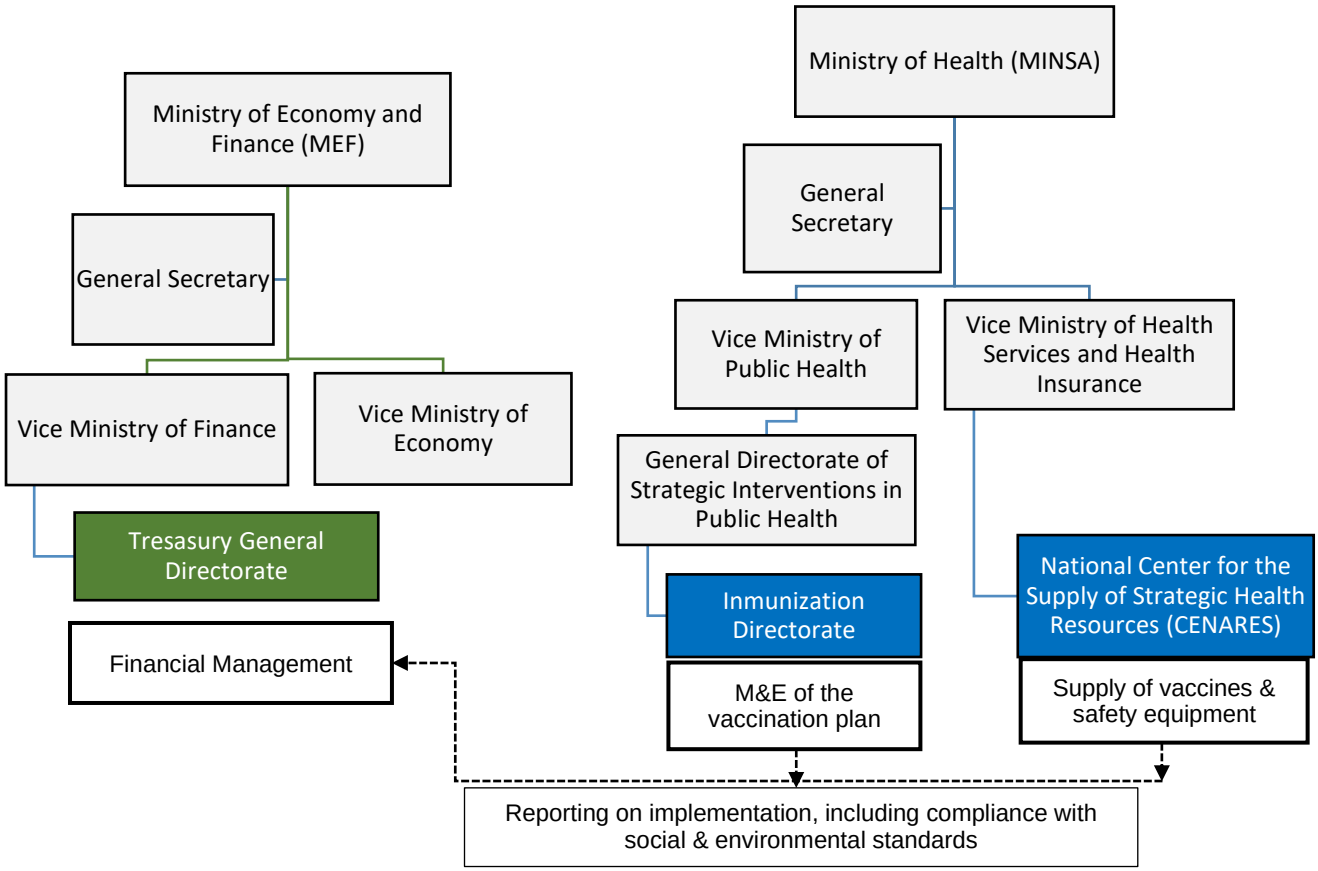


Figure 2: Coordination Flow Between COVID-19 Vaccination PIU in MEF and MINSA



B. Results Monitoring and Evaluation Arrangements

33. **MINSA will monitor and evaluate the progress of activities supported by the Project and report to the MEF's PIU on the progress of the Project's Results framework**. At the operational level, the responsibility for Monitoring and Evaluation (M&E) of the Project would rest with assigned staff in the MINSA's Immunizations Directorate, who will collect, analyze, and report M&E data to the MEF as part of the Implementation Progress Reports (IPR). In addition, MINSA will use monitoring data from the three main agencies (the National Health Superintendency; the Ombudsman's Office and the Office of the Comptroller General) responsible for oversight and assurance of the vaccination deployment nationwide (Box 3). MEF will be ultimately responsible for ensuring the quality and timely delivery of the IPRs to the WB.

34. **Data Sources.** The main source of information to report vaccination progress and gender gap reduction ratio will be the NVR, which is an administrative database owned by MINSA that consolidates and systematizes information from public entities of the three levels of government, as well as from private sector organizations, for the management of vaccination against COVID-19. The NVR is the only vaccination data source and is based on the National Registry of Identification and Civil Status (RENIEC), including information of foreigners provided by other corresponding database sources. This consolidates information from across the country at the nominal

level, allowing for disaggregation by gender, age, priority group, and geographic domain. Progress on results will be monitored using NUCVR data, additional information systems of the MINSA (CENARES and OGTI), monitoring data from the three main oversight agencies, and administrative records of the MEF's PIU. Data on most project related indicators will be reported quarterly. [Data privacy and confidentiality will apply as per approved regulation that establishes the guidelines for implementation of the NVR.[35]]

C. Sustainability

35. **There is strong political commitment in Peru to undertakes a robust COVID-19 response, including for vaccine purchase and deployment.** Having the funds through the proposed Project mainly for vaccine purchase will establish an enabling environment for the GoP to continue its investment in the COVID-19 response. In addition, the *Strengthening of the Public Health Emergency Preparedness and Response Project* (P174177), approved on June 24, 2021, will support medium- and long-term interventions to improve epidemiological surveillance and public health prevention services that will contribute to strengthening the country's health system, ensuring institutional sustainability to respond to infectious diseases.

V. PROJECT APPRAISAL SUMMARY

A. Technical, Economic and Financial Analysis

36. **The economic justification for investing in COVID-19 vaccination programs is strong**, given the enormous and continuing health and economic losses due to the pandemic**.** As of November 30, 2021, over 263 million COVID-19 cases and 5.2 million deaths have been confirmed worldwide. Global output is projected to have declined by 4.9 percent in 2020, with cumulative losses across 2020 and 2021 exceeding US$12 trillion. Building on these impacts, the effect of an unmitigated pandemic would cause immense costs in terms of human health (both illnesses and deaths) as well as on a country's economy. In particular, Peru is one of the countries hardest hit by the pandemic, registering the highest mortality in the world and suffering economic losses of 12 percent of Gross Domestic Product (GDP) in 2020.

37. **Successful vaccine development, production and delivery have the best potential to curb these trends**, generating benefits that will far outweigh the costs associated with vaccine procurement and delivery**.** Benefits of vaccination against COVID-19 have proven to largely exceed costs associated with vaccines purchase. Several studies have estimated benefits from vaccination in terms of avoiding the costs associated with loss of productive life years, treatment of cases, measures to prevent the spread of infection, and losses from education.[36] Wang et al (2021), for example, estimate that for every dollar invested in Pfizer vaccines, there is a

[35] RM 389-2021-MINSA approves the NVR and mandates that necessary measures are taken by MINSA's specialized General Office for Information Technologies (OGTI) to ensure data privacy and confidentiality. Furthermore, as indicated by Urgency Decree 009-2021, the NPV is governed by the Law for Protection of Personal Data (Law Nº 29733).

[36] William V. Padula, Shreena Malaviya, Natalie M. Reid, Benjamin G. Cohen, Francine Chingcuanco, Jeromie Ballreich, Jonothan Tierce & G. Caleb Alexander (2021) Economic value of vaccines to address the COVID-19 pandemic: a U.S. cost-effectiveness and budget impact analysis, Journal of Medical Economics, 24:1, 1060-1069, DOI: 10.1080/13696998.2021.1965732
Siedner, Mark J., et al. "Cost-effectiveness of COVID-19 vaccination in low-and middle-income countries." medRxiv (2021).

return of US$23.[37] Given that most of the Project's financial resources will be used to finance vaccines, the economic analysis was based on the existing studies for COVID-19 vaccines.

38. **Indeed, a rapid and well-targeted roll-out of COVID-19 vaccination has shown, in many countries including Peru, that vaccination is reducing severe morbidity, hospitalization needs and mortality**. Good vaccination coverage has begun to accelerate the safe reopening of key sectors affected by the pandemic and thus revive economic activity. In addition, education of Peruvian children has suffered a severe setback due to one of the longest closures in the world from the pandemic--by mid-July 2021, Peru was one of the few countries in America (together with Venezuela and Honduras) with schools still closed. Learning outcomes in the country are already falling (satisfactory reading comprehension fell from 27.8 percent to 21.1 percent among students with access to computer and internet) and the impact is heavier among lower income households with lower levels of connectivity to online learning. The GoP projects it will not reopen schools by 2021, given vaccination has not been completed among teachers nor started for children below 12-years of age.[38]

39. **Effective administration of COVID-19 vaccination will also help avoid health costs associated with additional cases of infection and associated health impoverishment.** Global experience with disease immunization demonstrates that, by avoiding these and other health costs, vaccines are one of the best public health investments. The pandemic is also having dire effects on other non-COVID-19 health outcomes. Increased morbidity and mortality due to the disruption of essential services associated with COVID-19 containment measures has hindered access to care for other population health needs, including maternal and childcare and chronic NCDs services. Routine immunization services have also been affected, jeopardizing polio eradication and potentially leading to new outbreaks of preventable diseases, with their deaths, illnesses, and long-term costs. In October 2020, for the first time after 20 years, several cases of diphtheria were detected and resulted in two deaths.[39] Despite the promotion of remote care services (telemedicine) in many countries, such as Peru, a survey on the impact of COVID-19 on the prevention and treatment of NCDs conducted by WHO in 155 countries shows that the disruption of health services is widespread: 53 percent of the countries surveyed have reported partial or total interruption of health services for hypertension treatment; 49 percent for diabetes-related treatment; 42 percent for cancer treatment; and 31 percent for cardiovascular emergencies. This significant reduction in the provision of healthcare services affects both the health and productivity of the workforce and, therefore, a country's economy. Importantly, all countries affected by COVID-19 must respond to the mental health consequences of the pandemic, which also significantly affect productivity.

40. **New variants of the COVID-19 virus have shown that while efficacy in preventing the disease has varied, vaccines continue to prevent severe forms of the disease.** This is specifically true with the delta variant that became prevalent worldwide including in Peru—in only two months Delta has spread from representing less than 7 percent of COVID-19 cases nationwide to representing 96 percent by November 30, 2021 (see Figure 3). Although the uncertainty surrounding vaccine efficacy against these new variants makes it difficult to calculate its cost-effectiveness, effective COVID-19 vaccine deployment will have direct benefits in terms of avoided treatment and disability costs, as well as health systems strengthening. The estimated costs of COVID-19

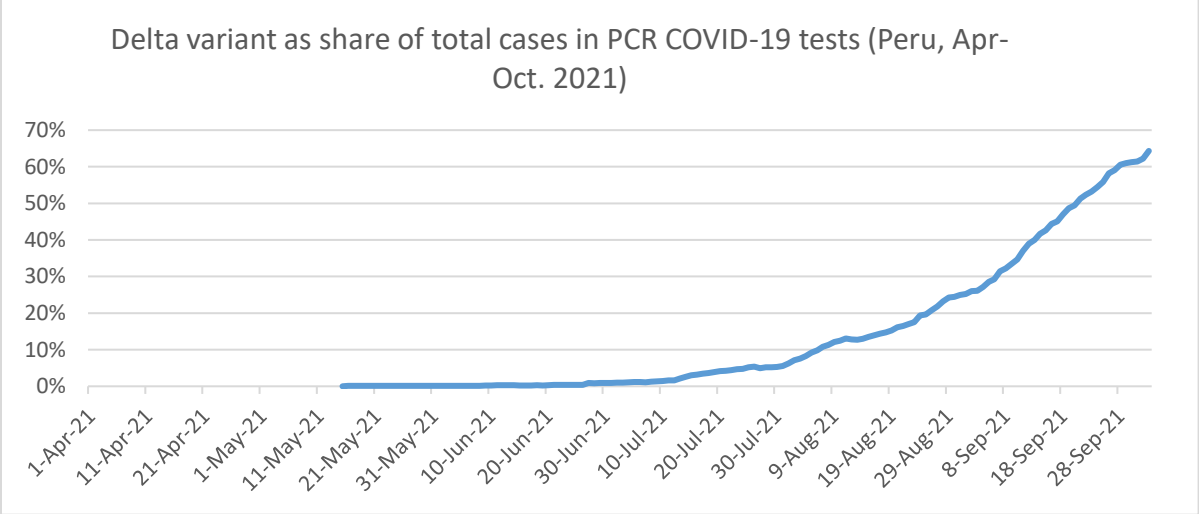
[37] Wei-Chun Wang, Jean Ching-Yuan Fann, Ray-E Chang, Ya-Chung Jeng, Chen-Yang Hsu, Hsiu-Hsi Chen, Jin-Tan Liu, Amy Ming-Fang Yen, Economic evaluation for mass vaccination against COVID-19, Journal of the Formosan Medical Association, Volume 120, Supplement 1, 2021, Pages S95-S105, ISSN 0929-6646, https://doi.org/10.1016/j.jfma.2021.05.020.

[38] El Comercio. *Hernando Cevallos: "No es prudente apresurar el retorno a clases de los escolares. Hay que esperar el año que viene"*. October 15, 2021. *https://elcomercio.pe/peru/hernando-cevallos-no-es-prudente-apresurar-el-retorno-a-clases-de-los-escolares-hay-que-esperar-el-ano-que-viene-nndc-noticia/*

[39] MINSA. Alerta Epidemiológica: Riesgo de transmisión de Difteria ante la confirmación de un caso en el Perú. Código AE-025-2020. November 2, 2020. *https://www.dge.gob.pe/epipublic/uploads/alertas/alertas_202025.pdf*

treatment in Peru are US$1,630 for a non-severe case and US$14,260 for a severe case.[40] This excludes the costs of testing negative cases, as well as medical costs associated with delaying or foregoing seeking medical care, which generally results in higher costs. Estimated costs for the purchase of 40 million doses amount to US$500 million (see Table 5 - contracts potentially funded by IBRD in Phase 2). If the use of the vaccines alone would prevent 39,500 severe cases, without considering other benefits, the investment would already be cost-effective. But, based on the cost-effectiveness estimated in Wang et al (2021), this US$500M would have a return of US$11.5 billion.[41] In addition, investments in vaccine delivery systems generate health and economic benefits that go beyond the distribution of the COVID-19 vaccine. In addition to strengthening the health system by improving the ability to implement vaccination campaigns, as COVID-19 vaccines are introduced and closures and movement restrictions are eased, patients will continue to be able to access care for other conditions. Finally, the economic benefits of the reactivation of economic activity will contribute significantly to the benefits that investment in vaccines will bring to Peru.

Figure 3. Delta Variant as Share of Total Cases in PCR COVID-19 Tests (Peru, Apr-Oct. 2021)



Source: National Health Institute (INS). October 12, 2021. *https://datos.ins.gob.pe/dataset/dataset-resultado-de-linaje-genomico-de-pruebas-moleculares-del-instituto-nacional-de-salud-ins*

B. Fiduciary

41. A Financial Management (FM) assessment[42] was conducted by the WB in November 2021 to evaluate the adequacy of the financial management arrangements for the implementation of this proposed project. This

[40] Estimation for non-severe cases is from Marsh (Insurance Broking firm, https://gestion.pe/tu-dinero/finanzas-personales/que-tan-costoso-es-tratarse-contra-el-coronavirus-en-peru-noticia/), while estimation for severe cases is from estimation from SIS for decreeing referential costs for reimbursement of care in private and mixed health facilities (Resolucion Jefatural 064-2020-SIS, *https://busquedas.elperuano.pe/normaslegales/aprueban-el-valor-de-la-tarifa-referencial-para-el-empaquet-resolucion-jefatural-n-064-2020sis-1869202-1/*)

[41] Wei-Chun Wang, Jean Ching-Yuan Fann, Ray-E Chang, Ya-Chung Jeng, Chen-Yang Hsu, Hsiu-Hsi Chen, Jin-Tan Liu, Amy Ming-Fang Yen, Economic evaluation for mass vaccination against COVID-19, Journal of the Formosan Medical Association, Volume 120, Supplement 1, 2021, Pages S95-S105, ISSN 0929-6646, *https://doi.org/10.1016/j.jfma.2021.05.020*.

[42] Following Financial Management (FM) Manual for World Bank-Financed Investment Operations, effective on March 2010 and Bank

assessment was prepared considering the overall objective of maximizing the flexibility in FM and disbursement arrangements for emergency operations. The Project will be implemented by MEF through its Treasury General Directorate (*Dirección General de Tesoro Público -DGTP-*), which will be responsible for the financial management aspects of the project while the MINSA will be responsible for the technical aspects through its two Units: *CENARES* and the General Directorate for Strategic Interventions in Public Health. Accordingly, MEF will be responsible for the following FM aspects: budget, accounting, financial reports, flow of funds and disbursement arrangements, and audit. MEF is staffed with qualified professionals with experience in public management and managing WB-financed projects. MEF will assign its own staff to support project implementation. In addition, it is important to mention that Peru's central government has sound public FM systems and the project implemented by the MEF will benefit from the use of such country systems including the use of the *Sitema Integrado de Administracion Financiera* (SIAF). The Project will finance retroactive eligible expenditures up to 50 percent of the loan proceeds. It is important to mention that MINSA (CENARES) is responsible for the purchasing and oversight of the vaccine stock and the General Directorate for Strategic Interventions in Public Health is responsible for the deployment and inoculation of the vaccines. CENARES uses the national logistic system SIGA-MEP to control the vaccine inventory until the vaccines are delivered to the Regional Health Center where the vaccine inventory is controlled in a different software until their inoculation. MINSA is working to develop the interface of the vaccine inventory control system to cover the whole cycle initiating from the reception up to the respective inoculation of the vaccines. The FM risks associated with the Project are the following: (i) potential bureaucratic procedures and implementation delays resulting from the involvement of two separate ministries (MINSA and MEF) for fiduciary and technical project implementation; and (ii) inventory misinformation resulting from different logistical information systems that manage the vaccine inventory. To mitigate these risks: (i)the MEF has passed a Resolution to clarify the roles and responsibilities of each entity and the Project Operations Manual (POM) which will be implemented, defines the roles and responsibilities of each entity, and will include a FM chapter; and (ii) MINSA is working in developing the interface to control the vaccine inventory.

42. On the basis of the assessment performed, the FM team concludes that the MEF has adequate capacity to implement the project funds subject to completing the POM and improving MINSA's inventory control system.

Summary of FM arrangements.

43. **Planning and Budgeting.** The preparation of the annual work program and budget will be under the procedures established by MEF through its General Public-Sector Budget Office *(Dirección General de Presupuesto Público)*. MEF will transfer the Contingency budget lines for the project purpose to MINSA based on the articles defined on the System of the National Budget Law No1440 and the Annual Budget Law. Budget funds will be allocated for the project, which will be funded with resources from the loan and the national budget. MEF, as the PIU for the Project, will be responsible for: (i) budget formulation and allocation in accordance with the annual operating plan; (ii) proper recording of the approved budget in their respective information systems, following a classification by project component; and (iii) timely recording of commitments, accruals, and payments, to allow adequate budget monitoring and the provision of accurate information on project commitments for programming purposes.

Guidance Note on FM in Rapid Response to Crises and Emergencies.

44. **Accounting and Financial Reporting.** The PIU will have to comply with Peruvian budget and public financial management laws, including the use of SIAF and its general chart of accounts. The PIU will prepare the Interim Financial Reports (IFRs) using the MEP module of SIAF. The reports will include loan proceeds and MEF and MINSA funds and will be prepared in local currency and US Dollars and submitted to the WB by the PIU on a semi-annual basis no later than 45 days after the end of each calendar semester. The format and content of the IFRs were agreed with the PIU. On an annual basis, the PIU will also prepare project financial statements in accordance with International Public Sector Accounting Standards, which will include cumulative figures for the beginning and end of the year, along with notes to the statements. These financial statements will be audited following the WB's requirements and submitted to the WB within six months after the end of the Government's fiscal year (December 31).

45. **Internal Controls**. MEF and MINSA must comply with local requirements related to financial management, including internal controls and internal procedures. In addition, the WB will agree with the entity on specific processes and procedures for project implementation and including the FM section, which will be reflected in the POM. Emphasis will be placed on establishing clear roles on the fiduciary aspects and the inventory control of vaccines by MINSA. The evidence and follow-up of this control will be reported as part of the project's IFRs.

46. **Internal Audit.** MEF and MINSA are under the scope of the Organic Law of the National System of Control and the General Comptroller of the Republic *(Ley Orgánica del Sistema Nacional de Control y de la Contraloría General de la República)*, and as such, their organizational structure includes an Internal Control Office *(Órgano de Control Institucional, -OCI-)* responsible for the oversight of all operations. In this capacity, these OCIs will play a role in safeguarding the Project's internal control, and whenever possible the team will use their reports as part of the regular project's supervision and monitoring activities.

47. **External Audit.** Annual audit reports (*or other period agreed with the Bank*) on project financial statements, including management letters, should be submitted to the WB within six months after the end of the Borrower's fiscal year (December 31). The audit should be conducted by an independent audit firm acceptable to the WB and under terms of reference approved by the WB. The selection of the audit firm should be performed through the General Comptroller of the Republic. The cost of the external audit can be financed out of loan proceeds. The scope of the audit will be defined by the PIUs in agreement with the WB based on project specific requirements and responding to identified risks as appropriate, including management letter and review of compliance with agreed processes and procedures. Audit requirements include:

Audit type:	Due date
Project financial statements	June 30

48. **Oversight and Supervision Arrangements.** On a preliminary basis, the FM team plans to perform at least two supervision missions per year, while also reviewing the annual audit reports and the semester IFRs.

49. **Funds Flow and Disbursement Arrangements.** Bank loan proceeds will follow the WB's disbursement policies and procedures as described in the Disbursement and Financial Information Letter (DFIL). The WB and

the Borrower have agreed to use the Single Treasury Account (STA)[43] as a disbursement mechanism for the Project and, hence, advances to the designated account will be made to the STA. The STA for the use of loan resources is in place in Peru according to the Legislative Decree No 1441. Funds of the loan will be identified with a segregated code or sub-account of the STA. MEF as the PIU will be responsible of the management of the funds received in the STA. The payments to vendor will be processed by MINSA (CENARES) and will be reflected in the treasury records in SIAF. MEF will prepare the Statement of Expenditure (SOE) when payments are processed to report to the WB. The POM will include specific procedures that will allow the Project to operate the STA. The WB will disburse loan proceeds using one of following three methods: (i) advance method: under the STA with a flexible ceiling based on semester expenditure forecast subject to the WB's approval, (ii) direct payment: the application size for direct payment requests would be flexible; and (iii) reimbursement: the minimum application size for reimbursement method would be flexible. Expenditures financed by the loan will be documented using SOEs. The loan will retroactively finance up to 50 percent of the total loan proceeds for reimbursement of eligible expenditures consistent with the PDO, incurred prior to the loan signature specified in the Loan Agreement.

50. **Project funds.** The PIU will manage the Project funds using the Single Treasury Account established by the Government. Funds for the Project will be identified with a specific project code and account in SIAF to process payments. The Disbursement Deadline Date is four (4) months after the Closing Date specified in the Loan Agreement.

Procurement

51. **Procurement for the Project will be carried out following the WB's Procurement Regulations for IPF Borrowers** for Goods, Works, Non-Consulting and Consulting Services, dated July 1st, 2016 (revised in November 2017 and August 2018). The Project will be subject to the WB's Anticorruption Guidelines (ACGs), dated October 15, 2006, revised in January 2011, and as of July 1st, 2016. The Project will use the Systematic Tracking of Exchanges in Procurement (STEP) to plan, record and track procurement transactions. A procurement assessment was conducted in November 2021 and found the procurement arrangements for the project adequate.

52. **Project Procurement Strategy for Development (PPSD) and Procurement Plan (PP).** The Borrower will prepare a PPSD to formulate the best procurement approaches/solutions to be used during implementation of the two signed contracts to be partially financed by the WB. The PPSD will include a summary of procurement risks, mitigation measures, and contract management plan related to those contracts. The preparation of the PPSD has been deferred to the implementation stage in accordance with paragraph A.3 in Section III of the WB Guidance: "Procurement in Situations of Urgent need of Assistance or Capacity Constraints."

53. **The planned procurement activities to be financed by the WB include:** the purchase of approximately 40 million doses of COVID-19 vaccines, as part of two contracts signed in September 2021 with Pfizer and Moderna for vaccines that will be delivered during the first semester 2022. It is not expected that new vaccines contracts will be signed as part of the Project. Existing contracts will only be financed if contractual agreements made are deemed acceptable to the WB in terms of the eligibility of the specific vaccine, and the contract's form and/or conditions.

[43] Financial Institution for the Single Treasury Account: *Banco Central de Reserva del Peru (BCR).*

54. The Borrower may advance with the processes under these arrangements and, if applicable, request the WB's acceptance of advance contracting and recognition of retroactive financing within the parameters set forth in the Loan Agreement.

55. **CENARES will ensure timely supply of vaccines and safety equipment for health staff will be carried out by CENARES, which has vast experience in procurement and distribution of vaccines and medical supplies, as well as of COVID-19 supplies such as:** (i) COVID-19 diagnostics tests and PPE; (ii) supplies and medicines to treat patients with COVID-19 symptoms; (iii) procurement of ancillary supply kits (syringes, disinfectant kits, PPE for vaccinators); and (iv) oxygen.

56. **The major risks to procurement are:** (i) inability of the market to supply adequate quantities of vaccines to meet the demand especially of IBRD and IDA countries even when they have pre-committed funds for vaccine procurement; (ii) problems with the timely distribution of the vaccines; and (iii) governance-related issues common in emergency situations. These risks will be mitigated by: (i) involvement of the World Bank Operations and Country Services (OPCS) in reviewing the signed vaccine contracts and advising on their acceptance; (ii) the design and implementation of a contract management plan, including the service arrangements needed for the distribution/transport logistics of vaccines within the country; (iii) publication of the key data and details of the two signed vaccine contracts; and (iv) hiring of a technical third-party audit entity to reinforce the World Bank's procurement post review, if needed.

C. Legal Operational Policies

	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

D. Environmental and Social Standards

57. **The proposed environmental and social risk classification for the Project is Substantial under the Environmental and Social Framework (ESF)**. This classification responds to potential indirect Environmental, Health, and Safety (EHS) risks and impacts stemming from the purchase of COVID-19 vaccines, and are mainly related with: (i) environmental and community health related risks from inadequate storage, transportation and final disposal of vaccination waste; (ii) occupational health and safety issues related to the pandemic and dependent on the supply and appropriate use of personal protective equipment for personnel involved in the vaccine deployment; (iii) community health and safety exposure risks within, and in the immediate vicinity of, vaccination centers; among others.

58. Potential social risks and impacts stem mainly from (i) inequitable access for marginalized and vulnerable social groups including the poor, who are disproportionately represented by Afro-Peruvians and indigenous peoples, Venezuelan migrants, the elderly, people with disabilities, pregnant women and LGTBQI+ people; (ii) the possibility of elite capture and corruption, mainly in provincial or rural areas; (iii) the possibility of Sexual Harassment (SH) and/or Sexual Exploitation and Abuse (SEA) in the vaccines distribution processes; (iv) insufficient or ineffective stakeholder communications around vaccine roll-out efforts; (v) inadequate use of public and communal facilities in remote areas, where health facilities exist rarely or not at all; among others.

59. To adequately address and mitigate the project's EHS and social (EHSS) risks and impacts during implementation, the Borrower will prepare an ESMF, which will be consulted on, finalized, and disclosed via the MINSA and WB websites within 60 days following project effectiveness. The ESMF will: (i) identify, validate and further assess the main project EHSS risks and impacts; (ii) develop the necessary measures and procedures for their adequate management according to the mitigation hierarchy; and (iii) further define the necessary implementation arrangements and capacity building activities. Drawing on best practice in WB-supported COVID-19 vaccine projects in other parts of the world, the ESMF will be aligned with the relevant parts of the WHO COVID-19 guidelines and COVID-19 biosafety guidelines, and with the World Bank Group's EHS Guidelines. The ESMF will also incorporate Labor Management Procedures (LMPs) proportionate to the Project's labor-related risks, as per ESS2. In addition, the Borrower prepared and disclosed prior to Appraisal, in both the WB[44] and MINSA[45] websites: (i) a draft Environmental and Social Commitment Plan (ESCP), describing the timelines and commitments for the preparation and implementation of all needed Environmental and Social (E&S) instruments, training and capacity building actions, staffing arrangements for the PIU, and other relevant E&S measures; and (ii) a Stakeholder Engagement Plan (SEP), which incorporates a project-specific Grievance Redress Mechanism (GRM).

60. Although project activities will be carried out against a backdrop of vaccine hesitancy in certain pockets of Peru, stakeholder engagement has been a central feature of the country's vaccination campaign to date. The current NVP is backed up by the implementation of three separate communication plans. The General Office of Communications of the MoH has consistently promoted vaccines using multiple media (e.g. phone, text, billboards, radio and television), and is expected to play a central role in consultations going forward. Concrete actions taken to engage and consult with indigenous peoples and other vulnerable groups, as a subset of all those eligible for vaccination, have included entering into dialogues with both national IPs organizations (e.g. AIDESEP) and traditional authorities on the ground, to review and agree on strategies to mitigate the lack of information (or circulation of misinformation) within those communities. The draft SEP developed for the Project and adopted by MoH takes account of these and related efforts in outlining a systematic approach to stakeholder engagement during Project implementation.

61. Retroactive financing will be used to finance payments already made for vaccines that will be delivered in the first semester 2022. In the case that the deployment of these vaccines occurs before the ESMF is in place, a rapid E&S audit would be conducted to assess the extent to which the corresponding activities were implemented in accordance with ESF requirements, good practice (WHO guidelines) and national law. As detailed in the ESCP: (i) the PIU will notify the WB as soon as the GoP receives notice of the vaccine delivery date; (ii) based on this date, in case it is determined that the audit is necessary, the corresponding Terms of Reference must be ready for Bank's no objection no later than 15 days after the notification; and (iii) the audit itself will be completed, in form and content acceptable to the WB, in the same timeframe as the ESMF (at the latest), and in any case prior to processing the disbursement of any retroactive financing. This disbursement condition is reflected in the Loan Agreement.

VI. GRIEVANCE REDRESS SERVICES

62. 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 Bank's Grievance

[44] *https://projects.worldbank.org/en/projects-operations/document-detail/P178181?type=projects*
[45] *https://www.gob.pe/institucion/minsa/informes-publicaciones/2455205-plan-de-compromiso-ambiental-y-social-pcas*
https://www.gob.pe/institucion/minsa/informes-publicaciones/2455209-plan-de-participacion-de-las-partes-interesadas-pppi

Redress Service (GRS). The GRS 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 Bank's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of 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 Bank Management has been given an opportunity to respond. For information on how to submit complaints to the Bank's corporate Grievance Redress Service (GRS), please visit: http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service. For information on how to submit complaints to the World Bank Inspection Panel, please visit *www.inspectionpanel.org*.

VII. KEY RISKS

63. **The overall risk of this operation is assessed as Substantial given the successful vaccination campaign to date in Peru**. The key risks that could affect achievement of the PDO include political and governance risks, institutional capacity risks, procurement risks and E&S-related risks.

64. The political and governance risk is rated Substantial because of continued tensions between the Executive and Legislative branches resulting in frequent rotation of public officials and, therefore, delays in the implementation of programs and projects. To mitigate this risk, the WB will emphasize the importance of mass vaccination and anchor the Project in the political discourse as a critical contribution to vaccination efforts for post COVID-19 recovery.

65. Institutional capacity risk is rated Substantial given the high levels of stress experienced by counterpart staff and how this burnout has weakened the sector's capacity to respond effectively to other operational needs. To mitigate this risk, MINSA has enacted emergency regulations to allow for the flexible hiring of health personnel, effectively increasing the number of human resources—this particular measure was supported as a prior action under Peru*: Investing in Human Capital DPF II (P176387)* operation.

66. The E&S risk is rated Substantial for the potential EHS risks stemming mainly from the purchase, distribution and application of COVID-19 vaccines. These include: (i) management and final disposal of vaccination waste; (ii) occupational health and safety issues; and (iii) community health and safety exposure risks within, and in the immediate vicinity of, vaccination centers; and (iv) insufficient or ineffective stakeholder communications around vaccine roll-out efforts. These risks would be mitigated by: (i) the Borrower's preparation of an ESMF, which will be consulted on, finalized, and disclosed within 60 days following Project Effectiveness; and (ii) the inclusion of a communications strategy under the National Vaccination Plan (NVP) to inform stakeholders about vaccine roll-out efforts.

67. **Procurement risk is assessed as Substantial**. The key procurement risks include: (i) inability of the market to supply adequate quantities of vaccines to meet the demand especially of IBRD and IDA countries even when they have pre-committed funds for vaccine procurement; (ii) problems with the timely distribution of the vaccines and (iii) governance-related issues common in emergency situations. These risks will be mitigated by: (i) involvement of the World Bank Operations and Country Services (OPCS) in reviewing the vaccines signed contracts and advising on the acceptance of those (ii) the design and implementation of a contract management plan, including the arrangements needed for services of logistics for the distribution/transport of vaccines within the country ; (iii)

publication of the key data and details of the two vaccine signed contracts, and (iii) hiring of a technical third-party audit entity to reinforce Bank's procurement post review, if needed.

VIII. RESULTS FRAMEWORK AND MONITORING

Results Framework
COUNTRY: Peru
Peru COVID-19 Vaccination Project

Project Development Objective(s)

To increase COVID-19 vaccination coverage among the population of Peru.

Project Development Objective Indicators

Indicator Name	PBC	Baseline	End Target
To increase COVID-19 vaccination coverage among the population of Peru.			
Percentage of total population vaccinated with WB financed vaccines (total and disaggregated by sex) (Percentage)		0.00	62.00
Reduction of gender gap in COVID-19 vaccination ratio (Female/Male) (disaggregation by age group) (Number)		1.30	1.10

Intermediate Results Indicators by Components

Indicator Name	PBC	Baseline	End Target
COVID-19 Vaccines and Deployment			
Number of Vaccines contracts included in STEP (Number)		0.00	2.00

Indicator Name	PBC	Baseline	End Target
Number of reports issued by the "Vaccine deployment oversight and assurance mechanism" (Number)		1.00	5.00
Number of COVID-19 vaccine doses acquired through project financing (Number)		0.00	40,000,000.00
Number of actions taken in vaccine deployment and distribution based on feedback from beneficiaries. (Number)		0.00	15.00
Percentage of vaccine recipients satisfied with their experience (Total and disaggregated by sex and ethnicity) (Percentage)		0.00	66.00

Monitoring & Evaluation Plan: PDO Indicators					
Indicator Name	**Definition/Description**	**Frequency**	**Datasource**	**Methodology for Data Collection**	**Responsibility for Data Collection**
Percentage of total population vaccinated with WB financed vaccines (total and disaggregated by sex)					
Reduction of gender gap in COVID-19 vaccination ratio (Female/Male) (disaggregation by age group)	Reduction of the gender ratio of fully vaccinated people (Female/Male). Target lower than 1.1 greater than 0.9				

Monitoring & Evaluation Plan: Intermediate Results Indicators					
Indicator Name	**Definition/Description**	**Frequency**	**Datasource**	**Methodology for Data Collection**	**Responsibility for Data Collection**
Number of Vaccines contracts included in STEP	Number of Vaccines contracts included and approved in STEP		STEP		
Number of reports issued by the "Vaccine deployment oversight and assurance mechanism"		Quarterly	Vaccine deployment oversight and assurance mechanism reports		
Number of COVID-19 vaccine doses acquired through project financing					
Number of actions taken in vaccine deployment and distribution based on feedback from beneficiaries.					
Percentage of vaccine recipients satisfied with their experience (Total and disaggregated by sex and ethnicity)					

ANNEX 1: List of COVID Vaccines Meeting World Bank Approval Criteria as of March 11, 2021

	Manufacturer / WHO EUL holder	Name of Vaccine	SRA approval received	WHO EUL [46]		
				Platform	NRA of Record for WHO EUL	Status of assessment
1.	Pfizer BIONTECH BioNTech Manufacturing GmbH	BNT162b2/ COMIRNATY Tozinameran (INN)	United Kingdom: December 2, 2020 Canada: December 9, 2020 United States of America: December 11, 2020 European Union: December 21, 2020 Switzerland: December 19, 2020 Australia: January 25, 2021	Nucleoside modified mNRA	EMA	▪ **Finalized: December 31 2020** ▪ **Additional sites:** – Baxter Oncology GmbH Germany (DP). June 30 2021 – Novartis Switzerland. July 8 2021 – Mibe (Dermapharm) Germany (DP). July 16 2021 – Delpharm, Saint-Remy FRANCE (DP). September 17 2021 ▪ **Shelf life extension:** 09 months at -70 to - 90°C. September 20 2021 – Sanofi-Aventis Deutschland GmbH Germany October 6 2021 ▪ **Diluent suppliers:** – Pfizer Perth, AustraliaFresenius Kabi, USA June 18 2021
					USFDA	▪ **Additional sites:** – Pharmacia & Upjohn, Kalamazoo (DP)PGS McPherson (DP) July 16 2021 – Exelead, Inc. Indianapolis USA 30/09/2021

[46] https://extranet.who.int/pqweb/sites/default/files/documents/Status_COVID_VAX_20Oct2021.pdf

	Manufacturer / WHO EUL holder	Name of Vaccine	SRA approval received	WHO EUL [46]		
				Platform	**NRA of Record for WHO EUL**	**Status of assessment**
2.	AstraZeneca, AB	AZD1222 Vaxzevria	UK: December 30, 2020 EU: January 29, 2021 Australia: February 16th, 2021 (overseas manufacturing); March 21st, 2021 (for local manufacturing by CSL – Seqirus) Canada: February 26, 2021	Recombinant ChAdOx1 adenoviral vector encoding the Spike protein antigen of the SARS-CoV-2.	EMA	▪ **Core data finalized. 16 April 2021** ▪ **Additional sites:** – SK-Catalent – Wuxi (DS). 16 April 2021 – Chemo Spain. 30 April 2021 – Amylin Ohio US (DP). 23 July 2021
					MFDS KOREA	▪ **Finalized. 15 Feb 2021**
					Japan MHLW/PMDA	▪ **Finalized. 09 July 2021** ▪ **Additional site:** – Nipro Pharma Corporation Ise, Japan. 11 October 2021
					Australia TGA	▪ **Finalized. 09 July 2021** ▪ **Additional site:** – Siam Bioscience Co., Ltd Thailand. 11 October 2021
3.	Serum Institute of India Pvt.Ltd	Covishield (ChAdOx1_nCoV-19)		Recombinant ChAdOx1 adenoviral vector encoding the Spike protein antigen of the SARS-CoV-2.	DCGI	▪ **Finalized. 15 Feb 2021**

	Manufacturer / WHO EUL holder	Name of Vaccine	SRA approval received	WHO EUL [46]		
				Platform	**NRA of Record for WHO EUL**	**Status of assessment**
4.	moderna	mRNA-1273	USA: December 18, 2020 Canada: December 23, 2020 EU: January 6, 2021 Switzerland: January 12th, 2021 UK: January 8, 2021	mNRA-based vaccine encapsulatedin lipid nanoparticle (LNP)	EMA	▪ **Finalized. 30 April 2021**
					USFDA	▪ **Additional Sites. 06 August 2021** – ModernaTx. Norwood (DS) – Catalent Indiana, LLC (DP) – Lonza Biologics, Inc. Portsmouth, USA (DS) – Baxter, Bloomington, USA (DP)
5	**Sinopharm / BIBP[1]** Beijing Institute of Biological Products Co., Ltd. (BIBP)	SARS-CoV-2 Vaccine (Vero Cell), Inactivated(lnCoV)		Inactivated, produced in Vero cells	NMPA	▪ **Finalized. 07 May 2021** ▪ *2 and 5 dose presentation (new manufacturing site) -- TBC after ongoing inspection*
6.	sinovac Sinovac Life Sciences Co., Ltd.Sinovac Life Sciences Co., Ltd.	COVID-19 Vaccine (VeroCell), Inactivated/ Coronavac™		Inactivated, produced in Vero cells		▪ **Finalized. 01 June 2021** ▪ **2 dose presentation. 30 September 2021**

	Manufacturer / WHO EUL holder	Name of Vaccine	SRA approval received	WHO EUL [46]		
				Platform	**NRA of Record for WHO EUL**	**Status of assessment**
7.	Janssen–Cilag International NV	Ad26.COV2.S	USA: February 27th, 2021 Canada: March 5th, 2021 EU: March 11th, 2021 Switzerland: March 22nd, 2021 UK: May 28th, 2021 Australia: June 25th, 2021	Recombinant, replication-incompetent adenovirus type 26 (Ad26) vectored vaccine encoding the (SARS-CoV-2) Spike (S) protein	EMA	▪ **Core data finalized (US +NL sites). 12 March 2021** ▪ **Additional sites:** – Aspen RSA (DP). 25 June 2021 – Catalent Agnani Italy (DP). 02 July 2021
8.	Bharat Biotech, India	SARS-CoV-2 Vaccine, Inactivated (Vero Cell)/COVAXIN		Whole-Virion Inactivated Vero Cell	DCGI	▪ **Finalized. 03 Nov 2021**

ANNEX 2: Country Context and COVID-19 Situation - Additional Tables and Figures

COUNTRY: Peru
Peru COVID-19 Vaccination Project

Table 2.1: Number of COVID-19 Tests and Positivity Rate by Department, as of November 30, 2021

Region	Number of Confirmed Cases	Number of Tests Conducted	Positivity Rate (%)		Region	Number of Confirmed Cases	Number of Tests Conducted	Positivity Rate (%)
Ucayali	167,889	24,698	14.71		Tacna	240,654	20,946	8.70
Amazonas	165,666	23,940	14.45		La Libertad	710,998	59,859	8.42
San Martin	266,614	37,207	13.96		Ancash	596,124	45,470	7.63
Loreto	283,127	36,717	12.97		Junin	765,911	57,417	7.50
Madre de Dios	92,417	11,534	12.48		Lima Met.	9,413,083	704,874	7.49
Ayacucho	211,777	24,052	11.36		Cajamarca	605,643	45,210	7.46
Callao	763,583	83,357	10.92		Lima Reg.	610,928	44,645	7.31
Tumbes	133,342	14,281	10.71		Cusco	653,935	45,009	6.88
Lambayeque	462,586	49,417	10.68		Apurimac	222,490	14,850	6.67
Huanuco	263,322	26,175	9.94		Huancavelica	159,413	10,297	6.46
Ica	420,772	41,659	9.90		Moquegua	392,336	23,985	6.11
Piura	613,162	55,978	9.13		Arequipa	1,421,522	76,564	5.39
Puno	316,162	28,081	8.88		Pasco	295,618	10,594	3.58
					Total	**20,249,074**	**1,616,816**	**7.98**

Source: MINSA Sala Situacional. *https://covid19.minsa.gob.pe/sala_situacional.asp*

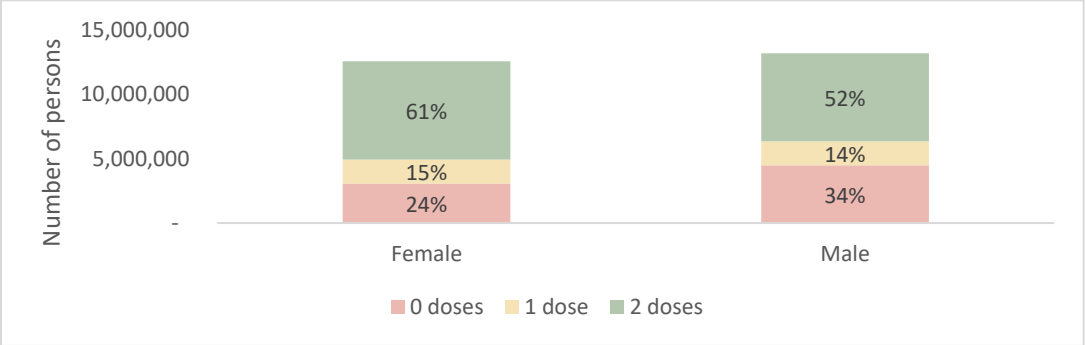
Table 2.2. Country Comparison: Doses Secured per Population - December 2020 and October 2021

Country	Full doses secured per population (December 2020)
Chile	2.23
Mexico	0.76
Argentina	0.52
Brazil	0.46
Costa Rica	0.30
Ecuador	0.26
Venezuela	0.18
Peru	**0.16**

Country	Full doses secured per population (October 2021)
Peru	**2.61**
Chile	2.53
Bolivia	1.69
Argentina	1.54
Brazil	1.41
Mexico	0.94
Dominican Republic	0.83
El Salvador	0.65
Ecuador	0.60
El Salvador	0.59
Colombia	0.58
Uruguay	0.53
Costa Rica	0.50
Guatemala	0.24
Honduras	0.21
Venezuela	0.18
Paraguay	0.14

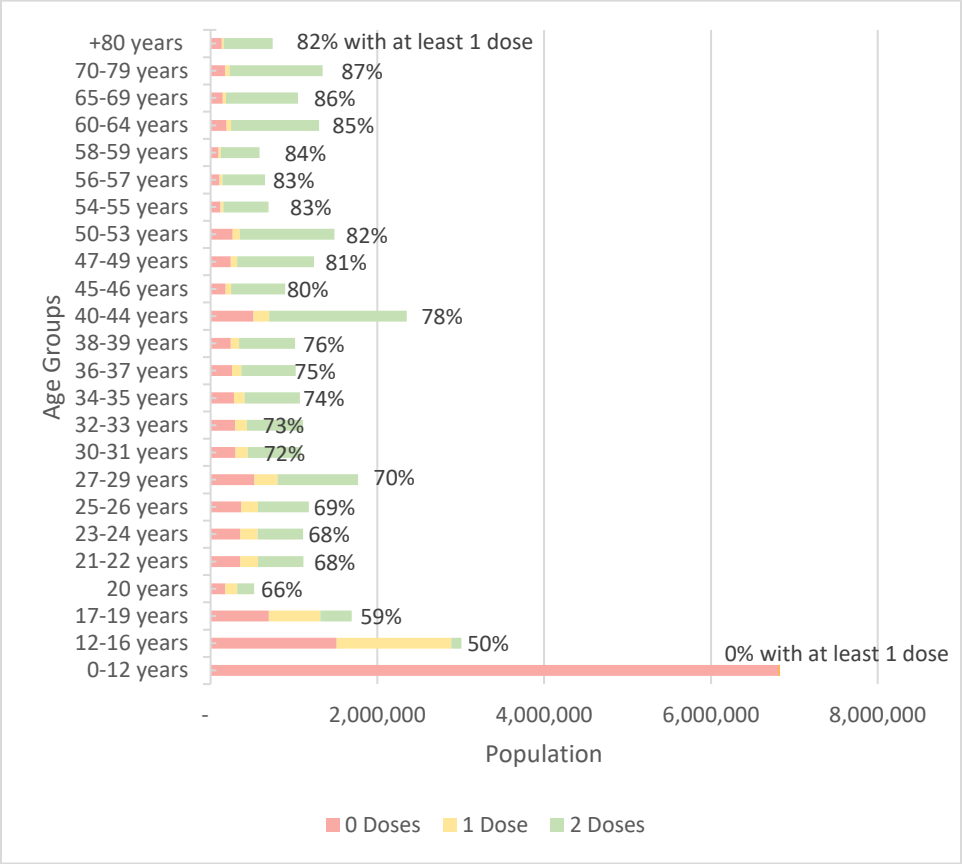
Source: Duke Global Health Innovation Center. Launch and Scale Speedometer. October 23, 2021. https://launchandscalefaster.org/node/64

Figure 2.3. Population Above 12 Years of Age by Doses Received and Sex



Source: Ministry of Health; November 4, 2021

Figure 2.4. Vaccine Coverage by Number of Doses Per Age Group



ANNEX 3: Project Costs

COUNTRY: Peru
Peru COVID-19 Vaccination Project

COSTS AND FINANCING OF THE COUNTRY PROJECT

Program Components	Project Cost	IBRD or IDA Financing	Trust Funds	MEF and MINSA Funding
Component 1: COVID-19 Vaccines	US$500M	US$500M	--	--
Component 2: Project Management and Monitoring	--	--	--	US$3M
Total Costs	US$500M	US$500M		US$3M
Total Costs	US$500M	US$500M		US$3M

ANNEX 4: Implementation Arrangements and Support Plan

COUNTRY: Peru
Peru COVID-19 Vaccination Project

1. **The proposed Project will be implemented through the MEF with the support of MINSA. MEF will be in charge of the implementation and oversight of the WB-financed Project.** Within MEF, the PIU will be the Treasury General Directorate. The PIU will be responsible for project management in close coordination with CENARES of MINSA. The Treasury General Directorate is the unit that oversees administration of all financial resources that are included in the public sector budget. It has the required experience and technical capacity to plan and execute those resources in an efficient, rational, and quality manner. The Treasury General Directorate will assign one part-time staff to ensure timely and suitable implementation of financial management project activities, while the Immunization Directorate of MINSA will follow-up the vaccination plan implementation and CENARES will ensure timely supply of vaccines and safety equipment for health staff. MINSA will be in charge of ensuring correct implementation and compliance of WB's environmental and social standards. A full-time socio-environmental specialist will be appointed within MINSA to be in charge of managing the environmental, social, health and safety risks and impacts of the Project, throughout implementation. Also, a social specialist and an environmental health specialist will be designated within MINSA to coordinate with, and provide support to, the socio-environmental specialist, on an as-needed basis, throughout implementation. The appointment of these specialists is a project effectiveness condition. The coordination flow between PIU and MINSA will be detailed in the POM, which will outline the specific technical and operational roles of the main PIU members.

2. **Implementation support plan**. The following implementation support plan reflects the preliminary estimates of skill requirements, timing, and resource requirements over the life of the Project. Keeping in mind the need to maintain flexibility over Project activities from year to year, the implementation support plan will be reviewed periodically to ensure that it continues to meet the needs of the Project. Table 4.1 indicates the WB team's implementation support plan and the required skill mix.

Table 4.1. Implementation Support Plan and Skill Mix

Time Needed	Focus	Skills
0–24 months	• Setting up additional expertise on fiduciary, safeguards, and M&E and project management systems. • Staff capacity building of the Project Management Team	• Core team, particularly FM, procurement, Safeguards, M&E, and health specialists.

3. **Skill mix.** The skill mix and team composition for supporting project implementation is as proposed in Table 4.2.

Table 4.2. Skill Mix and Team Composition

Skills Needed	No. of Staff Weeks	Number of Missions[47]	Comments
Task team leaders (2)	12	Three per year	Staff in Lima, Peru, and Washington, DC
Operations Officer	4	Two per year	Staff in Lima, Peru
Research Analyst	4	Two per year, including field travel	Staff in Lima, Peru
Procurement Specialist	3	Two per year, including field travel	Staff in Lima, Peru
FM Specialist	3	Two per year, including field travel	Staff in Lima, Peru
Social and Environmental Safeguards Specialists	6	Two per year, including field travel	Staff in Washington, DC, and Lima, Peru

[47] Virtual missions will be implemented while travel restrictions are in place.