# Document of

# The World Bank

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Report No: PGD317

### INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

### PROGRAM DOCUMENT FOR A

PROPOSED LOAN

IN THE AMOUNT OF US\$ 500 MILLION

TO THE

REPUBLIC OF PERU

## FOR THE:

Peru: Enabling a Green and Resilient Development DPF

March 4, 2022

Urban, Resilience and Land Latin America and Caribbean Region

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# Republic of Peru

### **GOVERNMENT FISCAL YEAR**

January 1 – December 31

### **CURRENCY EQUIVALENTS**

(Exchange Rate Effective as of February 24)

**Currency Unit** 

Peruvian Soles (PEN) 3.73215 = United States Dollars US\$1.00

### **ABBREVIATIONS AND ACRONYMS**

AML/CFT	Anti-Money Laundering/Combating	EOCs	<b>Emergency Operation Centers</b>
	the Financing of Terrorism	EQSs	Environmental Quality Standards
ASA	Advisory Services Analytics	ESG	Environmental, Social, and
ATU	Urban Transport Authority for Lima		Governance
	and Callao	ESMAP	Energy Sector Management
BCRP	Central Reserve Bank of Peru		Assistance Program
BIM	Building Information Modeling	FCL	Flexible Credit Line
BRT	Metropolitan Bus Rapid Transit	FONDES	Fund for Interventions in the Event of
CAF	Development Bank of Latin America		Natural Disasters
CENEPRED	National Center for Disaster Risk	FOREX	Foreign Exchange
	Reduction, Estimation, and		
	Prevention	GDP	Gross Domestic Product
CEPLAN	National Center for Strategic Planning	GEP	Global Economic Prospects
CGR	Comptroller General of the Republic	GHG	Greenhouse Gas
CPF	Country Partnership Framework	GIZ	German Agency for International
CPP	Temporary Permit of Stay Cards		Cooperation
CRSE	Multisectoral Commission for Power	GNP	Gross National Product
	Sector Reform	GoP	Government of Peru
DGCA	General Directorate of Environmental	GRID	Green, Resilient, and Inclusive
	Quality		Development
DPF	Development Policy Financing	GRS	Grievance Redress Service
DPL	Development Policy Loan	IADB	Inter-American Development Bank
DRM	Disaster Risk Management	IBRD	International Bank for Reconstruction
E&S	Environmental and Social		and Development
EC	Environmental Certification	IDA	International Development
ECLAC	Economic Commission for Latin		Association
	America and the Caribbean	IFC	International Finance Corporation
EE	Energy Efficiency	IMF	International Monetary Fund
EIA	Environmental Investigation Agency	INDECI	National Institute of Civil Defense
EM	Emerging Markets	IPF	Investment Project Financing

LAC	Latin America and the Caribbean	PIM	Public Investment Management
LDP	Letter of Development Policy	PIT	Transmission Investment Plan
LVC	Land Value Capture	PLANAGERD	National Disaster Risk Management
MEF	Ministry of Economy and Finance		Plan
MINAM	Ministry of the Environment	PPIAF	Public-Private Infrastructure Advisory
MINEM	Ministry of Energy and Mines		Facility
MMM	Multi-year Macroeconomic	PPP	Public Private Partnership
	Framework	PUCA	Single Procedure for SENACE's
MTBF	Medium Term Budget Framework		Environmental Certification Process
MTC	Ministry of Transport and	PWC	PricewaterhouseCoopers
	Communications	RENAMI	National Registry of Mitigation
MTEF	Medium-Term Expenditure		Measures
	Framework	ROA	Return of Assets
MVCS	Ministry of Housing, Construction and	SCD	Systematic Country Diagnostic
	Sanitation	SDR	Special Drawing Rights
NCRE	Non-conventional Renewable Energy	SEACE	Electronic Procurement System
NDC	National Determined Contributions	SECO	Swiss State Secretariat for Economic
NEP	National Environmental Policy		Affairs
NFPS	Non-Financial Public Sector	SEIA	National Environmental Impact
NHUP	National Housing and Urban Policy		Assessment System
NPL	Non-Performing Loans	SENACE	National Environmental Certification
NRECs	National Registry of Environmental		Service
	Consultants	SHS	Solar Home System
O&M	Operations and Maintenance	SINAGERD	National Disaster Risk Management
OECD	Organization for Economic Co-		System
	operation and Development	SME	Small and Medium Enterprises
OSINERGMIN	Supervisory Agency for Investment in	SUNAT	National Superintendency of Customs
	Energy and Mining		and Administration
PCM	Presidency of the Council of Ministers	UNFCCC	United Nations Framework
PEDN	Strategic Plan for National		Convention on Climate Change
	Development	USAID	United States Agency for
PER	Public Expenditure Review		International Development
PFM	Public Financial Management	WBG	World Bank Group

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# **REPUBLIC OF PERU**

# PERU: GREEN, RESILIENT AND INCLUSIVE GROWTH DEVELOPMENT POLICY FINANCING

# TABLE OF CONTENTS

SUN	MMARY OF PROPOSED FINANCING AND PROGRAM	3
1.	INTRODUCTION AND COUNTRY CONTEXT	5
2.	MACROECONOMIC POLICY FRAMEWORK	9
	2.1. RECENT ECONOMIC DEVELOPMENTS	9
	2.2. MACROECONOMIC OUTLOOK AND DEBT SUSTAINABILITY	13
	2.3. IMF RELATIONS	15
3.	GOVERNMENT PROGRAM	15
4.	PROPOSED OPERATION	17
	4.1. LINK TO GOVERNMENT PROGRAM AND OPERATION DESCRIPTION	17
	4.2. PRIOR ACTIONS, RESULTS AND ANALYTICAL UNDERPINNINGS	18
	4.3. LINK TO CPF, OTHER BANK OPERATIONS AND THE WBG STRATEGY	36
	4.4. CONSULTATIONS AND COLLABORATION WITH DEVELOPMENT PARTNERS	37
5. O	THER DESIGN AND APPRAISAL ISSUES	38
	5.1. POVERTY AND SOCIAL IMPACT	38
	5.2. ENVIRONMENTAL ASPECTS	41
	5.3. PFM, DISBURSEMENT AND AUDITING ASPECTS	41
	5.4. MONITORING, EVALUATION AND ACCOUNTABILITY	43
6.	SUMMARY OF RISKS AND MITIGATION	44
ANI	NEX 1: POLICY AND RESULTS MATRIX	46
ANI	NEX 2: FUND RELATIONS ANNEX	51
ANI	NEX 3: LETTER OF DEVELOPMENT POLICY	55
ANI	NEX 4: ENVIRONMENT AND POVERTY/SOCIAL ANALYSIS TABLE	70
ANI	NEX 5: DPF PRIOR ACTIONS AND ANALYTICAL UNDERPINNINGS	73
ANI	NEX 6: WORLD BANK RECENTLY APPROVED PROJECTS	78

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### **SUMMARY OF PROPOSED FINANCING AND PROGRAM**

#### **BASIC INFORMATION**

Project ID	Programmatic	If programmatic, position in series
P177765	Yes	1st in a series of 2

### **Proposed Development Objective(s)**

The Program Development Objective is to support Government policies to: (i) strengthen the foundations for a green economic recovery, (ii) build resilience and enhance climate change adaptation and (iii) support the transition towards a greener economy in selected sectors.

### **Organizations**

Borrower: REPUBLIC OF PERU

Implementing Agency: MINISTRY OF ECONOMY AND FINANCE

### **PROJECT FINANCING DATA (US\$, Millions)**

#### **SUMMARY**

Total Financing	500.00

### **DETAILS**

International Bank for Reconstruction and Development (IBRD)	500.00
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#### **INSTITUTIONAL DATA**

### **Climate Change and Disaster Screening**

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

## **Overall Risk Rating**

Substantial

# Results

Indicator Name	Baseline	Target
Pillar One: Strengthen the foundations for a greener economic	recovery	
<b>Results Indicator 1:</b> Allocation reports are prepared and published, in line with Peru's sustainable bond framework	RI#1: 0 (2021)	RI#1: 2 (2023)
<b>Results Indicator 2.</b> Reduction in the average time to develop and approve technical dossiers of investments applying the Building Information Modeling (BIM) methodology (%)	RI#2: 0 (2021)	RI#2: >10% (2023)
Results Indicator 3. Number of detailed Environmental Impact Assessments (EIAs) and EIA modifications that are evaluated within the timeframe established by the regulatory framework, and that receive on time binding technical opinions (%)	RI#3: 33% (2021)	RI#3: 67% (2023)
Pillar Two: Build resilience and enhance climate change adapt	tation	
<b>Results Indicator 4.</b> Number of people living in areas with local Emergency Operation Centers (EOCs) operating according to new guidelines.	RI#4: 0 (2021)	RI#4: 2 million (2023)
<b>Results Indicator 5.</b> Number of people living in cities or populated settlements with urban planning instruments that integrate disaster risk management, public spaces management in accordance with Law No. 31313 and its regulations.	RI#5: 0 (2021)	RI#5: 5.5 million (2023)
Pillar Three: Support the transition towards a greener econom	y in selected sectors	
<b>Results Indicator 6.</b> Number of housing projects from <i>MiVivienda</i> certified with the new Technical Code for Sustainable Construction	RI#6: 0 (2021)	R#6: 300 (2023)
Results Indicator 7. Reduction of greenhouse gas (GHG) emissions and local pollutants (PM2.5, SO2 and NOx) according to the <i>Methodology for calculating avoided emissions and valuation of mitigated environmental externalities, with the implementation of scrapping programs</i> approved by Directorial Resolution No. 20-2021-MTC / 18 published in the Official Gazette on April 23, 2021.	RI#7: 0 (2021)	RI#7: 0.080 MtCO2e per year 0.921 Mt of local pollutants per year (2023)
<b>Results Indicator 8.</b> Solar Home Systems (SHS) capacity provided by Public Private Partnerships (PPPs) Megawatt (MW)	RI#8: 0 (2021) RI#9: 0 (2021)	RI#8: 6.5 (2023) RI#9: 50 (2023)
Results Indicator 9. Nominal power of non-conventional renewable energy generation awarded in the first supply auction that introduce hourly blocks (MW)	Min3. 0 (2021)	Mir. 30 (2023)
<b>Results Indicator 10.</b> Annual Energy savings from public sector buildings and energy efficient appliances gigawatthour (Gwh)	RI#10: 0 (2021)	RI#10: 70 (2023)

# IBRD PROGRAM DOCUMENT FOR A PROPOSED LOAN TO THE REPUBLIC OF PERU

#### 1. INTRODUCTION AND COUNTRY CONTEXT

- 1. The proposed Peru: Enabling a Green and Resilient Development DPF, for US\$500 million, is the first operation in a programmatic series of two that aims to extend World Bank support for Peru's transition to a greener and more resilient economy. This operation will support the Government of Peru (GoP) to advance a sub-set of reforms to: (i) strengthen the foundations for a green economic recovery; (ii) build resilience and enhance climate change adaptation; and (iii) support the transition towards a greener economy in selected sectors. It is aligned with priorities in the country program strategy under the Country Partnership Framework (CPF) discussed by the Board of Executive Directors on May 2, 2017 (Report No. 112299-PE) Pillar III "Natural Resource and Climate Change Risk Management" and reflects broad policy consensus with the government on the criticality of climate change action. It is also closely aligned with the World Bank's strategic framework to move "From Crisis Response towards Green, Resilient and Inclusive Development" (GRID) and the World Bank Group 2021-2025 Climate Change Action supporting reforms to transition in three key systems: energy, cities, and transport; and supporting adaptation through enhanced disaster risk management (DRM).¹ Moreover, it complements the Bank's ongoing and pipeline program to promote green and resilient development and builds on the Bank's longstanding policy dialogue to strengthen resilience in Peru, including recommendations from recently concluded analytical work, such as the flagship ASA "Building the Resilience of Local Governments to Natural Disasters" (P171251).
- 2. **Peru has been one of the best performers in Latin America and the Caribbean (LAC) in terms of growth and poverty reduction, but progress has slowed down in recent years.** For most of the 2000s, the country's rapid economic growth, coupled with well-targeted social policies, boosted income growth among the poorest, backed by a stable macrofiscal framework. As a result, the poverty rate fell from 59 percent in 2004 to 21 percent in 2019.<sup>2</sup> Economic growth was fueled by the country's abundant resources combined with favorable mineral prices which attracted large foreign investment in mining and enabled growth based on fast capital accumulation.<sup>3</sup> It was also the result of important structural reforms, such as the strengthening of the country's social protection systems and institutions, and solid macroeconomic management. However, in the years prior to the pandemic (2013-2019), average growth rates declined to half of what they were in the 2000-2013 period, as productivity and job growth slowed down.<sup>4</sup>
- 3. In the decades prior to the pandemic, there were important gains in the management of certain natural resources but for the most part economic growth came at the cost of environmental degradation. In 2008 Peru's Ministry of Environment, and since then the GoP passed important reforms to strengthen the institutional and regulatory framework for natural resource protection. However, low air quality still affects densely populated areas and continues to have an impact on the health of Peruvians. Air pollution is also an issue in rural areas with about a third of the Peruvian population cooking with solid fuels, due in part to lack of access to electricity. Between 2001 and 2019 Peru also

<sup>&</sup>lt;sup>1</sup> WB (2021) From COVID-19 Crisis Response to Resilient Recovery: *Saving Lives and Livelihoods while supporting Green, Resilient and Inclusive Development*. Paper for the Development Committee.

<sup>&</sup>lt;sup>2</sup> Peru Policy Notes: https://documents1.worldbank.org/curated/en/330961630045157214/pdf/Repensar-el-Futuro-del-Peru-Notas-de-Politica-para-Transformar-al-Estado-en-un-Gestor-de-Bienestar-y-Desarrollo.pdf

<sup>&</sup>lt;sup>3</sup> WB (2017) Peru: Systematic Country Diagnostic

<sup>&</sup>lt;sup>4</sup> Productivity growth was close to zero between 2013 and 2019, slowing the pace of poverty and inequality reduction.

<sup>&</sup>lt;sup>5</sup> On December 2012 SENACE was created - a specialized public technical body with technical autonomy attached to MINAM, responsible for the review and approval through the SEIA of the detailed Environmental Impact Assessments of projects with significant environmental risks.

<sup>&</sup>lt;sup>6</sup> Transportation has been identified as one of the main causes of air quality problems; and Peru's vehicle fleet is old and poorly maintained.

 $<sup>^7</sup>$  In Metropolitan Lima alone the estimated cost of local air pollution (PM $_{10}$ ) impact on health (mortality, hospital admission due to respiratory illness and absence at work) was between 679 and 805 USD million for the year 2013 as outlined by MINAM (2013), *Estudio de Desempeño Ambiental* 2003-2013. Capítulo 6.

lost more than 4 million hectares of tree cover; with agriculture expansion and changes in agriculture practices being the main drivers. Last, while representing only around 0.16 percent of global Green House Gases (GHG) emission, GHG emission per capita in Peru increased substantially between the year 2000 and 2018. GHG growth was mostly driven by the transport sector which passed from 1.07 metric tons per capita (CO2 equivalent) in 2000 to 1.70 in 2018, and motorization continues to increase as cities lack efficient massive transit systems. In addition, in contrast to other countries in the LAC region, 75 percent of Peru's energy comes from fossil fuels. Overall, environmental degradation in Peru is estimated to cost around US\$7-10 billion per year, an amount equivalent to 3.5 to 5 percent of the nation's GDP.

- 4. The country's high physical vulnerability to disasters and climate change impact can setback hard-won development outcomes and derail future economic growth. Peru ranks in the top 24 percent of most vulnerable countries due to the impacts of extreme weather events,<sup>10</sup> and the global sea level is expected to rise between 0.6 and 1.1 meters by 2100,<sup>11</sup> posing additional threats to Peru's coastal urban populations. Around forty six percent of the national territory is classified as having high to very high vulnerability to natural hazards and one third of the population occupies and uses this space.<sup>12</sup> Cities also continue to expand without proper planning or taking into consideration exposure to natural events. Between 1990 and 2019 more than 17 million people were affected by floods, droughts, forest fires, earthquakes, landslides, and volcanic eruptions, and more than 254 thousand houses were destroyed.<sup>13</sup> In the last two decades, the economic losses linked to natural events reached more than US\$ 4 billion dollars with the damages caused by "El Niño Costero" in 2017,<sup>14</sup> exceeding US\$ 3.1 billion, equivalent to 1.6 percent of the country's GDP. In the period from 2003 to 2017 the human losses due to disasters reached 2,682.<sup>15</sup>
- 5. While the COVID-19 pandemic led to one of the deepest recessions in Latin America, economic activity has started to rebound. GDP contracted 11.1 percent in 2020, one of the highest drops among the major economies of Latin America. The poverty rate (US\$5-a-day-line) increased 12 percentage points, reaching 32.9 percent in 2020. The COVID-19 pandemic also had a devastating impact on lives and livelihoods, as Peruvian families experienced one of the largest employments and income losses in the region. The GoP actively responded to the COVID-19 pandemic through a package of policies aimed at addressing the health emergency and providing economic relief to vulnerable firms and households. As of February 28, 2022, more than 70 percent of the population has received two doses and more than 30 percent have received a booster dose. The economy has also started to rebound with growth estimated to have exceeded 11 percent

<sup>&</sup>lt;sup>8</sup> Total energy consumption has also been on the rise: between 2000 and 2017 energy consumption increase by 102%.

<sup>&</sup>lt;sup>9</sup> The highest costs come from outdoor air pollution and lead exposure in urban areas; inadequate water supply, sanitation and hygiene systems, natural disasters; indoor air pollution; and agricultural soil degradation. Most of these costs are reflected in increased morbidity and mortality, as well as decreased economic productivity. WB (2017) Peru: Systematic Country Diagnostic.

<sup>&</sup>lt;sup>10</sup> Germanwatch – Global Climate Risk Index 2019

<sup>&</sup>lt;sup>11</sup> IPCC report, 2019. https://earthobservatory.nasa.gov/images/148494/anticipating-future-sea-levels

<sup>&</sup>lt;sup>12</sup> MINAM. 2011. Descriptive Memoir of the Physical Vulnerability Map of Peru. http://bvpad.indeci.gob.pe/doc/pdf/esp/doc1851/doc1851-contenido.pdf

<sup>&</sup>lt;sup>13</sup> INDECI. 2020. Statistical compendium. https://www.indeci.gob.pe/wp-content/uploads/2021/02/CAPITULO-III-Estad%C3%ADstica-Series-2003-2019.pdf

<sup>&</sup>lt;sup>14</sup> El Niño Costero differs from the El Niño basin-wide phenomenon because it was spatially confined along the coasts of Peru and Ecuador as opposed to the El Niño-related expansion of warm waters coming from the western and central equatorial Pacific.

<sup>&</sup>lt;sup>15</sup> DRM National Policy 2050 (2021) page 6

<sup>&</sup>lt;sup>16</sup> Poverty is estimated to have declined by 4.6 percentage points in 2021, reaching 28.3 percent. Despite the rebound in economic activity, the poverty rate in 2021 is still closer to the levels observed one decade ago.

<sup>&</sup>lt;sup>17</sup> Peru has the world's highest known death toll, adjusted for population. According to the Coronavirus Resource Center at John Hopkins University, as of September 7, 2021, total deaths reached 198,523, the case fatality reached 9.2%, and more than 2 million confirmed cases. https://coronavirus.jhu.edu/data/mortality

<sup>&</sup>lt;sup>18</sup> According to the Wold Bank simulations, in the absence of emergency social transfers, the poverty rate would have risen by an additional 4pp in 2020. Similarly, Reactiva Peru Program helped to avoid a deeper economic contraction (growth in 2020 would have been 3.7 pp lower than in the baseline), BCPR, Moneda No. 184, December 2020.

in 2021. While employment levels have almost returned to the pre-crisis levels, this was largely driven by low quality jobs in the informal sector.<sup>19</sup>

- 6. The country has embarked on a path to economic recovery, with social inclusion and equity at the center of its policy agenda. The GoP's program has a strong emphasis on supporting vulnerable population, overcome social exclusion and promote equity across regions, particularly in Peru's lagging regions and rural areas. The Bank is supporting the government's efforts to enhance social inclusion through a series of proposed policy and investment lending, including pipeline operations to finance basic service delivery improvements and productive development in rural areas, but also to promote social protection and economic inclusion.
- 7. The new administration has also reinforced Peru's commitment to reduce environmental degradation, transition towards a low-carbon economy, and build resilience to natural events. Over the past years, the country improved regulations and policies to support a transition towards a greener and more resilient development model. Among others, Peru adopted a framework law on climate change (Law no. 30754, April 18<sup>th</sup>, 2021) and established a National Registry of Mitigation Measures (RENAMI) (supreme decree no. 013/2019, MINAM).<sup>20</sup> More recently, the Ministry of Environment approved the National Adaptation Plan which provides a roadmap for strategic actions across key sectors (June 2021). Peru submitted its second National Determined Contributions (NDC) on December 18<sup>th</sup>, 2020 and is currently working to update the National Strategy for Climate Change. On October 16, 2021 the new administration published the 2021-2026 General Government Policy, which identifies under Axis 7, the priority to enable a transition to a low-carbon economy, enhance climate change adaptation and reduce environmental degradation.
- 8. The proposed operation complements the government's effort to foster social inclusion, while anchoring critical policies to support resilience and a green transition. The proposed operation supports critical reforms to strengthen the foundations for a green economic recovery, build resilience and enhance climate change adaptation, and support a transition towards a greener economy in selected sectors. The reform agenda supported by the first DPL in the series prioritizes policy actions with political consensus for their implementation as many of the reforms build on dialogue with previous administrations. The prioritized policy actions also: (i) benefited from previous Advisory Services and Analytics (ASA) which enabled the proper identification of policy bottlenecks that needed be addressed, (ii) are well-aligned with the new administration's economic recovery efforts, and (iii) have synergies with the broader World Bank program in Peru including ongoing Investment Project Financing (IPFs) such as the *Transmission Investment Plan (PIT) to support Post-COVID 19 Green Economic Recovery in Peru (P174812)*, the *National Urban Cadaster and Municipal Support Project (P162278)*, and the *Lima Metropolitano Bust Rapid Transit (BRT) North Extension (P170595)* (For more details on the World Bank program in Peru refer to Annex 6).
- 9. The first pillar of the operation supports reforms for a greener economic recovery. It does so by supporting the expansion of green finance to mobilize capital at scale for climate action and creating an enabling environment for public and private investments to support more effectively the economic recovery.<sup>21</sup> For public investments to support more

<sup>19</sup> In fact, formal employment in urban areas was more than 20 percent below pre-pandemic levels by end-2021. Lower quality of employment has led to a reduction of household income and by the end of the year, average wage was still 13 percent below that registered in 2019.

<sup>20</sup> Peru is also part of the United National Framework Convention on Climate Change (UNFCCC) since 1992 (ratified in 1993) and has ratified its commitment by joining the Kyoto Protocol in 2002 and the Paris Agreement in 2015. Peru is currently revising its NDC, while the current NDC was submitted in December 2020. The country is starting its long-term planning, having committed to update their current National Strategy for Climate Change this year (2021).

<sup>&</sup>lt;sup>21</sup> Prior to the pandemic, Peru public investment averages between 4-5 percent of GDP (1990-2019), about 2 percentage points below the average for emerging countries. The execution rate of public investment budget is also relatively low (just over 60 percent) and there are large delays between the approval of investment projects and the preparation of technical specifications (735 days on average), preparation and approval of technical dossiers (229 days), bidding and procurement (299 days) and project execution (536 days).

effectively the economic recovery,<sup>22</sup> there is a need to accelerate the speed at which projects are prepared and implemented, enhance project selection to better incorporate climate-externalities, reduce bureaucratic burdens, and improve cost-efficiency. This pillar includes policy actions for: (i) the creation of a Sustainable Bond Framework, (ii) the progressive implementation of the Building Information Modeling (BIM) methodology for public works planning and execution, (iii) the incorporation of climate externalities for public investment appraisal, and (iv) the reduction of regulatory constraints to promote more agile approval processes for Environmental Certification.

- 10. The second pillar of the operation supports actions to increase the country's resilience and accelerate climate change adaptation. It does so by supporting the Government's policy actions to reorient its DRM strategies with a 2050 horizon, by better incorporating climate change risks and aiming to strengthen the capacities for DRM at the subnational and sectoral levels. It also supports the mainstreaming of disaster risk knowledge, including climate related hazards (floods and landslides), into land use planning, strengthening the urban development and territorial planning legal framework. Reducing vulnerability in cities through the better incorporation of DRM in territorial planning is key as this is where a large part of the vulnerable population, and public and private infrastructure exposed to hazards is located.<sup>23</sup>
- 11. The third pillar of the operation supports actions to ensure a more efficient use of natural resources and accelerate the shift towards lower-carbon technologies with a focus on the energy and transport sectors. It supports programs to transition towards lower emission vehicles and promote the development of more inclusive and efficient transit systems in cities. It also supports regulations to facilitate the expansion of renewables to close the electricity access gap in remote areas and promote the greening of the electricity grid through technology neutral auctions. Last, it supports regulatory actions to promote energy efficiency in the public and private sector, including legislation so that new buildings incorporate low-carbon technologies, and architectural features that enhance climate mitigation and adaptation.
- 12. Shifting towards lower-carbon technologies in the energy and transport sectors is essential given their current carbon intensity and GHG growth trends but also makes sense from an economic recovery and social well-being perspective. Selected reforms in greening the country energy mix, improving energy efficiency, renovating the country's vehicle fleet, and increasing the efficiency of public transport can boost the creation of green jobs, and support the development of a more efficient and productive system of cities. They also bring multiple co-benefits such as the reduction of local pollutants, the improvement of road safety and health, as well as savings in operation and maintenance.
- 13. While a key source of GHG emissions in Peru, Pillar 3 does not include policy reforms linked to forestry, agriculture, or land use management. These are complex issues that require a mix of policies and investments to be addressed effectively. Although not at the center of this proposed DPO, the Bank's country program supports Peru's climate change mitigation efforts linked to land-use change through investment financing and advisory work. Several investment operations finance activities to support sustainable forest management and reduce deforestation, including (i) the ongoing Integrated Forest Landscape Management Project in Atalaya, Ucayali (P163023); and (ii) the recently closed SAWETO Dedicated Grant Mechanism for Indigenous Peoples and Local Communities (P148499) financed under the Strategic Climate Fund Forest Investment Program. There is also a recognition that more work on defining and developing policies to tackle these complex issues are needed. Hence, the Bank is currently preparing a Country Climate

<sup>22</sup> Prior to the pandemic, Peru public investment averages between 4-5 percent of GDP (1990-2019), about 2 percentage points below the average for emerging countries. The execution rate of public investment budget is also relatively low (just over 60 percent) and there are large delays between the approval of investment projects and the preparation of technical specifications (735 days on average), preparation and approval of technical dossiers (229 days), bidding and procurement (299 days) and project execution (536 days).

<sup>&</sup>lt;sup>23</sup> The recent study "Institutions, inclusion and territory: *proposals to strengthen resilience to disasters in Peru*" (March 2021); identified three key actions to enhance resilience in Peru: (i) strengthen institutional capacity for disaster risk management by improving the regulatory framework, and processes to make it more effective, (ii) have a territorial approach, and increasing the integration of DRM into territorial and urban planning, and (iii) consolidate social inclusion measures, by improving the living conditions of the population in particular the most vulnerable.

and Development Report (CCDR) (P177137) that will include deep dives on climate-smart agriculture, forestry, and transport. Findings from this in-depth analysis will inform the ongoing policy dialogue aimed at scaling the Bank's engagement on climate change mitigation in the country. Recommendations from the CCDR will help identify critical policy reforms to support climate change mitigation to be included in future development policy lending. Taken together with lessons learned from the Bank's operational experience in the sector, the CCDR's findings will also be feeding into the design of a second generation of investments currently under preparation, such as the proposed Resilient and Productive Forest and Landscape Management Program in the Loreto Department of the Peruvian Amazon, currently being developed with assistance from the Climate Support Facility (CSF).

#### 2. MACROECONOMIC POLICY FRAMEWORK

#### 2.1. RECENT ECONOMIC DEVELOPMENTS

- 14. After decades of strong growth, fueled by the commodity super cycle, Peru's growth decelerated to an average of 3.1 percent per year from 2014 to 2019. In the early 2000s, Peru's real Gross Domestic Product (GDP) grew at an average rate of 5.3 percent, far exceeding the Latin America and Caribbean's (LAC) 2.7 percent growth rate. High growth rates enabled Peru to double its per capita income and reach upper-middle-income status in 2008. Macroeconomic stability, coupled with open financial and capital markets and a sustained trade liberalization policy, amid a favorable external environment for commodity exporters, were the key factors behind Peru's success. The prolonged period of high growth was equitable and conducive to poverty reduction. Poverty fell from 59 percent in 2004 to 21 percent in 2019, and inequality fell substantially. The Gini index declined from 0.50 to 0.44 over that period, and the middle class expanded from 15 to 34 percent of the population. Growth slowed down significantly after 2014, hampered by worsening terms of trade, the severe *El Niño* weather event in 2017, and spillovers of the *Lava Jato* corruption investigation. After a rebound in 2018, growth slowed in 2019 to 2.2 percent due to weaker external demand, public investment under-execution, and temporary shocks to mining and fishing.
- 15. **Economic activity was halted in late March 2020 when the COVID-19 pandemic led to a national lockdown, harsher than in other LAC countries.** Real GDP fell by 11.1 percent in 2020 as strict and prolonged quarantine measures and supply-side constraints led to a collapse in production, including in the mining and labor-intensive services sector. This was exacerbated by weak state capacity, especially in the health sector, low digitalization, and limited teleworking opportunities. Total employment fell 40.1 percent (7.1 million workers) by June 2020, while earnings and hours worked declined substantially for those who remained employed.
- 16. Since December 2020, output bounced back to its pre-pandemic level, but household income remained low, and significantly higher growth rates would be needed to recover the convergence path to high income economies. Real GDP grew 20.9 percent y-o-y in the first half of 2021, driven by the easing of mobility restrictions, an accelerated execution of public works, and the resumption of private investment projects. The rebound in economic activity has been reflected in all spending accounts, with a high intensity in public and private domestic spending, and with a somewhat lower intensity in the volume of exports. By sectors, construction, services, and manufacturing are leading the recovery. However, the labor market recovery has been slow; formal employment was still more than 20 percent below its prepandemic level by end-2021. This has been partially attenuated by the 8 percent increase in informal employment and, as a result, monthly individual earnings by end-2021 were still 12.8 percent lower than in 2019. Women and youth have been disproportionately affected by the loss in formal jobs. However, significantly higher growth rates would be needed to achieve income convergence<sup>24</sup>.
- 17. The current account deficit narrowed in the last four years, reflecting both greater export capacity and loss of momentum in domestic demand. Investments made during the commodity boom period led to an increase in mineral

<sup>&</sup>lt;sup>24</sup> Peru's GDP per capita has been stagnant since 2013 at about 22-23 percent of US GDP per capita

exports, while a slowdown in private investment and consumption reduced import growth. As a result, the current account turned positive in 2020, as more favorable terms of trade helped improve trade balance despite an abrupt decline in export and import volumes due to the crisis. Additionally, ample global liquidity and search for yields, combined with increased financing needs by the public sector, led to a large increase in the non-resident holding of sovereign debt. In this context, international reserves climbed to US\$74.7 billion by the end of 2020, equivalent to 38 percent of GDP and more than six times its short-term external debt. To further shield the economy against external risks, in May 2020, Peru was granted access to a Flexible Credit Line (FCL) with the International Monetary Fund (IMF) for about US\$11 billion for two years.<sup>25</sup> In May 2021, the IMF successfully completed the mid-term review of Peru's qualification under the FCL.

- 18. Inflation was low and stable in recent years, but it accelerated in 2021, mainly reflecting the recent global rise in commodity prices, the depreciation of the currency, and the lagging effect of the sizable stimulus package of 2020. Between 2015 and 2020 inflation averaged 2.3 percent backed by independent and prudent monetary management. During 2020, expansionary monetary stimulus, in the form of interest rate reductions and unprecedented liquidity support, including under *Reactiva Peru* Program, was effective in supporting private sector activity during the initial months of the pandemic. However, inflation picked up in the second half of 2021 and reached 6.4 percent in December 2021, largely driven by the global increase in food and energy prices, the domestic currency depreciation, and the monetary stimulus. The Peruvian Sol depreciated by 12 percent year-on-year by December 2021. In this context, the Central Bank increased its reference rate 325 basis points since August 2021, to curb inflation expectations. The banking sector remained resilient and well capitalized, with Non-Performing Loans (NPL) at 3.77 percent of gross loans and capital at approximately 14.99 percent of risk-weighted assets, although Return of Assets (ROA) fell from 2.2 percent in 2019 to 1.38 percent by December 2021.
- 19. **Fiscal policy was geared towards mitigating the impact of the COVID-19 pandemic**. In response to the pandemic, the GoP implemented a countercyclical response ascending to 22 percent of GDP that consisted of provision of liquidity to enterprises through guaranteed loans, fiscal transfers to vulnerable population groups and firms, increased expenditures on goods and services, and relaxing access to unemployment and private retirement accounts. Revenues sharply declined last year, due to a steep contraction of economic activity. The annualized Non-Financial Public Sector (NFPS) deficit increased to 8.9 percent of GDP in 2020 and public debt surpassed the legal limit of 30 percent of GDP. The Ministry of Finance (MEF) estimated that the maximum exposure of the NFPS to explicit contingencies amounted to 12.7 percent of GDP by end 2020, with the expected materialization of 0.9 percent of GDP in 2021. These estimates do not consider non-explicit contingencies arising from recent policy decisions, such as the withdrawals from pension accounts. In the future they could generate some pressure for more social spending. By September 2021, the annualized fiscal deficit had already declined to 4.7 percent of GDP, driven by a recovering tax collection, due to the re-bound of output, favorable mineral prices, and the early cancellation of tax debts. Public spending, however, remained expansive, driven by health spending to mitigate the effects of the pandemic and higher public investment.

<sup>25</sup> FCL is a contingent financing line of credit to prevent the effects of crunches in balance of payment flows. The authorities' intention is to treat the arrangement as precautionary.

<sup>&</sup>lt;sup>26</sup> The identified contingent liabilities included: i) judicial processes in national and international courts, and national arbitrations (8.7 percent of GDP), ii) international controversies in investment matters (2.0 percent of GDP), and iii) guarantees granted with the signing of Public-Private Partnerships contracts (2.0 percent of GDP). Contingent liabilities related to *Reactiva Peru* amount to 52 billion soles (7.3 percent of GDP) and MEF estimated a maximum expected loss of 16%.



Table 1. Key Macroeconomic Indicators 2016-2024<sup>27</sup>

Real economy  GDP (nominallocal currency)	656,450		Annual per	centage ch	ange, unles	s otherwise	e indicated		
GDP (nominallocal currency)	656,450								
		698,245	740,269	767,498	692,023	782,181	819,483	857,369	897,010
Real GDP	4.0	2.5	4.0	2.2	-11.1	11.3	3.2	3.0	2.9
Per Capita GDP (In US\$ Atlas Method)	6,110	6,060	6,470	6,790	6,010	6,154	6,371	6,574.6	6,574.6
Contributions:									
Consumption	2.1	1.7	2.7	2.4	-5.7	7.7	2.6	2.5	2.3
Investment	-1.1	-0.3	1.4	0.0	-4.5	3.0	0.7	0.5	0.5
Net exports	3.0	1.1	-0.1	-0.2	-0.9	0.7	-0.2	0.0	0.2
Imports	1.5	6.2	4.7	0.4	-4.0	2.8	1.2	1.1	0.9
Exports	11.4	7.2	2.4	0.2	-4.9	3.4	1.0	1.0	1.1
Unemployment rate (ILO definition)	3.5	3.5	3.4	3.3	5.1	4.5	4.0	3.8	3.8
GDP deflator	1.3	1.3	1.4	1.4	1.4	1.5	1.6	1.6	1.6
CPI (average)	3.6	2.8	1.3	2.1	1.8	4.0	4.2	2.8	2.7
Fiscal Accounts			Perce	ent of GDP,	unless oth	erwise indic	cated		
Expenditures	21.1	21.1	21.6	21.3	26.8	24.0	23.2	23.1	23.0
Revenues	18.7	18.1	19.3	19.7	17.9	19.4	19.8	20.1	20.5
Non-financial public sector balance	-2.3	-3.0	-2.3	-1.6	-8.9	-4.5	-3.5	-3.0	-2.5
PPG gross debt (eop)	23.9	24.9	25.8	26.8	34.7	33.9	35.7	37.1	37.7
Selected Monetary Accounts			Annual per	centage ch	ange, unles	s otherwise	e indicated		
Base Money	6.3	6.5	7.7	6.7	29.1	4.0	3.0	3.0	3.0
Credit to non-government	5.6	6.6	8.7	6.9	12.3	3.0	3.0	3.0	3.0
Interest (key policy interest rate)	4.2	3.8	2.8	2.6	0.25	0.50	1.25	1.50	1.80
Balance of Payments		Percent of GDP, unless otherwise indicated							
Current Account Balance	-2.6	-1.3	-1.7	-0.9	8.0	-1.3	-2.0	-2.2	-2.2
Imports	22.5	22.4	23.1	22.1	20.4	21.9	21.7	21.4	21.1
Exports	22.5	24.8	25.2	23.5	22.6	27.3	26.2	25.5	25.2
Foreign Direct Investment	2.9	3.0	3.1	3.0	0.4	3.2	3.2	3.2	3.2
Gross Reserves (in million US\$, eop)	61,746	63,731	60,288	68,370	74,761	73,016	74,434	75,957	77,551
In months of next years' imports	15.5	14.7	14.3	20.3	20.4	19.2			
As % of short-term external debt	342.0	414.0	343.0	498.0	540.0	430.0			
External Debt	38.3	35.9	34.7	35.8	42.9	40.4	38.5	36.0	34.6
Terms of Trade	1.1	7.6	-0.4	-1.7	8.2	9.6	-2.5	-1.5	0.0
Exchange Rate (average)	3.4	3.3	3.3	3.3	3.5	3.9	3.9	3.8	3.8
Other memo items									
GDP nominal (in million US\$)	194,500	214,154	225,239	229,790	197,721	200,559	210,124	225,623	236,055

<sup>&</sup>lt;sup>27</sup> The macroeconomic framework was completed with a cutoff date of January 15, 2022, consistent with the GEP published in January 2022.

Net Public Debt 6.9 9.5 11.3 13.0 22.3 -- -- --

Source: World Bank staff based on the Central Bank, Ministry of Finance and the IMF data.

Table 2. Balance of Payments Financing Requirements and Sources, 2016-2024 (USD million)

	2016	2017	2018	2019	2020	2021P	2022P	2023P	2024P
BOP financing requirements and Sources									
5' ' ' (UOD)	40.000	45 444	40.000	40.440	4.007	0.070	0.004	40.000	-
Financing requirements (USD)	12,003	-15,141	-10,633	-10,119	-4,207	-8,079	-9,661	-10,080	10,169
Current account deficit	-5,133	-2,807	-3,751	-2,060	1,585	-2,664	-4,198	-4,890	-5,212
Medium and long-term debt amortization	-6,870	-12,335	-6,882	-8,059	-5,792	-5,415	-5,463	-5,189	-4,957
Financing Sources (USD)	12,003	15,141	10,633	10,119	4,207	8,079	9,661	10,080	10,169
FDI and portfolio investments (net)	3,902	4,587	3,702	6,322	2,271	4,613	5,673	6,092	6,373
Capital grants	0	0	0	0	0	0	0	0	0
Medium and long-term debt disbursements	8,302	12,490	3,431	11,991	8,327	1,721	5,406	5,511	5,389
Change in reserves (+ decrease) *	-201	-1,936	3,500	-8,195	-6,391	1,745	-1,418	-1,523	-1,593

Source: World Bank staff based on the Central Bank's data.

Table 3. Key Fiscal Indicators for the Public Sector, 2016-2024 (% of GDP)

	2016	2017	2018	2019	2020e	2021P	2022P	2023P	2024P
Overall Balance	-2.3	-3.0	-2.3	-1.6	-8.9	-4.5	-3.5	-3.0	-2.5
Primary balance	-1.2	-1.8	-0.9	-0.2	-7.3	-3.5	-2.3	-1.6	-1.0
Total Revenues (and grants)	18.7	18.1	19.3	19.7	17.9	19.4	19.8	20.1	20.5
Tax revenues	14.1	13.4	14.5	14.8	13.3	15.0	15.4	15.7	16.1
Taxes on goods and services	6.4	6.3	6.9	7.0	6.3	7.0	7.3	7.6	7.8
Direct Taxes	5.7	5.3	5.6	5.7	5.3	6.0	6.1	6.1	6.3
Taxes on international trade	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Other taxes	1.7	1.6	1.8	1.9	1.5	1.8	1.8	1.8	1.8
Non-tax revenues	2.5	2.5	2.6	2.6	2.3	2.2	2.2	2.2	2.2
Social insurance contributions	2.2	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.1
Capital revenues	0.0	0.1	-0.1	0.1	0.1	0.1	0.1	0.1	0.1
Grants	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Expenditures	21.1	21.1	21.6	21.3	26.8	24.0	23.2	23.1	23.0
Current expenditures	16.4	16.5	16.6	16.9	21.8	19.6	18.8	18.6	18.5
Wages and compensation	6.0	6.1	6.2	6.4	7.4	6.2	6.3	6.3	6.3
Goods and services	6.2	6.0	5.7	5.9	7.0	7.9	7.9	7.9	7.9
Interest payments	1.1	1.2	1.4	1.4	1.6	1.0	1.2	1.4	1.4
Current transfers **	3.2	3.2	3.3	3.2	5.9	4.5	3.5	3.1	2.9
Capital expenditures	4.7	4.6	4.9	4.5	5.0	4.3	4.4	4.5	4.4
Capital investments	4.2	4.1	4.2	4.0	3.8	3.7	3.9	4.0	3.9
Capital transfers **	0.5	0.6	0.7	0.5	1.2	0.6	0.5	0.5	0.5
Non-Financial Public Sector Financing	2.3	3.0	2.3	1.6	8.9	4.5	3.5	3.0	2.5
External (net)	0.7	-1.5	-0.1	0.6	4.8	3.5	0.2	0.1	-0.1
Domestic (net)	1.2	4.5	2.4	1.0	4.1	1.0	3.3	2.9	2.6

Source: World Bank staff based on the Central Bank and Ministry of Finance data.

Notes: \* Non-financial public sector. \*\* Current transfers include spending on pensions, social benefits and social programs. Capital transfers include deferred payments (APPs), capital contributions, expropriations, transfers to funds and advances for works.

#### 2.2. MACROECONOMIC OUTLOOK AND DEBT SUSTAINABILITY

- 20. Peru's GDP growth is expected to have exceeded 11 percent in 2021 and return to its pre-pandemic low growth pace in the medium term.<sup>28</sup> The economy is expected to have continued the recovery in the second half of 2021, although at a less pronounced pace than in the previous semester. Public spending which tends to be seasonally concentrated in the latter part of the year, is estimated to have slowed down due to continued turnover of public sector officials. In addition, policy uncertainty and its impact on business confidence could be reflected in a slowdown in private investment. On the other hand, consumption is expected to have gained strength as the pace of vaccination accelerated and mobility restrictions were relaxed. After the rebound in 2021, economic growth is expected to return to its pre-pandemic pace of around 3 percent per year, despite the favorable context set by the expected high price of minerals. This pace of growth is relatively low when compared to Peru's recent history, and mainly reflects the need for further reforms to address productivity challenges. In the short-term, it also reflecting the potential effects of political uncertainty, that has been prominent in Peru in the last years, on investment and growth.
- 21. **Despite the improvements in mineral prices, the current account balance is expected to remain negative during the projection period**. Higher factor payments abroad and the recovery of imports will be only partially attenuated by the effect of favorable mineral prices on the value of exports. These deficits are expected to be financed by long-term capital, as in previous years. FDI is expected to recover supported by the continuation of some projects (Toromocho expansion, Quellaveco) and the initiation of others (Yanacocha Sulfuros, Corani, Magistral, Río Seco), in a context of higher mining profits. However, FDI might stay short of the levels of the previous commodity boom due to political uncertainty. Also, this uncertainty might trigger outflows of portfolio investments, exerting some pressure on international reserves and the exchange rate. Inflation is expected to gradually reverse to the target range, as the driving factors are temporary.
- 22. The fiscal deficit is projected to have narrowed in 2021, and while public debt is expected to continue trending upwards, it will remain well below the indicative threshold. The fiscal deficit is expected to have decreased to 4.5 percent by the end of the year and projected to reach 3.5 percent of GDP in 2022, in line with the fiscal targets. Tax revenues will continue trending upwards. In 2021, revenues are expected to have recovered due to the rebound in economic activity and higher commodity prices. In subsequent years, tax collection is expected to be supported by the entry into operation of new mines (Quellaveco, Mina Justa and the Toromocho enlargement) and the effect of administrative measures taken since 2018 (mainly electronic invoicing and international tax collaboration). These factors will support mainly the increase in corporate taxes, but they will also have some positive effect of indirect taxes. Also, extraordinary spending linked to the pandemic will dissipate. In line with a gradual reduction of the deficit, public debt is projected to continue rising in 2022-23. The GoP is committed to a declining path of the fiscal deficit.<sup>29</sup> However, attaining the fiscal target of 1 percent of GDP deficit by 2025, as the GoP is currently foreseeing, may require additional measures on the revenue side.
- 23. **Peru's public sector debt is assessed to be sustainable and resilient to a range of different shocks.** The public debt-to-GDP ratio is likely to remain above the public debt ceiling of 30 percent of GDP throughout the projection period, mainly due to a large one-off increase in 2020. The debt-to-GDP ratio is expected to reach its peak of about 38 percent

<sup>&</sup>lt;sup>28</sup> The macroeconomic outlook was completed with a cutoff date of January 15, 2022, consistent with the GEP published in January 2022.

<sup>&</sup>lt;sup>29</sup> MEF (August 2020). Multiannual Macroeconomic Framework 2022-2025.

of GDP in 2024 and is expected to decline gradually thereafter as the primary deficit falls below the debt-stabilizing primary deficit. Higher GDP growth than the 3 percent average expected for 2022-25 in our projections would prompt a faster decline of debt ratios. Public debt risks arise from a high share of public bonds held by non-residents (65 percent of total) and the currency composition (53 percent denominated in foreign currency), while the interest rate structure is favorable. Public debt remains at manageable levels under the standardized shocks, and it stays well below the 70 percent of GDP benchmark for emerging markets (Figure 1). The results of the debt sustainability analysis shock scenarios show that the authorities have sufficient buffers to accommodate a gradual fiscal consolidation path.

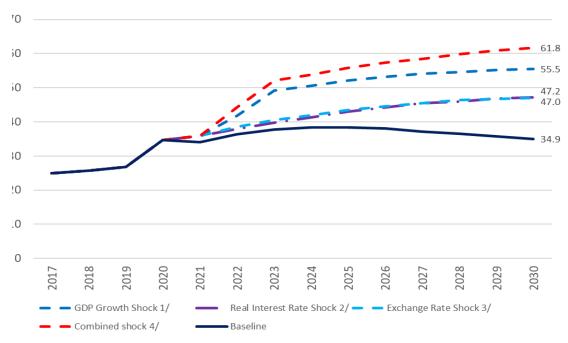


Figure 1. Public Debt Sustainability

World Bank staff calculations.

/Real GDP shock consists of a reduction of one standard deviation (5.2 percent) in GDP growth for two years. This also increases primary balance rate on debt. 2/Real interest rate shock consists of a permanent shock of an increase of 200 basis points in the interest rate paid on debt. 3/ Real ck consists of a one-off depreciation of 19 percent leading to a real exchange depreciation of around 14 percent. 4/Combined shock consists in to combining the size and duration of other shocks under 1/, 2/ and 3/.

24. The economic outlook is subject to significant uncertainty and some risks, but important mitigation factors exist. Domestic risks include new COVID-19 variants, a decline in vaccination speed and political uncertainty. If any of these risks materialize, it might imply the enforcement of new mobility restrictions, higher uncertainty, increased fiscal tensions and therefore, directly affect the pace of recovery of the domestic economy. The increased political uncertainty already led Moody's and Fitch to downgrade Peru's sovereign risk rating for long-term external debt.<sup>30</sup> External risks include a slowdown in global economic activity, commodity price declines, a faster than expected monetary tightening in the US, as well as higher frequency and intensity of climate-related disasters due to climate change. On the domestic side, the fiscal position remains a strong mitigating factor. While weaker than prior to the crisis, it remains generally strong. Peru has fiscal space to pursue countercyclical fiscal policy and support the economic recovery.<sup>31</sup> International

<sup>30</sup> Moody's downgraded Peru's risk rating from A3 to Baa1 in September and Fitch downgraded it from BBB+ to BBB in October. Notwithstanding, Peru retains the investment grade and still possesses the second-highest rating in Latin America, behind Chile.

<sup>&</sup>lt;sup>31</sup> However, to cover the 2020 deficit, the GoP used its contingent credit lines, depleted the funds available under the Fiscal Stabilization Fund, and reduced its reserves of liquid asset.

financial institutions financing in the form of budget support operations and contingent credit lines would play an important role in the event of adverse external shocks, further escalation of the pandemic, or disasters. On the external side, increased exchange rate flexibility and large international reserves offer comfortable policy margin to withstand external shocks, given the country's modest dollarization ratio. The financial sector entered the crisis well-capitalized but will require close monitoring. While some small financial institutions could be affected by the duration of the pandemic, leading to some consolidation in the sector, a systemic disruption is not expected. Recent stress testing exercises conducted by the banking supervisor (SBS) indicate that capital adequacy levels would remain above 13 percent through 2022, and that most financial institutions are well-placed to endure liquidity shocks. Also, capitalization ratios are considered adequate, and the banking supervisory agency is expected to continue closely monitoring the soundness of the banking system.

25. Overall, Peru's macroeconomic policy framework is deemed adequate and sustainable over the medium term. The macroeconomic policy mix is appropriate—the Central Bank continues to react to market information and provide appropriate forward guidance (it has increased its reference rate 325 basis points since August 2021, to curb inflation expectations). In parallel, the GoP has implemented a strong countercyclical fiscal response to attenuate the effects on domestic demand of the pandemic-induced recession, while publishing a credible medium-term fiscal framework that supports a gradual and inclusive fiscal consolidation.<sup>32</sup> Public debt is assessed to remain sustainable.

#### 2.3. IMF RELATIONS

26. The GoP maintains an ongoing dialogue and systematic engagement with the IMF on macroeconomic policy. On May 28, 2020, the Executive Board of the International Monetary Fund (IMF) approved a two-year precautionary FCL<sup>33</sup> arrangement for SDR 8.007 billion (about US\$11 billion). In May 2021, the IMF successfully completed the mid-term review of Peru's qualification under the FCL. On March 22, 2021 the IMF concluded the Article IV consultation with Peru. The IMF Board noted that Peru entered the COVID-19 pandemic with very strong fundamentals and policy framework (prudent fiscal management, low debt-to-GDP ratio, low inflation, and financial stability). Directors commended the authorities for the decisive response in mitigating the heavy economic and human toll and encouraged the authorities to continue efforts to limit scarring effects, promote a robust recovery, and implement structural reforms to achieve a more broad-based and inclusive growth. According to the IMF, priority could be given to (i) boosting productivity by improving education, enhancing infrastructure, facilitating labor reallocation, and improving the business climate; (ii) enhancing social protection while reducing incentives to informality from the tax-benefit system, including through investment in health care and pension reform; and (iii) strengthening governance with additional transparency in the public sector and robust anti-corruption and Anti-Money Laundering/Combating the Financing of Terrorism (AML/CFT) frameworks. In addition, directors advised the authorities to avoid premature withdrawal of fiscal support to help contain the pandemic, mitigate its impact on poverty, and support recovery. The IMF and WB maintain close collaboration on macroeconomic and structural issues.

#### 3. GOVERNMENT PROGRAM

27. The GoP is in the process of updating its Strategic Plan for National Development -PEDN which will have a 2030 horizon. Until the PEDN is updated and approved, the current 2011-2021 PEDN "bicentennial plan" and the Peru 2050 vision are to be used as a basis for national, sectoral, multisectoral and territorial strategic planning. The 2011-2021 PEDN

<sup>&</sup>lt;sup>32</sup> Government Multiannual Macroeconomic Framework 2022-2025.

<sup>&</sup>lt;sup>33</sup> Only five countries have qualified for an FCL, Chile, Colombia, Mexico, Peru and Poland. The qualification criteria emphasizes that the country has to have i) very strong economic fundamentals and institutional policy frameworks ii) is implementing – and has a sustained track record of implementing – very strong policies; and iii) remains committed to maintain such policies in the future.

"bicentennial plan"<sup>34</sup> established six national objectives: (i) full observance of the fundamental rights and dignity of individuals; (ii) efficient and decentralized state, at the service of citizens and development; (iii) balanced regional development and adequate infrastructure; (iv) competitive economy with high employment and productivity; (v) equal opportunities and access to services; and (vi) sustainable use of natural resources. The proposed operation specifically supports the following actions of the 2011-2021 PEDN: improve the efficiency, agility and transparency of the Government (under objective ii); guarantee monetary stability and simplify the regulatory framework to enhance private sector investments (under objective iv); increase the participation of renewable energy in the energy mix and strengthen the National Environment Assessment System (under objective vi). The proposed operation is also aligned with the new administration's 2021-2026 General Government Policy, which identifies under Axis 7, the priority to enable a transition to a low-carbon economy, enhance climate change adaptation and reduce environmental degradation.

- 28. The proposed operation is also aligned with recently developed strategic planning instruments such as the National Environmental Policy to 2030, the National Housing and Urban Planning Policy to 2030 and the National **Disaster Risk Management Policy to 2050.** In fact, three key multi-sectoral policies recently approved —which are legally binding for all state entities at all government levels—directly include objectives to achieve a greener and, more resilient development:<sup>35 36</sup> The National Environmental Policy to 2030 promotes the care of nature and ecosystems, as well as their goods and services, promoting actions against climate change, the reduction of deforestation and pollution, and the strengthening of environmental governance and education to improve the country's environmental performance.<sup>37</sup> The National Housing and Urban Planning Policy to 2030 seeks to respond to the challenges of urban development in Peru, moving from a model of urban development based on the continuous expansion and regularization of cities, to one of consolidation and democratization of cities. It includes four strategic objectives: (i) improvement of internal and external living conditions, (ii) improvement of territorial and urban planning to achieve a more sustainable growth of cities, (iii) guaranteeing access to adequate housing and (iv) guaranteeing the sustainable occupation of land in cities across the country.<sup>38</sup> The National disaster risk management policy to 2050, proposes to address as a public problem the high vulnerability of the population to natural events.<sup>39</sup> The Policy has established six prioritized objectives: (i) Improve population's and institution's understanding of disaster risk for decision-making; (ii) Improve land use planning incorporating disaster risk; (iii) Improve the articulated implementation of disaster risk management in the territory; (iv) Strengthen mainstreaming of disaster risk management in public and private investment; (v) Ensure assistance to the population during emergencies and disasters; and (vi) Improve the recovery of the population and their livelihoods affected by emergencies and disasters. Integrated climate change management is a fundamental consideration in the objectives as well as a gender and intercultural approach.
- 29. The proposed operation is closely aligned with the National Competitiveness and Productivity Plan 2019-2030 which identifies specific actions to improve competitiveness and productivity in Peru in the short term. In particular this operation supports prior actions included in the Plan under the following strategic objectives (i) provide the country with economic and social infrastructure of quality by improving public infrastructure planning (Prior Action 2 BIM

<sup>&</sup>lt;sup>34</sup> Long term plan that defines the national development policies to the year 2021

<sup>35</sup> https://www.ceplan.gob.pe/politicas-nacionales-y-sectoriales/

<sup>&</sup>lt;sup>36</sup> In Peru, National Policies play an important role as they create mandates for national and subnational actors to implement actions and reforms. Each national policy identifies and seeks to solve a specific problem. They are regulated by the National Policy Regulations, enacted by Supreme Decree No. 029-2018-PCM. According to this instrument, national policies are policy decisions that prioritize a set objectives and actions to solve a specific problem (national, sectorial, or multisectorial) in a set timeframe. Line ministries are responsible for the design and evaluation of national policies.

<sup>&</sup>lt;sup>37</sup> Supreme Decree 023-2021-MINAM, https://www.gob.pe/institucion/minam/noticias/508223-gobierno-aprueba-la-politica-nacional-del-ambiente-al-2030

<sup>&</sup>lt;sup>38</sup> Supreme Decree 012-2021-VIVIENDA

<sup>39</sup> https://www.gob.pe/institucion/pcm/informes-publicaciones/1892252-politica-nacional-de-gestion-del-riesgo-de-desastres-al-2050

platform for public investment planning), (ii) promote local and external financing mechanisms (Prior Action 1 -putting in place Sustainable Bond instruments) and (ii) support environmental sustainability – (Prior Action 8 and Trigger 13 - including mechanisms to promote renewable energies), and the passage to lower emission vehicles (Prior Action 6 - and promoting programs to renovate the vehicle fleet).

30. The operation is also closely aligned with Peru's commitments on climate change, including the recently updated NDC. In the latest update of the NDC (December 2020), Peru committed to achieve an overall emissions reduction of 30 percent by 2030 and to reduce current and future losses due to impacts of climate change related hazards, as well as to benefit from the opportunities that climate change offers for sustainable and climate responsible development.<sup>40</sup>

#### 4. PROPOSED OPERATION

#### 4.1. LINK TO GOVERNMENT PROGRAM AND OPERATION DESCRIPTION

- 31. Through its three pillars, this operation supports policy reforms that are part of the GoP's initiatives to enable a green and resilient development. Reforms supported through Pillar 1 aim to strengthen the foundations for a greener economic recovery by supporting: (i) the establishment of a framework to mobilize capital at scale for green investments and (ii) a more efficient preparation and execution of public and private investments which are climate sensitive. Pillar 2 aims to build Peru's resilience to disasters and enhance its capacity to adapt to climate change, by (i) strengthening the country's DRM strategies and institutions at national and local levels, and (ii) mainstreaming DRM in urban and territorial planning instruments. These are essential to improve the country's capacity to confront shocks linked to natural-hazards and is of particular importance given its high exposure to disasters and climate change impact, and the high levels of vulnerability observed in urban areas, where the majority of public and private infrastructure, and population is concentrated. Pillar 3 reforms aim to start the shift towards greener and lower-carbon technologies, by concentrating on specific actions related to two economic sectors which are currently carbon intensive, account for almost third of Peru's emissions, and whose GHG projections are substantially on the rise (Energy and Transport systems).
- 32. This operation incorporates lessons learned from the Bank's previous engagements in Peru and other uppermiddle-income countries. Three main lessons from prior DPFs are relevant and have been incorporated into the design of the current DPF series. These include:
  - a. **Strong analytical underpinnings provide the foundation for a well-designed operation.**<sup>41</sup> Critical Advisory Services Analytics (ASAs) contributed to the design of this DPF (as outlined in Annex 5) and helped shape some of the prior actions included in the series.
  - b. Strong links to other Bank technical assistance and investment operations are critical for the program's implementation. <sup>42</sup> The operation is also linked to areas where the Bank is currently active in terms of investment lending such as energy, transport, and urban development and with ongoing technical assistance initiatives such as improving the incorporation of climate co-benefits for investment planning and strengthening of urban governance and DRM frameworks.

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<sup>&</sup>lt;sup>40</sup> MINAM. 2020.

https://cdn.www.gob.pe/uploads/document/file/1675213/Reporte%20de%20Actualización%20de%20las%20NDC%20del%20Perú%20al%202030. 41 ICR on programmatic loans to the republic of Peru for the first, second, and third environmental development policy loans (the world bank, 2016)

<sup>42</sup> ICR on a development policy loan to the socialist republic of Vietnam for climate change and green growth development policy financing (The World Bank, 2019).

c. Strengthening governance and institutions and mainstreaming environmental sustainability and resilience in the development agenda of key sectors are long-term processes.<sup>43</sup> The proposed design of the operation takes this into consideration through different means. In some cases, policy actions support the development of critical pieces of legislation such as laws – with the first DPF in the series - and linked regulations – with the second DPF in the series. In others, it supports specific actions which allow tackling identified policy bottlenecks for reforms to materialize on the ground and produce the expected impact (such as supporting the roll-out of the vehicle fleet renovation programs or the expansion of energy efficiency actions). The programmatic design of the DPF also reinforces continuity of the recent reform agenda, in the coming 2-3 years, and GoP's commitment to its implementation.

### 4.2. PRIOR ACTIONS, RESULTS AND ANALYTICAL UNDERPINNINGS

### Pillar 1: Strengthening the foundations for a greener economic recovery

33. Actions under Pillar 1 support a green economic recovery through the introduction of a green financing framework and policy actions that enable a more agile project investment cycle and climate-sensitive investment pipeline. Progress on the investment management framework with a focus on efficiency and sustainability will play a central role in economic recovery, by stimulating economic activity and job creation. Policy actions under Pillar 1 enable a better incorporation of environmental and social aspects (including climate co-benefits) into the investment cycle, which in turn will result in greener and more socially responsible investments. The development of a sustainable bond market will also enable the country to mobilize capital at scale for climate change adaptation and mitigation action.

<u>Prior Action 1: Support a green financing framework.</u> To enable the Borrower to issue sustainable green bonds in local and international capital markets, the Borrower, through MEF, approved the Peru Sustainable Bond Framework which defines the eligible green public expenditures to which proceeds of such bonds may be applied, the process for selecting eligible projects, and reporting on allocation and impact, as evidenced by Ministerial Resolution No. 221-2021-EF/52 published in the Official Gazette on July 17, 2021

- 34. **Rationale**: Peru's financial sector has a critical role to play in facilitating climate adaptation and mitigation action, while also assuring a green recovery, by improving the allocation of capital, accessing new sources of funding, and mitigating/transferring climate-related financial risks. The first sovereign green bond was issued by Poland in December 2016. Since then, sovereign green bond programs have continued to grow in popularity as global investors seek to increase seek new funding streams to speed up their transition to a low carbon economy. As the largest issuers of debt in an economy, many sovereign issuers are beginning to consider sovereign green bond instruments as a way to raise dedicated funding for green projects and to provide a green benchmark to catalyze further growth in the domestic green capital market. Green bond issuance is also used to potentially diversify the investor base. Accordingly, the global green bond market has been rapidly growing in depth and breadth. In 2019 alone, issuances from eight new countries emerged bringing the total number of sovereign green bond issuers to 62<sup>44</sup>.
- 35. **Substance of the prior action:** On July 17, 2021 MEF approved through Ministerial Resolution N. 2021-EF/52 the Sustainable Bond Framework as the basis for the sovereign's issuance of bonds where the use of proceeds received will be used for compliant green and socially oriented projects. The framework identifies the projects and expenditures that can contribute to a low carbon transition and support the Government's implementation of their NDCs under the Paris Agreement. The sovereign Sustainable Bond Framework is a pre-requisite to obtain certification of Peru's sovereign bonds as 'green' under the Climate Bonds Initiative program and to be able to market and underwrite the instrument as

<sup>&</sup>lt;sup>43</sup> Implementation completion and results report (ICR) on programmatic loans to the republic of Peru for the first, second, and third environmental development policy loans (the world bank, 2016)

<sup>&</sup>lt;sup>44</sup> Green Bonds: Global State of the Market 2019. Climate Bonds Initiative

'green' or 'sustainable' to global Emerging Markets (EM) debt investors. Bonds issued under the framework (and with the 'sustainable' label) will be compliant with the International Capital Market Association's Sustainability, Green, and Social Bond Principles, 45 and with Peru's UN Sustainable Development Goal commitments. 46 The framework identifies the eligible sectors that can benefit from sustainable bond proceeds; project evaluation and selection criteria; how proceeds will be managed; and how allocations and impact will be reported. Eligible green categories to be financed with the proceeds of these issuances include green buildings; renewable energy; energy efficiency; low carbon transport; efficient and resilient water and wastewater management; sustainable management of natural resources, land use and marine protected areas; sustainable agriculture; and sustainable waste management.

36. **Expected Results:** The sustainable bond framework will support Peru's implementation of the NDC and other climate change policies and actions by supporting inter-Ministerial coordination, green project, and expenditure tagging, and developing a sovereign green benchmark to catalyze further green capital market activity. Expected results include continued identification and prioritization of green oriented projects within Peru's budget. Eligible green expenditures are aimed at promoting Peru's transition to a low-carbon, climate-resilient economy, and sustainable development.<sup>47</sup> As a result of this DPF, the MEF will prepare and publish 2 allocation reports in line with Peru's sustainable bond framework.

Prior Action 2: Improve the investment management framework with a focus on efficiency and sustainability. To enhance the efficiency and sustainability of investments, the Borrower: (i) through the General Directorate of Multiannual Investment Programming has approved the "Implementation Plan and Roadmap for the Peru BIM Plan", defining shortand long-term objectives for the progressive incorporation of BIM, to reduce time and cost overruns in the preparation and implementation of public works, as evidenced by Directorial Resolution N° 0002-2021-EF/63.01 published in the Official Gazette on June 15, 2021; (ii) through the Ministry of Environment, has approved Provisions for the Single Procedure for the Environmental Certification Process of the National Environmental Certification Service for Sustainable Investments, to enhance the predictability, consistency and agility of the environmental certification process of projects, as evidenced by Supreme Decree No. 004-2022-MINAM published in the Official Gazette on January 26, 2022; (iii) through the General Directorate of Multiannual Investment Programming, approved the "Technical Note for Using the Social Price of Carbon in the Social Evaluation of Investment Projects", containing guidelines for estimating social costs and benefits linked to projects' greenhouse gas emissions, to inform the appraisal of investment projects, as evidenced by Directorial Resolution No. 006-2021-EF/63.01 published in the Official Gazette on August 1, 2021.

**Trigger 1.** To strengthen its approach and instruments to estimate the costs and benefits of carbon saving technologies in new and existing public investments, the Borrower, through Directorial Resolutions: (i) has issued BIM technical guidelines for infrastructure and buildings and directives for the adoption of BIM at the organizational level and through pilot projects complementing the National BIM Guide, and Implementation Plan and Roadmap; and (ii) has expanded the use of the social price of carbon in three additional types of projects through a revised "Technical Note for Using the Social Price of Carbon in the Social Evaluation of Public Investments".

**Trigger 2.** To enhance the efficiency and quality of the environmental assessments and review processes, the Borrower has updated the regulations of the SEIA Law by Supreme Decree.

37. **Rationale**: Public investment plays a central role in economic recovery, by stimulating economic activity and job creation. However, Peru suffers from complex and lengthy processes to prepare and execute public investments, to obtain approval of Environmental Impact Assessments and issuance of the corresponding environmental certifications for investments to materialize efficiently. Prior to the pandemic, Peru's public investment averaged between 4-5 percent

 $<sup>^{45}</sup>$  Government labelled bond instruments tend to range in size from \$US 500mn-\$US 1.3bn

<sup>46</sup> The framework also received an external second-party opinion by Sustainalytics; the second-party opinion provides global investors further comfort that the processes outlined in the framework are aligned with international best practices.

<sup>47</sup> https://cdn.www.gob.pe/uploads/document/file/2055298/Marco%20del%20Bono%20Sostenible%20de%20Perú.pdf

of GDP between 1990 and 2019, about 2 percentage points below the average for emerging countries. Furthermore, the execution rate of the public investment budget has stayed relatively low at just over 60 percent on average in recent years. Investment projects experience numerous delays during preparation and execution because of low-quality terms-of-reference, technical project files requiring multiple revisions and clearances, and weak project management capacities in some ministries and local governments, among others. Peru has an efficiency gap in the management of public investments of 37 percent, well above the world average (27 percent) and that of Latin America and emerging countries (26 percent).<sup>48</sup> An ongoing World Bank study finds large delays between the approval of investment projects and the preparation of technical specifications (735 days on average), preparation and approval of technical dossiers (229 days), bidding and procurement (299 days), and project execution (536 days) with large differences between the levels of Government and sectors.<sup>49</sup>

- 38. Peru's National Environmental Impact Assessment System (SEIA) has become excessively bureaucratic and inefficient, being characterized by: (i) the participation of multiple stakeholders, with limited coordination mechanisms, (ii) non-standardized and discretionary review processes, and (iii) multiple rounds of revisions and corrections to instruments due to their lack of quality.<sup>50</sup> As an example, even though per current regulations the process for issuing an environmental certification can span a maximum of 180 calendar days, in practice it can take up to almost two years. As a result, significant delays in project approval and implementation processes are common, which in turn generates additional costs and affects the investment climate in the country, rather than guaranteeing the adequate socioenvironmental management of the projects during execution.
- 39. Peru has recently carried out various reforms to improve its public investment system, including: (i) the strengthening of the institutional framework and introducing a public-private partnerships law (Legislative Decree N° 1362 enacted in 2018); (ii) the modernization of the national system of multi-year programming and management of investments (Invierte.pe); and (iii) the creation of specialized project management offices in some sectors. In addition, to strengthen the sustainability of public investments, Peru has taken steps towards mainstreaming climate change considerations in Public Investment Management (PIM). In 2018, with support from the German Agency for International Cooperation (GIZ) and the United States Agency for International Development (USAID), a methodology was developed to estimate a social price of carbon for its use in the appraisal of investment projects.
- 40. The GoP has also introduced policy reforms to simplify the number of actors involved in the evaluation and certification of investments and promoting the standardization of environmental evaluation and certification. This is being achieved by transferring functions from line ministries to the Environmental Certification National Service (SENACE). The Government also recently approved guidelines for the National Registry of Environmental Consultants (NREC). These guidelines aim to promote the strengthening of the environmental consultants that are accredited to develop Environmental & Social (E&S) instruments, which will ensure better quality instruments and thus, on one hand, more efficient revision, and approval processes, and on the other, projects with more robust and appropriate measures to manage E&S risks and impacts. However, the requirements, standards, and timeframes that SENACE applies during the environmental assessment and certification process of projects correspond to those adopted by each of the corresponding sectors. Because of this, projects are not evaluated against standardized criteria, and the resulting environmental assessment instruments do not necessarily reflect current best practices on socio-environmental management, or properly incorporate climate change risks and corresponding mitigation measures.

<sup>&</sup>lt;sup>48</sup> Public Investment Management Assessment (PIMA, 2017)

<sup>49</sup> World Bank (2021). Analyzing the Bottlenecks in Public Investment Execution in Peru with Focus on Infrastructure Investments. Macro Level Analysis of Public Investment Management in Peru.

<sup>50</sup> https://www.bancomundial.org/es/country/peru/publication/repensar-el-futuro-del-per-apuntes-de-pol-tica-para-transformar-al-estado-en-un-gestor-del-bienestar-y-el-desarrollo

- 41. **Substance of the prior action:** To strengthen PIM and support faster adoption of green building technologies the GoP is introducing BIM for public sector infrastructure. Currently, public investment projects are handled in a fragmented manner, with multiple stakeholders (engineers, architects, asset owners) preparing and reviewing technical inputs in a staggered manner leading to long delays from adjustments to the scope and design, missing information, clarifications, or discussions on functional features. BIM can help speed up and facilitate project preparation and execution by integrating these processes in one digital platform. BIM has also been shown to reduce construction material wastage through more accurate ex-ante design and advanced digital models that can be used to calculate whole life carbon emissions for construction projects. A BIM system will facilitate the uptake of greener infrastructure aimed at climate change mitigation and adaptation by allowing for relatively faster and more accurate estimations of the costs and benefits of introducing green solutions to new or existing public infrastructures and landscapes and informing the choice of infrastructure investments.
- 42. In October 2019, the Government first introduced BIM in the public sector through the National Plan on Competitiveness and Productivity (Supreme Decree N° 289-2019-EF). In May 2021, Supreme Decree N° 108-2021-EF outlined steps for a gradual roll out of BIM in public sector investment projects through an Implementation Plan and Roadmap and technical standards published on the MEF's BIM webpage in June 2021. The GoP is currently in the process of identifying institutions to pilot the BIM methodology for their investment projects and issuing additional technical notes with detailed information requirements and formats for each stage of the project management process and sector specific manuals for buildings and other infrastructures.<sup>54</sup>
- 43. In August 2021 MEF approved the use of the social price of carbon in the appraisal of investment projects through Directorial Resolution No. 006-2021-EF/63.01. The note contains hypothetical cases to calculate the social benefits and costs generated by the externalities (positive or negative) of certain types of investment projects and a tool for the calculation of social benefits and costs using the social price of carbon parameter. With World Bank support, and with funding from the NDC Partnership<sup>56</sup>, MEF intends to update the 2018 methodology and related estimation of the social price of carbon parameter and mandate its use during the appraisal of additional types of investment projects. The use

<sup>&</sup>lt;sup>51</sup> For example, a discussion on alternative specifications can cause long delays and require adjustments and recalculations by different actors using separate systems. In Peru, project preparation and reaching agreement on the technical design and specifications takes an average of 528 days, while project execution takes an average of 536 days.

<sup>52</sup> This can then drive specifications to reduce emissions or increase sequestration through changes to landscape and building design, materials and equipment.

<sup>53</sup> The World Green Building Trends report of 2018 found that the use of BIM facilitated a move to greener construction, driven in particular by the use of early analysis tools. In addition, BIM can bring greater transparency to investment management by allowing government entities to share with stakeholders the scope of public investment projects in a clear visual manner, including costs, benefits, and potential environmental, social, and governance (ESG) risks associated with some investments.

<sup>54</sup> https://www.mef.gob.pe/planbimperu/

<sup>&</sup>lt;sup>55</sup> According to the "Technical Note for Using the Social Price of Carbon in the Social Evaluation of Investment Projects," the social price of carbon parameter can potentially be used in Peru in the following types of investment projects: electric power generation; railway transport; massive urban public transport; water transport; gas pipelines; potable water supply; sewage treatment; solid waste treatment; degraded forest ecosystems; support for productive development when there is a change in crop mix; recovery of degraded ecosystems; and all investment projects with GHG emissions as externalities. The Technical Note provides step-by-step guidance and provides practical examples on the use of the social price of carbon in the following types of investment projects for which its use is mandatory: renewable power generation, sewage treatment, solid waste treatment, and landfills with biogas capture and burning system.

<sup>56</sup> The NDC Partnership is a global coalition of countries and institutions working to mobilize support and achieve ambitious climate goals while enhancing sustainable development. Through the NDC Partnership, members leverage their resources and expertise to provide countries with the tools they need to implement their NDCs and tackle climate change. Hosted by the World Resources Institute (WRI) and the UNFCCC Secretariat, the NDC Association has members in all regions of the world, with staff in Washington, DC and Bonn, Germany.

<sup>&</sup>lt;sup>57</sup> According to the existing methodology, Peru has a social price of carbon of USD 7.17 per ton of carbon dioxide (CO2). This is significantly below the level of Chile (USD 23.9 per ton of CO2), the only other country in the region that has implemented a social price of carbon in its national public investment system.

of a social price of carbon in project appraisal is critical for the proper accounting of social costs and benefits associated with reducing or increasing GHG emissions and guiding public investments in key network sectors (Water, Sanitation and Waste Management, Energy) of the economy towards lower-carbon alternatives.

- 44. In January 2022, the Government approved provisions to standardize the environmental certification (EC) of instruments that are reviewed by SENACE, which will enhance the predictability, consistency and agility of the process, improve current business environment and reduce "red tape", through the Single Procedure for SENACE's Environmental Certification Process PUCA. This will allow standardizing the requirements and timeframes that SENACE applies during the environmental assessment and certification process of projects, reflect best practices on socio-environmental management, and properly incorporate climate change risks and corresponding mitigation measures<sup>58</sup>. The identification of climate change adaptation and mitigation measures must be incorporated into the investment projects subjected to the SEIA. This policy reform will promote an enabling environment for the integration of climate risks within E&S instruments by: (i) promoting the improvement of quality of E&S instruments including the proper incorporation of climate risks and mitigation measures, and (ii) supporting the overall improvement and standardization of the EC processes under SENACE's responsibility through the PUCA.
- 45. **Expected Results:** BIM will be piloted in the public sector and generate lessons for the full roll out in Peru by 2025 including a completely updated legal framework, and expansion of the methodology beyond the central Government to regional and local governments, and other public institutions. In the short term (2-3 years), the pilot exercise will generate important lessons on BIM implementation requirements through use cases, including how to build the necessary capacity of users to reap the full benefits of the system. Over the medium term, the introduction of BIM is expected to increase the efficiency and sustainability in investment project management, including a reduction in the time required to prepare the technical documents for infrastructure projects and implement them, increased accuracy in project design and reduced materials wastage, and more efficient operations and management of public assets, including on regulatory and environmental aspects. BIM is also expected to: (i) facilitate a move to greener construction aimed at climate change mitigation and adaptation, by using early analysis tools, <sup>59</sup> and (ii) reduce overall project costs and prevent cost and time overruns resulting from unrealistic financial planning or incomplete technical specifications. Case studies from the US, UK and India have shown construction and project lifetime savings ranging between 2.3 to 12 percent of project budgets and up to 66 percent time savings. <sup>60</sup> Speeding up investment project preparation and execution will generate important social and economic benefits as public resources are more efficiently used to deliver improved services.
- 46. The National environmental evaluation and certification processes will be streamlined, by transferring pending SEIA functions to SENACE and adopting the PUCA. The regulation of the NREC is also expected to translate into the preparation of more robust E&S instruments for investment projects. These reforms, in the mid-term will: (i) promote an enabling environment for the integration of climate risks within E&S instruments, and (ii) ensure investments are developed considering the most adequate measures for the protection of the environment and people. In addition, in terms of the social price of carbon, increasing the value of this parameter by updating the estimation methodology following the approach used by countries such as Chile and expanding its use during the appraisal of three additional types of investment projects would result in better accounting of social benefits and costs. The analysis of carbon valuation options during project appraisal is critical to guide investments in key sectors of the economy towards lower-carbon alternatives, meeting NDC commitments, and facilitating compliance with the Paris Agreement.
- 47. The reforms supported under this DPF are expected to lead to a reduction of at least 10 percent by 2023 in the

<sup>58</sup> As required by Peru's framework law on climate change
59 The World Green Building Trends report of 2018
60 https://excelize.com/blog/the-evidence-is-in-20-stats-that-prove-that-bim-technology-delivers-roi and
https://www.bimcert.org/Blog/ArtMID/387/ArticleID/2/BIM-Saves-Money-Objective-Proof

average time to develop and approve technical dossiers of investments applying the BIM methodology; and to an increase of the amount of detailed EIAs and EIA modifications that are evaluated within the timeframe established by the regulatory framework, and that receive on time binding technical opinions, of at least 34 percent, through the application of the PUCA.

### Pillar 2: Build resilience and enhance climate change adaptation

48. Actions under Pillar 2 support the strengthening of climate change adaptation and disaster risk management, and the mainstreaming of disaster risk knowledge as a structural element in the decision-making processes for sectoral and territorial planning. This contributes to the construction of resilient infrastructure and communities through adapting to the conditions posed by climate related and geological hazards.

<u>Prior Action 3: Strengthen climate change adaptation and disaster risk management.</u> To strengthen its climate change adaptation, disaster risk reduction and emergency preparedness, the Borrower, through the President and the Council of Ministers, has approved and issued an updated national disaster risk management policy entitled "National Disaster Risk Management Policy to 2050", to be implemented by all relevant public administration entities, as evidenced by Supreme Decree No. 038-2021-PCM published in the Official Gazette on March 1, 2021.

**Trigger 3.** The Borrower has approved the Disaster Risk Management Plan (PLANAGERD: 2022-2030) by a Supreme Decree issued by the President and the Council of Ministers.

- 49. **Rationale**: Peru's territory due to its geographic location and physical-environmental conditions is prone to seismic, geodynamic and hydrometeorological events. In the last two decades, the economic losses linked to natural events reached more than 4 billion dollars with the damages caused by El Niño Costero 2017 (landslides, flooding and huaicos (flash floods) in the northern coastal regions of Peru),<sup>61</sup> exceeding US\$ 3.1 billion, equivalent to 1.6 percent of the country's GDP. In the period from 2003 to 2017 the human losses due to disasters reached 2,682.<sup>62</sup> The GoP has identified as persistent root causes of the high level of vulnerability of the population and their livelihoods: (i) occupation and improper use of the territory without considering its characteristics and risk conditions; (ii) weak understanding of disaster risk in all its dimensions; (iii) fragile governance of disaster risk management; (iv) weak incorporation and integration of disaster risk management in public and private investments; and (v) lack of effectiveness and timeliness for response and recovery.<sup>63</sup>
- 50. Climate variability cycles and their extremes, exacerbated by changing climatic patterns, makes disaster risk management and climate change adaptation across sectors and at the subnational level increasingly urgent. According to the Intergovernmental Panel on Climate Change,<sup>64</sup> natural and human systems are already experiencing the consequences of the 1°C rise in global average temperature, such as extreme weather events and increased sea level rise, and these impacts will become more severe with time. Precipitation is projected to increase on average in the coastal areas and in the northern mountains of Peru, which are flood prone; average temperature may increase between two and three degrees by the end of the century;<sup>65</sup> glacier melt is accelerating rapidly in Peru (glaciers represent one of the main water resources for the country); and sea level rise is increasing risks for the urban coastal populations (58 percent

<sup>&</sup>lt;sup>61</sup> El Niño Costero differs from the El Niño basin-wide phenomenon because it was spatially confined along the coasts of Peru and Ecuador as opposed to the El Niño-related expansion of warm waters coming from the western and central equatorial Pacific. Source: Ramírez, I.J. & Briones, F. Int J Disaster Risk Sci (2017) 8: 489 "Understanding the El Niño Costero of 2017: The Definition Problem and Challenges of Climate Forecasting and Disaster Responses".

<sup>62</sup> DRM National Policy 2050 (2021) page 6

<sup>63</sup> DRM National Policy 2050 (2021) page 10

<sup>64</sup> IPCC. 2018. Special report: Global warming of 1.5. https://www.ipcc.ch/sr15/

<sup>65</sup> Scenarios RCP4.5 and RCP8.5

of the country population lives along the coast).<sup>66</sup> Peru needs to strengthen DRM to address the above challenges and realign political actions from a comprehensive perspective of disaster risk reduction and climate change adaptation, searching for an adequate articulation and coordination among the three levels of government, private sector, and civil society. This is crucial to achieve a resilient recovery from the 2020 global pandemic and meet the growing demands, and increased climate-impacts of the next decades.

- 51. **Substance of Prior Action:** The GoP has made significant progress in disaster risk management since 2010, with the inclusion of State Policy 32 "Disaster Risk Management", the creation of the National Disaster Risk Management System-SINAGERD (Law 29664), the approval of the National Disaster Risk Management Policy (Supreme Decree No. 111-2012-PCM) and the gradual implementation of 2014-2021 National Disaster Risk Management Plan (PLANAGERD) 2014-2021. <sup>67</sup> The PLANAGERD is a legally binding instrument for the public entities of SINAGERD. <sup>68</sup> It guides disaster risk management planning, for public entities at the three levels of government. It is focused on results-based management and is articulated with budgetary programs. <sup>69</sup> However, there was a need to reorient the country's DRM strategy with a horizon to 2050, to incorporate lessons from the previous PLANAGERD, and better consider the current international frameworks. <sup>70</sup>
- The National Disaster Risk Management Policy was updated in 2021, with a horizon to 2050. The Policy recognizes the importance of addressing the high vulnerability of the population and their livelihoods to disaster risk in the territory and elevates vulnerability to the category of public problem, therefore establishing a reorientation of DRM in the country. Root causes of vulnerability are established and addressed by the policy, targeting vulnerability reduction in terms of specific objectives. Moreover, the Policy aligns with the current Peru's regulations and international commitments. The Policy establishes 6 objectives and strengthens the incorporation of climate adaptation aspects by: (i) improving population's and institution's understanding of disaster risk for decision-making; (ii) improving land use planning through the incorporation of disaster risk; (iii) improving territorial articulation for the implementation of disaster risk management; (iv) mainstreaming disaster risk management in public and private investment; (v) ensuring assistance to the population during emergencies and disasters; and (vi) improving recovery processes to support populations affected by natural events. Integrated climate change management is a fundamental consideration in the objectives as well as a gender and intercultural approach.
- 53. Currently, the GoP is updating the PLANAGERD to align it with the National Disaster Risk Management Policy with a horizon to 2030 that will be approved through a supreme decree by the PCM in 2022. The updated PLANAGERD will be

<sup>&</sup>lt;sup>66</sup> SENAMHI. 2014. Statistical regionalization of climate scenarios in Peru; Third National Communication Peru. 2016.

https://www.minam.gob.pe/wp-content/uploads/2016/05/Tercera-Comunicación.pdf; Common Ground Between the Paris Agreement and the Sendai Framework: Climate Change Adaptation and Disaster Risk Reduction. OECD.2020. https://www.adaptationcommunity.net/wp-content/uploads/2020/04/OECD-Common-Ground-Paris-Agreement-Sendai-Framework-Full-Report.pdf

<sup>67</sup> National Plan for Disaster Risk Management. The PLANAGERD 2014-2021 is structured in 6 Strategic Objectives, 14 Specific Objectives that scale into (47) strategic actions with their respective indicators

<sup>68</sup> PLANAGERD (2014-2021) http://www.pcm.gob.pe/wp-content/uploads/2018/01/PLANAGERD.pdf

<sup>69</sup> http://www.pcm.gob.pe/wp-content/uploads/2018/07/TEXTO-ESTRATEGIA-IMPLEMENTACION-PLANAGERD.pdf

<sup>70</sup> Sendai Framework for Disaster Risk Reduction 2015 - 2030, 2030 Agenda for Sustainable Development, Andean Strategy for Disaster Risk Management and international Human Rights Instruments

<sup>71</sup> The previous policy was oriented to move forward the DRM and their institutionalization (sectoral/territorial). The priority objectives were focused on institutionalization and development of DRM processes, capacity building, mainstreaming of DRM in development planning and strengthening of prevention and resilience. The new policy is focused on vulnerability reduction since vulnerability is now understood as a public problem.

<sup>72</sup> The objectives of the National Disaster Risk Management Policy to 2050 are linked with the following indicators: i) to reduce by 20% the direct economic losses due to disasters (in relation to GDP); ii) to reduce to 13% the percentage of homes located in areas with very high exposure to hazards; iv) to reduce to 11.9% the infrastructure of public services located in areas of very high exposure to hazards; v) to provide disaster assistance to 100% of the population; and vi) rehabilitating public services for high magnitude events. DRM National Policy 2050 (2021) page 9

the instrument of the SINAGERD to guide the planification of DRM at the three levels of government in line with the National Disaster Risk Management Policy. The Plan will determine the structure of the Budgetary Program 0068 and will also establish a strategy for its implementation defining instruments, mechanisms and the required multisectoral coordination. This includes organization and institutional arrangements, identification of investment projects in DRM, funding, monitoring, and assessment<sup>73</sup>.

- 54. In line with objectives (iii) and (v) of the National Disaster Risk Management Policy 2050, the organization and operation of the Emergency Operations Centers (EOCs) will be improved through the implementation of Ministerial Resolution No 258 -2021-PCM. The improvements will address several weaknesses that have been identified in the response process at local level including: (i) gaps in emergency-response at the local level as there are still 1167 municipal districts and provinces without operational EOCs, (ii) the lack of integration of emergency-response information into DRM systems to facilitate future emergency response and enhance territorial decision-making for planning, and (iii) the lack of coordination between the different-levels of government for DRM. The EOCs organizational structure and operational means will be adapted to better reflect the diversity of technical capacities at the local level, providing better territorial articulation of DRM and improving assistance to the population during emergencies and disasters.
- 55. **Expected Results:** In a context of climate change, this policy reform will support the Government's efforts to define and develop public policy actions at the subnational and sectoral levels, aimed at generating risk information, reducing risk to climate change impacts, and increasing climate resilience and adaptation to help maintain the country on the path of sustainable development. Moreover, this policy reform will particularly support vulnerable groups to strengthen resilience and disaster risk preparedness. The integration of disaster risk knowledge and disaster and post disaster information will result in better decision making for disaster risk management.
- 56. Climate-related hazards (floods, flash floods, landslides, droughts, and frosts) are the most frequent cause of disasters in Peru. Therefore, the strengthening of the DRM in Peru through the new policy and instruments will directly impact the capacity of the country to deal with climate-related hazards. Furthermore, the National DRM policy mandates the mainstreaming of disaster risk analysis and climate change adaptation assessment across sectors, as well as the strengthening of the capacity of local and regional governments to respond to climate-related events. Through the improved EOCs the local governments will more efficiently respond to emergencies/disasters and will contribute to prevention and risk reduction by having better risk information. As a result of this DPF, the number of people living in areas with local EOCs operating according to new guidelines will increase from 0 to 2 million.

<u>Prior Action 4: Promote a more resilient urban development.</u> To promote a more resilient and sustainable urban development, the Borrower has enacted: (i) the Sustainable Urban Development Law, including provisions for incorporating disaster risk management and climate change adaptation in urban land planning, as evidenced by Law No. 31313, as published in the Official Gazette on July 25, 2021; and (ii) the Law on Management and Protection of Public Spaces, establishing the regulatory framework for the management and protection of public spaces, including a mandate to prepare public spaces plans to be integrated in urban planning instruments, as evidenced by Law No. 31199 promulgated on May 20, 2021 and published in the Official Gazette on May 22, 2021.

**Trigger 4.** The Borrower has issued a Supreme Decree for the regulation of the Sustainable Urban Development Law, which will regulate in detail aspects related to the development and implementation of urban planning instruments, incorporating disaster risk management.

57. **Rationale**: Many Peruvian municipalities do not have adequate capacities and resources to plan and manage territorial development. Most of them cannot prepare the complex planning instruments currently being required by

<sup>&</sup>lt;sup>73</sup> http://www.pcm.gob.pe/wp-content/uploads/2018/07/TEXTO-ESTRATEGIA-IMPLEMENTACION-PLANAGERD.pdf

law. A study of 30 Peruvian cities (the 25 regional capitals plus five economically emerging cities) found that only seven had all the instruments required by urban regulations and five cities had none.<sup>74</sup> This last group included Metropolitan Lima, which in 2013 simply extended the validity of its Metropolitan Development Plan 1990-2010 indefinitely. Of the 196 provincial municipalities in Peru, only 92 have a Territorial Plan and only a fraction of these includes a disaster risk management component. As such, most urban growth is occurring without planning instruments to guide it and does not take into consideration hazard exposure. In fact, a large part of the population and public and private infrastructure is exposed to hazards, particularly those located in urban centers<sup>75</sup>. Lima-Callao concentrates more than one third of the population, and several million people live in old, deteriorated, and overcrowded houses<sup>76</sup>. Climate change impacts are also increasingly affecting Peru's urban areas through increased frequency of climate-induced disasters. The latter coupled with the low adaptive capacity of vulnerable populations to cope with such risks poses a serious challenge to Peru's urban population.

- 58. Informal and unplanned urban growth has also resulted in cities without sufficient public spaces and green areas. The poor external (urban environment) habitability faced by many urban dwellers in Peru has a detrimental effect on their health and, limits their ability to benefit from living in urban areas; and the overall potential gains in productivity associated with urban agglomerations. A 2021 study showed that in more than half of the Lima-Callao districts (equivalent to three quarters of the city's population), there are only between 0.3 square meters and 3 square meters of public spaces per capita. While the situation is better in the wealthier districts, only 4 of them have the recommended 8 square meter standard.<sup>77</sup>
- 59. Local governments in Peru are also highly dependent on intergovernmental transfers, which in some cases account for over 95 percent of their budget. Their own source revenues, mainly municipal fees, represent about 10 percent of subnational spending (virtually all at the municipal level). The lack of cadasters, paired with weak tax administration capacity at the municipal level, contributes to making Peru one of the countries with the lowest levels of property tax revenue in the region: about 4.2 percent of municipal income comes from this source. In comparison, in Chile and Brazil, municipal collection accounts for 25-30 percent of municipal revenues, respectively.<sup>78</sup> The lack of revenue generation and planning at the local level is contributing to the unplanned, disorganized, sprawled city growth, and limits the financial capacity to provide quality urban services, build resilient infrastructure, public spaces, and amenities.
- 60. In other Latin American countries, local urban governments can apply additional and innovative land management instruments to generate and manage urban land, density, and city growth promote the conservation of green areas and public spaces; and incentivize more sustainable urban development. In addition, they can apply land value capture (LVC) instruments to generate additional revenue. For example, in Colombia, LVC instruments such as additional development rights, impact fees for urban development, betterment and levies, and *plusvalía* capture can be used to enable public investment in urban areas and to capture the ex-ante and ex-post value of urban development or infrastructure

<sup>&</sup>lt;sup>74</sup> WFF, PERIFERIA (2019), Primer Reporte de Ciudades en el Peru.

<sup>75</sup> In large and medium-sized cities, the high vulnerability areas are concentrated in the periphery where most informal settlements are located. In the central city zones risk is due to the aging, deterioration of neighborhoods. There are also low quality non-seismic resistant houses, built on hillsides (See Sato, J., G. Romero, R. Medina, A. Díaz, J. Li, and J. Meneses, 2012: La gestión de riesgo de desastres en el Perú. 146 pp.) 76 Plan for Prevention and Disaster Risk Reduction of Metropolitan Lima 2015-2018, Municipality of Metropolitan Lima

<sup>&</sup>lt;sup>77</sup> Maiztegui, Belén. "Cartografía de la desigualdad: Investigación geográfica sobre el acceso a los espacios públicos y áreas verdes de Perú" 10 may 2021. ArchDaily Perú. Retrievable at: <a href="https://www.archdaily.pe/pe/960997/cartografia-de-la-desigualdad-investigacion-geografica-sobre-el-acceso-a-los-espacios-publicos-y-areas-verdes-de-peru">https://www.archdaily.pe/pe/960997/cartografia-de-la-desigualdad-investigacion-geografica-sobre-el-acceso-a-los-espacios-publicos-y-areas-verdes-de-peru</a> ISSN 0719-8914

<sup>78</sup> Banco Mundial (2018). Policy Note: Local Government Infrastructure Planning and Investment in Peru.

investments. However, LVC instruments aside from property tax collection have not been fully developed under Peruvian law and there is very limited experience implementing them.

- 61. **Substance of prior action:** In July 2021, the Government enacted the Sustainable Urban Development (Law No.31313). The law seeks to promote Sustainable Urban Development defined as comprising four elements: (i) land use in harmony with the common good and the general interest; (ii) disaster risk management; (iii) equitable and accessible urban development, and the reduction of urban and territorial inequality; and (iv) the conservation of cultural patterns, knowledge and lifestyles of traditional communities and indigenous and native peoples.
- 62. Among some of the new features of the approved law are: (i) a set of incentives to densify and promote sustainable mobility in urban areas; (ii) the introduction of land-value capture instruments, that would allow leveraging additional financial resources to finance resilient urban infrastructure and service improvements; (iii) the introduction of urban management instruments (i.e. Additional development rights and transfer developments rights) to protect among others cultural heritage areas, agricultural land and vulnerable ecosystems; and (iii) an enhanced integration of disaster risk management in the development of plans, and management of urban areas.
- 63. The Law makes mandatory the mainstreaming of disaster risk analysis (including hazard, vulnerability and risk assessment and zonation of climate related risks such as those posed by floods, debris flows and landslides) into the plans for territorial and urban development and integrates climate change mitigation and adaptation, disaster risk and urban resilience into urban development plans targeting risk reduction and adaptation. Law 31313 expressly incorporates definitions for disaster risk management and resilience and establishes them as building principles of sustainable urban development, territorial and urban planning. It also expressly establishes mitigation and adaptation to climate change as a guiding principle for territorial and urban planning at regional and local scale. As such, the law established that climate change adaptation, applied to urban planning seeks to reduce, moderate, or prevent climate change-related damages and take advantage of the opportunities it creates, through the generation of sustainable, resilient, and environmentally safe cities.
- 64. In addition, the law mandates that urban action must prioritize the population most vulnerable to disasters, through the reduction of risk and urban inequality and the improvement of accessibility conditions. For example, it creates the category "priority social housing" aimed at the lowest income segments of the population and, especially, at those occupying non-mitigable risk areas. Furthermore, the law regulates the declaration of non-mitigable risk areas and the declaration of intangibility and prevents the implementation of urban upgrading or housing projects, the installation of essential public services, and the regularization of informal settlements in these areas. The law mandates that non-mitigable risk zones must be transformed into urban protection land, thus providing an important climate change adaptation measure by banning construction and development in areas where the climate related risks are high, and the risks are non-mitigable. Finally, the law regulates the resettlement process of the population living in non-mitigable risk areas, and links it with the allocation of housing subsidies and access to housing projects.
- 65. To further improve external habitability (urban environment), the Government has also enacted the Law for the Management and Protection of Public Spaces (Law No. 31199). The objective of this law is to establish the regulatory framework for the management, protection, and sustainability of public spaces, as essential elements for improving the quality of life of people and the environment in the city; as well as to guarantee its public use. The law considers public safety and disaster risks (including climate-related risks), and environmental sustainability as two of its principles. Furthermore, public spaces are recognized as essential elements for climate change adaptation and mitigation. Finally, the law establishes the mandate for provincial municipalities to prepare their public spaces plans. These plans must be integrated in the urban planning instruments established in the Law for Sustainable Urban Development.
- 66. Both laws constitute critical normative instruments to achieve the objectives set in the recently enacted National Housing and Urban Policy (NHUP). This policy has a horizon at 2030 and integrates housing and urban development in

one guiding framework for all national and subnational actors. It seeks to solve the lack of internal and external habitability. The policy establishes four prioritized objectives and organizes the different activities ("services") required to achieve them. The four prioritized objectives are: (i) guarantee sustainable growth of cities and populated settlements through urban and territorial planning; (ii) guarantee the sustainability of land occupation dynamics; (iii) increase access to adequate housing prioritizing the poor or those who are socially vulnerable; and (iv) improving the external habitability conditions.

- 67. **Expected results:** The purpose of the Sustainable Urban Development Law is to guide the development of cities and populated centers to be sustainable, accessible, inclusive, competitive, fair, diverse, generating opportunities for all citizens and promoting integration and orderly growth. It is expected that the implementation of the law helps strengthen the capacity of urban governments for preparing and implementing urban planning instruments, incorporating disaster risk management principles as well as land management and land value capture instruments. This, in turn, should result in more resilient and low carbon urban growth, cities that are less sprawled, and less vulnerable to catastrophic and climate change-related events, and with more equitable access to adequate housing and living conditions.
- 68. It is also expected that the incentives and land management instruments established in the law will enable local governments to promote adequate population density levels and urban form in cities. Greater urban density along with mixed uses can increase the proximity between residences, jobs, schools, etc. This, in turn, can reduce vehicular emissions as: (i) people spend less time in transport; and (ii) shorter distances can also incentivize the use of public and nonmotorized transportation, including walking and cycling. Greater urban density also makes viable the construction and operation of public transit systems, such as metros and Bus Rapid Transit. Moreover, higher densities can reduce the need for infrastructure (i.e., roads and bridges, pipes for water and sewage, electricity transmission) per capita, and therefore result in lower emissions per capita. Among other provisions to promote urban density and sustainable land use, Law 31313 establishes that local governments can grant additional building rights to urban development or building projects that promote sustainable urban development, such as those that entail the generation of social housing, the increase in public spaces, the construction of infrastructure that encourages the use of sustainable mobility, and the accumulation of urban plots for densification projects. Furthermore, incentives are also focused on densification of areas classified as Consolidated Urban Land for social housing thus reducing the use of land outside the consolidated area of the cities and preventing further alteration of surrounding ecosystems.
- 69. Moreover, these reforms aim to provide local governments and the private sector with the tools and incentives to create better opportunities for more equitable access to adequate public spaces and to promote healthier and more sustainable living in urban areas. The Law on Management and Protection of Public Spaces promotes: the conservation, regeneration and expansion of green public spaces in cities contributing to: (i) climate change mitigation through the greening of urban areas (carbon sequestration); and (ii) climate change adaptation by contributing to the improvement of local climatic and environmental conditions (i.e. reduction of urban heat island effect, and localized cooling) and preserving public spaces that have a protective function (evacuation and shelter, flood and landslide risk buffer areas). As a result of this DPF the number of people living in cities or populated settlements with urban planning instruments that integrate disaster risk management and public spaces management in accordance with Law No. 31313 and its regulations will go from 0 (2021) to 5.5 million (2023).31313 and its regulations will go from 0 (2021) to 5.5 million (2023).

#### Pillar 3: Supporting the transition towards a greener economy in selected sectors

70. Actions under Pillar 3 focus on driving transitions in the following strategic systems: sustainable transport, urban development and infrastructure, and energy systems. These include supporting reforms to promote: (i) a greener urban development through incorporating low-carbon technologies and architectural features in new buildings that enhance climate change adaptation; (ii) a greener and more efficient urban transport; (iii) and renewable energy services for all and energy efficiency policies. Reforms in these sectors were prioritized as they: (i) provide many opportunities for

reducing emissions of GHG and other local pollutants, while providing important social and economic co-benefits such as improved health, and help close the access to electricity gap through clean energy, job creation in green industries and savings; (ii) benefit from sufficient political consensus for their implementation; (iii) draw on previous ASA work which allowed the proper identification of policy bottlenecks that needed to be addressed; and (iv) complement ongoing WB lending (as outlined in Annex 6). In addition, most of the reforms supported are part of the country's Climate Change Mitigation Measures as identified in RENAMI – and required regulatory changes to advance.<sup>79</sup>

**Prior Action 5. Promote a greener urban development.** To promote the reduction of GHGs and increase adaptive capacity in the framework of Peru's climate change commitments, the Borrower, through the Ministry of Housing, Construction and Sanitation, has approved a new Technical Code for Sustainable Construction setting out requirements for buildings and urban developments to meet basic conditions of sustainability, as evidenced by Supreme Decree No. 014-2021-VIVIENDA published in the Official Gazette on July 26, 2021.

**Trigger 5**. The Borrower has issued a Ministerial Resolution to create the National Registry of Sustainable Buildings and Urban Developments to facilitate measurement of progress in achieving climate change commitments.

- 71. **Rationale.** In recent decades, there has been an increase in the construction of private and public sector buildings. However, this uptake has not been accompanied by an improvement of infrastructure quality. Most low-income households' resort to informal forms of occupation, and self-construction, often without professional supervision, using inadequate building materials and construction techniques.<sup>80</sup> There is also substantial room to improve the quality of formal housing construction as in its current form it is leading to high energy and water consumption, inadequate indoor environmental quality, construction materials, and waste management. Shifting construction requirements towards lower-carbon technologies is particularly relevant given the lifetime of buildings (which tend to last from 26-50 years) and Peru's climate and expected climate change impacts. 60 percent of the Peruvian population lives in desert areas and an estimated 50 percent of potable water is lost due to poor water networks, illegal connections, and poor water usage. In response to poor construction practices, the GoP enacted in 2015 the first Technical Code for Sustainable Construction. However, the 2015 Technical Code for Sustainable Construction only considered three measures on energy efficiency and two measures on water efficiency, applicable to new buildings; and was a voluntary standard.
- 72. **Substance of prior action:** Linked to the recently enacted NHUP, the Government has taken forwards specific reform measures to promote more resilient and sustainable residential and public buildings through the approval of the 2021 Technical Code for Sustainable Construction (enacted by Supreme Decree No. 014-2021-VIVIENDA of July 23, 2021). The revised Code represents an improvement from the previous version as it gradually establishes the mandatory nature of its standards. The new Technical Code is also expected to contribute to meet Peru's climate change commitments and comply with recently enacted legislation, as well as to keep pace with technological progress. In particular, it establishes the technical requirements to enable buildings and urban facilities to meet basic sustainability conditions, which, are intended to promote the reduction of GHG emissions and enhance climate change adaptation. This is achieved through the implementation of detailed minimum technical standards for the design and construction of buildings and urban facilities to: increase water and energy efficiency, improve the environmental quality inside and outside the building, use

<sup>&</sup>lt;sup>79</sup> Peru has identified 62 GHG mitigation measures to meet their NDC goals: 38 of which are linked to energy measures (includes transport), 2 to industrial processes, 6 to agriculture, 8 to land-use change and 8 to solid waste. Most of the land-use-changes measures require implementing reforms that have already passed, and/or having sufficient funding to finance them; a few require lower-level legislation (guidelines) to move forward

<sup>80</sup> In Peru, three out of five homes nationwide lack a building license, and four out of five were built without technical assistance from a civil engineer or architect (Espinoza and Fort 2020 and INEI, 2017). Jobs — increasingly distant from urban centers — and the lack of adequate transportation services affect access to employment, education and leisure opportunities.

eco-materials, reduce, and reuse construction waste and promote low-carbon mobility. The new Technical Code will be mandatory one year after its publication for sustainable housing projects of Fondo Mivivienda and new public sector buildings, such as education and health facilities. In its first phase of implementation, its technical provisions are optional for new buildings or urban developments not expressly included in the Code. The establishment of the National Registry of Sustainable Building and Urban Developments (Trigger 5) will facilitate the measurement of progress in achieving climate-change commitments and inform the public on which buildings (public or private) are certified as following the Sustainable Building code.

73. **Expected results**: This reform intends to promote more sustainable housing and infrastructure and thus increase the resilience of the population, enterprises, and the public sector against catastrophic events and climate change. The 2021 Technical Code for Sustainable construction also provides an improved framework for the incorporation of green construction practices for new housing. The provisions of the Code are intended to promote the reduction of GHG emissions to the environment from the design and construction of buildings and urban facilities, through the increase of water and energy efficiency, the improvement of environmental quality, the reduction of waste and the promotion of sustainable mobility. As a result of this DPF the number of housing projects from *Fondo MiVivienda* certified with the new Technical Code for Sustainable Construction will go from 0 (2021) to 300 (2023).

**Prior Action 6:** Promote a greener and more efficient urban transport. To promote the provision of more efficient public transport services, reduce transport related GHG emissions, and improve health and road safety, the Borrower: (i) through the Ministry of Transport and Communications: (A) has approved the National Regulation to Promote Vehicle Scrapping, including provisions governing the establishment of scrapping programs and the granting of economic incentives to vehicle owners, as evidenced by the Supreme Decree N° 005-2021-MTC published in the Official Gazette on February 5, 2021 and effective April 6, 2021; and (B) has approved the Methodology for Calculating Avoided GHG Emissions and Valuation of Mitigated Environmental Externalities with the Implementation of Vehicle Scrapping Programs, as evidenced by the Directorial Resolution No. 20-2021-MTC/18 published in the Official Gazette on April 23, 2021; and (ii) through the Executive Presidency of the Urban Transportation Authority for Lima and Callao (ATU), has approved the Directive that Regulates Vehicle Scrapping in the Area of Influence of the Complementary Corridors of the Integrated Transit System of the ATU, establishing regulations for the scrapping of vehicles of public transport service operators along key transit corridors, as evidenced by Resolution of the Executive Presidency N° 164-2021-ATU/PE published in the Official Gazette on November 3, 2021.

**Trigger 6.** The Borrower has issued a Directorial Resolution to approve an incentive-based program for public transport Vehicle Scrapping Program for Lima-Callao.

- Rationale: Peru suffers from low-quality public transport systems with unsafe and carbon-intensive vehicle fleets for passengers and freight. There are several opportunities to improve the sector which has a long history of fragmented governance and weak institutional capacity to plan and manage efficient, green, and integrated transit systems in urban areas. These opportunities include the promotion of safe and accessible integrated transport systems, transition to electromobility, incentivize vehicle fleet scraping and renewal, invest in non-motorized transport infrastructure, and promote a better coordination of transport planning with land use and urban development policies. Transport is also the fastest growing sector in terms of GHG emissions due to the current trends in personal vehicle motorization (63 percent growth in the last decade). If current transport trends are not managed from a sustainable low-carbon perspective, Peru will not meet climate commitments and will face even more severe congestion and public health problems due to increased local air pollution, noise, fatal and severe traffic incidents, and lack of access to opportunities for the vulnerable and low-income population.
- 75. In Lima, around 40 percent of combis (low-capacity transit vans) are more than 15 years old. Recent reports estimate that approximately 1 million Ton  $CO_2$ eq/year and 40 percent of the local air pollutants (PM<sub>2.5</sub>, CN, NO<sub>x</sub>, SO<sub>2</sub> as

defined by the Ministry of Transport and Communications - MTC) are caused by motor vehicles 15 years old and older (approximately 110.000 units countrywide). Furthermore, epidemiological literature has solidly established that long-term exposure to PM<sub>2.5</sub> is associated with increased risk of lung cancer, chronic obstructive pulmonary disease, heart disease and stroke.<sup>81</sup> Policy recommendations suggest that motor vehicles 15 years old and older (24 percent of the total country fleet) should be prioritized for vehicle scrapping and renewal in some cases.<sup>82</sup> From the road safety perspective, these vehicles also contribute to more severe and fatal traffic incidents (low-capacity transit vehicles in Lima and freight trucks account for 62 percent of the road traffic fatalities in the country).<sup>83</sup> The World Health Organization estimates that road accidents are the first cause of death for people between 15 and 44 years in developing countries, and the economic impact has been estimated at 3 percent of the national GDP. In Peru, the situation has been worsening over the past few years with an average annual increase of fatalities by 1.4 percent and a rise of injuries by 4.4 percent over the period 2005-2018.

- Substance of prior action: In February 2021 the Government published the Supreme Decree No. 005-2021-MTC, which adopted the National Regulation for the Promotion of Vehicle Scrapping. Through this policy instrument, the Government will provide economic incentives to public transport (freight and passenger) vehicle owners that do not have sufficient financial resources to initiate a fleet renewal process, or the potential residual value of their old unit does not provide sufficient resources to change their economic activity for income generation. Two modalities of the Vehicle Scrapping Program have been established in the Supreme Decree that regulates the incentives for vehicle scrapping. For the vehicle removal modality, the beneficiary receives the incentive directly from MTC as a result of scrapping the old unit, without the possibility of using said incentive to replace the scrapped unit with a new one. In the vehicle renewal modality, the beneficiary receives an incentive from the MTC as a result of the scrapping process, which will serve to replace the scrapped vehicle with a newer one that is more efficient and environmentally friendly. The MTC still needs to define the processes to operationalize the Program and receive the initial funds from MEF to implement the first phase with the goal to scrap 1,000 old trucking units nationwide, with economic incentives estimated at US\$20 million.
- 77. The National Regulation for the Promotion of Scrapping is a strategic part of the overall National Urban Transport Policy (NUTP), which includes a set of policies and investment actions to decarbonize the urban transport sector,<sup>84</sup> including the promotion of non-motorized travel and the revamping of conventional transit systems with modern and low-carbon technologies.<sup>85</sup> Proposed Vehicle Scrapping Programs will reduce and replace the old bus transit fleet in urban areas along key transit corridors and enhance the impact of ongoing investments currently being made to expand transit systems in large urban areas such as the Lima 2<sup>nd</sup> Metro line. Without all these coordinated actions, it won't be possible to prevent shifts from transit to private motorized vehicles. The negative impacts of these potential future shifts around travel behavior in terms of congestion, pollution, carbon emissions, and road safety would be substantial, affecting quality of life, productivity, and the sustainability of cities.

<sup>&</sup>lt;sup>81</sup> IMF (2017), Getting Energy Prices Right: from principle to practice. https://www.elibrary.imf.org/view/books/071/21171-9781484388570-en/21171-9781484388570-en-book.xml

<sup>82 &</sup>quot;Diseño de programa de chatarreo y renovación vehicular en el Perú. Identificación de impactos y costos de la implementación de programa de renovación", Jara Consulting Group, 2018, GIZ- NAMA Support Project.

<sup>83 &</sup>quot;Diseño de programa de chatarreo y renovación vehicular en el Perú. Identificación de impactos y costos de la implementación de programa de renovación", Jara Consulting Group, 2018, GIZ- NAMA Support Project.

<sup>84</sup> These include the creation on December 2018 of the ATU and the approval of the National Urban Transport Policy in April 2021
85 To improve the quality of the transit system in Lima, there is a plan to extend the metro network to five new lines (168km) and a 10km extension of the Bus Rapid Transit (BRT) line. Significant investments in mass transit infrastructure are needed, as well as the need to move to an integrated transport system with the physical, operational, tariff, and institutional dimensions. The gap in cycling infrastructure is about 1.173 km of connected and low-stress bike lanes with parking facilities at mass transit stations to enhance last-mile connectivity. The Bank is supporting the government to close this gap in mass transit and Non-Motorized Transport (NMT) infrastructure; it is currently financing the 10km extension of the BRT line and financed the update of the Lima Bicycle Infrastructure Plan.

- 78. The established forthcoming operational guidelines for the Vehicle Scrapping Promotion Program will enable the MTC, as well as other local authorities, such as Urban Transport Authority for Lima y Callao (*Autoridad del Transporte Urbano para Lima y Callao -ATU*), and other interested public institutions, to develop a vehicle scrapping proposal and identify the target goals for vehicle scrapping. One of these guidelines has been already published (Methodology for Calculating Avoided GHG Emissions and Valuation of Mitigated Environmental Externalities with the Implementation of Vehicle Scrapping Programs) to estimate the GHG and local air pollutants emission reductions from these programs, as well a valuation methodology of these benefits. The MTC is evaluating the implementation of the first phase of the program to focus on freight vehicles (trucking) based on a study financed by the GIZ.<sup>86</sup> The implementation of the first phase of the Program will inform procedural and operational aspects for scaling up. The stages that are pending are mostly operational and there are no normative requirements left.
- 79. Likewise, in November 2021, ATU approved a Directive that regulates the vehicle scrapping process for old transit units operating in the complementary corridors of Lima's Integrated Transit System. Similar to MTC's first phase program initiative, ATU has prepared a program to implement the first Vehicle Scrapping Program over the next two years on Lima's passenger public transport system (i.e., taxis, buses, and combis), starting with 30 units in the first year and then 100 unit the following year. Similar to the MTC, the implementation of the first phase will inform operational aspects for scaling up.
- 80. **Expected results:** One of the most direct expected results from the Vehicle Scrapping Program is the reduction of GHG emissions and local air pollutants through the reduction of oversupply on carbon-intensive vehicle fleets for passengers and freight, and indirectly through incentives to transition to lower-carbon vehicle technologies and massive transit systems. The program is also expected to have an impact on public health by helping to reduce fatal and severe traffic incidents on public roads, in addition to the expected reduction on the aggregate local air pollutants from public transport systems. From the country's NDCs, it was estimated that approximately 0.105 million Ton CO2eq/year by 2030 and 0.992 million Ton CO2eq (cumulative by 2030) could be avoided with the Vehicle Scrapping Program.
- 81. Estimates for the MTC's first phase focus on 1,000 old trucking units (0.070 million Ton CO2eq/year by 2030, equivalent to 2.3 million US\$ of mitigated negative externalities per year) and ATU's first phase for the Lima's passenger public transport system (0.010 million Ton CO2eq/year by 2030, equivalent to 0.1 million US\$ of mitigated negative externality value per year) brings the potential estimate for GHG emissions reductions under this program for the next two years to 0.080 million Ton CO2eq/year by 2030, in addition to 0.921 million tons/year of local air pollutants. The results of these policy actions will be measured in reduction of GHG emissions and local pollutants (PM2.5, SO2 and NOx) according to the Methodology for calculating avoided emissions and valuation of mitigated environmental externalities, with the implementation of scrapping programs approved by Directorial Resolution No. 20-2021-MTC / 18 published in the Official Gazette on April 23, 2021. The reduction will go from 0 MtCO2e (2021) to 0.08 MtCO2e per year (2023) and from 0Mt to 0.921Mt of local pollutants per year (2023).

**Trigger 7: Promote renewable energy services for all.** The Borrower has issued a Supreme Decree to improve the auctions for Solar Home Systems concessions and contribute to closing the electricity access gap, that introduces modifications to the Regulation for the Promotion of Electric Investment in Areas not Connected to the Grid to incorporate lessons learned from projects under the first auction, including by shifting contractual responsibility for invoicing and payment collection from distribution companies to investors.

**Trigger 8**. The Borrower has issued a Supreme Decree to enable suppliers of non-conventional renewable energy to participate in technology neutral electricity supply auctions by introducing hourly blocks.

<sup>&</sup>lt;sup>86</sup> "Diseño de programa de chatarreo y renovación vehicular en el Perú. Identificación de impactos y costos de la implementación de programa de renovación", Jara Consulting Group, 2018, GIZ- NAMA Support Project.

- 82. **Rationale**: The Peru National Energy Policy 2010-2040 establishes as key objectives having a diversified energy matrix, focused on renewable energy sources and energy efficiency, and achieving universal access to clean and affordable electricity services.<sup>87</sup> Over the past decade Peru has been a leader in developing and implementing innovative grid and off-grid electrification models leveraging interest and resources from private sector concessionaires and promoting the use of renewable energy generation to provide clean and affordable electricity service to its urban and rural population. However, Peru still needs to close the electricity access gap in the most remote and difficult areas for which off-grid electrification models, such as Photovoltaic Solar Home Systems (SHS), need to be updated to provide sustainable clean electricity services, in particular to the most vulnerable and energy poor population.
- 83. Closing the access gap covering the 'last mile', which most often involves serving remote, sparsely populated, and poor rural areas remains a significant challenge in Peru. The high costs of service provision combined with low affordability, limited maintenance services and spare parts in rural areas remain a hurdle to overcome. The Ministry of Energy and Mines (MINEM) introduced regulation that allowed carrying out auctions for off-grid electricity service provision to areas not connected to the grid through renewable energy resources (RER). The Autonomous RER auctions promoted private investment for concessions to design, supply goods and services, install, operate, maintain, replace, and transfer the SHS to the public utilities or MINEM at the end of the concession period. To ringfence the core business of the private concessionaire, the payment received per SHS installed was placed in an escrow account so that it would not be impacted by the risk of non-payment from rural households. The commercial management (billing and collections) of the SHS customers was the responsibility of the public distribution companies (Discos).
- 84. To date, there has been one Autonomous RER auction, commonly known as "Programa Masivo Fotovoltaico", which was awarded to a private concessionaire in 2015 and that resulted in over two hundred thousand SHS installed in rural households, schools and health facilities in the country's coastal and sierra regions by 2019, with an estimated investment of US\$180 million. Despite being successful in securing a private sector service provider for expanding solar off-grid electrification, the Autonomous RER auction showed certain shortcomings, mostly related to an unbalanced risk allocation that started impacting the public distribution companies. As the concessionaire had the payment per SHS installed allocated and ringfenced in an escrow account: (i) there was limited incentive for them to focus on conveying to the households the relevance of paying for a service for its operation and maintenance; and (ii) the non-payment risk from customers fell on the distribution companies that were responsible for billing and collection.
- 85. The *Programa Masivo Fotovoltaico* faced issues regarding bills' collection, when by comparison, other SHS being installed during 2015-2017 period by the distribution companies under two World Bank-financed Projects (Rural Electrification Project (P090116), and Second Rural Electrification Project (P117864)) with similar target population had collection rates of 95 percent. The willingness to pay study<sup>88</sup> done for the WB-financed projects showed that rural households were on average paying more for their energy requirements (candles, kerosene and batteries) than they would pay for a SHS including battery replacement.<sup>89</sup> Moreover, under the rural electrification projects strong awareness campaigns and trainings were done to ensure a correct understanding of using the equipment and to create a payment culture. However, this was not the case under the *Programa Masivo Fotovoltaico*, where there was a lack of awareness from rural households on the appropriate use and benefits of the SHS as well as on the need to pay for the service. All of this resulted in an exceptionally low collection rate of, under 5 percent, which was borne by the public distribution

<sup>&</sup>lt;sup>87</sup> Over two hundred thousand people in urban areas, living in peripheral areas, lack the electricity service and 17.8 percent of the rural population does not have access to this service either.

<sup>88</sup> https://documents1.worldbank.org/curated/en/367371468298150327/pdf/577000ESW0Whit1onal0Consumo0Hogares.pdf 89 This together with other regulatory work was the basis for the regulator, OSINERGMIN, to establish the regulated tariff for solar home systems in rural areas (BT-8).

companies. The low collection rates impacted the public companies' already fragile financial situation and the long-term sustainability of the SHS service provision in the country.

- 86. The Government is also seeking to increase the share of Non-conventional Renewable Energy (NCRE). This will allow the country to diversify its power generation matrix increasing its resilience to climate change impacts on water hydrology and reduce the country's overall carbon footprint by displacing fossil fuels. This would provide access to cleaner energy to grid-connected customers mostly living in urban areas and contribute to decarbonizing their electricity consumption.
- 87. **Substance of the proposed trigger.** The Government is now preparing the second Autonomous RER auction (*Segundo Masivo Fotovoltaico*), to provide clean energy to the most remote and vulnerable population to help close the electricity access gap while mobilizing further private capital. The Segundo *Masivo Fotovoltaico*, already aligned to the updated regulation that incorporates the lessons learned from the first experience, is expected to be launched in 2022. Key aspects that will be updated in the regulation include, among others: (i) modifying the responsibilities of the commercialization activities so that the non-payment risk is shared more equally between the concessionaire and the distribution company; (ii) having a closer oversight and contract inspection to ensure the SHS are properly installed and operated before receiving a payment; and (iii) stronger promotion of awareness campaigns to ensure proper use of SHS and a payment culture for electricity service provision. Changes in the bidding document as well as in the investment contracts will also be needed.
- 88. Despite being one of the precursors of renewable energy auctions<sup>90</sup> the share of NCRE electricity generation in Peru has remained relatively low reaching only 4.7 percent in 2019. Neighboring countries with similar strong renewable resources, such as Chile, have surpassed 19 percent. To increase this share, the Government is looking at international experiences for introducing hourly, day or seasonal blocks as well as for contracting energy and capacity separately and removing the requirement of the energy supply being linked to firm capacity. These changes in the electricity supply auctions for regulated customers would enable NCRE to participate in technology neutral auctions further greening the electricity matrix that supplies energy for regulated customers in Peru while enabling the entry of new players in the market.
- 89. **Expected results**: The triggers aim at promoting renewable energy services for all. The reform to the promotion of electricity investments in isolated areas will allow the launch of the second Autonomous RER auction (*Segundo Masivo Fotovoltaico*) that will deploy over one hundred thousand SHS (at least a 4 percent increase of the rural electricity access rate and over 12MW of solar capacity installed) to support closing the access gap and provide clean, affordable, and reliable electricity to people living in remote areas of Peru. The implementation of the second Masivo Fotovoltaico will also reduce the net GHG emissions from the provision of electricity service through renewable energy in rural areas and displace other fossil fuels used to provide energy such as kerosene. As a result of this Prior Action, the SHS capacity provided by Public Private Partnerships (PPPs) will go from 0 MW in 2021 to 6.5 MW by the end of 2023, when it is expected that half of the total SHS auctioned will already be installed.
- 90. The reform to the electricity supply auctions for regulated customers connected to the grid that introduce hourly, day or seasonal blocks and auction separately energy and capacity will enable NCRE to be awarded in the auction. This in turn will increase the provision of clean energy to regulated customers and help displace fossil fuel-based generation in the electricity grid, thus supporting lower carbon energy generation. The reforms will be introduced during 2022 and the next auction is planned to be launched in the second semester of 2022, with the supply contracts awarded in 2023. As a result of this DPF, the nominal power of non-conventional renewable energy generation awarded in the first supply auction that introduce hourly blocks is expected to pass from 0 (2021) to at least 50 MW in 2023.

<sup>&</sup>lt;sup>90</sup> Four renewable energy auctions were held between 2009 and 2015

**Prior Action 7: Promote energy efficiency.** To promote energy efficiency in public entities and private sector companies, the Borrower, through the Ministry of Energy and Mines, has approved a decree containing provisions to promote the development of energy audits and for the certification of energy auditors, as evidenced by Supreme Decree No. 011-2021-EM published in the Official Gazette on May 14, 2021.

**Trigger 9**. The Borrower has issued Supreme Decrees that modifies the technical regulation of energy efficiency labeling for energy equipment and establish Minimum Energy Performance Standards (MEPS).

- 91. **Rationale**: Deployment of Energy Efficiency (EE) programs has been identified by the GoP as key to reduce energy demand, displace thermal generation and reduce both electricity price and GHG emissions. EE investments are also often cost-effective and produce large economic co-benefits including job creation. Peru has enacted several EE policies including the Law for the Promotion of the Efficient Use of Energy (Law no.27345), the National Energy Plan 2014-2025 (R. M. 185-2014-MEM-DM), and the National Long-term Energy policy 2010 2040 (Decree 064-2010-EM) that aims to have a "diversified energy mix, with an emphasis on renewable sources and energy efficiency" by 2040. EE is also included as a main area of focus in Peru's NDC, that calls for unconditional emissions reductions of 202.8 MtCO2e by 2030 and Conditional reductions of 179 MtCO2e by the same year. Furthermore, Peru has also adhered to OECD's Green Growth Declaration, and therefore needs to improve its energy intensity levels to reach OECD standards. Therefore, harnessing the country's EE potential will be key to meet the country's national and international climate commitments.
- 92. Although Peru has developed a strong institutional framework for EE, with a set of norms, plans and targets, the implementation of EE measures and actual reduction of energy demand has been limited and energy consumption has been growing steadily. Challenges remain in various fronts, including existing regulatory, financial, and technical barriers, such as lack of capacity and resources in the public sector, lack of incentives or obligations, the packaging of the measures, lack of awareness of technologies and their potential, or implementing business models that work at scale to produce greater energy efficiency. To tackle these challenges, the Government is working on a series of reforms that aim to address some of these barriers, creating an enabling environment for the scaling up of EE actions in sectors where there is wide potential for achieving a reduction in energy consumption such as the public sector and energy appliances.
- 93. Regarding the public sector, the regulation of the Law for the promotion of efficient use of energy (Law No. 27345) established the obligation for Public Entities with a monthly electricity consumption beyond a certain threshold to carry out energy audits, which is a critical first step to assess energy savings potential in their buildings and processes and identify energy efficiency measures that can be implemented for an efficient use of energy. Furthermore, having clarity on the framework to develop EE audits can be a critical input to facilitate the development of energy service companies (ESCO) for the implementation of EE measures in public buildings. The public sector could therefore spearhead EE efforts and lead by example to help promote more EE in other sectors. The Ministerial Resolution (MS) N186-2016-MEM of May 16, 2016, approved the criteria to carry out these audits by EE consultants or ESCOS registered in the Registry of EE consultants and ESCOS at MINEM's General Directorate of Energy Efficiency (DGEE). However, the delay in the creation of this Registry resulted in an obstacle to the actual development of these audits, and therefore to the implementation of EE measures in the public sector. To address this issue, MINEM has enacted a new regulation for the promotion of energy audits performed by certified energy auditors, and clearly established the path to create guidelines to become a certified auditor. Private companies that need to conduct energy audits in their facilities can also choose to use this framework, and their efforts to reduce their energy consumption through the implementation of EE measures can also be recognized.
- 94. Additionally, MINEM is further working on enacting other regulations that can help achieve energy consumption reductions beyond the public sector and complement their efforts to remove barriers and create obligations and incentives for boosting EE in the country. To improve the efficiency of energy appliances sold in the country, the Ministry is working on: (i) modifying the current technical regulation for EE labelling for energy appliances to include compulsory

EE labelling for fifteen new equipment; and (ii) developing the regulation to establish MEPS for some of the highest energy consuming appliances, including air conditioning, refrigerators, washing machines, and lighting. Establishing MEPS, often combined with EE labelling, is a policy measure quoted repeatedly to address energy efficiency at product level that can produce a more rational energy consumption at the end-user level as evidenced by many OECD countries.

- 95. **Substance of prior action:** The Borrower has enacted a regulation to promote energy audits in public entities and private sector and regulate the certification process of energy auditors who will carry out these audits, as evidenced by Supreme Decree No. 011-2021-EM, dated May 14, 2021. In addition, the Government is working on: (i) modifying the technical regulation for EE labelling for energy equipment to expand the requirement for EE labelling from nine appliances that were included in the regulation approved in 2017, to fifteen more; and (ii) the introduction of MEPS for priority appliances including air conditioning, washing machines, refrigerators and lighting. Both regulations are expected to be completed in 2022 and enacted by Supreme Decrees.
- 96. **Expected results**: The Supreme Decree strengthens the institutional framework for the execution of EE measures in the public sector, tackling the existing bottlenecks that were preventing Peru from exploiting the existing potential for energy savings in the public sector through the promotion of energy audits. The reform will support the identification of EE gains in public entities and companies that in turn will facilitate the execution of EE programs and the achievement of actual energy savings and emissions reductions. Introducing regulations for energy efficiency labelling and performance standards will incentivize a shift to more efficient appliances, achieving energy savings and GHG emissions reduction, improving the affordability of energy bills for the more vulnerable households and increasing the competitiveness of businesses. As a result of the policy measures supported by this DPF, annual energy savings from public sector buildings and energy efficient appliances will go from 0 Gwh (2021) to 70 Gwh (2023).
- 97. The table with a summary of the DPF Prior Actions and Analytical Underpinnings is included in Annex 5.

#### 4.3. LINK TO CPF, OTHER BANK OPERATIONS AND THE WBG STRATEGY

- 98. This operation is in line with the WBG COVID-19 Crisis Response to Resilient Recovery paper which lays out a framework to promote recovery and growth through green, resilient, and inclusive development (GRID). Furthermore, the operation is also in line with the WBG Climate Change Action Plan 2021-2025 which represents a shift from "green" projects to greening entire economies. The policy reforms supported under this operation, which are framed around enabling a green and resilient development are aligned with the Bank's broader strategy and approach. This operation is also aligned with the pillars defined in the Country Partnership Framework (CPF) FY17–FY21 (Report No. 114798-PE, discussed by the Board of Executive Directors on May 2, 2017) and with the Performance and Learning Review (Report No. 135267-PE, presented to the Board of Executive Directors on April 25, 2019), specifically with the following: Objective 3.Enhance the environment for sustainable private investment, Objective 6 Improve governance with selected institutional reforms at the national and subnational levels, Objective 7 Strengthen the management of natural resources, and Objective 8 Improve disaster risk planning and financial management.
- 99. The following projects are under implementation and complement the objectives of this operation: *National Urban Cadaster and Municipal Support Project* (P162278) which aims to improve the coverage of urban cadaster services in selected municipalities to enhance local government capacities for revenue generation and urban management; *Lima Metropolitano BRT North Extension* (P170595) which aims to improve urban mobility and accessibility to jobs in the area of influence of the *Metropolitano BRT north extension; Enhancement of Environmental Quality Services* (P147342) which

<sup>&</sup>lt;sup>91</sup> EE audits are mandatory for the public sector.

<sup>92</sup> WBG (2021) From COVID-19 Crisis Response to Resilient Recovery: Saving Lives and Livelihoods while Supporting Green, Resilient and Inclusive Development (GRID)

<sup>93</sup> World Bank Group. 2021. World Bank Group Climate Change Action Plan 2021–2025: Supporting Green, Resilient, and Inclusive Development. World Bank, Washington, DC. https://openknowledge.worldbank.org/handle/10986/35799

aims to improve its environmental monitoring and analytical capacity, increase public access to environmental quality information, and promote informed public participation in environmental quality management; and the *Integrated Forest Landscape Management Project in Atalaya*, *Ucayali* (P163023) which aims to strengthen sustainable management and use of forest landscapes in the Raimondi, Sepahua and Tahuanía districts of the Atalaya province.

### 4.4. CONSULTATIONS AND COLLABORATION WITH DEVELOPMENT PARTNERS

- 100. The objectives, pillars, policy actions and expected results of the operation have been defined in collaboration with the Government's key sectoral entities through a consultation process led by the MEF, which is the implementing agency for the DPL operation. In addition, the operation's task team maintained a close dialogue with representatives from key line ministries, agencies, and sectoral entities, including MEF, MINAM, MVCS, MTC, MINEM, PCM, INDECI, CENEPRED y Banco de la Nación. Through a series of virtual missions and an iterative process of sectoral consultations, a multidisciplinary World Bank team has worked with an array of counterparts in the above-mentioned ministries, departments, and agencies to define policy reform priorities, identify prior actions that would promote these reforms and determine the most impactful results indicators.
- 101. **Consultations**. According to article 14 of Supreme Decree No.  $^{\circ}$  001-2009-JUS, public agencies must publish the draft bills in the official gazette, in their electronic portals (websites) or by any other means, within a period of no less than thirty days before the date scheduled for the bill's entry into force, except in exceptional cases, to enable citizens to comment on the proposed measures. In addition, regarding bills of law, the No. 9 2012 2013 / COUNCIL-CR Agreement of the National Congress' Directive Board establishes that all bills of law that are presented and published, are entered in the Congress' Virtual Legislative Forums. The objective of this provision is to promote the participation of citizens and civil society in the analysis and debate of bills, through relevant contributions, comments, and opinions, during the legislative process.
- 102. Regarding, national policies, the National Strategic Planning Center's Guideline for the Preparation of National Policies mandates that the participation of relevant actors shall be transversal in the different stages and steps of national policy. The Guideline states the importance of properly identifying actors in the territory, such as regional and local governments, civil society, academia, and the private sector, who are directly or indirectly related to the public problem identified in national policy. A stakeholder map can be used to plan and decide how they will participate throughout the process. Following the National Center for Strategic Planning's Guideline, the MVCS, organized workshops and working groups strategically grouping the representatives from academia, private sector, civil society, subnational governments, and professional associations across the country, as well as international experts. At these events, the draft National Housing and Urban Planning Policy was presented, and feedback from participating actors was collected. In the same way, the MINAM published the "Matrix of Objectives Indicators Guidelines Services" during the process of updating the National Environmental Policy, to receive opinions and / or suggestions from interested parties as part of the validation and public consultation stage.
- 103. The operation, as part of the WBG's broader program of support to Peru has benefited from close coordination with development partners. These include the IMF, Inter-American Development Bank (IADB), Development Bank of Latin America (CAF), UNHabitat, GIZ, USAID), KFW Development Bank, the Swiss State Secretariat for Economic Affairs (SECO) under the overall guidance of MEF. Some of the prior actions supported by this program are informed by long-standing technical assistance by the Bank and other international partners. Bank staff has met regularly with staff of other international institutions to coordinate efforts and align messages. For example, SECO jointly with the Bank has developed technical assistances on the housing sector and on disaster risk financing instruments. Moreover, the implementation of the BIM Peru Plan has been carried out with the support of CAF and with the accompaniment of the British government.

#### 5. OTHER DESIGN AND APPRAISAL ISSUES

#### **5.1. POVERTY AND SOCIAL IMPACT**

# Pillar 1: Strengthening the foundations for a greener economic recovery

- 104. The distributional impacts of Prior Action 1 (Sustainable Bond Framework) are likely to benefit the poor since they are more vulnerable to climate change negative impacts. However, the overall impact will also be affected by the design of the green and socially oriented projects financed through the Bonds.
- 105. **Prior Action 2 (BIM adoption, PUCA application, and Social Price of Carbon) is expected to have positive effects on welfare.** All three measures aim to improve efficiency and speed up approval of public investments, which is a key bottleneck to effective and efficient project implementation in Peru. <sup>94</sup> Given the large and positive impacts of public investments on economic activity and job creation—particularly in developing countries—these measures are expected to contribute to poverty reduction. The size of the effect on welfare will depend on the type of project implemented. However, on average, the impact is expected to be positive.

# Pillar 2: Build resilience and enhance climate change adaptation

- 106. **Prior Action 3 (National Disaster Risk Management Policy to 2050) is expected to benefit the poor and vulnerable populations**. In Peru, the poor are the most exposed to disaster risk, because of the regions where they live and the precarious conditions of their homes and livelihoods. In fact, poverty and flood exposure are positively correlated in Peru. In Loreto, for example, almost 40 percent of the population is exposed to floods and the poverty rate of the region is 42 percent (see Figure 2). More specifically, 18 percent of the population is poor and exposed. The last disaster in Peru, el Niño Costero in 2017, left 50,000 households without a house. The infrastructure damage was estimated in US\$ 3 billion dollars, from which 10 percent were associated with sanitation and 50 percent with transport, affecting the poorest population (RCC, 2017). That year, the estimated national investment in infrastructure maintenance was 0.5 percent (SIAF, 2017). The new Public Budget Law will allow local governments to invest 20 percent of canon and mining royalties in maintenance and disaster preparedness (Law 31084).
- 107. Prior Action 4 (Laws Sustainable urban development and Management and Protection of Public Spaces) is expected to have positive impacts on vulnerable populations by reducing their exposure to natural events and by reducing disparities within cities. 45 percent of the urban population in Peru lives in slums, improvised settlements, and inadequate housing (MINAM, 2019). Urban growth increasingly takes place in areas exposed to natural hazards. Furthermore, only 69 percent of homes in urban areas are built with brick or concrete, the rest is made from low-resistant materials. It is estimated that most of informal houses built with tubular brick which is 50 percent less resistant to earthquakes and other natural disasters (CISMID, 2021). The supported reform will on the one hand: (i) limit the expansion of urban areas in zones of non-mitigable risk, and (ii) support the resettlement of population living in such areas. The first is expected to shift urban growth towards more resilient development and benefit vulnerable

<sup>&</sup>lt;sup>94</sup> Serebrisky, Tomas, et al. "Increasing the efficiency of public infrastructure delivery: Evidence-based potential efficiency gains in public infrastructure spending in Latin America and the Caribbean." Inter-American Development Bank, Washington, DC (2017); Fay, Marianne; Andres, Luis Alberto; Fox, Charles; Narloch, Ulf; Staub, Stephane; Slawson, Michael. 2017. Rethinking Infrastructure in Latin America and the Caribbean: Spending Better to Achieve More. World Bank, Washington, DC. © World Bank. https://openknowledge.worldbank.org/handle/10986/26390 License: CC BY 3.0 IGO

<sup>95</sup> Autoridad para la Reconstrucción con Cambios, RCC (2017). Plan Integral para la Reconstrucción.

<sup>&</sup>lt;sup>96</sup> Sistema Integrado de Administración Financiera (2017). Seguimiento de la Ejecución Presupuestal (Consulta amigable). Ministerio de Economía v Finanzas.

<sup>&</sup>lt;sup>97</sup> Ministerio de Ambiente, MINAM (2019) Asuntos Socio Ambientales. Estadística ambiental. In: https://sinia.minam.gob.pe/informacion/tematicas?tematica=12

<sup>98</sup> Centro Peruano Japonés de Investigaciones Sísmicas y Mitigación de Desastres, CISMID (2021) Universidad Nacional de Ingeniería, UNI.



populations which tend to settle in these zones. However, the full impacts of this PA will also depend on the resettling standards used for affected populations. Existing regulation such as the *Reglamento de la Ley N° 29869, Ley de Reasentamiento Poblacional para Zonas de Muy Alto Riesgo no Mitigable* provides the framework for the resettlement process in cases of non-mitigable risks. It considers the participation of several government agencies, as well as of the affected populations to guarantee, for example, that the affected population would receive the necessary assistance in terms of access to housing, income protection, proper infrastructure connectivity, access to health services, among other interventions. Several provisions of Law no. 29869 are well aligned with The World Bank Environmental and Social Standard 5 of the World Bank Environmental and Social Framework. For instance, the Law places an emphasis on minimizing the need for resettlement; suggests that non-titleholders should have equal access to resettlement benefits as those who have legal title; and brings attention to the need for adequate resettlement planning, all fully consistent with the ESS.<sup>99</sup>

- 108. The latter is expected to limit the potential negative effects of resettlement on affected households and enhance positive impacts.
- 109. The management, protection, and sustainability of public spaces will contribute to reduce disparities within cities. Lu et al. (2021)<sup>100</sup> find that a higher ratio of green spaces across US counties has been associated with a lower racial disparity of COVID-19 infection rates. In addition, the same study summarizes a large body of literature documenting the positive impacts of public green spaces on cognitive performance and reduced mental fatigue, mental stress, physical activity, social activity and social capital, and ecological benefits such as air and water purification.

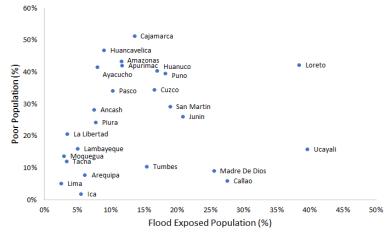


Figure 2. Exposure to floods and poverty rate in Peru

Source: Rentschler and Salhab (2020)<sup>101</sup>

<sup>&</sup>lt;sup>99</sup> The current regulations of Law No.28969 were only enacted in 2021 through Supreme Decree No. 142-2021-PCM. Therefore, it is too recent to assess its implementation track record. The new regulations seek to address gaps identified in the implementation of the previous regulatory framework, such as the need to regulate the process to approve the resettlement plan. Moreover, they incorporated the amendments introduced into Law No. 28969 by Law No. 30645 of 2017, which specified that any reference to areas of very high non mitigable risk includes areas of recurrent risk due to landslides, huaicos and river overflows.

<sup>&</sup>lt;sup>100</sup> Lu, Yi, Long Chen, Xueming Liu, Yuwen Yang, William C. Sullivan, Wenyan Xu, Chris Webster, and Bin Jiang. "Green spaces mitigate racial disparity of health: A higher ratio of green spaces indicates a lower racial disparity in SARS-CoV-2 infection rates in the USA." Environment international 152 (2021): 106465.

<sup>&</sup>lt;sup>101</sup> Maruyama Rentschler,Jun Erik; Salhab,Melda People in Harm's Way: Flood Exposure and Poverty in 189 Countries (English). Policy Research working paper,no. WPS 9447 Washington, D.C.: World Bank Group.

### Pillar 3: Supporting the transition towards a greener economy in selected sectors

- 110. Prior Action 5 (Sustainable construction building code) will likely increase welfare in the long term (through increased efficiency and safety) but the positive impacts in the short term would need to be compared against any potential increases in the cost of housing. The Technical Code of Sustainable Construction will help buildings and urban development save energy and water, making constructions safer and reducing CO2. Therefore, the residents of these buildings are expected to save money on energy and water, improving their situation. In addition, since the building code will improve the quality of the urban environment (greener areas and less CO2), it is expected to improve the health of users of public developments. However, in the short term, the Technical Code for Sustainable Construction could drive up the price of new homes, due to higher construction standards, widening the gap between those who can and cannot afford them. Peru's "Dirección de Construcción DGPRCS" estimates that the costs associated with complying with the new code could be between 3 and 4 percent of the price of houses but reduce electricity consumption by 50-60 percent and water consumption by 30-50 percent.<sup>102</sup>
- Prior Action 6 (Vehicle Scrapping) could help improve population health, reduce out-of-pocket health expenditures, and increase productivity in the long term, by reducing greenhouse gas emissions and local pollutants, and improving traffic safety. Older vehicles account for a large share of greenhouse emissions and local pollutants. 103 Since Peru has one of the highest levels of air pollution in Latin America, incentives to remove high-emission vehicles can bring about benefits in improved air quality. There is some evidence from the implementation of scrapping programs in developed countries which suggest that they have a very small impact on vehicle upgrading and reducing CO2 emissions. In addition, developed countries programs that have been studied in detailed were open to the general public, while the scrapping program described in this PA is limited to freight and public transportation vehicles, which disproportionally contribute to local pollutants and GHG emissions. To our knowledge, there are no similar impact evaluations for developing economies.<sup>104</sup> There are, however, experiences of vehicles replacement programs in developing countries. Mexico City implemented a bus replacement program in 2001, where high-capacity buses replaced older high-emitting minibuses (Posada et al, 2015). The program replaced around 4,500 microbuses at a 34.5-million-dollar cost. In Chile a truck replacement program was introduced in 2009 called Cambia tu Camion, to renew trucks that had been in service for over 25 years. The program led to the removal of around 5 percent of the 25-year-old trucks in the country. Removing old public transport vehicles is important, as there are no clear parameters to regulate the quality of the freight and public transportation vehicles in Peru and thereby the supported reform helps fill that vacuum. The program would also have direct monetary impacts on the recipients of the benefit, but the distributional incidence is not clear ex-ante as it will depend on their socio-economic characteristics.

<sup>102</sup> Dirección de Construcción - DGPRCS. "El Código Técnico de Construcción Sostenible". In:

https://cdn.www.gob.pe/uploads/document/file/2211934/C%C3%B3digo%20T%C3%A9cnico%20de%20Construcci%C3%B3n%20Sostenible%20-%20Roberto%20Prieto.pdf

<sup>103</sup> https://theicct.org/sites/default/files/publications/ICCT\_HDVreplacement\_bestprac\_20150302.pdf

<sup>&</sup>lt;sup>104</sup> In the US, a Car Allowance Rebate System was put in place. Li et al (2013) evaluate the program and found that it resulted in a small reduction of CO2 emissions, and that it went to a large number of consumers who would have purchased a new vehicle anyway. Other countries such as Japan and Germany also implemented similar subsidies as the US. In Germany, the program had little to no effect in CO2 emission (Klosser and Pfifer, 2018). In Japan the subsidy went to those purchasing eco-cars. As a result of the program, CO2 emission dropped, and the average age of cars started to decrease for the first time in more than a decade (Kitano, 2012)

<sup>&</sup>lt;sup>105</sup> Francisco Posada, David Vance Wagner, Gaurav Bansal and Rocio Fernandez (2015) Survey of Best Practices in Reducing Emissions Through Vehicle Repla

112. The distributional impacts of Prior Action 7 are not clear ex-ante, but the description of the intervention does not raise any concerns about potential negative impacts on the poor and vulnerable.

#### **5.2. ENVIRONMENTAL ASPECTS**

- The policies and measures supported through this operation are expected to have a significantly positive impact on Peru's environment, forests, and other natural resources, in line with the provisions set out in the World Bank's Development Policy Financing policy (2017). The matrix of prior actions sets out a range of policy areas to promote green, inclusive, and resilient development across a range of productive and social sectors as well as overarching policy interventions to promote fiscal consolidation and a series of specific measures to enhance environmental integrity of the national legislative framework, embed climate and disaster resilience, and promote climate mitigation outcomes. Pillar 1 focuses on advancing fundamental economic enabling conditions for a green economic recovery that are expected to have economy-wide benefits while fostering positive environmental benefits through: (i) supporting a green financing framework and (ii) improving the investment management framework with a focus on efficiency and sustainability. Pillar 2 seeks to build resilience and advance climate change adaptation through a series of prior actions that aim to embed climate and disaster resilience through urban planning approaches that protect vulnerable ecosystems and incentivizes the greening of urban development in terms of open spaces but also promoting sustainable mobility solutions. Pillar 3 aims to support a green economic transition through support to policy actions that: (i) support a cleaner and more efficient transport sector (with resulting environmental and health co-benefits benefits in terms of air quality)<sup>106</sup>; (ii) set standards for sustainability in the construction sector to promote greener, more inclusive urban development; (iii) decarbonize the energy matrix through the promotion of renewable energy; and (iv) promote energy savings and reduced GHG emissions in public and private sectors.
- 114. Furthermore, if unforeseen or unanticipated negative environmental impacts arise, the GoP has institutional capacity to monitor environmental performance and manage risks effectively, and this capacity will be bolstered by several policy areas supported in the current operation. MINAM was created in 2008 and since that time the GoP has adopted several policy measures to curb environmental degradation, address environmental vulnerabilities, and expand natural protected areas. At the same time, Peru has invested in developing institutional capacity to monitor and enforce compliance with national environmental legislation through MINAM and the Environmental Assessment Control Agency, including through previous and ongoing World Bank support.

### 5.3. PFM, DISBURSEMENT AND AUDITING ASPECTS

115. Peru's PFM framework is aligned with best international practices. The use of budget resources, and its foreign exchange (FOREX) internal control environment as managed by the Central Bank do not pose material risks to the development objectives of the operation.

Peru's budgeting practices meet most of the principles of the IMF Fiscal Transparency Code at a good or advanced level, and it ranks 76 out of 100 in the Open Budget Survey. Although moderate shortcomings exist, they do not pose material risks to the operation's development objectives. The areas for improvement include challenges in the medium-term budget planning, which are reflected in constant incremental changes in the initially approved budget compared to the executed budget. Furthermore, the budget control and oversight functions present some limitations given the

<sup>&</sup>lt;sup>106</sup> Peru has an adequate institutional capacity to implement and enforce adequate waste management for any wastes generated from the scrappage program. The program is likely to result in a high degree of circularity, with metal reuse and repurposing, and thus overall low levels of residual waste. For any residual waste arising from the program, MINAM's Environmental Assessment and Control Agency, with offices nationally, has adequate capacity to monitor and supervise waste disposal in line with the series of national decrees and laws which align with international practice in the field.

<sup>&</sup>lt;sup>107</sup> https://www.internationalbudget.org/open-budget-survey/country-results/2019/peru 108 The actual expenditure deviated from budgeted expenditure by 15 percent in 2018, 14 percent in 2019 and 3 percent in 2020.

excessive concentration of control functions in the country's Supreme Audit Institution, which is embedded in a gradual process of modernization, but still has gaps with respect to international good practices.

- 116. **Government Commitment to support PFM reforms.** While there is not an updated Public Expenditure and Financial Accountability evaluation (the last took place in 2009)<sup>109</sup> during the last decade the GoP has demonstrated good progress in implementing PFM reforms, including among others the implementation of a Medium-Term Budget Framework (MTBF), and improvements in the tax collection system.<sup>110</sup> In addition, the country carried out a significant overhaul of its PFM legal framework in September 2018, issuing a new comprehensive set of decrees covering all the dimensions of the PFM cycle.
- 117. **Budget credibility and comprehensiveness.** Policies and priorities are broadly reflected in the budget. The budget is formulated using a Multiannual Macroeconomic Framework which sets the macro targets for the following three years on a rolling annual basis. The MEF is responsible for undertaking the budget preparation process, taking into consideration multiple factors, including the priorities identified during the budget planning process, the potential sources of income, the fiscal rules in place, and the macroeconomic and fiscal projections. Fiscal policy objectives are embedded in numerical and time-bound fiscal rules. The legal framework sets clear procedures for the preparation, approval, and execution of the budget.<sup>111</sup>
- 118. **Budget transparency and control in budget execution**. The general Government budget is made publicly available on MEF's external website. Peru produces a wide array of in-year fiscal reports with a high degree of frequency and timeliness. The transparency section of the MEF's website allows access to information on budget execution updated on a daily basis and covers the national, regional, and local levels. Budget reports can be obtained based on programmatic, functional, and administrative classifications. In addition to this, the MEF prepares analytical reports with different frequencies, including follow-up on the compliance with fiscal rules (quarterly), debt report (daily, monthly, and quarterly), and execution of investment projects (updated daily). There is no evidence of material concerns regarding data accuracy of these reports.
- 119. **Budget Control and Monitoring Systems.** Budget execution, control and monitoring is done through the integrated financial management system (*Sistema Integrado de Administración Financiera*, SIAF). SIAF has embedded adequate controls for budget execution, which allows monitoring throughout the different stages of the budget process including commitment, certification, and final payment to beneficiaries. The single treasury account system is also integrated into SIAF, allowing for the consolidated control of the government bank accounts. The country has issued a set of internal controls based on the Committee of Sponsoring Organizations framework, which is still in the process of being implemented. All in all, the budget control and monitoring systems are reasonably well understood and disseminated.
- 120. **Public Procurement System**. Public procurement is governed by the Ley de Contrataciones del Estado ("Public Procurement Law"), its amendments and rulings, which establish the criteria to carry out procurement with transparency,

<sup>109</sup> While the PEFA 2009 found that in general terms the PFM environment in Peru is aligned with good practices, it identified some deficiencies, including the areas of tax administration and internal and external control.

<sup>110</sup> A Tax Administration Diagnostic Assessment Tool (TADAT) evaluation conducted by the IMF in 2017 concluded that the tax administration authority (Superintendencia Nacional de Aduanas y de Administración, SUNAT) was making good progress in implementing modern tax administration practices making use of new technology.

<sup>111</sup> Nevertheless, it is important to mention that the Fiscal Transparency Evaluation of 2015 (latest available) pointed out difficulties in connecting macro-fiscal objectives with annual and medium-term budget planning, which are reflected in the constant incremental changes in the initially approved budget.

<sup>112</sup> The general government budget is available at the MEF website: https://www.gob.pe/mef

<sup>&</sup>lt;sup>113</sup> The "Committee of Sponsoring Organizations" (COSO) framework for internal controls is the most common internationally recognized framework. COSO emphasizes accountability and ownership of control within an organization and states that management is responsible for establishing an effective internal control system.

efficiency, competitivity, equality and integrity. The Public Procurement Law complies with good international practices related to the control of public procurement regarding independent control institutions, the existence of defined mechanisms in relation to control under the direction of the General Comptroller. On the other hand, for public procurement, the electronic procurement system (Sistema Electrónico de Adquisiciones y Contrataciones del Estado, SEACE) is mandatory, easily accessible, and free for all user levels, providing information on contracting procedures. Therefore, no major procurement risks related to the implementation of the Prior Actions are expected. In addition to that, it is expected that a new procurement law will be submitted to Congress by March 2022.

- 121. **External scrutiny of public expenditures.** The Comptroller General of the Republic (CGR) provides independent oversight of public finances. The CGR is an independent body established under the Constitution to audit all public entities. It undertakes compliance and financial audits of fiscal statements in accordance with the International Standards of Supreme Audit Institutions. Overall, the CGR is a solid institution with adequate independence, legal and normative framework. As noted earlier, CGR is in the process of implementing further reforms aimed at modernizing its control practices.
- 122. **Foreign exchange management.** In the absence of a current IMF Safeguard Assessment Report (the latest report was issued in 2007), alternative procedures were undertaken. The published audited financial statements of the Central Bank for calendar year 2020 were reviewed. These financial statements present reliable financial information largely aligned with International Financial Reporting Standards and an overall sound financial situation. The audit was carried out in accordance with International Standards on Auditing by an audit firm acceptable to the World Bank. Unmodified opinions from the external auditors did not reveal any significant issues related to the internal control environment. This review concluded that the FOREX internal control environment does not pose risks to the development objectives of this operation.
- 123. **Disbursement and auditing arrangements.** Upon approval of the operation and effectiveness of the Legal Agreement, the proceeds of the loan will be disbursed into an account at the Central Bank, which is part of the country's Foreign Exchange Reserves. The funds will then be transferred into the Single Treasury Account managed by MEF at Banco de la Nación. Transactions and balances will be fully incorporated into the Borrower's accounting records and financial statements through SIAF. The Borrower, within 45 days after the withdrawal of the funds from the financing account, shall report to the Bank: (i) the exact sum received into the account referred to in Section 2.03 (a) of the General Conditions; (ii) the details of the account to which the local currency equivalent of the Loan proceeds was credited; and (iii) the record that an equivalent amount has been accounted for in the Borrower's budget management systems.
- 124. The financial support provided under this operation is not intended to finance goods or services on the list of Excluded Expenditures. If the proceeds of the DPF are used for ineligible purposes as defined in the Legal Agreement, the Bank will require the Borrower, promptly upon notice from the Bank, to refund an amount equal to the ineligible expenditure. Amounts refunded to the Bank upon such request shall be cancelled. Given that the control environment into which the DPF proceeds would flow is adequate, the World Bank will not require a dedicated account at the Central Bank for loan proceeds. On this basis, no specific audit of the deposit of the credit proceeds will be required and no additional fiduciary arrangements are considered necessary.

### 5.4. MONITORING, EVALUATION AND ACCOUNTABILITY

125. As implementing entities, MEF is responsible for collecting and monitoring information related to program implementation and progress towards the achievement of results for this DPL operation. MEF is further responsible for coordinating necessary actions among the agencies involved in the reform program supported by this DPL operation, which include ATU, MINAM, MVCS, MTC, INDECI, Banco de la Nación, PCM, MINEN and CENEPRED. The World Bank has worked closely with MEF and relevant sectoral entities to define results indicators that are clear and measurable, and that have realistic targets even in the context of the COVID-19 crisis. The Bank will focus on monitoring progress towards

the expected results of the program development objectives. The monitoring and evaluation of the operation will be also carried out through the ongoing policy dialogue during the preparation of any subsequent operations and the accompanying technical assistance projects.

126. **Grievance Redress.** Communities and individuals who believe that they are adversely affected by specific country policies supported as prior actions or tranche release conditions under a World Bank Development Policy Operation may submit complaints to the responsible country authorities, appropriate local/national grievance redress mechanisms, or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed to address pertinent concerns. Affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB 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 World Bank's corporate Grievance Redress Service (GRS), please visit http://www.worldbank.org/GRS. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org."

#### 6. SUMMARY OF RISKS AND MITIGATION

- 127. The overall risk rating for the proposed operation is assessed as Substantial. The key risk ratings are included in the table below. The major risks identified include: (i) political and governance and (ii) institutional capacity for implementation and sustainability, and (iii) other risks related to the COVID-19 pandemic and natural hazards.
- 128. **Political and Governance Risk are considered Substantial.** Over the past years, there has been a frequent turnover of high-level government officials at both the executive and Ministerial levels. The recent change in administration has reinforced this trend, and several Government officials in key strategic positions in line ministries were replaced during the preparation of the operation. In addition, a significant number of the reforms supported under this operation were approved by the previous administration. There is thus the risk of a slower implementation speed of reforms, and/or a lack of continuity of Government programs due to a shift in priorities. The mitigation measures put in place for the operation include: (i) ensuring a high-level of commitment of the new administration to the proposed and prioritized reforms, in particular those approved by the previous administration; (ii) having a continuous engagement with key Government bodies to assure that new Government officials are aware of the Program's objectives and intended results; and (iii) closely monitoring potential political and governance risks related to the operation throughout implementation. Since political turnover cannot be foreseen or fully mitigated, its impact on achieving the operation's development outcome is considered Substantial (residual risk).
- 129. The risk around Institutional Capacity for Implementation and Sustainability is rated Substantial particularly as the operation involves multiple agencies. In fact, to succeed, some of the proposed reforms will require a high level of coordination among line-ministries and with regional and local governments. Coordination between agencies in Peru is weak, and consensus building usually takes time which could lead to delays in implementation. In addition, the still ongoing efforts to respond to the COVID-19 pandemic have increased pressure to prioritize the use of public expenditures for the short-term economic recovery. To mitigate these risks, the operation is focusing on supporting reforms benefiting from long-standing policy dialogue and technical assistance by the World Bank and other donors. The Government has also ensured funding for the implementation of some of the reforms, such as the approval of the public budget for disaster risk management.
- 130. Other risks, in particular risks related to the COVID-19 pandemic and to other natural hazards, are Substantial. While the health situation has improved considerably in Peru, the COVID-19 pandemic and its impacts on the global

economic landscape are still evolving. There remains a high degree of uncertainty as to the duration of the pandemic, and a deterioration of sanitary conditions or the occurrence of a high-impact natural event, which could cause the Government to redirect its efforts from economic recovery and long-term reforms towards immediate emergency response. The Government program – including policies supported in this operation – is focused on strengthening resilience to further shocks which contributes to mitigate the potential impact on achieving the operation's development objectives.

**Table 4: Summary Risk Ratings** 

Table 4. Sulfillary hisk hattings					
Risk Categories	Rating				
1. Political and Governance	<ul><li>Substantial</li></ul>				
2. Macroeconomic	<ul><li>Moderate</li></ul>				
3. Sector Strategies and Policies	<ul><li>Moderate</li></ul>				
4. Technical Design of Project or Program	<ul><li>Moderate</li></ul>				
5. Institutional Capacity for Implementation and Sustainability	<ul><li>Substantial</li></ul>				
6. Fiduciary	<ul><li>Moderate</li></ul>				
7. Environment and Social	<ul><li>Moderate</li></ul>				
8. Stakeholders	<ul><li>Moderate</li></ul>				
9. Other	<ul><li>Substantial</li></ul>				
Overall	<ul><li>Substantial</li></ul>				

# **ANNEX 1: POLICY AND RESULTS MATRIX**

	Prior actions and Trigg	ers		Results		
Objective	Prior Actions under DPF 1	Triggers for DPF 2	Indicator Name	Baseline	Target	
Pillar One: Strengtl	hening the foundations for a greener economic recove	rry				
Support a green financing framework	Prior Action 1. To enable the Borrower to issue sustainable green bonds in local and international capital markets, the Borrower, through MEF, approved the Peru Sustainable Bond Framework which defines the eligible green public expenditures to which proceeds of such bonds may be applied, the process for selecting eligible projects, and reporting on allocation and impact, as evidenced by Ministerial Resolution No. 221-2021-EF/52 published in the Official Gazette on July 17, 2021.		Results Indicator 1. Allocation reports are prepared and published, in line with Peru's sustainable bond framework	RI#1: 0 (2021)	RI#1: 2 (2023)	
Improve the investment management framework with a focus on efficiency and sustainability	Prior Action 2: To enhance the efficiency and sustainability of investments, the Borrower:  (i) through the General Directorate of Multiannual Investment Programming has approved the "Implementation Plan and Roadmap for the Peru BIM Plan", defining short- and long-term objectives for the progressive incorporation of BIM, to reduce time and cost overruns in the preparation and implementation of public works, as evidenced by Directorial Resolution N° 0002-2021-EF/63.01 published in the Official Gazette on June 15, 2021;  (ii) through the Ministry of Environment, has approved Provisions for the Single Procedure for the Environmental Certification Process of the National Environmental	Trigger 1. To strengthen its approach and instruments to estimate the costs and benefits of carbon saving technologies in new and existing public investments, the Borrower, through Directorial Resolutions: (i) has issued BIM technical guidelines for infrastructure and buildings and directives for the adoption of BIM at the organizational level and through pilot projects complementing the National BIM Guide, and Implementation Plan and	Results Indicator 2. Reduction in the average time to develop and approve technical dossiers of investments applying the BIM methodology (%)  Results Indicator 3. Number of detailed EIAs and EIA modifications that are evaluated within the timeframe established by the regulatory	RI#2: 0 (2021)  RI#3: 33% (2021)	RI#2: >10% (2023)  RI#3:> 67 % (2023)	

The World Bank
Peru: Enabling a Green and Resilient Development DPF (P177765)

	Certification Service for Sustainable Investments, to enhance the predictability, consistency and agility of the environmental certification process of projects, as evidenced by Supreme Decree No. 004-2022-MINAM published in the Official Gazette on January 26, 2022;  (iii) through the General Directorate of Multiannual Investment Programming, approved the "Technical Note for Using the Social Price of Carbon in the Social Evaluation of Investment Projects", containing guidelines for estimating social costs and benefits linked to projects' greenhouse gas emissions, to inform the appraisal of investment projects, as evidenced by Directorial Resolution No. 006- 2021-EF/63.01 published in the Official Gazette on August 1, 2021;  Entities responsible: MEF, MINAM – DGPIGA,	Roadmap; and (ii) has expanded the use of the social price of carbon in three additional types of projects through a revised "Technical Note for Using the Social Price of Carbon in the Social Evaluation of Public Investments".  Trigger 2. To enhance the efficiency and quality of the environmental assessments and review processes, the Borrower has updated the regulations of the SEIA Law by Supreme Decree.	framework, and that receive on time binding technical opinions (%		
	silience and enhance climate change adaptation				
Strengthen climate change adaptation and disaster risk management	Prior Action 3. To strengthen its climate change adaptation, disaster risk reduction and emergency preparedness, the Borrower, through the President and the Council of Ministers, has approved and issued an updated national disaster risk management policy entitled "National Disaster Risk Management Policy to 2050", to be implemented by all relevant public administration entities, as evidenced by Supreme Decree No. 038-2021-PCM published in the Official Gazette on March 1, 2021.  Entities responsible: PCM (INDECI/ CENEPRED) - MEF	Trigger 3. The Borrower has approved the Disaster Risk Management Plan (PLANAGERD: 2022-2030) by a Supreme Decree issued by the President and the Council of Ministers.	Results Indicator 4.  Number of people living in areas with local EOCs operating according to new guidelines.	RI#4: 0 (2021)	RI#4: 2 million (2023)

The World Bank
Peru: Enabling a Green and Resilient Development DPF (P177765)

Promote a more resilient urban development  Pillar Three: Suppo	Prior Action 4. To promote a more resilient and sustainable urban development, the Borrower has enacted:  (i) the Sustainable Urban Development Law, including provisions for incorporating disaster risk management and climate change adaptation in urban land planning, as evidenced by Law No. 31313, as published in the Official Gazette on July 25, 2021; and  (ii) the Law on Management and Protection of Public Spaces, establishing the regulatory framework for the management and protection of public spaces, including a mandate to prepare public spaces plans to be integrated in urban planning instruments, as evidenced by Law No. 31199 promulgated on May 20, 2021 and published in the Official Gazette on May 22, 2021.  Entities responsible: MVCS	Trigger 4. The Borrower has issued a Supreme Decree for the regulation of the Sustainable Urban Development Law, which will regulate in detail aspects related to the development and implementation of urban planning instruments, incorporating disaster risk management.	Results Indicator 5.  Number of people living in cities or populated settlements with urban planning instruments that integrate disaster risk management, public spaces management in accordance with Law No. 31313 and its regulations.	RI#5: 0 (2021)	RI#5: 5.5 million (2023)
Promote a greener urban development	<b>Prior Action 5.</b> To promote the reduction of GHGs and increase adaptive capacity in the framework of Peru's climate change commitments, the	Trigger 5. The Borrower has	Results Indicators 6. Number of housing projects from	RI#6: 0 (2021)	RI#6: 300 (2023)
	Borrower, through the Ministry of Housing, Construction and Sanitation, has approved a new Technical Code for Sustainable Construction setting out requirements for buildings and urban developments to meet basic conditions of sustainability, as evidenced by Supreme Decree No. 014-2021-VIVIENDA published in the Official Gazette on July 26, 2021.  Entities responsible: MVCS	National Registry of Sustainable Buildings and Urban Developments to facilitate measurement of progress in achieving climate change commitments.	MiVivienda certified with the new Technical Code for Sustainable Construction		
Promote a	<b>Prior Action 6.</b> To promote the provision of more	<b>Trigger 6</b> . The Borrower has	Results Indicator 7.	RI#7: 0 (2021)	RI#7: 0.080
greener and more efficient urban	efficient public transport services, reduce transport related GHG emissions, and improve health and	issued a Directorial Resolution to approve an	Reduction of GHG emissions and local		MtCO2e per year 0.921 Mt of local
transport	road safety, the Borrower: (i) through the Ministry of Transport and	incentive-based program for public transport vehicle	pollutants (PM <sub>2.5</sub> , SO <sub>2</sub> and NO <sub>x</sub> ) according to		pollutants per year

The World Bank
Peru: Enabling a Green and Resilient Development DPF (P177765)

Promote	(A) has approved the National Regulation to Promote Vehicle Scrapping, including provisions governing the establishment of scrapping programs and the granting of economic incentives to vehicle owners, as evidenced by the Supreme Decree N° 005-2021-MTC published in the Official Gazette on February 5, 2021 and effective April 6, 2021; and  (B) has approved the Methodology for Calculating Avoided GHG Emissions and Valuation of Mitigated Environmental Externalities with the Implementation of Vehicle Scrapping Programs, as evidenced by the Directorial Resolution No. 20-2021-MTC/18 published in the Official Gazette on April 23, 2021; and  (ii) through the Executive Presidency of the Urban Transportation Authority for Lima and Callao (ATU), has approved the Directive that Regulates Vehicle Scrapping in the Area of Influence of the Complementary Corridors of the Integrated Transit System of the ATU, establishing regulations for the scrapping of vehicles of public transport service operators along key transit corridors, as evidenced by Resolution of the Executive Presidency N° 164-2021-ATU/PE published in the Official Gazette on November 3, 2021.  Entities responsible: MTC (i), and ATU (ii)	Trigger 7. The Borrower has	the Methodology for calculating avoided emissions and valuation of mitigated environmental externalities, with the implementation of scrapping programs approved by Directorial Resolution No. 20-2021-MTC / 18 published in the Official Gazette on April 23, 2021.	RI#8: 0 (2021)	RI#8: 6.5 (2023)
renewable energy services for all		issued a Supreme Decree to improve the auctions for Solar Home Systems concessions and contribute to closing the electricity access gap, that introduces	Solar Home Systems (SHS) capacity provided by PPPs (MW)	11170. 0 (2021)	NITO. U.Э (2023)

		modifications to the Regulation for the Promotion of Electric Investment in Areas not Connected to the Grid to incorporate lessons learned from projects under the first auction, including by shifting contractual responsibility for invoicing and payment collection from distribution companies to investors	Results Indicator 9.  Nominal power of non-conventional renewable energy generation awarded in the first supply auction that introduce hourly blocks (MW)	RI#9: 0 (2021)	RI#9: 50 (2023)
		Trigger 8. The Borrower has issued a Supreme Decree to enable suppliers of nonconventional renewable energy to participate in technology neutral electricity supply auctions by introducing hourly blocks.			
Promote energy efficiency	Prior Action 7. To promote energy efficiency in public entities and private sector companies, the Borrower, through the Ministry of Energy and Mines, has approved a decree containing provisions to promote the development of energy audits and for the certification of energy auditors, as evidenced by Supreme Decree No. 011-2021-EM published in the Official Gazette on May 14, 2021.	Trigger 9. The Borrower has issued a Supreme Decree that modifies the technical regulation of energy efficiency labeling for energy equipment and establish Minimum Energy Performance Standards (MEPS).	Results Indicator 10. Annual Energy savings from public sector buildings and energy efficient appliances (Gwh)	RI#10: 0 (2021)	RI#10: 70 (2023)
	Entities responsible: MINEM (Ministry of Energy and Mines)				

#### **ANNEX 2: FUND RELATIONS ANNEX**

#### Peru—Assessment Letter for the World Bank

# Documentation to support the proposal on "Peru: Enabling a Green and Resilient Development" Development Policy Financing

December 8, 2021

- 1. In concluding the 2021 Article IV consultation, the IMF's Executive Board noted that the pandemic had inflicted a heavy human and economic toll on Peru, but commended the authorities for their decisive response in mitigating the impact of the pandemic. In this regard, Directors highlighted the importance of Peru's institutional policy frameworks and solid track record of prudent policy settings. Directors encouraged the authorities to continue efforts to limit scarring effects, promote a robust recovery, and implement structural reforms to achieve a more broad-based and inclusive growth. Directors emphasized that the reform agenda should focus on structural fragilities exposed by the pandemic.
- 2. Considerable progress has been made in containing the pandemic. The second wave of COVID-19 contagions has abated, and ICU beds and oxygen availability to patients in need has increased. The pace of the vaccination program has accelerated, with more than 60 percent of the target population now fully vaccinated. As a result, the number of COVID-19 death cases has fallen significantly from very high levels. The more targeted containment measures have had a limited impact on economic activity.
- 3. Economic activity has recovered strongly, but financial volatility and inflation have increased. Improvements in the health situation, favorable external demand and terms of trade, and pent-up domestic demand pushed real GDP above its pre-pandemic levels in the third quarter of 2021, with annual growth projected to reach 13½ percent. Formal employment recovered its pre-pandemic levels in September, but total employment is still lagging. Political uncertainty heightened volatility in financial markets, leading to sizeable capital outflows and a significant depreciation of the exchange rate. Combined with global trends in food and energy prices, this caused a sharp increase in inflation, raising inflation expectations above the target range.
- 4. The strong economic recovery and rising inflationary pressures have prompted a rapid withdrawal of the policy stimulus. The fiscal deficit is expected to narrow from 8.9 percent of GDP in 2020 to 3.5 percent of GDP in 2021 as increased spending on health and social transfers has been more than offset by additional revenues from increased activity, high commodity prices, and one-off payments of tax arrears from mining companies (contributing 0.3 percent of GDP to the deficit reduction). In response to the increase in inflation expectations, the central bank has successively raised its policy rate from 0.25 percent to 2 percent over the course

of four months and provided forward guidance that its tightening stance will continue until expectations return to the inflation target range.

- 5. Growth prospects are moderately favorable, but downside risks prevail. Real GDP growth is expected to moderate to 2½ percent in 2022 as external conditions become less favorable and the policy stimulus is withdrawn. Significant downside risks, however, remain. Global financial conditions are bound to tighten with the normalization of monetary policy in advanced economies. Inflationary pressures, apparently temporary in nature, could easily become more ingrained. Political uncertainty and a worsening business environment may adversely affect investment decisions and undermine market confidence, further tightening financial conditions. Lower investment could adversely impact potential growth, adding to the scarring effects of the pandemic.
- 6. Policy buffers, although somewhat reduced, remain ample. Public debt has increased but remains low at about 34 percent of GDP. The authorities are preparing a tax reform with assistance from the IMF and the World Bank that should mobilize some 1.5 percent of GDP in additional revenues. This would support a gradual consolidation and a return to the fiscal targets, which are necessary to preserve confidence. International reserves have increased by \$5.2 billion in 2021 (to \$79.9 billion as of November 17), reflecting substantial foreign borrowing by the public sector, withdrawals of foreign assets by pension and mutual funds, increases in foreign direct investments, and the new allocation of the IMF Special Drawing Rights, which are expected to be kept as reserves.
- 7. Partly reflecting the large support provided during the pandemic, the financial sector remains solid, and the authorities are taking steps to address emerging weaknesses. Capital adequacy ratios exceed pre-pandemic levels while banks have increased provisioning in anticipation of higher losses. The share of restructured loans continues to decline, and stress tests point to a resilient financial system and limited solvency problems even under adverse scenarios. A recapitalization plan for microfinance units, which were badly hit during the pandemic, is being prepared. Several regulatory changes, including the transition to Basel III, are being introduced to further strengthen the financial sector. After many years of decline, dollarization of deposits has increased slightly amid high exchange rate volatility, but loan dollarization has remained broadly stable.
- 8. The structural reform agenda should be strengthened. The authorities are addressing important gaps in the public provision of health, education, and social protection. If spent effectively, these additional resources could help to enhance productivity and competitiveness. Nonetheless, further efforts are needed to (i) boost productivity by enhancing infrastructure, facilitating labor reallocation, and improving the business climate; (ii) reduce incentives to informality from the tax-benefit system; and (iii) strengthen governance with additional transparency in the public sector and robust anti-corruption and AML/CFT enforcement.

9. Fund Relations. Based on Peru's very strong policies and institutional and policy frameworks, on May 27, 2021 the Board reaffirmed Peru's continued qualification to access the FCL for about US\$11 billion (600 percent of quota). The arrangement will expire on May 27, 2022. The authorities expect to continue to treat the arrangement as precautionary and phase out its use as external conditions allow.



**Table 1. Peru: Selected Economic Indicators** 

	2019	2020-	0.000	0.000	Proj			
			2021	2022	2023	2024	2025	2026
Social Indicators								
Poverty rate (total) 1/	21.7	27.5						
Unemployment rate for Metropolitan Lima (period average)	6.6	13.6						
		(Annual p	ercentage	change; u	nless othe	rwise indi	cated)	
Production and prices								
Real GDP	2.2	-11.0	13.5	2.5	3.0	3.0	3.0	3.0
Output gap (percent of potential GDP)	-1.6	-7.3	-0.3	-0.3	0.0	0.0	0.0	0.
Consumer prices (end of period)	1.9	2.0	5.1	2.8	2.1	2.0	2.0	2.
Money and credit 2/ 3/								
Broad money	8.8	29.0	6.2	8.3	5.8	6.3	6.3	5.4
Net credit to the private sector	6.4	14.0	6.5	6.3	6.6	6.1	5.9	5.9
Credit-to-private-sector/GDP ratio (%)	43.0	52.6	45.6	45.5	46.0	46.6	47.1	47.
External sector								
Exports	-1.7	-11.0	36.7	5.4	4.1	4.3	4.3	4.
Imports	-1.8	-15.6	30.3	7.5	4.2	4.9	5.0	4.
External current account balance (percent of GDP)	-0.9	8.0	-1.7	-1.3	-1.1	-1.5	-2.0	-2.
Gross reserves In billions of U.S. dollars	68.4	74.9	77.9	77.8	77.6	76.8	75.8	75.
Percent of short-term external debt 4/	428	487	532	518	506	518	466	46
Percent of foreign currency deposits at banks	224	222	249	252	261	267	275	28
	(In percent of GDP; unless otherwise indicated)							
Public sector		(		, aes			,	
NFPS revenue	24.8	22.0	23.7	23.6	23.6	23.6	23.7	23.
NFPS primary expenditure	25.0	29.2	25.5	25.3	25.1	25.0	24.9	24.
NFPS primary balance	-0.2	-7.3	-1.8	-1.8	-1.5	-1.3	-1.3	-1.
NFPS overall balance	-1.6	-8.9	-3.5	-3.6	-3.4	-3.3	-3.3	-3.
NFPS structural balance	-0.6	-6.4	-3.7	-3.7	-3.7	-3.5	-3.5	-3.
NFPS structural primary balance 5/	8.0	-4.8	-2.0	-1.9	-1.8	-1.6	-1.5	-1.4
Debt								
Total external debt 6/	34.7	43.0	42.4	42.2	40.2	38.3	36.3	35.
Gross non-financial public sector debt 7/	27.1	35.1	33.8	34.2	35.6	36.6	38.1	39.
External	8.5	14.9	16.7	16.2	15.3	14.3	13.6	13.
Domestic	18.6	20.2	17.1	17.9	20.2	22.4	24.5	25.
Savings and investment								
Gross domestic investment	21.1	18.7	21.7	21.7	21.7	21.8	22.0	22.0
Public sector (incl. repayment certificates)	4.6	4.3	4.2	4.3	4.3	4.4	4.5	4.
Private sector	18.1	16.8	17.5	17.4	17.4	17.4	17.5	17.
National savings	20.1	19.4	20.0	20.4	20.6	20.3	20.0	20.
Public sector	3.4	-4.0	1.4	1.4	1.6	1.8	1.9	1.5
Private sector	16.8	23.4	18.6	19.1	19.0	18.5	18.1	18.
Memorandum items								
Nominal GDP (S/. billion)	770	718	882	940	991	1,040	1,090	1,14
GDP per capita (in US\$)	6,962	6,130	6,857	6,815	7,011	7,229	7,476	7,74

 $Sources: \ National\ authorities;\ UNDP\ Human\ Development\ Indicators;\ and\ IMF\ staff\ estimates/projections.$ 

<sup>1/</sup> Defined as the percentage of households with total spending below the cost of a basic consumption basket.

<sup>2/</sup> Corresponds to depository corporations.

<sup>3/</sup> Foreign currency stocks are valued at end-of-period exchange rates.

<sup>4/</sup> Short-term debt is defined on a residual maturity basis and includes amortization of medium and long-term debt.

<sup>5/</sup> Adjusted by the economic cycle and commodity prices, and for non-structural commodity revenue. The latter uses as equilibrium commodity prices a moving average estimate that takes 5 years of historical prices and 3 years of forward prices according to the IMF's World Economic Outlook.

<sup>6/</sup> Includes local currency debt held by non-residents and excludes global bonds held by residents.

<sup>7/</sup> Includes repayment certificates and government guaranteed debt.

#### **ANNEX 3: LETTER OF DEVELOPMENT POLICY**





"DECENIO DE LA IGUALDAD DE OPORTUNIDADES PARA MUJERES Y HOMBRES" "AÑO DEL FORTALECIMIENTO DE LA SOBERANIA NACIONAL"

> OSCAR GRAHAM YAMAHUCHI MINISTRO

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#### CARTA DE POLÍTICAS

Señor DAVID MALPASS PRESIDENTE GRUPO DEL BANCO MUNDIAL WASHINGTON D.C.

Referencia: Programa de Apoyo Presupuestal Habilitando un Desarrollo Verde y Resiliente

por US\$ 500 millones.

Estimado Sr. Malpass,

Tengo el agrado de dirigirme a usted a fin de manifestarle el compromiso del Gobierno del Perú de impulsar medidas de políticas con la finalidad de llevar a cabo políticas efectivas para fortalecer las bases para una recuperación económica verde e inclusiva, construir resiliencia y mejorar la adaptación al cambio climático, así como apoyar la transición a una economía más verde.

En este marco, se ha venido desarrollando con el Banco Internacional de Reconstrucción y Fomento (BIRF) el "Programa de Apoyo Presupuestal Habilitando un Desarrollo Verde y Resiliente", el cual incorpora acciones de reforma, compromisos y comprende una operación de endeudamiento.

A continuación, se describe el contexto actual y perspectivas económicas del país y posteriormente los objetivos del Programa, así como los pilares y áreas de políticas que lo enmarcan.



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# Contexto actual y perspectivas económicas

#### A.1 Contexto internacional

Luego de la severa crisis sanitaria y económica internacional en 2020, la actividad económica a nivel global registró una recuperación generalizada en 2021, como consecuencia de las medidas fiscales adicionales aplicadas en economías avanzadas, las bajas tasas de interés imperantes, el avance del proceso de vacunación y el rebote estadístico. Según el informe de Perspectivas Económicas Globales del Fondo Monetario Internacional (enero 2022), el PBI global pasaría de contraerse 3,1% en 2020 a crecer 5,9% en 2021. En particular, las economías avanzadas pasarían de contraerse 4,5% en 2020 a crecer 5,0% en 2021, como resultado de la continuidad de las medidas de estímulo fiscal y monetario, y la aceleración de las campañas de vacunación contra el COVID-19. En el caso de las economías emergentes y en desarrollo, se espera que pasen de contraerse 2,1% en 2020 a crecer a una tasa de 6,5% en 2021 impulsadas por la mejora de los precios de las materias primas y la recuperación de los principales socios comerciales. En América Latina, también se prevé una recuperación del PBI de -7,0% en 2020 a 6,8% en 2021, pero diferenciada entre países, debido a la gradual consolidación fiscal y a un entorno de riesgos políticos. Los países de la Alianza del Pacífico se verán favorecidos por el crecimiento moderado de los términos de intercambio y la recuperación de la demanda externa, especialmente de China y EE. UU.

#### A.2 Situación actual de la economía

A lo largo de 2021, el PBI de Perú ha continuado con su proceso de recuperación e incluso superó los níveles pre COVID-19. La actividad económica creció 21,0% en el primer semestre del 2021, convirtiendo a Perú en una de las economías con el mayor crecimiento a nivel mundial, favorecido por la flexibilización de las restricciones, el impulso de las medidas de reactivación económica, la rápida recuperación de las inversiones y el efecto estadístico positivo. Esta recuperación ha continuado en la segunda parte del año. Así, en diciembre de 2021, el PBI creció 1,7% y superó por séptimo mes consecutivo su nivel pre pandemia (respecto a diciembre 2019: 2,7%). Cabe mencionar que un factor clave para la recuperación económica ha sido el mayor avance del proceso de vacunación, ya que el control de la pandemia ha permitido aumentar la operatividad de las actividades económicas. En ese sentido, el gobierno cumplió con superar ampliamente el porcentaje de la población cubierta con dos dosis (más del 78% de la población total). Esto implica que, al 15 de febrero de 2022, ya se han aplicado más de 59 millones de dosis a nivel nacional y actualmente se está aplicando la tercera dosis de vacuna.

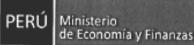
En este contexto de rápida recuperación, el PBI de Perú cerró el año 2021 con un crecimiento de 13,3%, lo cual le permitió liderar el crecimiento a nivel mundial. El mayor



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crecimiento económico se explica por la fuerte recuperación de la actividad económica en un contexto de control de la pandemia; implementación de las medidas para impulsar la recuperación económica, el empleo y dar soporte a las familias; y la mayor demanda externa.

Asimismo, la dinámica favorable de la actividad económica se ha visto reflejado en la recuperación progresiva del empleo. Según el INEI, en diciembre 2021, el empleo en Lima Metropolitana se ubicó en 5,1 millones y registró un ligero avance con respecto al mes previo (noviembre: 4,9 millones); no obstante, aún se mantiene rezagado comparado con los niveles de 2019 (1,2% por debajo del nivel de diciembre 2019, equivalente a 0,1 millones de empleos menos). Por tipo de empleo, el empleo adecuado mejoró levemente a 2,9 millones (noviembre: 2,7 millones), pero se sitúa 18% debajo del nivel de diciembre 2019; por su parte, el subempleo se ubicó en 2,3 millones (noviembre: 2,2 millones) y supera en 35% el nivel de diciembre de 2019.



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La ocurrencia de la crisis conllevó a un replanteamiento de las prioridades fiscales en el 2020 para la atención sanitaria y la protección de las familias y empresas. A inicios de año se tenía previsto un leve impulso fiscal en línea con las reglas dispuestas, con el fin de favorecer la ejecución de obras de inversión pública y proyectos de la reconstrucción. Sin embargo, la pandemia obligó a emplear las fortalezas fiscales acumuladas tras varios años de manejo fiscal responsable, por lo cual se aprobó la suspensión temporal y extraordinaria de las reglas fiscales para que la previsible caída de ingresos no restrinja la intervención del Estado. La medida contó con el aval del Consejo Fiscal independiente que también recomendó la publicación de reportes que abordaran las medidas excepcionales adoptadas y el objetivo de déficit para el 2021 para asegurar rendición de cuentas y transparencia.

Así, Perú puso en marcha el Plan Económico frente a la COVID-19, uno de los de mayor magnitud entre economías emergentes (22% del PBI entre 2020 y 2021), con el objetivo de minimizar los efectos sociales y económicos. El Plan contempla el uso de un conjunto diversificado de herramientas de política para potenciar su efectividad. En ese sentido, se han adaptado medidas de política tributaria y de gasto público por alrededor de 8% del PBI. Las primeras están relacionadas con el aplazamiento del pago de impuestos para las personas y empresas, principalmente las micro y pequeñas empresas (MYPE). Por su parte las medidas de gasto público comprenden recursos destinados a fortalecer el sistema de salud, brindar soporte económico a las familias -principalmente mediante la entrega de un subsidio monetario a los hogares más vulnerables- y a ayudar a la reactivación de la economía a través de recursos para la inversión y compras públicas. Adicionalmente, se autorizaron medidas que otorgan liquidez a las familias y empresas por 14% del PBI, mediante programas de garantía pública de créditos y liberación de retiros extraordinarios de ahorro privado a través de las Compensaciones de Tiempo de Servicios y pensiones en fondos privados.







Despacho





En 2020, el déficit fiscal ascendió a 8,9% del PBI, con lo cual la deuda pública se situó en 34,7% del PBI. El entorno económico local e internacional adverso, producto de la pandemia por la COVID-19, así como las medidas económicas del plan económico, afectaron a los ingresos del Gobierno General, que alcanzaron el 17,9% del PBI en 2020. En tanto, que el gasto no financiero del Gobierno General se expandió en respuesta a la crisis hasta alcanzar niveles históricos de 24,8% del PBI.



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A pesar del contexto adverso y el registro de los más altos niveles de deuda a nivel mundial, en Perú existen factores mitigantes que permitieron que el nivel de deuda se mantenga por debajo de economías similares. El largo historial de manejo prudente y responsable de las finanzas públicas ha permitido que el país mantenga una situación fiscal favorable para enfrentar los eventos adversos ocurridos en este siglo. A diferencia del Perú, la crisis ha encontrado a la mayoría de los países de la región y otros comparables en una situación fiscal desfavorable, por lo cual sus vulnerabilidades fiscales y financieras preexistentes se ven aún más acentuadas. En ese sentido, la deuda pública bruta que alcanzó el país en 2020 (34,7% del PBI) se ubicó por debajo del promedio de países de América Latina (73,0% del PBI) y de países emergentes (64,3% del PBI). Además, a pesar del contexto adverso, las fortalezas macrofiscales del país le han permitido mantener uno de los riesgos país más bajos y estables de la región. Ello ha permitido al país acceder a condiciones favorables de financiamiento en los mercados de capitales internacionales.

En 2021, la estrategia del Gobierno radicó en afrontar la emergencia sanitaria y promover la recuperación de la actividad económica fomentando la creación de empleos, ello en un marco de responsabilidad fiscal. En ese sentido, el gasto no financiero del gobierno general ascendió a S/ 194 mil millones (22,2% del PBI) lo que representó un incremento real de 5,2%. Esto se explica por el incremento de la inversión que alcanzó niveles históricos de S/ 37 mil millones y registró un crecimiento récord superior a 30% real, dinamizando la actividad económica local y creando puestos de trabajo. Es de resaltar que la ejecución del gasto estuvo dentro de lo estimado en el MMM 2022-2025 (22,9% del PBI), con lo cual se logró ampliar los servicios a la población y continuar con el cierre de brechas de infraestructura cumpliendo criterios de responsabilidad fiscal.

En un marco de cumplimiento de metas fiscales, existió espacio para implementar medidas focalizadas frente a la pandemia. De hecho, se aprobaron medidas de gasto público por S/ 28 mil millones (3,2% del PBI) destinados a atención a la emergencia sanitaria (compra de vacunas, disponibilidad de personal, equipos médicos), soporte económico a familias vulnerables (Bono 600, Bono Yanapay, Bono a personal formal), y generar fuentes de empleo (programa Arranca Perú). Un punto a resaltar es el impulso que se ha dado a la inversión pública con el objetivo de dinamizar la actividad económica y crear puestos de trabajo en todo el territorio del país. En particular, se ha dispuesto medidas oportunas como un presupuesto público históricamente alto, y se ha realizado un seguimiento intensivo de





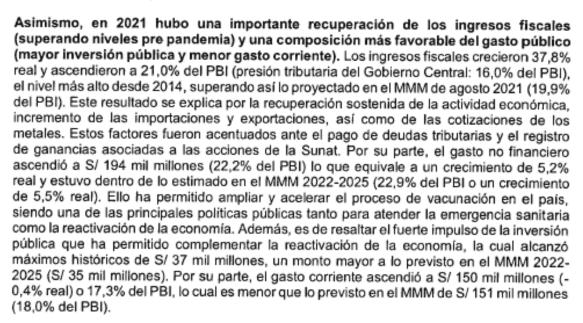






cumplimiento de metas, a lo que se suma la capacitación de funcionarios y operadores del sistema de inversión. A todo ello se suma la continuidad de proyectos a gran escala como los comprendidos en el Plan Nacional de Infraestructura para la Competitividad, y de la Reconstrucción.

Es importante señalar que los resultados fiscales del país en 2021 han sido más que favorables respecto a lo previsto, en un contexto de recuperación económica y manejo prudente de las finanzas públicas del país. Al cierre del año, Perú se ubicó como el país con el mayor crecimiento del PBI en América Latina (de 13%; en el MMM 2022-2025 preveía 10%) y el que registró una de las mayores reducciones del déficit fiscal (pasando de 8,9% del PBI en 2020 a 2,6% del PBI en 2021). Además, se recompondrán ahorros fiscales en el Fondo de Estabilización Fiscal y en la Reserva Secundaria de Liquidez por alrededor de 2,0% del PBI, niveles similares a la situación de la prepandemia. Con ello, el país ha logrado una importante recuperación de sus fortalezas fiscales. En adelante, en consistencia con el largo historial de manejo prudente de las finanzas públicas, con el proceso de consolidación fiscal y en un contexto de recuperación económica, se continuará con la recuperación de las fortalezas fiscales del país.



Además, cabe señalar que los mayores ingresos fiscales respecto de los esperados se acumularon como activos financieros del SPNF al cierre de 2021, de conformidad con el largo historial de manejo prudente de las finanzas públicas del país. Así, los



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activos financieros al cierre de 2021 se ubicaron en 14,3% del PBI, por encima de lo proyectado en el MMM 2022-2025 (11,5% del PBI). En específico, se recompondrán ahorros fiscales en el Fondo de Estabilización Fiscal y en la Reserva Secundaria de Liquidez por alrededor de 2,0% del PBI, niveles similares a la situación de la prepandemia. El incremento de los activos financieros contribuye a la solidez de las finanzas públicas y mejora la capacidad de respuesta de la política fiscal frente a eventos adversos y volatilidad en los mercados internacionales.



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De esta manera, el manejo prudente de las finanzas públicas se ve reflejado en el hecho que Perú mantiene una de las deudas públicas y riesgo país más bajo entre economías emergentes. La deuda pública del país al cierre de 2021 se ubicó en 36,0% del PBI, la cual incluye alrededor de 1,1% del PBI por prefinanciamientos realizados para 2022. Sin considerar dichos prefinanciamientos, la deuda pública se ubicó en un nivel similar al previsto en el MMM 2022-2025 (35,3% del PBI). Con ello, la deuda pública del país se mantuvo como una de las más bajas entre economías emergentes (64,3% del PBI) y de América Latina (73,0% del PBI). En ese mismo sentido, la deuda neta del SPNF de Perú (cerca de 22% del PBI) también se ubica como una de las más bajas entre economías emergentes (45,3% del PBI) y de América Latina (51,4% del PBI). En consistencia con ello, Perú mantiene uno de los menores riesgo país entre economías emergentes y de la región, junto con Chile.

En tanto, la disipación de las medidas aprobadas en el contexto de la pandemia y la recuperación de la economía permitirán una reducción del déficit fiscal en 2021 que marcaría el inicio de la consolidación fiscal. Para los siguientes años, el MMM 2022-2025 considera una trayectoria de consolidación gradual del déficit fiscal hasta llegar a 1,0% del PBI en 2025 y en adelante. Con ello, la deuda pública llegaría a un punto máximo de alrededor de 37% del PBI en 2023, para luego tener una trayectoria decreciente en adelante. Así, la deuda pública de Perú continuará muy por debajo de la de la deuda pública promedio de América Latina y del promedio de países emergentes.

El cumplimiento con la consolidación fiscal requerida se plantea a partir de una estrategia de mejora de la eficiencia del gasto público e incremento de los ingresos fiscales permanentes. Según estimaciones del BID, las ineficiencias del gasto público en Perú ascenderían a 2,5% del PBI, por lo que reducirlas recuperaría espacio para el gasto productivo y favorecería a la consolidación del déficit. Y, en materia tributaria, existe espacio para incrementar los ingresos fiscales permanentes dado el bajo nivel de recaudación fiscal de Perú, el cual se encuentra entre los más bajos de la región. Para lo cual existe margen para ampliar y diversificar la base tributaria a través del perfeccionamiento de regímenes y la formalización de las MYPE, reducir de los altos niveles de incumplimiento tributario de IR e IGV que representan más de 8% del PBI menores recursos, racionalización de los beneficios tributarios, entre otras medidas para combatir la evasión y elusión tributaria.









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# Reformas asociadas Programa de Apoyo Presupuestal Habilitando un Desarrollo Verde y Resiliente.

La operación propuesta comprende reformas prioritarias para el Gobierno del Perú con la finalidad de impulsar la recuperación económica y contribuir a mejorar la calidad de su crecimiento. Los objetivos se han estructurado en tres pilares: Pilar 1: fortalecer las bases para una recuperación más verde, Pilar 2: construir resiliencia y mejorar la adaptación al cambio climático, y Pilar 3: apoyar la transición a una economía más verde en sectores seleccionados.



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La matriz de políticas está compuesta por siete acciones que se encuentran agrupados en tres pilares, de acuerdo al detalle siguiente:

Pilar 1: Fortalecer las bases para una recuperación económica verde. Este pilar tiene como objetivo brindar apoyo para la expansión de las finanzas verdes e inversiones susceptibles al clima: En primer lugar se aprobó el documento "Marco del Bono sostenible del Perú, para la emisión de bonos verdes. En segundo lugar, se ha aprobado el "Plan de implementación y hoja de ruta del Plan BIM Perú", con la finalidad de mejorar la gestión de inversiones con un enfoque de eficiencia y sostenibilidad. Asimismo, se ha aprobado la "Nota Técnica para el uso del precio social del carbono en la evaluación social de proyectos de inversión", que contiene los lineamientos para la estimación de los costos y beneficios sociales vinculados a las emisiones de gases de efecto invernadero de los proyectos, para informar la evaluación de los proyectos de inversión. Además, el Ministerio del Ambiente, ha aprobado Disposiciones para el Procedimiento Único del Proceso de Certificación Ambiental del Servicio Nacional de Certificación Ambiental para las Inversiones Sostenibles, con el fin de mejorar la previsibilidad, coherencia y agilidad del proceso de certificación ambiental de los proyectos.

Pilar 2: Construir resiliencia y mejorar la adaptación al cambio climático. El segundo pilar tiene como objetivo apoyar acciones para aumentar la resiliencia del país y acelerar la adaptación al cambio climático, para lo cual: En primer lugar, se ha emitido una política nacional actualizada de gestión del riesgo de desastres denominada "Política Nacional de Gestión del Riesgo de Desastres (GRD) al 2050", la cual se implementará en todas las entidades de la administración pública competentes, con esta acción se está fortaleciendo la adaptación al cambio climático, la reducción del riesgo de desastres y la preparación para emergencias. En segundo lugar, se ha promulgado la Ley N 31313, Ley de Desarrollo Urbano Sostenible, que regula en detalle los aspectos relacionados con la elaboración y aplicación de los instrumentos de planificación urbana, incorporando la gestión del riesgo de desastres (GRD). Adicionalmente, se ha promulgado la Ley N 31199, Ley de Gestión y Protección de los Espacios Públicos, la cual establece el deber de incluir estos espacios en los instrumentos de planificación urbana. Reducir la vulnerabilidad en las ciudades a







Despacho





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# "DECENIO DE LA IGUALDAD DE OPORTUNIDADES PARA MUJERES Y HOMBRES" "AÑO DEL FORTALECIMIENTO DE LA SOBERANIA NACIONAL"

través de una mejor incorporación de la GRD en la planificación territorial es clave, ya que es aquí donde se ubica gran parte de la población vulnerable, infraestructura pública y privada expuesta a amenazas.

Pilar 3: Apoyar la transición a una economía más verde en sectores seleccionados. El tercer pilar tiene como objetivo apoyar acciones que aseguren el uso más eficiente de los recursos naturales y que aceleren el cambio hacia tecnologías bajas en carbono, con un enfoque en los sectores de energía y transporte, para lo cual: En primer lugar, se ha aprobado un nuevo Código Técnico de la Construcción Sostenible, que establece los requerimientos técnicos para que las edificaciones y los desarrollos urbanos cumplan con las condiciones básicas de sostenibilidad, y de esta manera promover la reducción de los Gases de Efecto Invernadero (GEI). En segundo lugar, se ha emitido normativa legal que aprueba el Reglamento Nacional para promover el Chatarreo de Vehículos y la metodología para el cálculo de las emisiones evitadas de GEI con la implementación de los programas de chatarreo de vehículos. Asimismo, se ha aprobado la directiva que regula el chatarreo de vehículos en el Área de Influencia de los Corredores Complementarios del Sistema Integrado de Transito de la ATU. Lo anterior permitirá promover el retiro definitivo o la renovación de vehículos, reducir las emisiones de gases de efecto invernadero y mejorar la seguridad vial. Y finalmente, en tercer lugar, se han aprobado disposiciones para el desarrollo de auditorías energéticas, que rigen la realización de auditorías energéticas y la certificación de auditores energéticos, lo cual promoverá la eficiencia energética en las entidades públicas y las empresas del sector privado.

### C. Conclusión

Como se desprende de lo descrito, el Gobierno Peruano está comprometido en sentar las bases para un programa de Política para Habilitar el Desarrollo Verde y Resiliente, que permita impulsar la recuperación económica y contribuir a mejorar la calidad de su crecimiento.

El Gobierno se compromete a continuar avanzando en estos ámbitos, para lo cual requiere contar con el apoyo del Banco Internacional de Reconstrucción y Fomento en las áreas señaladas.











"DECENIO DE LA IGUALDAD DE OPORTUNIDADES PARA MUJERES Y HOMBRES" "AÑO DEL FORTALECIMIENTO DE LA SOBERANIA NACIONAL"





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En virtud de lo manifestado, por medio de la presente el Gobierno Peruano solicita la aprobación del "Programa de Apoyo Presupuestal Habilitando un Desarrollo Verde y Resiliente por un monto de US\$ 500 millones" por parte del Banco Internacional de Reconstrucción y Fomento.

Sin otro particular, hago propicia la ocasión para reiterarle a usted mi especial consideración.

Atentamente,



#### **UNOFFICIAL TRANSLATION**

Lima, February 23, 2022

OFFICIAL LETTER No. 183-2022-EF/10.01

Mr.
DAVID MALPASS
President
WORLD BANK GROUP WASHINGTON D.C.

#### **POLICY LETTER**

Reference: Enabling a Green and Resilient Development Policy Loan Program for US\$500 million

Dear Mr. Malpass,

I am pleased to write to you to express the commitment of the Government of Peru to promote policy measures aimed at strengthening the foundations for a green and inclusive economic recovery, building resilience and improving adaptation to climate change, as well as supporting the transition to a greener economy.

In this context, the "Enabling a Green and Resilient Development Policy Loan Program" has been developed with the International Bank for Reconstruction and Development (IBRD), which incorporates reform actions, commitments and includes a debt operation.

The following is a description of the country's current context and economic outlook, followed by a description of the Program's objectives, as well as the pillars and policy areas that frame it.

#### A. Current context and economic outlook

#### A.1 International Context

After the severe international health and economic crisis in 2020, global economic activity recovered in 2021, as a consequence of the additional fiscal measures applied in advanced economies, the prevailing low interest rates, the progress of the vaccination process and statistical rebound. According to the Global Economic Perspectives report of the International Monetary Fund (January 2022), the global GDP would go from contracting 3.1% in 2020 to growing 5.9% in 2021. In particular, the advanced economies would go from contracting 4.5% in 2020 to growing 5.0% in 2021, as a result of the continuity of the fiscal and monetary stimulus measures, and the acceleration of vaccination campaigns against COVID-19. In the case of emerging and developing economies, it is expected they will go from contracting 2.1% in 2020 to growing at a rate of 6.5% in 2021, driven by the improvement in the prices of raw materials and the recovery of the main trading partners. In Latin America, a GDP recovery is also expected from -7.0% in 2020 to 6.8% in 2021, but heterogenous among countries, due to the gradual fiscal consolidation and an environment of political risks. The countries of the Pacific Alliance will benefit from moderate growth in the terms of trade and the recovery in external demand, especially from China and the US.

#### A.2 Current economic situation

Throughout 2021, Peru's GDP has continued its recovery process and exceeded pre-COVID-19 levels. Economic activity grew 21.0% in the first half of 2021, making Peru one of the economies with the highest growth in the world, driven by the relaxation of restrictions, economic reactivation measures, the rapid recovery of investments and the positive statistical effect. The recovery has continued in the second part of the year. Thus, in December 2021, the GDP grew 1.7% and exceeded its pre-pandemic level for the seventh consecutive month (compared to December 2019: 2.7%). It is worth mentioning that a key factor for economic recovery has been the great progress of the vaccination process, since control of the pandemic has made it possible to increase the operability of economic activities. In this sense, the government widely exceeded the percentage of the population covered with two doses (more than 78% of the total population). This implies that, as of February 15, 2022, more than 59 million doses have already been applied nationwide and the third dose of vaccine is currently being applied.

In this context of rapid recovery, Peru's GDP grew 13.3 percent in 2021, the highest growth worldwide. The higher economic growth is explained by the strong recovery of economic activity in a context of control of the pandemic; implementation of measures to promote economic recovery, employment and support for households; and the higher external demand.

Likewise, the favorable dynamics of economic activity has been reflected in the progressive recovery of employment. According to the INEI, in December 2021, employment in Metropolitan Lima stood at 5.1 million and registered a slight increase compared to the previous month (November: 4.9 million); however, it still lags behind the levels of 2019 (1.2% below the level of December 2019, equivalent to 0.1 million fewer jobs). By type of employment, adequate employment improved slightly to 2.9 million (November: 2.7 million), but it's 18% below the level of December 2019; For its part, underemployment stood at 2.3 million (November: 2.2 million) and exceeds by 35% the level of December 2019.

The occurrence of the crisis led to a rethinking of fiscal priorities in 2020 for healthcare and the protection of families and businesses. At the beginning of the year, a slight fiscal boost was planned in line with the established rules, in order to favor the execution of public investment works and reconstruction projects. However, the pandemic made it necessary to use the fiscal strengths accumulated after several years of responsible fiscal management, and therefore a temporary and extraordinary suspension of the fiscal rules was approved so that the foreseeable drop in revenues would not restrict the State's intervention. The measure was endorsed by the independent Fiscal Council, which also recommended the publication of reports addressing the exceptional measures taken and the deficit target for 2021 to ensure accountability and transparency.

Thus, Peru launched the Economic Plan to confront COVID-19, one of the largest among emerging economies (22% of GDP between 2020 and 2021), with the objective of minimizing the social and economic effects. The Plan contemplates the use of a diversified set of policy tools to enhance its effectiveness. In this sense, tax policy and public spending measures have been adopted covering about 8% of GDP. Tax policy measures have been related to the deferral of tax payments for individuals and businesses, mainly micro and small enterprises (MSEs). On the other hand, public spending measures include resources aimed at strengthening the health system, providing economic support to families -mainly through the delivery of a cash transfer to the most vulnerable households- and helping to reactivate the economy through resources for investment and public purchases. In addition, measures were authorized to provide liquidity to families and companies at about 14% of GDP, through public credit guarantee programs and the release of extraordinary private savings withdrawals through the Compensation for Length of Service and pensions in private funds.

The 2020 fiscal deficit amounted to 8.9% of GDP, bringing the public debt to 34.7% of GDP. The adverse local and international economic environment, resulting from the COVID-19 pandemic, as well as the economic measures of the economic plan, affected the General Government revenues, which reached 17.9% of GDP in 2020. Meanwhile, the General Government's non-financial expenditure expanded in

response to the crisis and reached a historic level of 24.8% of GDP.

Despite the adverse context and the high debt levels globally, in Peru there are mitigating factors that have allowed its debt level to remain below that of similar economies. The country's long history of prudent management of its public finances has allowed it to maintain a favorable fiscal situation to face the adverse events of this century. Unlike Peru, the crisis has found most of the countries in the region and other comparable countries in an unfavorable fiscal situation, so their pre-existing fiscal and financial vulnerabilities are even more accentuated. In this regard, the country's gross public debt in 2020 (34.7% of GDP) was below the average of Latin American countries (73.0% of GDP) and emerging countries (64.3% of GDP). Furthermore, despite the adverse context, the country's macro-fiscal strengths have allowed it to maintain one of the lowest and most stable country risks in the region. This has allowed the country to access favorable financing conditions in the international capital markets.

In 2021 the government's strategy addressed the health emergency and promoted the recovery of economic activity by fostering job creation within a framework of fiscal responsibility. In this sense, the non-financial expenditure of the general government amounted to S/194 billion (22.2% of GDP), which represented a real increase of 5.2%. This is explained by the increase in investment, which reached historical levels of S/ 37 billion and registered record growth of over 30% real, boosting local economic activity and creating jobs. It must be highlighted that the execution of expenditure was within the estimate in the 2022-2025 MMM (22.9% of GDP), with which it was possible to expand services to the population and continue to close infrastructure gaps, complying with fiscal responsibility criteria.

Within a framework of meeting fiscal targets, there was room to implement localized measures against the pandemic. In fact, public expenditure measures for S/ 28 billion (3.2% of GDP) were approved to address the health emergency (purchase of vaccines, availability of personnel, medical equipment), to provide economic support to vulnerable families (the Bono 600, Bono Yanapay, Bonus to formal staff), and to generate employment sources (the "Arranca Peru" program). One point to highlight is the boost given to public investment in order to stimulate economic activity and create jobs throughout the country. In particular, timely measures have been taken, such as a historically high public budget, intensive follow-up to meet targets, as well as training sessions for officials and operators of the National System of Multiannual Programming and Investment Management. Added to all this is the continuity of large-scale projects such as those included in the National Infrastructure Plan for Competitiveness, and for Reconstruction.

It is important to point out that the country's fiscal results in 2021 have been more than favorable compared to expectations, in a context of economic recovery and prudent management of the country's public finances. At the end of the year, Peru was the country with the highest GDP growth in Latin America (13%; in the 2022-2025 MMM it forecast 10%) and registered one of the greatest reductions in the fiscal deficit (from 8.9% of GDP in 2020 to 2.6% of GDP in 2021). In addition, fiscal savings will be reconstituted in the Fiscal Stabilization Fund and in the Secondary Liquidity Reserve for around 2.0% of GDP, levels similar to the pre-pandemic situation. With this, the country has achieved a significant recovery of its fiscal strengths. Going forward, consistent with the long history of prudent management of public finances, with the fiscal consolidation process and in a context of economic recovery, the recovery of the country's fiscal strengths will continue.

Likewise, in 2021 there was a significant recovery in tax revenue (exceeding pre-pandemic levels) and a more favorable composition of public spending (greater public investment and lower current spending). Tax revenue grew 37.8% in real terms and amounted to 21.0% of GDP (tax burden from the Central Government: 16.0% of GDP), the highest level since 2014, thus exceeding what was projected in the August 2021 MMM (19.9% of GDP). This result is explained by the sustained recovery of economic activity, increased imports and exports, as well as metal prices. These factors were accentuated by the payment of tax debts and the recording of profits associated with Sunat's actions. For its part, non-financial spending amounted to S/ 194 billion (22.2% of GDP), which is equivalent to a real growth of 5.2% and was within the estimate in the MMM 2022-2025 (22, 9% of GDP or 5.5% real growth). This has made it possible

to expand and accelerate the vaccination process in the country, being one of the main public policies both to address the health emergency and the reactivation of the economy. In addition, it is worth highlighting the strong impulse of public investment that has made it possible to complement the reactivation of the economy, which reached historical maximums of S/ 37 billion, an amount greater than that foreseen in the MMM 2022-2025 (S/ 35 billions). For its part, current spending amounted to S/ 150 billion (- 0.4% real) or 17.3% of GDP, which is less than forecast in the MMM of S/ 151 billion (18.0 % of GDP).

In addition, it should be noted that the higher-than-expected tax revenues were accumulated as financial assets of the SPNF at the end of 2021, in accordance with the long history of prudent management of the country's public finances. Thus, financial assets at the end of 2021 stood at 14.3% of GDP, above what was projected in the 2022-2025 MMM (11.5% of GDP). Specifically, fiscal savings will be reconstituted in the Fiscal Stabilization Fund and in the Secondary Liquidity Reserve for around 2.0% of GDP, levels similar to the pre-pandemic situation. The increase in financial assets contributes to the solid public finances and improves the response capacity of fiscal policy in the face of adverse events and volatility in international markets.

The prudent management of public finances is reflected in the fact that Peru maintains one of the lowest public debts and country risk among emerging economies. The country's public debt at the end of 2021 stood at 36.0% of GDP, which includes around 1.1% of GDP for pre-financing made for 2022. Without considering pre-financing, public debt stood at a similar level to that forecast in the 2022-2025 MMM (35.3% of GDP). The country's public debt remained one of the lowest among emerging economies (64.3% of GDP) and Latin America (73.0% of GDP). In addition, the net debt of Peru's SPNF (close to 22% of GDP) is also one of the lowest among emerging economies (45.3% of GDP) and Latin America (51.4% of GDP). Consistent with this, Peru maintains one of the lowest country risks among emerging economies and the region, along with Chile.

Meanwhile, the unwinding of the measures approved in the context of the pandemic and the recovery of the economy will allow for a reduction of the fiscal deficit in 2021, which will mark the beginning of fiscal consolidation. For the following years, MMM 2022-2025 considers a gradual fiscal deficit consolidation trajectory until it reaches 1.0% of GDP in 2025 and thereafter. With this, public debt would peak at 37% of GDP in 2023, and then be on a declining trajectory thereafter. Thus, Peru's public debt will continue to be well below the average public debt of Latin America and the average of emerging countries.

Compliance with the required fiscal consolidation is based on a strategy to improve public spending efficiency and increases in the permanent fiscal revenues. According to IDB estimates, inefficiencies in public spending in Peru amount to 2.5% of GDP, so reducing them would make room for productive spending and would favor deficit consolidation. And, in tax matters, there is room to increase permanent tax revenues given Peru's low tax collection levels, which is among the lowest in the region. For which there is room for expanding and diversifying the tax base through the improvement of tax regimes and the formalization of the MSEs, reducing the high levels of tax non-compliance of income tax and VAT that represent more than 8% of GDP, lower resources, rationalization of tax benefits, among other measures to combat tax evasion and avoidance.

# B. Reforms associated with the Enabling a Green and Resilient Development Budgetary Support Program

The proposed operation comprises priority reforms for the Government of Peru to boost the economic recovery and contribute to improving the quality of its growth. The objectives have been structured in three pillars: Pillar 1: Strengthening the foundations for a greener economic recovery, Pillar 2: Building resilience and enhancing climate change adaptation, and Pillar 3: Supporting the transition towards a greener economy in selected sectors.

The policy matrix is made up of seven actions that are grouped into three pillars, as follows:

# Pillar 1: Strengthening the foundations for a greener economic recovery.

This pillar aims to provide support for the expansion of green finance and climate-sensitive investments: First, the "Marco del Bono Sostenible de Perú ("Peru Sustainable Bond Framework") document was approved for the issuance of green bonds. Second, the "Plan de implementación y hoja de ruta del Plan BIM Perú" ("Implementation Plan and Roadmap for the Peru BIM Plan") has been approved, with the purpose of improving investment management with a focus on efficiency and sustainability. Likewise, the "Nota Técnica para el uso del precio social del carbono en la evaluación social de proyectos de inversión" ("Technical Note for Using the Social Price of Carbon in the Social Evaluation of Investment Projects") has been approved, which contains guidelines for the estimation of social costs and benefits linked to projects' greenhouse gas emissions, to inform the appraisal of investment projects. In addition, the Ministry of Environment has approved Provisions for the Single Procedure for the Environmental Certification Process of the National Environmental Certification Service for Sustainable Investments, in order to improve the predictability, consistency and agility of the environmental certification process of projects.

# Pillar 2: Building resilience and enhancing climate change adaptation.

The second pillar aims to support actions to increase the country's resilience and accelerate climate change adaptation, as follows: First, an updated national disaster risk management policy entitled "Política Nacional de Gestión del Riesgo de Desastres al 2050" ("National Policy for Disaster Risk Management (DRM) to 2050") has been issued, which will be implemented in all relevant public administration entities; this action will strengthen climate change adaptation, disaster risk reduction, and emergency preparedness. Second, Law No. 31313, Sustainable Urban Development Law, has been enacted, which regulates in detail the aspects related to the development and implementation of urban planning instruments, by incorporating disaster risk management (DRM). Additionally, Law N' 31199, Management and Protection of Public Spaces Law, has been enacted, which establishes the requirement to include these spaces in urban planning instruments. Reducing vulnerability in cities through a better incorporation of DRM in territorial planning is key, since cities hold a large portion of the vulnerable population and public and private infrastructure exposed to hazards.

#### Pillar 3: Supporting the transition towards a greener economy in selected sectors.

The third pillar aims to support actions to ensure a more efficient use of natural resources and accelerate the shift towards low-carbon technologies, with a focus on the energy and transportation sectors, as follows: First, a new Technical Code for Sustainable Construction has been approved, which establishes the technical requirements for buildings and urban developments to meet basic sustainability conditions, and thus promote the reduction of greenhouse gas (GHG) emissions: Second, legal regulations have been issued approving the National Regulation to Promote Vehicle Scrapping and the methodology for calculating avoided GHG emissions with the implementation of vehicle scrapping programs. Likewise, the directive that regulates the vehicle scrapping in the Area of Influence of the Complementary Corridors of the Integrated Transit System of the Urban Transportation Authority for Lima and Callao (ATU) has been approved. This will promote the permanent removal or renewal of vehicles, reduce greenhouse gas emissions, and improve road safety. And finally, in third place provisions have been approved for the development of energy audits, governing the conduct of energy audits and the certification of energy auditors, which will promote energy efficiency in public entities and private sector companies.

# C. Conclusion

As already described above, the Peruvian Government is committed to laying the foundations for a program that will enable the promotion of policy measures to strengthen the basis for a green and inclusive economic recovery, build resilience and enhance climate change adaptation, and support the transition towards a greener economy.

The Government of Peru is committed to continue making progress in these areas, and for this purpose, it

requires the support from the International Bank for Reconstruction and Development in the already mentioned areas.

Therefore, the Peruvian Government hereby requests the approval of the "Enabling a Green and Resilient Development Budget Support Program" for an amount of US\$ 500 million, from the International Bank for Reconstruction and Development.

I would like to take this opportunity and express my special appreciation.

Sincerely,

Oscar Graham Yamahuchi

# ANNEX 4: ENVIRONMENT AND POVERTY/SOCIAL ANALYSIS TABLE

Prior Actions	Significant positive or negative environment effects	Significant poverty, social or distributional effects positive or negative
Prior Action 1. To enable the Borrower to issue sustainable green bonds in local and international capital markets, the Borrower, through MEF, approved the Peru Sustainable Bond Framework which defines the eligible green public expenditures to which proceeds of such bonds may be applied, the process for selecting eligible projects, and reporting on allocation and impact, as evidenced by Ministerial Resolution No. 221-2021-EF/52 published in the Official Gazette on July 17, 2021.  Entities responsible: MEF	Environmentall y neutral	The distributional impacts are likely to benefit the poor, since they are more vulnerable to climate change negative impacts. However, the overall impact will also be affected by the design of the green and socially oriented projects financed through the Bonds.
Prior Action 2. To enhance the efficiency and sustainability of investments, the Borrower:  (i) through the General Directorate of Multiannual Investment Programming has approved the "Implementation Plan and Roadmap for the Peru BIM Plan", defining short- and long-term objectives for the progressive incorporation of BIM, to reduce time and cost overruns in the preparation and implementation of public works, as evidenced by Directorial Resolution N° 0002-2021-EF/63.01 published in the Official Gazette on June 15, 2021;  (ii) through the Ministry of Environment, has approved Provisions for the Single Procedure for the Environmental Certification Process of the National Environmental Certification Service for Sustainable Investments, to enhance the predictability, consistency and agility of the environmental certification process of projects, as evidenced by Supreme Decree No. 004-2022-MINAM published in the Official Gazette on January 26, 2022;  (iii) through the General Directorate of Multiannual Investment Programming, approved the "Technical Note for Using the Social Price of Carbon in the Social Evaluation of Investment Projects", containing guidelines for estimating social costs and benefits linked to projects' greenhouse gas emissions, to inform the appraisal of investment projects, as evidenced by Directorial Resolution No. 006-2021-EF/63.01 published in the Official Gazette on August 1, 2021; Entities responsible: MEF, MINAM – DGPIGA,	Positive effect	This PA is expected to have positive effects on welfare.
Prior Action 3. To strengthen its climate change adaptation, disaster risk reduction and emergency preparedness, the Borrower, through the President and the Council of Ministers, has approved and issued an updated national disaster risk management policy entitled "National Disaster Risk Management Policy to 2050", to be implemented by all relevant public administration entities, as evidenced by Supreme Decree No. 038-2021-PCM published in the Official Gazette on March 1, 2021.	Positive effect	This PA is expected to benefit the poor and vulnerable populations.

Entities responsible: PCM (INDECI/ CENEPRED) - MEF		
Prior Action 4. To promote more resilient and sustainable urban development, the Borrower has enacted:  (i) the Sustainable Urban Development Law, including provisions to for incorporating disaster risk management and climate change adaptation in urban land planning, as evidenced by Law No. 31313, as published in the Official Gazette on July 25, 2021; and  (ii) the Law on Management and Protection of Public Spaces, establishing the regulatory framework for the management and protection of public spaces, including a mandate to prepare public spaces plans to be integrated in urban planning instruments, as evidenced by Law No. 31199 promulgated on May 20, 2021 and published in the Official Gazette on May 22, 2021.  Entities responsible: MVCS	Positive effect	This PA is expected to have positive impacts on vulnerable populations by reducing their exposure to natural events and by reducing disparities within cities
Prior Action 5. To promote the reduction of GHGs and increase adaptive capacity in the framework of Peru's climate change commitments, the Borrower, through the Ministry of Housing, Construction and Sanitation, has approved a new Technical Code for Sustainable Construction setting out requirements for buildings and urban developments to meet basic conditions of sustainability, as evidenced by Supreme Decree No. 014-2021-VIVIENDA published in the Official Gazette on July 26, 2021.  Entities responsible: MVCS	Positive effect	This PA will likely increase welfare in the long term (through increased efficiency and safety) but the positive impacts in the short term would need to be compared against any potential increases in the cost of housing
Prior Action 6. To promote the provision of more efficient public transport services, reduce transport related GHG emissions, and improve health and road safety, the Borrower:  (i) through the Ministry of Transport and Communications:  (A) has approved the National Regulation to Promote Vehicle Scrapping, including provisions governing the establishment of scrapping programs and the granting of economic incentives to vehicle owners, as evidenced by the Supreme Decree N° 005-2021-MTC published in the Official Gazette on February 5, 2021 and effective April 6, 2021; and  (B) has approved the Methodology for Calculating Avoided GHG Emissions and Valuation of Mitigated Environmental Externalities with the Implementation of Vehicle Scrapping Programs, as evidenced by the Directorial Resolution No. 20-2021-MTC/18 published in the Official Gazette on April 23, 2021; and  (ii) through the Executive Presidency of the Urban Transportation Authority for Lima and Callao (ATU), has approved the Directive that Regulates Vehicle Scrapping in the Area of Influence of the Complementary Corridors of the Integrated Transit System of the ATU, establishing regulations for the scrapping of vehicles of public transport service operators along key transit corridors, as evidenced by Resolution of the Executive Presidency N° 164-2021-ATU/PE published in the Official Gazette on November 3, 2021.	Positive effect	This PA could help improve population health, reduce out-of-pocket health expenditures, and increase productivity in the long term, by reducing greenhouse gas emissions and local pollutants, and improving traffic safety

Entities responsible: MTC (i), and ATU (ii)		
Prior Action 7. To promote energy efficiency in public entities and private sector companies, the Borrower, through the Ministry of Energy and Mines, has approved a decree containing provisions to promote the development of energy audits and for the certification of energy auditors, as evidenced by Supreme Decree No. 011-2021-EM published in the Official Gazette on May 14, 2021.  Entities responsible: MINEM (Ministry of Energy and Mines)	Positive effect	The distributional impacts are not clear ex-ante, but the description of the intervention does not raise any concerns about potential negative impacts on the poor and vulnerable.

#### ANNEX 5: DPF PRIOR ACTIONS AND ANALYTICAL UNDERPINNINGS

## **Table 5: DPF Prior Actions and Analytical Underpinnings**

#### **Prior Actions**

#### **Analytical Underpinnings**

#### Pillar 1: Strengthening the foundations for a greener economic recovery

Prior Action 1. To enable the Borrower to issue sustainable green bonds in local and international capital markets, the Borrower, through MEF, approved the Peru Sustainable Bond Framework which defines the eligible green public expenditures to which proceeds of such bonds may be applied, the process for selecting eligible projects, and reporting on allocation and impact, as evidenced by Ministerial Resolution No. 221-2021-EF/52 published in the Official Gazette on July 17, 2021.

Recent World Bank research assessed the prospects for sovereign debt manager options with respect to labelled bond debt issuance among the Pacific Alliance countries. The analysis pointed to the benefits to countries of taking the time to prepare a sustainable or green bond framework, for example, of identifying sectors that should be considered green and contributing to the country's overall environmental and climate related goals. Furthermore, the analysis pointed to the signaling impact of issuing a sovereign sustainable or green bond instrument via-a-vis sustainability-oriented global investors. Since the paper was launched in May 2021, both Colombia and Peru have issued sustainable bond frameworks and associated debt instruments.

- World Bank (2017) Public Expenditure Review
- World Bank (2020) Climate-Smart Fiscal Policy Can Foster a Lasting Economic Recovery
- Banco Mundial (2021). Repensar el futuro del Perú. Notas de política para transformar al Estado en un gestor del bienestar y el desarrollo
- World Bank (2021) Financing for Green, Resilient and Inclusive Development (GRID)
   Towards A Post-Pandemic Approach: highlights that reforming the tax system is a key
   priority to promote greater fairness and equity. DRM related policy measures to
   implement GRID include: This includes enhancing tax progressivity, applying wealth
   taxation, eliminating tax avoidance, ensuring fair taxation levels for multinational
   companies and high net worth individuals, taxing the digital economy, reforming tax
   expenditures and subsidies, increasing rates on under-taxed activities like tobacco and
   real estate, and broadening tax bases.
- World Bank (2021) Paving the Path: Lessons from Chile's Experiences as a Sovereign Issuer for Sustainable Finance Action

**Prior Action 2:** To enhance the efficiency and sustainability of investments, the Borrower:

- (i) through the General Directorate of Multiannual Investment Programming has approved the "Implementation Plan and Roadmap for the Peru BIM Plan", defining shortand long-term objectives for the progressive incorporation of BIM, to reduce time and cost overruns in the preparation and implementation of public works, as evidenced by Directorial Resolution N° 0002-2021-EF/63.01 published in the Official Gazette on June 15, 2021;
- (ii) through the Ministry of Environment, has approved Provisions for the Single Procedure for the Environmental Certification Process of the National Environmental Certification Service for Sustainable Investments, to enhance the predictability, consistency and agility of the environmental certification process of projects, as evidenced by Supreme Decree No. 004-2022-

There is evidence that Building integrated digital models of infrastructure projects can increase the accuracy of technical specifications and facilitate workflows between project owners, contractors, and other stakeholders during the design process. It can also improve the transition from construction to facilities management. The result is a significant potential for time and cost savings of the project lifetime and a reduction in material waste. Increasingly, BIM software models can also run functional simulations to examine, for example, the impact of extreme weather events such as flooding or extreme heat on public infrastructures.

There is ample evidence of the challenges that investment projects in Peru face during their environmental and social review and approval processes, as well as over the policy options for addressing them. Among these, transferring of pending environmental functions from line ministries to SENACE, streamlining the review and approval process of environmental instruments through the SEIA, and incorporating provisions for strengthening the quality of these instruments, are considered key aspects to be addressed through policy reforms that: (1) are feasible to implement in the short term; (2) will lead to immediate impacts in terms of responsible investment growth in the country; and (3) represent a sensible starting point for the development of any long-term reform alternative of the national environmental assessment system.

Setting a social price of carbon is a key element of a country's strategy to advance towards preparation and implementation of low-carbon public investment projects. Its use during

Peru: Enabling a Green and Resilient Development DPF (P177765)

MINAM published in the Official Gazette on January 26, 2022;

(iii) through the General Directorate of Multiannual Investment Programming, approved the "Technical Note for Using the Social Price of Carbon in the Social Evaluation of Investment Projects", containing guidelines for estimating social costs and benefits linked to projects' greenhouse gas emissions, to inform the appraisal of investment projects, as evidenced by Directorial Resolution No. 006-2021-EF/63.01 published in the Official Gazette on August 1, 2021;

project appraisal makes public investment decisions more compatible with a country's climate change goals and commitments, as outlined in the NDCs and long-term low-emission development strategies. At the regional level, ECLAC has provided guidance on how to estimate the social price of carbon and promote its use among national investment systems. In Peru, the national investment system (Invierte.pe) governs the public investment process and has the regulatory powers to implement the social price of carbon. Its effective adoption requires sectoral guidance to estimate the greenhouse gas emissions related to project alternatives and to assess their impact in the estimation of social benefits and costs.

- International Monetary Fund (IMF) (2017). Peru Public Investment Management Assessment
- Organization for Economic Co-operation and Development (OECD) (2017). La Contratación Pública en el Perú, Reforzando Capacidad y Coordinación
- PricewaterhouseCoopers (PWC) (2018). BIM Benefits Methodology and Report
- The World Green Building Trends report of 2018
- Economic Commission for Latin America and the Caribbean (ECLAC) (2020). Social Price
  of Carbon in the Evaluation of Public Investment Projects in Latin America
- Economic Commission for Latin America and the Caribbean (ECLAC) (2021).
   Methodology for the Estimation of the Social Price of Carbon in Chile and the Countries of Latin America and the Caribbean
- World Bank (2021). Macro Level Analysis of Public Investment Management in Peru
- Social Capital Group (Forthcoming). Diagnóstico del Sistema Nacional de Evaluación de Impacto Ambiental Peruano, Análisis de Brechas del Marco Ambiental y Social del Sector Transportes y Evaluación de las Capacidades Institucionales Proyecto P170595 BRT Lima Metropolitano North Extensión
- Banco Mundial (2021). Repensar el futuro del Perú. Notas de política para transformar al Estado en un gestor del bienestar y el desarrollo
- Tatiana Valverde (Forthcoming 2021). Improving the Environmental and Social management of investment projects in Peru

## Pillar 2: Build resilience and enhance climate change adaptation

Prior Action 3. To strengthen its climate change adaptation, disaster risk reduction and emergency preparedness, the Borrower, through the President and the Council of Ministers, has approved and issued an updated national disaster risk management policy entitled "National Disaster Risk Management Policy to 2050", to be implemented by all relevant public administration entities, as evidenced by Supreme Decree No. 038-2021-PCM published in the Official Gazette on March 1, 2021.

Research has shown the urgency of efforts to reduce poverty and the vulnerability of poor people in the face of climate change. With rapid, inclusive development that is adapted to changing climate conditions, most of the impacts on poor population can be prevented (Hallegatte, S. et al., 2016). Holistic and flexible disaster Risk Management is crucial to help households to become resilient (Hallegatte, S. et al.,2020) and must be integrated with climate change adaptation strategies to effectively contribute to reduce poverty. This has been acknowledged by the GoP, in view of the very high exposure of the country to climate related and other hazards (World Bank, 2021), leading to an updated disaster risk management policy.

- Hallegatte, S. et al. (2016). Shock Waves: Managing the Impacts of Climate Change on Poverty.
- Hallegatte, S. et al. (2020). Adaptation Principles: A Guide for Designing Strategies for Climate Change Adaptation and Resilience.
- World Bank (2021). Institutions, inclusion and territory, Proposals to strengthen resilience to disaster risk in Peru

Peru: Enabling a Green and Resilient Development DPF (P177765)

Prior Action 4. To promote more resilient and sustainable urban development, the Borrower has enacted:

(i) the Sustainable Urban Development Law, including provisions for incorporating disaster risk management and climate change adaptation in urban land planning, as evidenced by Law No. 31313, as published in the Official Gazette on July 25, 2021; and

(ii) the Law on Management and Protection of Public Spaces, establishing the regulatory framework for the management and protection of public spaces, including a mandate to prepare public spaces plans to be integrated in urban planning instruments, as evidenced by Law No. 31199 promulgated on May 20, 2021 and published in the Official Gazette on May 22, 2021.

The World Bank (2021) concluded that three key actions to strengthen disaster resilience, are required in Peru: (i) strengthening institutions for risk management and increasing their effectiveness by improving standards, institutions and processes; (ii) adopting a territorial approach, reflected on territorial planning and urban development policies, resilience of infrastructure and climate change action; and (iii) consolidating social inclusion, through the improvement of the living conditions of the population, especially of those most in need. The Urban Development Law responds to these key challenges and sets the path to sustainability in the urban context.

Various recent World Bank analytical and policy reports have highlighted the need to improve urban governance. Most local governments lack the resources, capacity, and instruments to adequately plan, create, and manage public spaces, which conspires against the wellbeing, resilience, and health of the urban population. Other studies have highlighted that most local governments fail to prepare the different planning instruments and implement required by law. As a result of these institutional and governance shortcomings, almost one half of Peru's urban population live in slums. Moreover, city inhabitants face extremely unequal access to adequate and sufficient public spaces and green areas.

- Banco Mundial (2018). Peru Slum RAS (P164495)
- Banco Mundial (2018). Policy Note: Local Government Infrastructure Planning and Investment in Peru.
- Banco Mundial (2021). Institucionalidad, inclusión y territorio: Propuestas para fortalecer la resiliencia del Perú frente a desastres.
- Banco Mundial (2021). Repensar el futuro del Perú. Notas de política para transformar al Estado en un gestor del bienestar y el desarrollo.
  - Policy Note 6: Implementar un sistema de ciudades saludables, resilientes e inclusivas

Policy Note 8: Fortalecer la Resiliencia ante Desastres

## Pillar 3: Supporting the transition towards a greener economy in selected sectors

**Prior Action 5.** To promote the reduction of GHGs and increase adaptive capacity in the framework of Peru's climate change commitments, the Borrower, through the has approved a new Technical Code for Sustainable Construction setting out requirements for buildings and urban developments to meet basic conditions of sustainability, as evidenced by Supreme Decree No. 014-2021-VIVIENDA published in the Official Gazette on July 26, 2021.

Peru's incredibly diverse geography makes it one of the most vulnerable countries to climate change and natural disasters. As in many other Latin American countries, Peru's housing deficit is overwhelmingly qualitative. As recent World Bank research shows, most Peruvians do not need a new house, but a better one. Most housing units are built Ministry of Housing, Construction and Sanitation, informally and without specialized supervision, often using inadequate materials and construction techniques, and without any consideration of environmental sustainability. Moreover, 22 percent of the qualitative housing deficit corresponds to lack of public services (water, sanitation or electricity) and 17 percent to the use of unrecoverable (inadequate) materials. In addition, while the provision of public infrastructure and construction have increased in recent years, infrastructure projects and buildings often are executed without resilience or sustainability considerations.

- Banco Mundial (2021). La Vivienda en el Perú: Un instrumento para la recuperación económica inclusiva y resiliente.
- Banco Mundial (2021). Institucionalidad, inclusión y territorio: Propuestas para fortalecer la resiliencia del Perú frente a desastres.
- Banco Mundial (2021). Repensar el futuro del Perú. Notas de política para transformar al Estado en un gestor del bienestar y el desarrollo.
  - Policy Note 6: Implementar un sistema de ciudades saludables, resilientes e inclusivas
  - Policy Note 8: Fortalecer la Resiliencia ante Desastres

Prior Action 6. To promote the provision of

There is substantial evidence the impacts of the old vehicle fleet in the public transport

Peru: Enabling a Green and Resilient Development DPF (P177765)

more efficient public transport services, reduce transport related GHG emissions, and improve health and road safety, the Borrower:
(i) through the Ministry of Transport and Communications:

(A) has approved the National Regulation renewal. to Promote Vehicle Scrapping, including provisions governing the establishment of scrapping programs and the granting of economic incentives to vehicle owners, as evidenced by the Supreme Decree N° 005-2021-MTC published in the Official Gazette on February 5, 2021 and effective April 6, 2021; and

(B) has approved the Methodology for Calculating Avoided GHG Emissions and Valuation of Mitigated Environmental Externalities with the Implementation of Vehicle Scrapping Programs, as evidenced by the Directorial Resolution No. 20-2021-MTC/18 published in the Official Gazette on April 23, 2021; and

(ii) through the Executive Presidency of the Urban Transportation Authority for Lima and Callao (ATU), has approved the Directive that Regulates Vehicle Scrapping in the Area of Influence of the Complementary Corridors of the Integrated Transit System of the ATU, establishing regulations for the scrapping of vehicles of public transport service operators along key transit corridors, as evidenced by Resolution of the Executive Presidency N° 164-2021-ATU/PE published in the Official Gazette on November 3, 2021.

Prior Action 7. To promote energy efficiency in public entities and private sector companies, the Borrower, through the Ministry of Energy and Mines, has approved a decree containing provisions to promote the development of energy audits and for the certification of energy auditors, as evidenced by Supreme Decree No. 011-2021-EM published in the Official Gazette on May 14, 2021.

system of Lima in terms of the environment and public health. Based on this evidence, this issue has become an important priority for the GoP and mainly for the Ministry of Transport and Communications (MTC) and the Ministry of the Environment (MINAM). Proof of this are the multiple supreme decrees on the matter over the last 10 years around maximum emissions, climate change, several initiatives to promote vehicle scrapping and renewal

Other analytical documentation about the subject include:

- Jara Consulting Group (2018). Diseño de programa de chatarreo y renovación vehicular en el Perú. Identificación de impactos y costos de la implementación de programa de renovación. Part of the GIZ- NAMA Support Project.
- Apoyo Consultoría (2012). Propuesta de implementación del Plan de Chatarreo para Vehículos de Transporte Público. Disponible en: www.apoyoconsultoria.com/media\_apoyo/uploads/banner/chatarrero.pdf
- DEUMAN (2012). Elaboración del plan de chatarreo de vehículos de transporte público de pasajeros en el área de influencia de la línea 1 del sistema eléctrico de transporte masivo de Lima y Callao. AATE.
- GIZ (2015). NAMA Autotransporte Federal de Carga en México. Tabla 3-9. Efectos considerados para la estimación en la mitigación de CO2e.
- GFK (2015). Informe Final. MTC. Disposición y precio de venta de vehículos de carga usados. Disponible en:
   https://www.mtc.gob.pe/transportes/terrestre/documentos/diposicion\_precio\_vehiculos usados.pdf
- GUTIERREZ et al. (2016). Estudio #5: Análisis de condiciones habilitantes de las opciones de mitigación priorizadas. Proyecto Plan CC Fase 2. Pág. 41. Disponible en: <a href="http://planccperu.org/wp-">http://planccperu.org/wp-</a> content/uploads/2017/02/Estudio-5.-Condiciones-habilitantes-de-las-opciones-de-mitigacion-1. pdf
- HUAMANI (2015). Financiamiento internacional para el cambio climático. DAR.
   Pág. 23, 25. Disponible en: http://dar.org.pe/archivos/publicacion/171\_libro\_gflag.pdf
- MINAM (2016). Perú 2030: La visión del Perú que queremos.

There is ample evidence of the large potential for energy savings in the public sector and implementing EE measures not only materialize those savings, but it also helps to release scarce public funds and allocate them to other priority areas. However, there are usually many barriers, institutional, administrative, legal or technical among others that prevent this potential from realizing. In the case of Peru, there was not the enabling environment needed for public companies and entities to identify and implement EE projects.

There is substantial research that indicates that MEPS and energy labels, if well-designed and implemented, are some of the fastest and most effective approaches to transition markets toward more energy-efficient products. At least 127 countries have adopted, or are in the process of adopting, MEPS to phase out inefficient products from their markets, and energy labels to indicate the energy efficiency of new products to prospective purchasers.

- Creara for MINEM (2016). "Estudio de Barreras para el desarrollo de la Eficiencia Energética" en el Perú
- EPEE European Partnership for Energy and the Environment (2020). Lessons Learned ECODESIGN
- World Bank (2017). Assessing and Measuring the Performance of Energy Efficiency Projects. ESMAP Technical Report 011/17.



**The World Bank**Peru: Enabling a Green and Resilient Development DPF (P177765)

<ul> <li>European Council for an Energy Efficient Economy (ECEEE, 2017). Harmonisation of MEPS and energy labelling in Latin America and the Caribbean – opportunities and challenges</li> </ul>
UNEP (2021). Ensuring Compliance with MEPS and Energy Labels

## **ANNEX 6: WORLD BANK RECENTLY APPROVED PROJECTS**

Project Title	Approval Date	Development Policy Objective	Summary
SPF Peru: Emergency Response for Venezuelan Migrants and Refugees	September 21, 2021	To provide emergency economic support to contribute to consumption smoothing of some of the most vulnerable Venezuelan migrants and refugees impacted by the COVID-19 pandemic in selected Peruvian cities.	Component 1: Implementation of emergency Cash Transfers to Venezuelan Migrants and Refugees.  Component 2: Strengthened response coordination, policy making and antixenophobia, and project supervision.
Transmission Investment Plan (PIT) to support Post-COVID- 19 Green Economic Recovery in Peru	September 9, 2021	To increase electricity availability and reliability in selected areas of Peru and support the modernization of the power sector regulatory framework.	Component 1: Existing substation strengthening and transformer replacement and expansion.  Component 2: Sustainable electrification pilot.  Component 3: Project management, technical assistance, and capacity building.
Peru: Strengthening of the Public Health Emergency Preparedness and Response	June 24, 2021	To strengthen epidemiological surveillance and public health emergency preparedness in Peru.	Component 1: Surveillance strategies, governance, and protocols. Component 2: Supporting infrastructure, equipment, and software. Component 3: Strengthening human resource capacity. Component 4: Project Management and Monitoring. Component 5: Contingency Emergency Response.
Investing in Human Capital DPF II	June 24, 2021	To support Government policies to protect and invest in human capital accumulation through h: (a) improving delivery of social protection and early childhood development services; (b) increasing access to health services and ensuring continuity of care, and (c) improving teacher management and professional development systems.	Pillar 1 addresses critical factors that limit the access of young children to Early Childhood Development (ECD). and social services, preventing the next generation from reaching their developmental potential and readiness to school. Pillar 2 supports the public health system to increase service access and ensure continuity of care. Pillar 3 supports the institutional foundations to achieve effective teacher development by improving teacher management and the support teachers receive through their career.
Peru: Strengthening Foundations for Post COVID- 19 Recovery DPF	March 25, 2021	To support Government policies aimed at: (i) strengthening institutions to mitigate the social and economic impact of the COVID-19 pandemic, and (ii) reinforcing structural foundations for an inclusive and climate smart economic recovery.	Reforms under the first pillar of the DPF concentrate on economic crisis- response policies that can serve as blueprints and pilots for future policy programs, including outside Peru. Reforms under the second pillar focus on microeconomic structural reforms that promote a dynamic, inclusive, and climate smart economic recovery.
Centralized Emergency Response System Project	April 7, 2020	To provide a more efficient response to emergencies, urgencies, and associated help line requests from the population of Lima Metropolitan area and Callao.	Component 1: Physical Infrastructure. Component 2: Integrated Platform. Component 3: 911 Central Response Protocols. Component 4: Interconnection of the video cameras of National Police to the 911 Platform. Component 5: Use and Appropriation of 911 Platform. Component 6: Project supervision and management, and technical studies

Lima Metropolitano BRT North Extension	January 30, 2020	To improve urban mobility and accessibility to jobs in the area of influence of the Metropolitano BRT North Extension.	The first component, BRT infrastructure and equipment (civil works, traffic lights, technological component, supervision; road safety and universal access; and preoperational component and route management) will reduce the travel time, improve access to jobs, and quality of services for the Metropolitano north extension BRT users. The second component is project management and environmental and social management.
National Urban Cadaster and Municipal Support Project	January 10, 2020	To improve the coverage of urban cadaster services in selected municipalities to enhance local government capacities for revenue generation and urban management.	Component 1: Strengthening municipal systems, services and capacities to generate and maintain urban cadasters in project municipalities.  Component 2: Strengthening of the national institutional framework, aims to finance the activities to be conducted at the national level.  Component 3: Project management
Improving the Performance of Non-Criminal Justice Services	June 5, 2019	To improve efficiency, access, transparency, and user satisfaction, in the delivery of adequate non-criminal justice services.	Component 1: strengthening the institutionality of the non-criminal justice administration system, aims to support more efficient and transparent justice services through new organizational frameworks and management processes. Component 2: improving the production, analysis and use of information of the justice administration system, aims to strengthen performance management, accountability, integrity and internal control mechanisms in the justice sector Component 3: reducing socio-economic, cultural, and geographic barriers to access to justice for vulnerable populations.  Component 4: Improving efficiency and efficacy of the justice administration system institutions
Peru Integrated Health Networks	January 4, 2019	To (i) improve the resolutive capacity and quality of public First-Level Health Services in Lima Metropolitan Area and Prioritized Regions; and (ii) increase the capacity of the Single Health Information System and the public sector's pharmaceutical products and medical supplies provision system.	The project is comprised of three components: (1) Improving the organization and supply of health services using an integrated health networks model in Lima metropolitan area and prioritized regions; (2) Improving the capacity of the single health information system at the national level; and (3) Improving the management of pharmaceutical products and medical supplies in Lima metropolitan areas and prioritized regions.
Integrated Forest Landscape Management Project in Atalaya, Ucayali	January 4, 2019	To strengthen sustainable management and use of forest landscapes in the Raimondi, Sepahua and Tahuanía districts of the Atalaya province.	Component 1: institutional strengthening for forest conservation.  Component 2: strengthening sustainable forest landscape management and use.  Component 3: project management, monitoring and evaluation.
Modernization of Water Supply and Sanitation Services	July 26, 2018	To increase access to, and quality of, water and sanitation services in selected areas, and develop the Borrower's sectoral institutions and participating EPS management capacity to provide efficient water and sanitation services.	Component 1: improving governance of water supply and sanitation service providers will contribute to improving the efficiency of the sector by financing activities that will support national-level sector entities, Component 2: improving and expanding water supply and sanitation services in the participating EPS will finance the rehabilitation and expansion of water supply and sanitation (WSS) infrastructure of participating EPSs. Component 3: general project administration
Integrated Water Resources Management in Ten Basins	April 28, 2017	To strengthen the capacity of targeted water resources management related institutions to plan, monitor and manage water resources at the national level and in selected river basins in Peru.	Component 1: consolidating IWRM at the national level. This component aims to improving the capacity of ANA and other water institutions to plan, monitor, and manage water resources at the national level.  Component 2: improving WRM in Selected Pilot River Basins.  Component 3: general project administration.
National Program for Innovation in Fisheries and Aquaculture	January 27, 2017	to strengthen the Borrower's capacity in the delivery of innovations in the fisheries and aquaculture value chains.	Component 1: promoting innovation in the fisheries sub-sector.  Component 2: competitive grant mechanism and supporting services to assist beneficiaries in developing proposals and implementing subprojects funded

			through successful proposals. Component 3: strengthening the SNIPA, institutions, and policies to improve governance of fisheries and aquaculture.
Peru: Enhancement of Environmental Quality Services	January 11, 2017	To generate and share information for environmental quality control at the national level by supporting the Government of Peru to improve its environmental monitoring and analytical capacity, increase public access to environmental quality information, and promote informed public participation in environmental quality management.	Component 1: improve environmental quality control Component 2: improve information and public participation for environmental quality control Component 3: project management
Strengthening the Science, Technology and Innovation System in Peru	January 11, 2017	To strengthen the science, technology, and innovation system to improve research skills and firm-level innovation.	Component 1: improving the institutional framework of the national STI system. Component 2: strategic programs: productivity and innovation fund and competitiveness reinforcement initiatives for productive innovation aims to design, plan, and oversee the implementation of CONCYTEC's strategic STI programs, in line with national research priorities and private sector demands for innovation.  Component 3: strengthen the capacity of the national STI system to generate relevant new knowledge and technology to contribute to productive innovation. Component 4: project management and monitoring and evaluation.
Support to the Subnational Transport Program Project	December 11, 2015	To (i) facilitate sustainable road access of Peru's rural populations to services, (ii) reduce transport costs on rural roads linked to priority logistics corridors; and (iii) strengthen decentralized road management.	Component one comprises the following two subcomponents: infrastructure for social inclusion; and integration of the feeder network into selected logistic corridors. The second component is the rural road infrastructure maintenance. The third component is the decentralized road management. Finally, the fourth component is the project management.