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Report No: PAD4736

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT PAPER

ON A

PROPOSED SECOND ADDITIONAL CREDIT

IN THE AMOUNT OF EURO 71.5 MILLION
(US\$80.0 MILLION EQUIVALENT)

TO THE REPUBLIC OF CÔTE D'IVOIRE

FOR THE

CÔTE D'IVOIRE COVID-19 STRATEGIC PREPAREDNESS AND RESPONSE PROJECT (SPRP)

April 6, 2022

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

USING THE MULTIPHASE PROGRAMMATIC APPROACH (MPA)

WITH A FINANCING ENVELOPE OF

UP TO US\$6 BILLION APPROVED BY THE BOARD ON APRIL 2, 2020 AND

UP TO US\$12 BILLION ADDITIONAL FINANCING
APPROVED BY THE BOARD ON OCTOBER 13, 2020

Health, Nutrition and Population Global Practice
Western and Central Africa Region

This document is being made publicly available prior to Board consideration. This does not imply a presumed outcome. This document may be updated following Board consideration and the updated document will be made publicly available in accordance with the Bank's policy on Access to Information.

CURRENCY EQUIVALENTS

Exchange Rate Effective February 28, 2022

Currency Unit = CFA Franc (CFAF)

US\$1.00 = CFAF 586

US\$1.00 = Euro 0.89293687

FISCAL YEAR

January 1 - December 31

Regional Vice President: Ousmane Diagana

Country Director: Coralie Gevers

Regional Director: Dena Ringold

Practice Manager: Gaston Sorgho

Task Team Leader: Opopo Oyaka Tshivuila Matala

ABBREVIATIONS AND ACRONYMS

AEFI	Adverse Events Following Immunization
AF	Additional Financing
AFD	French Development Agency (<i>Agence Française de Développement</i>)
AfDB	African Development Bank Group
AiIB	Asian Infrastructure Investment Bank
AIRP	Ivorian Authority for Pharmaceutical Regulation (<i>L'Autorité Ivoirienne de Régulation Pharmaceutique</i>)
AMC	Advance Market Commitment
APA	Advance Purchase Agreement
APS	Accredited Procurement Specialist
AVAT	African Vaccine Acquisition Trust
AWPB	Annual Work Plan and Budget
BCEAO	Central Bank of West African States (<i>Banque Centrale des Etats de l'Afrique de l'Ouest</i>)
BFP	World Bank-Facilitated Procurement
CCIA	Committee for Inter-Agency Coordination (<i>Le Comité de Coordination Inter Agences</i>)
CERC	Contingent Emergency Response Component
CIV	Côte d'Ivoire
CIV-SPRP	Côte d'Ivoire COVID-19 Strategic Preparedness and Response Project
CLA	Co-Lender's Agreement
CNEIV-CI	National Committee of Independent Experts for Vaccines and Vaccinations in Cote d'Ivoire (<i>Comité National des Experts Indépendants pour la Vaccination et les Vaccins de Cote d'Ivoire</i>)
CoC	Code of Conduct
COVAX	Covid-19 Vaccines Global Access Facility
CPF	Country Partnership Framework
CRESAC	Regional Center for Evaluation in Education, Environment, Health and Accreditation in Africa (<i>Centre Regional d'Evaluation en Education, Environnement, Santé et d'Accréditation en Afrique</i>)
DA	Designated Account
DALYs	Disability-Adjusted Life Years
DFIL	Disbursement and Financial Information Letter
DGTCP	General Directorate of the Treasury and Public Accounting (<i>Direction Générale du Trésor et de la Comptabilité Publique</i>)
DHIS2	District Health Information System 2
DPF	Development Policy Financing
E&S	Environmental and Social
EMR	Electronic Medical Record
EOC	Emergency Operating Center
EPI	Expanded Immunization Program (<i>Le Programme Elargi de Vaccination</i>)
ESCP	Environmental and Social Commitment Plan
ESF	Environmental Social Framework

ESMAP	Energy Sector Management Assistance Program
ESMF	Environmental and Social Management Framework
ESRS	Environmental and Social Review Summary
EUL	Emergency Use Listing Procedure
FM	Financial Management
FTCF	Fast Track COVID-19 Facility
GAVI	Global Alliance for Vaccines and Immunization
GBV	Gender-based Violence
GOCI	Government of Côte d'Ivoire
GTR	Restricted technical working group (<i>Le Group Technique Restreint</i>)
GWP	Global Warming Potential
HCWMP	Health Care Waste Management Plan
HIS	Hospital Information System
IBRD	International Bank for Reconstruction and Development
ICT	Information and Communications Technology
IDA	International Development Association
IFC	International Financing Corporation
IFR	Interim Financial Report
IGF	Inspector General of Finance
IMF	International Monetary Fund
INFAS	National Health Worker's Training Institute (<i>L'Institute National de Formation des Agents de Santé</i>)
INHP	National Institute of Public Health (<i>L'Institute National d'Hygiene Publique</i>)
IPC	Infection, Prevention and Control
IPF	Investment Project Financing
ISR	Implementation Status and Results Report
J&J	Johnson & Johnson
L'UCP-BM	World Bank Project Implementing Unit (<i>l'Unité de Coordination des Projets de la Banque Mondiale</i>)
LMP	Labor Management Procedures
LNHP	National Public Health Laboratory (<i>Laboratoire National de la Santé Publique</i>)
M&E	Monitoring and Evaluation
MPA	Multiphase Programmatic Approach
MSHP-CMU	Ministry of Health (<i>Ministère de la Santé, de l'Hygiène Publique et de la Couverture Maladie Universelle</i>)
ND-GAIN	University of Notre Dame Global Adaptation Initiative
NDVP	National Deployment and Vaccination Plan for COVID-19 vaccines
NFCS	No-fault Compensations Scheme
NGO	Non-Governmental Organization
OECD	Organisation for Economic Co-operation and Development
OPCS	Operations Policy and Country Services

OHS	Occupational Health and Safety
PA	Project Account
PCR	Polymerase chain Reaction
PDO	Project Development Objective
PIM	Project Implementation Manual
PIU	Project Implementing Unit
PLR	Performance and Learning Review
PNDS	National Health Development Plan (<i>Plan National de Developpment Sanitaire</i>)
POE	Point of Entry
PPE	Personal Protective Equipment
PRES	Regional Health Poles of Excellence (<i>Pôles Régionaux d'Excellence Santé</i>)
RF	Results Framework
RFQ	Request for Quotation
SAGE	Strategic Advisory Group of Experts on Immunization
SCD	Systematic Country Diagnostic
SEA/SH	Sexual Exploitation and Abuse and Sexual Harassment
SEP	Stakeholder Engagement Plan
SOE	Statement of Expenditure
SPARK-HEALTH	Strategic Purchasing and Alignment of Resources and Knowledge in Health Project
SPRP	COVID-19 Strategic Preparedness and Response Plan
SRA	Strict Regulatory Authorities
SUF	Scale-up Facility
TBD	To be determined
TF	Trust Fund
ToR	Terms of Reference
UHC	Universal Health Coverage
UN	United Nations
UNICEF	United Nations International Children's Emergency Fund
VAC	Vaccine Approval Criteria
VDDM	Vaccine Delivery and Distribution Manual
VIRAF	Vaccine Readiness Assessment Framework
VIRAT	Vaccine Introduction Readiness Tool
WB	World Bank
WHO	World Health Organisation

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**BASIC INFORMATION – PARENT (Cote d'Ivoire COVID-19 Strategic Preparedness and Response Project (SPRP) - P173813)**

Country	Product Line	Team Leader(s)		
Cote d'Ivoire	IBRD/IDA	Opope Oyaka Tshivuila Matala		
Project ID	Financing Instrument	Resp CC	Req CC	Practice Area (Lead)
P173813	Investment Project Financing	HAWH2 (9542)	AWCF2 (6551)	Health, Nutrition & Population

Implementing Agency: Ministère de la Santé et de l'Hygiène Publique (MSHP)

Is this a regionally tagged project?	
No	

Bank/IFC Collaboration	
No	

Approval Date	Closing Date	Expected Guarantee Expiration Date	Environmental and Social Risk Classification
02-May-2020	30-Jun-2022		Substantial

Financing & Implementation Modalities

<input checked="" type="checkbox"/> Multiphase Programmatic Approach [MPA]	<input type="checkbox"/> Contingent Emergency Response Component (CERC)
<input type="checkbox"/> Series of Projects (SOP)	<input checked="" type="checkbox"/> Fragile State(s)
<input type="checkbox"/> Performance-Based Conditions (PBCs)	<input type="checkbox"/> Small State(s)
<input type="checkbox"/> Financial Intermediaries (FI)	<input type="checkbox"/> Fragile within a Non-fragile Country
<input type="checkbox"/> Project-Based Guarantee	<input type="checkbox"/> Conflict
<input type="checkbox"/> Deferred Drawdown	<input checked="" type="checkbox"/> Responding to Natural or Man-made disaster
<input type="checkbox"/> Alternate Procurement Arrangements (APA)	<input checked="" type="checkbox"/> Hands-on Expanded Implementation Support (HEIS)



Development Objective(s)

MPA Program Development Objective (PrDO)

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

Project Development Objectives (Phase 094)

To prevent, detect, and respond to the threat posed by COVID-19 and strengthen national systems for public health preparedness in Cote d'Ivoire.

Ratings (from Parent ISR)

	Implementation		Latest ISR
	24-Nov-2020	25-Jun-2021	16-Dec-2021
Progress towards achievement of PDO	S	S	S
Overall Implementation Progress (IP)	S	S	S
Overall ESS Performance	MS	MS	MS
Overall Risk	M	H	H
Financial Management	S	S	S
Project Management	S	S	S
Procurement	MS	S	S
Monitoring and Evaluation	S	S	S

BASIC INFORMATION – ADDITIONAL FINANCING (Côte d'Ivoire COVID-19 Strategic Preparedness and Response Project Second AF - P177836)

Project ID	Project Name	Additional Financing Type	Urgent Need or Capacity Constraints
P177836	Côte d'Ivoire COVID-19 Strategic Preparedness and Response Project Second AF	Restructuring, Scale Up	No
Financing instrument	Product line	Approval Date	



Investment Project Financing	IBRD/IDA	27-Apr-2022	
Projected Date of Full Disbursement	Bank/IFC Collaboration		
31-Oct-2024	No		
Is this a regionally tagged project?			
No			

Financing & Implementation Modalities

<input checked="" type="checkbox"/> Multiphase Programmatic Approach [MPA]	<input type="checkbox"/> Series of Projects (SOP)
<input type="checkbox"/> Fragile State(s)	<input type="checkbox"/> Performance-Based Conditions (PBCs)
<input type="checkbox"/> Small State(s)	<input type="checkbox"/> Financial Intermediaries (FI)
<input type="checkbox"/> Fragile within a Non-fragile Country	<input type="checkbox"/> Project-Based Guarantee
<input type="checkbox"/> Conflict	<input checked="" type="checkbox"/> Responding to Natural or Man-made disaster
<input type="checkbox"/> Alternate Procurement Arrangements (APA)	<input checked="" type="checkbox"/> Hands-on, Enhanced Implementation Support (HEIS)
<input type="checkbox"/> Contingent Emergency Response Component (CERC)	

Disbursement Summary (from Parent ISR)

Source of Funds	Net Commitments	Total Disbursed	Remaining Balance	Disbursed	
IBRD				<div style="width: 0%;"></div>	%
IDA	135.00	104.87	26.81	<div style="width: 80%;"></div>	80 %
Grants				<div style="width: 0%;"></div>	%

MPA Financing Data (US\$, Millions)

MPA Program Financing Envelope	18,000,000,000.00
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MPA FINANCING DETAILS (US\$, Millions)

Board Approved MPA Financing Envelope:	18,000,000,000.00
MPA Program Financing Envelope:	18,000,000,000.00



of which Bank Financing (IBRD):	9,900,000,000.00
of which Bank Financing (IDA):	8,100,000,000.00
of which other financing sources:	0.00

PROJECT FINANCING DATA – ADDITIONAL FINANCING (Côte d'Ivoire COVID-19 Strategic Preparedness and Response Project Second AF - P177836)

FINANCING DATA (US\$, Millions)

SUMMARY (Total Financing)

	Current Financing	Proposed Additional Financing	Total Proposed Financing
Total Project Cost	135.00	180.00	315.00
Total Financing	135.00	180.00	315.00
of which IBRD/IDA	135.00	80.00	215.00
Financing Gap	0.00	0.00	0.00

DETAILS - Additional Financing

World Bank Group Financing

International Development Association (IDA)	80.00
IDA Credit	80.00

Non-World Bank Group Financing

Other Sources	100.00
Asian Infrastructure Investment Bank	100.00

IDA Resources (in US\$, Millions)

	Credit Amount	Grant Amount	Guarantee Amount	Total Amount
Cote d'Ivoire	80.00	0.00	0.00	80.00
National PBA	80.00	0.00	0.00	80.00



Total	80.00	0.00	0.00	80.00
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COMPLIANCE

Policy

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

Yes No

Does the project require any other Policy waiver(s)?

Yes No



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

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

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

INSTITUTIONAL DATA

Practice Area (Lead)

Health, Nutrition & Population

Contributing Practice Areas

Climate Change and Disaster Screening

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

**PROJECT TEAM****Bank Staff**

Name	Role	Specialization	Unit
Opope Oyaka Tshivuila Matala	Team Leader (ADM Responsible)	Health	HAWH2
Antro Kenneth Sanvi	Procurement Specialist (ADM Responsible)	procurement	EAWRU
Maurice Adoni	Procurement Specialist	Procurement	EAWRU
Prosper Nindorera	Procurement Specialist	Procurement	EAWRU
Atioumoutio Edith Kone Epse Zannou Tchoko	Financial Management Specialist (ADM Responsible)	Financial management	EAWG1
Alphonse Emadak	Environmental Specialist (ADM Responsible)	Environmental safeguards	SAWE1
Salamata Bal	Social Specialist (ADM Responsible)	Social safeguards	SAWS4
Abdelaziz Lagnaoui	Environmental Specialist	Environmental safeguards	SAWE1
Adama Traore	Team Member	Public Health	HAWH2
Aissatou Seck	Team Member	Legal Counsel	LEGAM
Ama Kirema Rachelle Dani Kouassi Epse Tohour	Procurement Team	Program assistant	AWCF2
Amantchi Jean - Noel Gogoua	Team Member	Operations	HAWH2
Anita Nugu	Team Member	PPRs	EAWRU
Cedric Cubahiro	Team Member	Finance Analyst	WFACS
Haoua Diallo	Procurement Team	Program assistant	AWCF2
Late Felix Lawson	Team Member	Finance Officer	WFACS
Marie Roger Augustin	Team Member	Legal Counsel	LEGAM
Ndoh Ashken Sanogo	Team Member	Health	HAWH2
Nikolai Alexei Sviedrys Wittich	Procurement Team	STEP	EAWRU
Nina Chee	Safeguards Advisor/ESSA	Environment/social safeguard	EAPOS
Souleymane Traore	Procurement Team	Procurement	AWCF2



Extended Team

Name	Title	Organization	Location
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I. BACKGROUND AND RATIONALE FOR ADDITIONAL FINANCING

A. Introduction

1. **This Project Paper seeks the approval of the World Bank's (WB) Board of Executive Directors to provide an International Development Association (IDA) credit in the amount of US\$80 million equivalent for a second Additional Financing (AF) to the Côte d'Ivoire COVID-19 Strategic Preparedness and Response Project (CIV-SPRP).** The proposed AF will also benefit from co-financing from the Asian Infrastructure Investment Bank (AIIB) in the amount of US\$100 million, which will be approved by the AIIB Board on May 12, 2022. At the request of the Government of Côte d'Ivoire (GOCI), the parent project will be restructured to integrate the co-financing amount and make subsequent revisions to the project as detailed below. The proposed second AF will expand activities under the project to enable the GOCI to (i) expand COVID-19 vaccination coverage to 70 percent of the population and provide booster doses to 9.9 million people (35.0 percent of the population)¹; (ii) reinforce preparedness and response interventions at scale; and (iii) strengthen relevant health systems to ensure effective vaccine deployment in Côte d'Ivoire (CIV), sustained containment of COVID-19, and position the country to detect and respond to future disease outbreaks in a swift, effective and efficient manner. The CIV-SPRP was prepared under the COVID-19 Strategic Preparedness and Response Program (SPRP) using the Multiphase Programmatic Approach (MPA), approved by the Board on April 2, 2020, and the vaccines AF to the SPRP approved on October 13, 2020². It consists of an original IDA credit of US\$35 million equivalent, approved on May 2, 2020, and an additional IDA credit of US\$100 million equivalent approved on April 16, 2021.

2. **The second AF will:** (i) scale-up activities and finance new activities based on lessons learned during implementation; (ii) revise the Results Framework (RF) to measure the impact of the expanded financing envelope; (iii) establish AIIB as a co-financing partner for the project and modify the fiduciary and disbursement arrangements and estimates to include AIIB contribution; (iv) modify the institutional arrangements to enhance project implementation; and (v) extend the closing date of the project from June 30, 2022, to June 30, 2024. The need for additional resources to expand the COVID-19 response was formally conveyed to the World Bank by the GOCI on September 22, 2021.

3. **Since its first case of COVID-19, detected on March 11, 2020, CIV has experienced recurrent waves of the pandemic with the most recent ending in January 2022 (Figure 1).** The resurgence in cases has been driven by the spread of highly transmissible COVID-19 variants, low COVID-19 vaccination coverage, increasing social interactions and inconsistent application of public health measures (e.g., social distancing, handwashing, mask wearing etc.). While there is uncertainty around the data with underreporting being a challenge across West and Central Africa, as of March 15, 2022, CIV reports a total of 81,616 COVID-19 cases, including 796 deaths. The highest incidence of COVID-19 cases was observed

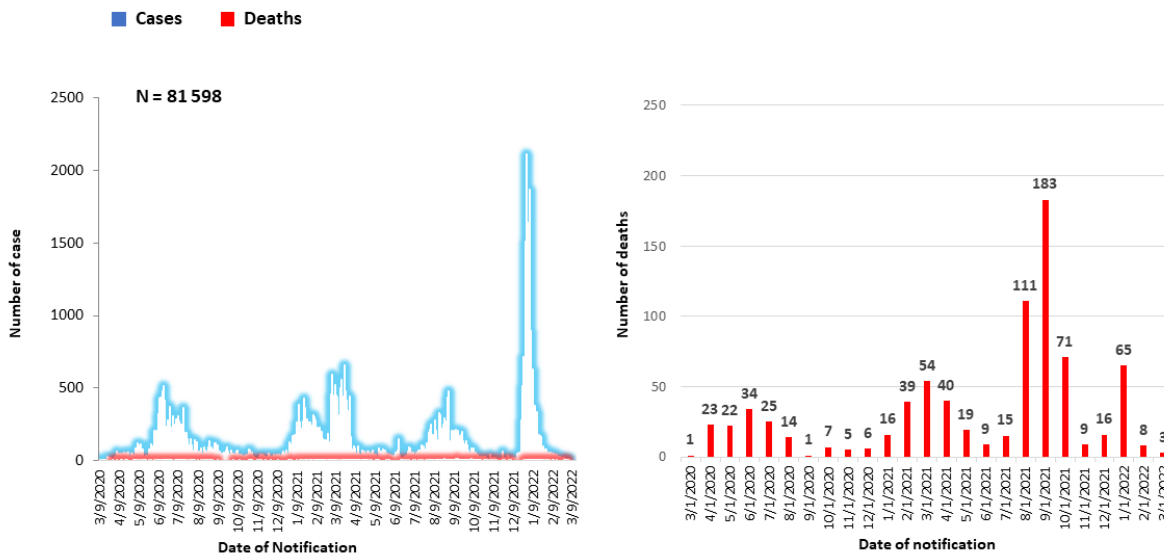
¹ The Ministry of Health (*Ministère de la Santé, de l'Hygiène Publique et de la Couverture Maladie Universelle; MSHP-CMU*) recommends a COVID-19 booster dose for adults and adolescents (12 years and older) at six months after completion of the primary vaccination series.

² The World Bank approved a US\$12 billion WBG Fast Track COVID-19 Facility (FTCF or "the Facility") to assist IBRD and IDA countries in addressing the global pandemic and its impacts. Of this amount, US\$6 billion came from IBRD/IDA ("the World Bank") and US\$6 billion from the International Financing Corporation (IFC). The IFC subsequently increased its contribution to US\$8 Billion, bringing the FTCT total to US\$14 billion. The AF of US\$12 billion was approved on October 13, 2020 to support the purchase and deployment of vaccines as well as strengthening the related immunization and health care delivery system.



in December 2021 due to the Omicron variant, while the deadliest wave was associated with the spread of the Delta variant between July-October 2021 (Figure 1). The majority who died of COVID-19 in CIV were not vaccinated. Around 80 percent of deaths were amongst individuals over 50 years old and/or persons with chronic diseases. Hospitalizations increased significantly during the Delta wave, with most public and private hospitals reportedly more than 80 percent saturated, and oxygen supplies were low, which put a strain on the already fragile, health system. The country aims to significantly accelerate COVID-19 vaccination coverage before the next wave emerges.

Figure 1: Distribution of COVID-19 Cases and Deaths between March 9, 2020 and March 14, 2022



4. **CIV’s COVID-19 vaccination campaign has accelerated following a slow start.** The vaccination campaign was launched on March 1, 2021. However, high levels of misinformation, lack of trust in the vaccine, and vaccine hesitancy³ hindered the uptake of the vaccine and the vaccination rate stagnated at ~2,000 doses administered a day. Daily vaccination rates increased by mid-April 2021 to ~20,000 following the launch of a robust communication and community mobilization campaign, and to ~150,000 by mid-December 2021 following an intensification of the vaccination campaign in response to the third wave of the outbreak. As of March 14, 2022, CIV has administered 10.5 million COVID-19 vaccine doses; 5.9 million people have received at least one dose and 4.2 million people have been completely vaccinated (14.8 percent of the population and 29.0 percent of adults over 18 years old). The GOCI provides free of cost COVID-19 vaccinations to the population.

5. **COVID-19 vaccine supply was initially unpredictable, largely due to limited global production of vaccines and its inequitable distribution.** Supply and donations have increased since August 2021, and the priority has shifted to enhancing deployment capacity to reach the 70 percent coverage target and administer booster doses, and to strengthening national systems for public health preparedness. During

³ A UNICEF survey including 2,266,329 individuals in CIV showed that 55 percent of people did not plan on being vaccinated. The main reasons presented by those refusing to be vaccinated included: (i) do not want to be infected with COVID-19 (40 percent); (ii) do not believe in the COVID-19 vaccine (34 percent); (iii) not interested or concerned (14 percent); and (iv) rumors circulating. Source: UNICEF: U-REPORT survey on the COVID-19 vaccination within the context of the COVID-19 response



the first five months of the campaign, only 1.9 million COVID-19 doses were delivered to CIV. Disruptions in the availability of specific vaccines (e.g., AstraZeneca), coupled with inconsistent delivery schedules of available vaccines, led to periods of vaccine stock-outs in CIV, which had a negative impact on the campaign. Vaccine deliveries have accelerated since August 2021, with 19.7 million doses delivered to the country over the past seven-months (August 20 - March 16, 2022), and the Government has since intensified the vaccination campaign to accelerate the deployment of vaccines. As of March 16, 2022, CIV has received 20.2 million COVID-19 vaccine doses, enough to completely vaccinate 12.6 million people (44.4 percent of the population). The challenge today for the country remains to (i) create a growing and consistent demand for COVID-19 vaccinations; (ii) strengthen the resilience of the health system; and (iii) accelerate the complete reopening of the country and the recovery of the Ivorian economy.

6. **The purpose of the proposed second AF is to provide upfront financing to support the GOCI purchase and deploy COVID-19 vaccines that meet the WB's vaccine approval criteria (VAC), whilst strengthening the resilience of the health system.** The national COVID-19 immunization coverage target for the country is to reach at least 70 percent of the population by December 2022. The COVID-19 Vaccines Global Access (COVAX) Advance Market Commitment (AMC) Facility⁴ is expected to support the cost of vaccines for 36.6 percent of the country's population (10.4 million people) by December 2023. The GOCI has procured vaccines for 4.7 percent of the population, it received bilateral donations⁵ for an additional 9.1 percent of the population and donations from Master Card for 6.4 percent of the population. The first AF is supporting the purchase of COVID-19 vaccines for 21.1 percent of the country's population (5.9 million people), through the COVAX Facility and the African Vaccine Acquisition Trust (AVAT)⁶. It also covers the deployment costs, including for subsidized doses. As of April 16, 2021, the WB accepts as the threshold for eligibility of IBRD/IDA resources in COVID-19 vaccine acquisition and/or deployment under WB-financed projects: (i) the vaccine has received regular or emergency licensure or authorization from at least one of the stringent regulatory authorities identified by the World Health Organization (WHO) for vaccines procured and/or supplied under the COVAX Facility, as may be amended from time to time by WHO; or (ii) the vaccine has received WHO Prequalification or WHO Emergency Use Listing. The proposed financing will (i) help CIV fulfill its vaccine order through AVAT and procure additional vaccine doses covering 27.1 percent of the population; (ii) deploy all vaccines that meet the WB's VAC, including those received through COVAX and from donations, to reach the 70 percent vaccination coverage and provide booster doses for 35 percent of the population; and (iii) will also

⁴ **COVAX** is one of three pillars of the Access to COVID-19 Tools (ACT) Accelerator, which was launched in April 2020 in response to the COVID-19 pandemic. It brings together governments, global health organizations, manufacturers, scientists, private sector, civil society, and philanthropy, with the aim of providing innovative and equitable access to COVID-19 vaccines. COVAX is coordinated by the Global Alliance for Vaccines and Immunization (GAVI), the Coalition for Epidemic Preparedness Innovations (CEPI) and WHO, and acts as a platform that supports research, development, and manufacturing of a wide range of COVID-19 vaccine candidates and negotiates their pricing. It includes 192 countries covering more than 7 billion people and ensures fair and equal access to COVID-19 vaccines supplied through UNICEF.

⁵ Bilateral COVID-19 vaccine donations were made to the GOCI from the governments of India, France, and People's Republic of China.

⁶ **AVAT**: The African Vaccine Acquisition Trust (AVAT) is a special purpose vehicle, incorporated in Mauritius. AVAT acts as a centralized purchasing agent on behalf of the African Union (AU) Member States, to secure the necessary vaccines and blended financing resources for achieving Africa's COVID-19 vaccination strategy which targets vaccinating a minimum of 60 percent of Africa's population based on a whole-of-Africa approach. AVAT was established by the COVID-19 African Vaccine Acquisition Task Team, which was set up in November 2020 by President Cyril Ramaphosa, President of the Republic of South Africa, in his capacity as Chairperson of the African Union (AU), as a support component to the COVID-19 Immunization Strategy that was endorsed by the AU Bureau of Heads of State and Government in August 2020.



strengthen relevant health systems, based on lessons learned from the ongoing campaign, to ensure effective vaccine deployment and position the country to be better prepared for future public health emergencies. The country will continue providing free of cost COVID-19 vaccinations to the population.

7. **The second AF maximizes synergies among partners** by supporting the Ministry of Health (*Ministère de la Santé, de l'Hygiène Publique et de la Couverture Maladie Universelle; MSHP-CMU*) to mount a coordinated and effective health response, guided by the GOCI's COVID-19 Health Response Plan⁷, as well as the National Deployment and Vaccination Plan for COVID-19 vaccines⁸ (*Plan National de Vaccination et de Déploiement des vaccins contre la COVID-19 en Côte d'Ivoire*), both of which were developed with support from WHO, the United Nations International Children's Emergency Fund (UNICEF) and other partners in the sector. The NDVP is being updated with the support of technical partners in the sector, to incorporate the new vaccination coverage target of 70 percent, the introduction of booster doses and the revision of the deployment strategy to integrate COVID-19 vaccinations in routine health services. The proposed second AF will minimize the transaction costs and administrative burden on the GOCI during the emergency. The proposed co-financing will follow the institutional Co-financing Framework Agreement signed between the two Multilateral Development Banks in December 2021. Therefore, the co-financing will use the WB's policies and procedures on the Environmental Social Framework (ESF), fiduciary management, project monitoring and reporting. The WB and AIIB Task Teams worked closely together during project preparation and will continue this approach during implementation including conducting joint supervision missions. A Project Co-Lender's Agreement (CLA) will be developed between the WB and AIIB outlining all services to be carried out by the WB under this project.

B. Consistency with the Country Partnership Framework (CPF)

8. **The proposed second AF is well aligned with the FY16-FY21 Côte d'Ivoire Country Partnership Framework (CPF report number 96515-CI).** The FY22-26 CPF is currently under preparation and aligns with the Systematic Country Diagnostic (SCD) update carried out in 2022. The 2022 SCD Update identified three main pathways to shared prosperity and poverty reduction: (i) improving agricultural productivity and rural incomes; (2) creating jobs through private sector-led growth; and (3) enhancing service delivery and public spending to accelerate human capital development. The proposed financing will contribute to the third pathway of the SCD and the human capital pillar of the CPF under preparation, by protecting the population and basic services from COVID-19, fortifying the Ivorian Health system and enhancing the populations resilience. The AF is well aligned with Ivorian Government's health strategies, including the GOCI's COVID-19 Health Response Plan, the NDVP as well as the National Health Development Plan (*Plan national de Développement Sanitaire 2021-2025; PNDS*), which aims to strengthen inclusion, national solidarity and social action in order to improve the health status of the population through an efficient and resilient health system, as well as the National. The AF builds and deepens support provided under the Parent project and first AF, supporting the Government to prevent, detect and respond to the threats posed by the pandemic and strengthen national systems for public health preparedness.

⁷ MSHP-CMU (2020) : *Plan de riposte contre les infections respiratoires aiguës à Coronavirus-COVID-19 Côte d'Ivoire.*

⁸ MSHP-CMU (2021) : *Plan national de vaccination et de déploiement des vaccins contre la COVID-19 en Côte d'Ivoire.*



C. Project Design and Scope

9. **The Project Development Objective (PDO) of the project is to prevent, detect, and respond to the threat posed by COVID-19 and strengthen national systems for public health preparedness in CIV. The PDO will remain the same for the proposed second AF.** The project includes three components: (1) ***Emergency COVID-19 Response*** provides immediate support to prevent the importation and local transmission of COVID-19 through containment strategies. It also supports the implementation of the NDVP and the strengthening of related health service delivery systems to ensure an effective vaccine deployment. (2) ***Health Communication and Community Engagement*** aims to equip the population with the necessary knowledge to adopt prevention-related behaviors, and counter misinformation around the COVID-19 pandemic. This component also supports the implementation of communication activities to raise awareness on the vaccination campaign, including providing details on the Government's vaccination strategy, countering vaccine hesitancy, and strengthening local accountability mechanisms. (3) ***Project Implementation, Management and Monitoring and Evaluation (M&E)*** supports the coordination and management of activities under the parent project and first AF, M&E of the prevention and preparedness interventions and the vaccination campaign, technical support, and capacity building.

10. **The proposed second AF will scale-up activities under the three components and introduce new activities based on lessons learned from the ongoing implementation. No new components will be incorporated.** The RF is revised to measure the impact of the extended financing. The closing date of the original credit (6652-CI), the first AF (6869-CI) and the overall project will be extended from June 30, 2022, to June 30, 2024 to meet the expanded scope of the objectives. The activities under the proposed second AF will complement those being implemented under the Contingent Emergency Response Component (CERC) of the Strategic Purchasing and Alignment of Resources and Knowledge in Health Project (SPARK-Health), which was activated on May 8, 2020.

D. Project Performance

11. **Progress towards achievement of the PDO and overall implementation progress were rated as Satisfactory in the last Implementation Status and Results Report (ISR) dated December 16, 2021, and the project continues to make good progress.** As of March 16, 2022, cumulative disbursements amount to US\$104.02 million (78.8 percent). An additional US\$17.2 million has already been committed to UNICEF for vaccines purchased through AVAT and COVAX. These resources are being disbursed progressively as vaccines are delivered to CIV. Performances in financial management (FM), procurement, project management and M&E are all rated Satisfactory, and the environmental and social (E&S) safeguards rating is Moderately Satisfactory. The project complies with key covenants, including audit and FM reporting requirements. There are no overdue audit reports.

12. **Significant results have already been achieved under the current financing. The project financed the operational costs for the vaccination of 4 million people and procured 6.9 million COVID-19 vaccines through the AVAT and COVAX mechanisms, which will enable the Government to vaccinate 5.9 million people.** The project also supports the operational costs related to the deployment of subsidized COVID-19 vaccines provided by the COVAX Facility, as well as those procured with IDA resources, in all 113 health districts of CIV, and the monitoring and management of adverse events following immunizations (AEFI). The project has played a critical role in supporting the Government to



contextualize the vaccination campaign, and use innovative approaches, such as mobile vaccination clinics in busy urban markets, to bring COVID-19 vaccination services closer to the population, especially those most at risk and women. Women constitute the vast majority of vendors trading in the informal marketplace and having the mobile vaccination clinic in the marketplace meant that these women could get vaccinated without having to give up that day's income by travelling to a clinic or fixed vaccination site to access the COVID-19 vaccine. Given the success of this approach in Abidjan, the GOCI plans to scale the approach to other towns under this second AF. The project has also supported the GOCI mount a comprehensive and effective communication and community mobilization campaign to address the high levels of vaccine hesitancy among the population and increase vaccine demand. This technical and financial support contributed to a 65-fold increase in the daily vaccination rate between March and December 2021 and prevented the expiry, and enabled the successful utilization, of more than 500,000 COVID-19 vaccines at the start of the campaign.

E. Rationale for Additional Financing

13. **Additional resources (including that of AIIB) are needed to maintain a sustained and effective COVID-19 response, whilst accelerating COVID-19 vaccination coverage to reach at least 70 percent of the country's population by December 2022 and provide booster doses for eligible individuals.** CIV's limited access to COVID-19 vaccines during the first few months of the campaign has contributed to the protracted nature of the local outbreak and the resurgence of cases linked to the emergence and spread of more virulent and contagious variants. The Ivorian Authorities have needed to maintain a robust emergency response to the pandemic for longer than was initially expected, while simultaneously intensifying the vaccination campaign to quickly scale-up vaccination coverage, especially among priority groups. The emergency response and enforcement of essential public health measures (hygiene, mask wearing and physical distancing) will need to be sustained to contain the outbreak until high levels of vaccination coverage are achieved. Moreover, in response to recommendations emerging from the United Nation General Assembly's global COVID-19 Summit, held on September 22, 2021⁹, and WHO, the GOCI has increased the target of the vaccination campaign from 57.3 percent of the country's population (all individuals above the age of 16 years; an estimated 16.2 million individuals) to at least 70 percent of the population (an estimated 19.9 million individuals), and booster doses have been introduced for individuals six months after completion of the primary vaccination series (an estimated 9.9 million people by December 2022). Key health system investments are also required to ensure effective deployment of vaccines, especially at the decentralized level outside Abidjan, as well as to strengthen public health preparedness and improve health service delivery. The current budget is insufficient to meet these needs. The proposed second AF will close the financing gap faced by the GOCI and presents an opportunity to enhance the development effectiveness of IDA resources by addressing gaps in the scale of the interventions financed by the parent project and first AF. The scale-up of project activities will be implemented in close coordination with other development partners, as elaborated in Box 1.

⁹ WHO Africa (September 23, 2021): Africa needs seven-fold rise in COVID-19 vaccine shipments. Source : <https://www.afro.who.int/news/africa-needs-seven-fold-rise-covid-19-vaccine-shipments>



Box 1: Potential Supportive Role for Partner Agencies in Implementation

Partner agency	Roles and Responsibility	Financing amount (if known)
WHO	<ul style="list-style-type: none"> • Providing technical leadership for vaccine introduction, providing technical support to the National Immunization Technical Advisory Group on COVID-19 vaccination policy objectives, strategy, targets, and vaccine safety issues. • Developing and updating guidelines (e.g., NDVP) and conducting training on AEFI surveillance for COVID-19 vaccine-related issues and other issues of vaccine pharmacovigilance, etc. 	TBD
UNICEF	<ul style="list-style-type: none"> • Supporting the development of a roadmap for the integration of COVID-19 vaccine deployment with Expanded Immunization Program (<i>Le Programme Elargi de Vaccination</i>, EPI) and other primary health care (PHC) services. • Supporting the quantification and forecasting of supply needs. • Support to procure and install quality cold chain rooms at national level. • Acting as the procurement agent and managing logistics around COVID-19 vaccines and accessories (e.g., syringes) procured or donated through COVAX or AVAT. 	TBD
GAVI/COVAX	<ul style="list-style-type: none"> • Donating vaccines to cover the first prioritized 20 percent of the population and beyond. • Financing support for cold chain strengthening and for technical assistance. • Supporting the deployment of vaccines 	TBD
AiIB	<ul style="list-style-type: none"> • Financing the procurement and deployment of COVID-19 vaccines. • Reinforcing the communication and community mobilization campaign around the COVID-19 emergency response and the vaccination campaign. • Strengthening of select health systems domains to ensure effective deployment of the vaccines. 	US\$100 million
AVAT	<ul style="list-style-type: none"> • AVAT is providing vaccines for the population, procured using resources from the first AF and proposed second AF. 	TBD
USAID	<ul style="list-style-type: none"> • USAID is supporting the COVID-19 response, vaccine deployment and donating vaccines through COVAX. 	TBD

F. National Capacity and COVID-19 Vaccination Plan

(i) Vaccine Readiness Assessment

14. CIV's has conducted a vaccine readiness assessment, to identify gaps and options to address them, to ensure an effective vaccination campaign. The first AF played a crucial role in addressing many of the challenges identified under each of the readiness domains, and strengthened the MSHP-CMU's deployment capacity, which led to the deployment of 10.5 million COVID-19 vaccine doses. However, as outlined in Table 1, challenges remain, and new challenges have emerged given the evolving and protracted nature of the pandemic, including the emergence of new variants (e.g. Omicron etc.), all of



which will need to be addressed to enable the campaign to achieve its objective. Resources under the first AF and second AF are geared towards overcoming bottlenecks identified in partnership with key technical partners, such as WHO and UNICEF.

(ii) National Deployment and Vaccination Plan (NDVP) for COVID-19 vaccines

15. As stated in the GOCI's request letter of September 22, 2021, the Country now aims to achieve a COVID-19 vaccination coverage of 70 percent (an estimated 19,913,060 individuals) by December 2022. The MSHP-CMU plans to update its NDVP by April 2022, to integrate the new vaccination coverage target, boosters, and update the vaccination strategy based on lessons learned during the 13-months of implementation of the vaccination campaign and update the costing. The current NDVP identifies three priority groups, as guided by the *WHO SAGE Roadmap for prioritizing Uses of COVID-19 Vaccines in the Context of Limited Supply*, which determined one's eligibility to access vaccination services at the start of the vaccination campaign in March 2021 (See details in Table 2 and Table 3).

16. **Table 2 presents the estimated cost of purchasing vaccines through each of the available sources.** These estimates account for vaccine procurement, supply chains in-country (including climate-sensitive cold chain investments), and service delivery. The GOCI's objective is to achieve a 70 percent vaccination coverage and provide booster doses for 9.9 million persons. The attainment of these goals will be achieved through the culmination of various effort, from different partners, as outlined in the following. It is assumed that COVAX will provide doses to cover 36.6 percent of CIV's population for free, with deployment costs covered by the World Bank. The World Bank is financing (under AF1) the purchase and deployment of 5,000,000 doses of J&J vaccine and 1,978,800 doses of Sinopharm vaccine to cover 21.1 percent of the population. In addition, the GOCI is procuring 2,370,420 Sinopharm doses and 335,000 AstraZeneca doses; and donations have been received from India, France, People's Republic of China and Mastercard, totaling 20.2 percent population coverage. Dose prices and cost of transport to country are calculated based on the agreements with vaccine manufacturers. Dose price includes the cost of syringes, needles, and safety boxes. Transport to country includes freight to country, insurance, inspection, UNICEF handling fee, contingency buffer, and AVAT costs where applicable. The assumptions used are consistent with estimates communicated by the COVAX Unit Cost Working group. The proposed second AF will procure vaccine doses to cover 27.1 percent of the population (7.7 million people). It is assumed that the proposed second AF will finance the purchase of 1,000,000 J&J doses through AVAT, to fulfil CIV's pending order, an additional 6,712,330 doses (e.g., Sinopharm, Pfizer, AstraZeneca, etc.) from any of the available sources (AVAT, COVAX, direct procurement from manufacturers) and the deployment of procured vaccines and subsidized doses received through COVAX and other sources. Dose price and transport cost assumptions are made based on the existing J&J deal that CIV has signed and COVAX price assumptions for the purchase of doses through its procurement arm (in the case of AMC92 countries, this is US\$7 per dose including transport to country). The remaining doses required to reach 70 percent coverage and cover booster doses are expected to consist of both one-dose and two-dose vaccines, so the COVAX guide price (US\$7.00 including transport) and the unit costs from the prior J&J deal (US\$8.73 including transport) are used.



Table 1: Summary of Vaccination Readiness Findings from the VIRAT/VRAF 2.0 Assessment

Readiness domain	Readiness of the Ivorian Government as of March 21, 2022	Remaining gaps
<p>A. Planning and coordination</p>	<ul style="list-style-type: none"> • Strong mobilization and involvement of authorities at the highest level of government in the COVID-19 vaccination campaign, as well as all partners and stakeholders. • The NDVP has been drafted, in line with COVAX guidelines and has been validated by COVAX and MSHP-CMU. • A taskforce has been put in place within the MSHP-CMU to accelerate the vaccine deployment. • All coordinating structures have been activated and are functional: The National Immunization Advisory Group, consisting of two consultative bodies: (i) the Committee for Inter-Agency Coordination (<i>le Comité de Coordination Inter Agences</i>; CCIA) composed of the MSHP-CMU, partner ministries, financial and technical partners, and civil society organizations; (ii) the restricted technical working group (<i>le group technique Restreint</i>; GTR). • COVID-19 Vaccination Operational Action Plan was revised and validated. • Technical guidelines for the implementation of the vaccination campaign have been developed and validated by MSHP-CMU. • Technical directives have been adopted on (i) the increase in the vaccination coverage to 70 percent of the population, and expand vaccinations to adolescents from the age of 12 years; and (ii) the introduction of booster doses. 	<ul style="list-style-type: none"> • The NDVP will be updated by April 2022 to incorporate the new vaccination coverage target of 70 percent, the introduction of booster doses and update the deployment strategy to integrate COVID-19 vaccinations in routine services. The first AF is supporting costs and providing technical assistance for the updating of the NDVP. • Insufficient involvement of key resource persons to enable the campaign to reach specific priority populations (e.g., those with non-communicable diseases or senior citizens) as well as the private sector.¹⁰ The second AF is supporting the participation of key resource persons as well as the private sector in the updating of the NDVP and deployment of the vaccines. • Strategies developed to reach target groups (e.g. teachers and people with co-morbidities) are not effectively implemented. The second AF will support the effective implementation of these strategies.
<p>B. Budgeting</p>	<ul style="list-style-type: none"> • The original NDVP (version January 2021) and Operational Action Plan were together costed at US\$244.5 million, and the budgets were validated. • The COVAX facility will provide vaccines for 36.6 percent of the population and vaccines for an additional 20.2 percent of the population were procured by Government and donated by countries. • The first AF of US\$100 million covered the procurement of vaccines for 21.1 percent of the population and covers the deployment costs for vaccines received from COVAX to cover the priority 20 percent of the population. 	<ul style="list-style-type: none"> • Update the NDVP Plan and budget by April 2022. The first AF is supporting costs and providing technical assistance for the updating of the NDVP.

¹⁰ Weak involvement of the following persons: presidents of associations of carriers of chronic pathologies (e.g., diabetes); managers of the national program for the control of non-communicable diseases; doctors from the diabetic center of Abidjan; Senior citizen’s associations, managers of the general fund for the Retirement of State Employees, the private sector, including the private health sector, etc.



Readiness domain	Readiness of the Ivorian Government as of March 21, 2022	Remaining gaps
	<ul style="list-style-type: none"> The proposed second AF will finance the procurement of vaccines for an additional 7.7 million people and deployment costs to reach the GOCI's goals of vaccinating 70 percent of the population and providing booster doses for those eligible by December 2022 (35 percent of the population). 	
<p>C. Regulatory</p>	<ul style="list-style-type: none"> The Ivorian Authority for Pharmaceutical Regulation (<i>L'Autorité Ivoirienne de Régulation Pharmaceutique</i>, AIRP) has approved several vaccines for use in CIV: AstraZeneca, Pfizer, Sinopharm, J&J, and Moderna. CIV is currently deploying all these vaccines, barring Moderna. The COVAX facility and AVAT facility has established no-fault compensations scheme (NFCS) for patients who experience AEFIs (Box 2). The first AF is financing the establishment of a NFCS for vaccines procured with resources under the project but outside the COVAX or AVAT mechanisms. The MSHP-CMU is in the process of recruiting a consultant/firm to support the design of the national NFCS. 	<ul style="list-style-type: none"> No NFCS available for vaccines procured with government funds outside of COVAX or AVAT mechanisms (i.e., the 1,349,710 vaccine doses procured from intermediaries). Given the novelty of this mechanism, the first AF is supporting the recruitment of an international firm to support the Ivorian Government to design the NFCS and to develop an operational manual for the NFCS.
<p>D. Prioritization, targeting and COVID-19 surveillance</p>	<p>Priority targets were identified based on the Strategic Advisory Group of Experts on Immunization (SAGE) guidelines as follows:</p> <ul style="list-style-type: none"> <u>Priority group 1</u>: Focuses on health personnel (health providers and administrators), security forces, military, and teachers to protect caregivers and ensure continuity of health services and protect individuals who contribute to or maintain essential services for the functioning of society. <u>Priority group 2</u>: Focuses on individuals older than 50 years, individuals with chronic diseases and travelers. <u>Priority group 3</u>: Focus on individuals between 12 – 49 years, not eligible under priority group 1 or 2. <p>The total population target to vaccinate against COVID-19 is estimated at 19,844,351 (70 percent of the total population). The vaccination campaign is no longer vaccinating in phases due to low demand at the start of the campaign, and vaccinations are now open to everyone. On March 11, 2022, the MSHP-CMU introduced COVID-19 booster doses for adults and adolescents (12 years and older) at six months after completion of the primary vaccination series.</p>	<ul style="list-style-type: none"> The NDVP will be updated by April 2022 to incorporate the new vaccination coverage target of 70 percent, the introduction of booster doses and update the deployment strategy to integrate COVID-19 vaccinations in routine services. The first AF is supporting costs and providing technical assistance for the updating of the NDVP. Implementation of targeting strategies for specific priority groups need to be reviewed and strengthened based on updated data on infection trends and rates. The second AF will support the revision and effective implementation of these strategies.
<p>E. Service Delivery</p>	<p>Vaccination services have been adapted based on lessons learned over the recent months. Vaccinations are conducted through predefined fixed delivery points, and outreach approaches leveraging existing vaccination platforms.</p>	<ul style="list-style-type: none"> Service delivery guidelines have been developed but are yet to be disseminated to immunization posts and



Readiness domain	Readiness of the Ivorian Government as of March 21, 2022	Remaining gaps
	<ul style="list-style-type: none"> • Fixed delivery posts in all health facilities. Each vaccination team includes two health workers and three volunteers. • Each month, the MSHP-CMU implements a 15-day intensification outreach (door-to-door) campaign to reach the majority of population, followed by a “fixed” vaccination approach where vaccinations are provided at vaccination sites in health facilities. • Outreach posts, including through mobile clinics: Each vaccination team includes two health workers and three volunteers. • Military health professionals vaccinate military personnel, their eligible families and civilians who present for vaccination at specific military health posts. <p>The vaccination campaign is being implemented in all health districts, with a focus on bringing vaccination as close as possible to the population (in markets, train stations, large-scale events, places of worship, businesses, etc.).</p>	<p>operationalized. The first AF is supporting the dissemination of service delivery guidelines, and this will continue being supported by the second AF as guidelines continue to be adapted to the COVID-19 pandemic.</p>
<p>F. Training and supervision</p>	<ul style="list-style-type: none"> • Training has been provided for all vaccinators on the administration of different type of vaccines, including their use, safety and AEFI’s and data collection tools. • Supervision has begun and is satisfactory, and ensures that implementation of activities is monitored in the field and that it complies with guidelines. Supervision missions are carried out by technical supervisors from the central level and partners. 	<ul style="list-style-type: none"> • Vaccinators have not yet been trained on issues of gender-base-violence (GBV) in the context of the immunization campaign. The PIU is in the process of hiring a GBV specialist who will lead this training in June 2022. • Additional human resources are needed to strengthen the deployment capacity. Discussions are being held with the National Institute for the Training of Health Agents (<i>L’Institut National de Formation des Agents de la Santé; INFAS</i>) to recruit student nurses at the end of their training for the vaccination campaign, as well as to partner with the private sector for the deployment of vaccines. The proposed second AF will support the recruitment of recent graduates to from INFAS to support the deployment of COVID-19 vaccines and strengthening of routine health service delivery. The Second AF will also support the contracting of private health providers for COVID-19 vaccine deployment and COVID-19 case management.
<p>G. M&E</p>	<ul style="list-style-type: none"> • Dedicated human resources have been allocated to manage data at all levels. 	<ul style="list-style-type: none"> • The digitalization platform for the vaccination campaign



Readiness domain	Readiness of the Ivorian Government as of March 21, 2022	Remaining gaps
	<ul style="list-style-type: none"> Data collection and reporting tools have been developed; regional and district teams have been trained in the use of the data collection tools. A weekly central level coordination meeting is held to monitor progress on the immunization campaign, and a daily feedback bulletin is available. The digitalization of the vaccination process has been initiated, and regulations around data protection has been developed and adopted. 	<p>does not integrate vaccination data with District Health Information System 2 (DHIS2) data nor with patient medical records. The proposed second AF will strengthen the digitalization of the vaccination campaign, including the integration of vaccination data into DHIS2 and linking this data to patient medical records.</p>
H. Vaccines, cold chain, logistics and infrastructure	<ul style="list-style-type: none"> There are sufficient human resources for vaccine logistics management. The MSHP-CMU has acquired cold chain equipment for all types of vaccines (including ultra-cold storage). The first FA is supporting the rehabilitation of cold rooms, and the acquisition of additional cold chain equipment for the central, regional and district levels. Waste management equipment has been made available to districts and will be managed in accordance with policies in place. 	<ul style="list-style-type: none"> Unpredictability of vaccine deliveries have made it difficult to plan. Weaknesses have been observed in the implementation of waste management procedures. The second AF will support the strengthening of the waste management procedures
I. Safety surveillance	<ul style="list-style-type: none"> A national AEFI monitoring system has been put in place, accompanied by a monitoring manual. AEFI monitoring tools have been updated, and training of focal points on the surveillance and notification of AEFIs is ongoing. Emergency kits for the management of anaphylactic shock post immunization have been made available to each health district. The country has a functional pharmacovigilance expert committee that deliberates on each case of adverse AEFI. The first AF is supporting the management of severe cases of AEFI as well as operational costs for the functioning of the National Pharmacovigilance Expert Committee. 	<ul style="list-style-type: none"> There is an under reporting of AEFIs, and the MSHP-CMU is currently training focal points to address this issue.



Readiness domain	Readiness of the Ivorian Government as of March 21, 2022	Remaining gaps
J. Communication and demand generation	<ul style="list-style-type: none"> • A communication working group was established, and advocacy tools for target groups, key messages and public communication materials have been developed, and communication materials have been acquired. • A communication and social mobilization and participation strategy was developed and is being implemented. It includes the creation of a network of influencers and national champions for immunization, the involvement of community-based organizations, and inter-religious organizations. This strategy aims to promote confidence, acceptance, and demand for the vaccine. • The MSHP-CMU has developed a strategy for the monitoring and management of rumors, and it is currently under implementation. 	<ul style="list-style-type: none"> • Inadequate management of information and community mobilization (insufficient dissemination of information, a lag was observed in the intensification of the communication campaign during periods when the MSHP-CMU accelerated deployment of the vaccine.) The second AF will reinforce the communication and community mobilization component under the project.

17. **Deployment costs, which are reflected in Table 5**, include in-country supply chain costs (including cold chain equipment, vehicles and fuel, transport overheads), in-country service delivery costs (including program management, training, social mobilization, disease surveillance), and climate-friendly cold chain investment requirements. The above dose prices include the cost of freight and transportation, and syringes and safety boxes, an assumption taken from COVAX. Estimates of costs of supply chain and service delivery were calculated by the COVAX Unit Cost Working Group based on data from routine childhood vaccinations¹¹. The cost of investment in climate-friendly cold chain equipment and infrastructure has been estimated by the Energy Sector Management Assistance Program (ESMAP) at a 20 percent increase on supply chain and service delivery costs. Final

¹¹ Portnoy A, Vaughan K, Clarke-Deelder E, Suharlim C, Resch SC, Brenzel L, Menzies NA. *Producing standardized country-level immunization delivery unit cost estimates*. PharmacoEconomics. Sept 2020;38(9):995-1005.



Table 2: National Vaccine Coverage and Acquisition Plan

Source of financing (IBRD, IDA, TF, COVAX, AIIB, Government, Other)	Population targeted (total population: 28,447,228)		Vaccines				Number of doses needed	Estimated total cost (US\$) millions)	WB VAC status of the vaccine	Contract status	Vaccines doses arrived in the country
	%	Number	Sources	Name	Price (US\$/dose)	Shipping (US\$/dose) ¹²					
COVAX donations											
COVAX	36.6	7,642,000	COVAX Grant	AstraZeneca/ Pfizer BioNTech/ Sinopharm	0.00	0.00	2	0	Approved by three SRAs. WHO EUL: February 2021	Contract finalised and initial doses received. Remaining doses will be delivered in instalments until December 2023.	10,284,000
		2,774,200		J&J	0.00	0.00	1	0	Approved by three SRAs. WHO EUL: March 2021		2,774,200
Other sources											
World Bank: IDA Credit	17.6	5,000,000	AVAT mechanism, delivered by UNICEF	J&J	7.58	1.15	1	43.6	Approved by three SRAs. WHO EUL: March 2021	Contract finalised and initial doses received. Remaining doses will be delivered in instalments until June 2023.	2,043,400
	3.5	989,400	COVAX procurement	Sinopharm	5.58	1.06	2	13.1	WHO EUL: May 2021	Contract finalised and doses received.	1,978,800
Government	4.2	1,185,210	Direct procurement through intermediary	Sinopharm	TBC	TBC	2	TBC	WHO EUL: May 2021	Contract finalised and doses received.	2,370,420
	0.6	164,500	Direct procurement through intermediary	AstraZeneca	TBC	TBC	2	TBC	Approved by three SRAs. WHO EUL: February 2021	Contract finalised and doses received.	335,000
Other: Donations	0.09	25,000	India	AstraZeneca	0	0	2	0	Approved by three SRAs. WHO EUL: February 2021	N/A	50,000
	0.05	12,950	France	AstraZeneca	0	0	2	0	Approved by three SRAs. WHO EUL: February 2021	N/A	25,900

¹² Cost of transport includes freight to country, insurance, inspection, UNICEF handling fee, contingency buffer, and AVAT costs where appropriate



	9.0	2,550,000	People's Republic of China	Sinopharm	0	0	2	0	WHO EUL: May 2021	N/A	100,000
	6.4	1,814,000	Mastercard	J&J	0	0	1	0	Approved by three SRAs. WHO EUL: March 2021	N/A	302,400
Proposed second AF											
Joint WB - IDA Credit / AIIB - Credit	3.5	1,000,000	AVAT mechanism, delivered by UNICEF and other sources	J&J	7.58	1.15	1	8.73	Approved by three SRAs. WHO EUL: March 2021	Remainder of 1m doses ordered through AVAT, remainder TBC	0
Joint WB - IDA Credit / AIIB - Credit	23.6	6,712,330	TBC	TBC	7 ¹³	0	1	47.0	TBC (AVAT, COVAX or any other source approved by WB)	Supplier to be confirmed and contract to be initiated once the second AF is signed.	0
Total	105.0	29,869,590						112.6			

¹³ US\$7 per dose (including delivery to country) assumption used in line with COVAX guide price for AMC92 countries purchasing through COVAX procurement system.



Box 2: Liability and Indemnification Issues in Vaccine Acquisition

Key Issues:

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

COVAX-financed vaccines for AMC countries:

- COVAX has negotiated model indemnification provisions with manufacturers for vaccines purchased and supplied under the COVAX AMC.
- In providing vaccines through COVAX AMC, COVAX requests COVAX AMC Participants to have in place an indemnity agreement directly with manufacturers, and the necessary indemnity and liability frameworks for that purpose – either in the form of the COVAX model indemnification arrangements or prior bilateral arrangements with manufacturers.
- The COVAX Facility will have a no-fault compensation scheme (NFCS) for AMC countries as part of its risk mitigation strategy. This will cover vaccines supplied only through COVAX AMC.
- CIV will have to consider what it will take to implement these indemnification provisions (including statutory implementation) and how they can avail of the benefits of the NFCS.

For vaccines purchased through AVAT

- The Advance Purchase Agreement (“APA”) signed on March 28, 2021, by AVAT, Janssen Pharmaceutica NV (“Janssen”) and the African Export-Import Bank includes indemnification provisions in favor of Janssen for vaccines purchased and supplied under the APA. Participating countries will assume those indemnification obligations upon execution and delivery of a deed of adherence to the APA.
- As a condition for the delivery of vaccine doses under the APA, participating countries shall also participate in or establish and adequately fund a NFCS in accordance with certain minimum requirements. Participating countries shall either: (i) participate in the NFCS to be established by AVAT, or (ii) establish and maintain their own NFCS. For the avoidance of doubt, AMC countries will not be able to rely on their participation in the COVAX NFCS to meet the conditions under the Janssen APA.
- For vaccines purchased through AVAT, CIV will have to consider how to implement the indemnification provisions and NFCS requirements under the APA with Janssen

For vaccines purchased outside of COVAX:

- CIV will need to enter direct indemnification arrangements with manufacturers.
- CIV does not have legislation in place to provide statutory immunity for manufacturers.
- CIV does not have a NFCS. However, a national NFCS is being put in place with financing under the first AF.
- Adoption of any such indemnification provisions or compensation scheme would have to be in accordance with CIV’s own national strategy and framework.

Possible World Bank support to CIV depending on needs, may include:

- Information sharing on (i) statutory frameworks in Organization for Economic Co-operation and Development (OECD) countries and other developing countries; and (ii) overall experience in other countries.
- Training and workshops for government officials to familiarize them with the issues.
- Hands-On-Enhanced Implementation Support for contracts financed by the second AF.

18. The updated project operational documents (Vaccine Delivery and Distribution Manual; VDDM/PIM) will make clear that the country’s regulatory authority is responsible for its own assessment of the project COVID-19 Vaccines’ safety and efficacy and is solely responsible for the authorization and deployment of the vaccines in the country.



II. DESCRIPTION OF ADDITIONAL FINANCING

A. Proposed Changes

19. **The proposed second AF includes the following changes:**

- a) **Scale-up of activities under Components 1, 2 and 3 of the project** to (i) procure additional COVID-19 vaccines and related consumables; (ii) support operational costs for the deployment of vaccines that meet the World Bank's VAC, including those donated through COVAX and other sources; (iii) monitor and track vaccine deployment, and record and manage adverse reactions to vaccinations; (iv) intensify social mobilization and community engagement activities to enhance demand for COVID-19; and (v) support key investments to ensure effective vaccine deployment, improve health service delivery, and reinforce the laboratory surveillance network .
- b) **Introduce new activities based on lessons learned (paragraph 50):** Specifically, the project will:
 - 1) Support health system prevention and preparedness activities in the 10 regional health poles of Excellence (*les Pôles Régionaux d'Excellence Santé; PRES*)¹⁴ to enhance the country's capacity to deal with the re-emergence of COVID-19, other pathogens of animal origin and future emergencies.
 - 2) Procure mobile clinics to strengthen vaccination deployment in large informal markets, rural communities and cultural events.
 - 3) Strengthen digital public health capacity for emergency preparedness¹⁵ and use of digital data to guide policy decisions on COVID-19 related vaccination including; (i) support to the software and hardware costs for the deployment of electronic medical records at select vaccination sites (primary health facilities and *Treichville-Marcory Parc des sport* vaccination center); (ii) training of users of the system, and costs related to the integration of COVID-19 and vaccination data into the DHIS2 system; (iii) linking this data to patient medical records; (iv) using data to generate digital vaccination cards; and (v) technical assistance. The proposed second AF's support to strengthen the digital health infrastructure will complement that provided under World Bank's SPARK-Health Project (P167959)¹⁶ and the Enhancing Government Effectiveness for Improved Public Services project (P164302)¹⁷.
 - 4) Maintenance cost for cold-chain equipment procured under the first AF.
 - 5) Recruit recent graduates from the National Health Worker's training Institute (*l'Institute National de Formation des Agents de Santé; INFAS*) as contractual frontline health workers in vaccination sites at health facilities situated outside Abidjan, in deprived or rural health districts, to reinforce vaccine deployment, support the integration of the vaccination campaign into routine services, and enhance delivery of routine health services.
 - 6) Contracting with private health facilities (hospitals, clinics and pharmacies) for COVID-19 vaccine deployment and COVID-19 case management services.

¹⁴ The 10 regional health poles include: Abidjan, San Pedro, Man, Odienné, Korhogo; Daloa, Bouaké, Yamoussoukro, Abengourou and Bondoukou.

¹⁵ Murray, CJL; Alamro, NMS; Hwang, H, et al. Digital Public Health and COVID-19. *The Lancet Public Health*. Vol 5, ISS 9, e469-470.

¹⁶ SPARK-Health Project: Financing deployment of electronic medical records in hospitals (regional and district level) across the country.

¹⁷ The Enhancing Government Effectiveness for Improved Public Services Project: Financing the deployment of the HIS software, which will integrate all patient, clinical, administrative, and financial workflows across the three levels of the health pyramid (primary, level, tertiary) of CIV's public health sector.



- 7) Strengthen clinical care capacity in the 10 regional health poles by financing the rehabilitation and equipping of medical imagery units in regional hospitals and laboratories (peripheral and regional) for the diagnosis of priority diseases, and the procurement and installation of oxygen generator machines. Strengthen the capacity of the National Public Health laboratory (*Laboratoire National de la Santé Publique; LNSP*) to conduct external quality evaluations of laboratories supported by the project, and the Regional Center for Evaluation in Education, Environment, Health and Accreditation in Africa (*Centre régional d'évaluation en éducation, environnement, santé et d'accréditation en Afrique; CRESAC*) to undertake their certification.
- 8) Logistic support for the transport and deployment of vaccines at the subnational level including the procurement of trucks and motorbikes, maintenance costs for these items, as well as fuel.
- 9) Link monthly financial incentives (per diems and allowance) for vaccinators to the digital transmission of COVID-19 vaccination data to the COVID-19 digital vaccination platform and the DHIS2.
- c) **This proposed second AF will not provide support to the national NFCF.** The scope of the NFCF will be clarified in the amendment to the first AF Financing Agreement (6869-CI) to limit it only to AEFIs that are not already covered by other applicable compensation funds (e.g., NFCF of COVAX or AVAT).
- d) **Revise the RF** to measure the impact of the expanded financing envelope.
- e) **Extend the closing date** of the project from June 30, 2022, to June 30, 2024, to allow sufficient time for the implementation of activities, especially considering the uncertainties around evolution of the pandemic.
- f) **Establish AIIB as a co-financing partner for the project and modify the fiduciary and disbursement arrangements and estimates** to include AIIB contribution.
- g) **Modify the institutional arrangements** to improve coordination and enhance project implementation.

20. **The PDO and project component structure will remain the same.** The component contents under the first AF have been revised to reflect the expanded scale and scope of activities under the proposed second AF. The proposed second AF will support vaccination as summarized in Table 3.

Table 3: Priority Groups for Vaccination in CIV

Ranking of vulnerable	Population group	Estimated number of people	Share of total population (%)
Priority group 1	Frontline health workers; administrative health personnel; defense forces; security staff and police; educational staff	19,913,060	70.0
Priority group 2	Adults over >50; persons with chronic diseases; travelers		
Priority group 3	Individuals between 12-49 years		
Booster doses	Individuals six months after completion of the primary vaccination series ¹⁸ by December 2022.	9,956,530	35.0
Total		29,869,590	105.0

* Total Ivorian population = 28,447,228.

¹⁸ On March 11, 2022, the MOH introduced directives to (i) expand the vaccination campaign to children and adolescents above the age of 12 years, and (ii) introduce booster doses for individuals, six months after the completion of a primary vaccination series, which includes either a single (e.g., J&J) or two dose series (Pfizer, Sinopharm or AstraZeneca). As per the “*HD guidance note on bank financing of COVID-19 Boosters and vaccinations for Adolescents and Children*” Children and Adolescents eligible for COVID-19 vaccines will only receive VAC approved Pfizer doses following the consent of their parent or legal guardian. The specific details on the expansion of the vaccination coverage to 70 percent of the population, including children and adolescents, booster doses is being incorporated in the updated version of the NDVP.



(i) Project Components

21. **Component 1: Emergency COVID-19 Response: US\$267.4 million equivalent** (parent project: US\$28.8 million; first AF: US\$93.7 million; proposed second AF: US\$144.9 million (WB: US\$64.4 million, AIIB: US\$80.5 million)). The proposed second AF will finance the scale-up of activities under the parent project and first AF.

22. **Sub-component 1.1: Strengthening national and sub-national capacities for COVID-19 case detection and clinical management.** The proposed second AF will support the scale-up of the following key activities: (i) procurement of COVID-19 diagnostic tests, personal protective equipment (PPE), sanitation kits (handwashing stations, soap, sanitizer, face masks etc.); (ii) procurement of COVID-19 specific medical equipment, medicine and consumables for designated COVID-19 treatment centers and intensive care units (ICUs); (iii) procurement of essential laboratory and diagnostic equipment to strengthen COVID-19 testing, genomic sequencing, surveillance capacity; (iv) costs related to hazard/indemnity pay for health personnel directly involved in the COVID-19 response, consistent with the Government's policies; and (v) costs related to medical waste management and disposal systems for health facilities and mobile vaccination units, and operationalization of the grievance redress mechanism. **The following new activities will be financed** in the 10 PRES (Abidjan, San Pedro, Man, Odienné; Korhogo; Daloa, Bouaké, Yamoussoukro, Abengourou and Bondoukou): (a) costs to establish a network of public health emergency operating centers (EOCs) to strengthen preparedness, response, coordination, and resilience at the sub-national level during public health emergencies. This includes costs related to the rehabilitation and equipping (including information systems) of the EOC, development and validation of EOC plans, simulation exercises, training of staff, and operational costs; (b) equip and support operational costs of the National Public Health Institute sub-national branches (*l'Institut National d'Hygiene publique; INHP*), the regional warehouses of the Expanded Programme on Immunization (EPI) and sub-national structures of the MSHP-CMU (e.g. district health office, regional directorates, etc.) to reinforce their operational capacity to manage public health emergencies; (c) rehabilitate and equip medical imagery departments of regional and general hospitals; (d) procure and install oxygen generator machines; (e) support costs to contract private health facilities for COVID-19 case management services; and (f) rehabilitate and equip regional laboratories to strengthen the diagnosis of priority diseases, strengthen the capacity of the LNSP to conduct external quality evaluations and CRESAC to undertake certifications. The GOCI will provide to the World Bank and AIIB laboratory norms, a gap analysis and a list of laboratories to be supported.

23. **Sub-component 1.2: COVID-19 vaccine planning, procurement, and deployment.** The proposed second AF will scale-up the following activities: (i) procurement, importation, storage, and distribution, including operational costs, of COVID-19 vaccines that meet the World Bank's VAC through mechanisms selected by the country (COVAX, AVAT or from manufacturers); (ii) procurement and distribution of vaccine supplies (e.g., syringes, etc.), furniture for vaccination rooms, vaccination tents, PPE, and hygiene products for vaccinators. **The following new activities will also be financed:** (a) procurement of 10 mobile vaccination clinics and maintenance costs; (b) cost related to the maintenance of cold chain equipment procured under the first AF; (c) logistic support for the transport and deployment of vaccines at the subnational level including the procurement of trucks and motorbikes, and maintenance costs for these items, as well as fuel; (d) contracting with private health facilities (hospitals, clinics and pharmacies) for COVID-19 vaccine deployment; (e) linking of monthly financial incentives (per diems and allowance) for



vaccinators to their performance (in terms of doses administered) and the digital transmission of COVID-19 vaccination data to the COVID-19 digital vaccination platform and the DHIS2; and (f) recruitment of 1,000 recent nursing graduates from INFAS as contractual frontline health workers in vaccination sites at health facilities situated outside Abidjan, in deprived health districts, for a period of 12 months, to reinforce vaccine deployment, support the integration of the vaccination campaign into routine services, and enhance delivery of routine health services. The GOCl will map and provide to the World Bank and AIIB staffing norms and a list of vacancies to be filled in deprived or rural health districts where COVID-19 vaccination deployment has been weak. The method of verification will be detailed in the Project Implementation Manual (PIM), to be updated and adopted before the project effective date. An independent agency may be recruited, if needed, to validate a sample of the vaccination data captured on the digital platform. The PIM will detail the remuneration of these surge staff, which should be consistent with the Government's policies. The funds from the proposed second AF will only be released on verification of the staff taking up the position and remaining in the deprived area. The method of verification will be described in the PIM. The funds will be linked to the vaccination site and the location, not to the recipients. Therefore, if the recipients leave their posts, they will no longer be remunerated, and the funds will be directed to the new occupants of the posts.

24. **Sub-component 1.3: Pharmacovigilance and monitoring of patients (vaccine safety monitoring and management of AEFI).** The proposed second AF will support the continuation of activities related to the monitoring and management of occurrences of AEFIs, as outlined in the first AF. Specific activities to be scaled-up under this second AF: (a) support to health district teams and supervisors to investigate cases of AEFIs; (b) support to the coordination and functionality of the technical and expert structures involved in the management of AEFI, including the Ad hoc committee of AEFI experts; (c) collect and transport biological samples from cases of AEFI to designated laboratories, and analysis of samples; (d) maintain an electronic notification system for cases of AEFI; (e) procure and disseminate emergency kits for anaphylactic shock management, and reinforce health structures with resuscitation equipment; (f) transport persons who are victims of severe AEFI to referral facilities and cover costs related to their medical care; and (h) support costs related to the purchase of telephone credit and data bundles for site teams and coordination teams to maintain contact with individuals who received COVID-19 vaccines and to follow-up on AEFIs. This proposed second AF will not provide support to the national NFCS.

25. **Component 2: Health communication and community engagement: US\$19.7 million equivalent (parent project: US\$5.0 million; first AF: 1.9 million; proposed second AF: US\$12.8 million (WB: US\$5.7 million, AIIB: US\$7.1 million).** The proposed second AF will provide additional funds to reinforce and scale all communication and community mobilization activities outlined in the first AF around the COVID-19 pandemic and the vaccination campaign under the first AF. It aims to support the population adopt prevention-related behaviors and counter misinformation around the COVID-19 pandemic, raise public awareness on the COVID-19 vaccination campaign and counter vaccine hesitancy. A survey in five West African countries (Benin, Liberia, Niger, Senegal, and Togo) found that 60 percent of those surveyed said it was "unlikely" that they would get vaccinated, including 44 percent who considered it "highly unlikely". The most common reason for the vaccine hesitancy was that they did not trust their government to ensure that vaccines were safe¹⁹. Moreover, a study conducted in CIV²⁰ showed that the main reasons for vaccine

¹⁹ Afro Barometer March 9, 2021: https://afrobarometer.org/sites/default/files/publications/Dispatches/ad432-covid-19_vaccine_hesitancy_high_trust_low_in_west_africa-afrobarometer-8march21.pdf

²⁰ MOH survey on vaccine hesitancy (2021).



hesitancy were a fear of side-effects (37 percent) and a lack of confidence in the vaccine (27 percent). As CIV receives more COVID-19 vaccines and strengthens its deployment capacity, more resources will be invested to build trust and confidence in and create demand for the COVID-19 vaccines.

26. **Sub-component 2.1: Strengthening Community Engagement and Risk Communications.** This sub-component will reinforce activities under the parent project aimed at (1) strengthening community engagement and social accountability around COVID-19, (e.g., development of systems for community-based disease surveillance, multi-stakeholder engagement, and training community leaders, extension professionals, community health workers, and volunteers); (2) promote behavior change and enhance risk communication around COVID-19. This will include support to: (i) conduct research to understand people's knowledge, attitudes and practices around COVID-19 and its prevention; (ii) develop, test, and adapt the risk communication strategy and training materials based on data generated from studies conducted; (iii) produce and disseminate messages and provide materials at the community level-based on informed engagement and locally appropriate solutions; (iv) develop guidelines on measures to prevent COVID-19 transmission to operationalize existing or new laws and regulations; (v) provide technical assistance for communication; and (vi) identify key influencers and work with grassroots level organizations to engage hardest to reach groups and communities; (3) produce and disseminate evidence-based knowledge and information on the COVID-19 pandemic and ensuring this information is channeled through recognized platforms. This support includes: (i) training on effective communication for MSHP-CMU staff; (ii) development of online platforms to disseminate COVID-19 related information; (iii) production and dissemination of mass media campaigns through radio, television, small message services newspaper, internet, and social media; and (iv) training local media to tailor messages to the needs of their communities and local reporters to cover local initiatives and effective responses.

27. **Sub-component 2.2: Communication, social mobilization, and community engagement to enhance demand for COVID-19 vaccines.** The sub-component will reinforce activities that promote generalized behavior change and vaccines adherence. This includes costs related to the development and implementation of comprehensive and adaptable social and behavioral change communication interventions to address barriers to COVID-19 vaccine uptake based on public profiling, including: (i) carrying out of studies, surveys and opinion polls on priority groups to assess the level of acceptability and vaccine intention; (ii) development of a strategic communication plan based on the data from studies conducted; (iii) development of key messages and sensitization material; and (iv) targeted sensitization campaigns to remove barriers to vaccine adherence among priority groups.

28. **The proposed second AF will reinforce activities that promote social mobilization and community engagement for vaccine demand and use:** (i) capacity building of local traditional leaders, political and religious leaders, women and youth associations, community health workers and other community networks to promote immunization within communities and lead to change, ensuring that voluntarism and informed consent remain at the core of all information and advocacy efforts; (ii) collection and dissemination of experiences and positive stories of primary immunization recipients to build confidence in the vaccine; (iii) activities that support the community ownership process, that value local solutions to generate and increase demand for immunization, control the pandemic and mitigate its impacts, prevent and combat stigma and discrimination, and increase resilience to anti-vaccine rhetoric; and (iv) the collection and analysis of evidence in support of advocacy, decision-making and documentation of approaches, lessons and good practices.



29. **This sub-component will reinforce communication and advocacy activities in support of the COVID-19 vaccine deployment, including costs related to:** (i) capacity building and the day-to-day functioning of the National Working Group on Communication for Vaccines and Vaccination against COVID-19; (ii) upgrading the official digital platforms and strengthening telephone and online help lines; (iii) developing key messages and disseminating them through the mass media, mobile platforms, community channels and relays; (iv) the implementation of a nationwide media campaign following the phasing of the immunization campaign through mass media, social networks and local and community channels/media; (v) strengthening interpersonal communication, the training of front-line actors and the improvement of the flow of information to health professionals; (vi) strengthening the capacity of public and local media professionals to adapt key messages to the needs of local communities; (vii) rumor and crisis management; and (viii) support for feedback initiatives based on the social listening and community feedback.

30. **Component 3: Project implementation, management and M&E: US\$27.9 million equivalent (parent project: US\$1.2 million; first AF: US\$4.4 million; second AF: US\$22.3 million (WB: US\$9.9, AIIB: US\$12.4 million)).** The proposed second AF will provide additional funds to support the coordination and management of activities under the parent project and first AF, as well as M&E of prevention and preparedness interventions, COVID-19 vaccine deployment, including for AEFI.

31. **Sub-component 3.1: Project management.** This sub-component will continue supporting the coordination and management of activities under the parent project and first AF. The proposed second AF will use the existing Project Implementing Unit (PIU) (*l'Unité de Coordination des Projets de la Banque Mondiale; L'UCPS-BM*) for the overall administration, procurement, E&S aspects, and FM of the project. The proposed second AF will partner and engage with other organizations, particularly WHO and UNICEF, in various roles such as procurement agents and suppliers, and providers of specialized technical assistance.

32. **Sub-component 3.2: M&E.** This sub-component will continue supporting M&E activities under the parent project and first AF, including the expansion of the electronic system for COVID-19 registration, testing, and vaccination. **The following new activities will also be financed:** support the software and hardware costs for the deployment of electronic medical records at select vaccination sites, training of users of the system, and costs related to (i) the integration of COVID-19 and vaccination data into the DHIS system; (ii) linking this data to patient medical records; (iii) using data to generate digital vaccination cards, strengthen digital public health capacity for emergency preparedness²¹ and use of digital data to guide policy decisions on COVID-19 related vaccination; and (iv) technical assistance.

(ii) Financing Arrangements

33. The increase in scope as outlined above will be reflected in an increase in indicative component allocation from US\$135 million to US\$315 million, with 80.5 percent of the proposed second AF being added under Component 1 (Table 4). The allocation to Component 2 will increase from US\$6.9 million to US\$19.7 million to reflect the second AF's contribution towards activities related to communication, vaccine awareness and community engagement. The allocation to Component 3 will increase from US\$5.6

²¹ Murray, CJL; Alamro, NMS; Hwang, H, et al. Digital public Health and COVID-19. The Lancet Public Health. Vol 5, ISS 9, e469-470.



million to US\$27.9 million to strengthen Project implementation management and M&E. The cost distribution of the proposed second AF is outlined in Table 4.

Table 4: Project Cost and Financing

Components	Financing under PP (US\$ million)	Financing under first AF (US\$ million)	Financing under second AF (US\$ million)		Total Financing (US\$ million)
	WB	WB	WB	AIIB	
Component 1: Emergency COVID-19 Response	28.8	93.7	64.4	80.5	267.4
Component 2: Health communication and Community Engagement	5.0	1.9	5.7	7.1	19.7
Component 3: Project Implementation Management and M&E	1.2	4.4	9.9	12.4	27.9
TOTAL COSTS	35.0	100.0	80.0	100.0	315.0

Table 5: Summary of COVID-19 Vaccine Sourcing and World Bank Financing

World Bank Financed				Specific vaccines and sourcing plans	No. of Doses purchased with World Bank finance	Estimated allocation of Bank financing
Through COVAX	Through AVAT	Through direct purchase	From other sources			
<i>TBD</i>	<i>3.5% Population covered</i>	<i>TBD</i>	<i>23.6% Population covered</i>	<i>J&J purchased through AVAT (1m doses already secured) and one-shot dose to be procured</i>	<i>7,712,330</i>	Purchase: US\$55.7 million Deployment: US\$91.4 million Other*: US\$32.9 million (* other includes: COVID-19 response, health system strengthening and pandemic preparedness) This second AF (P177836)
<i>3.5% Population covered</i>	<i>17.6% Population covered</i>	<i>0% Population covered</i>	<i>0% Population covered</i>	<i>Sinopharm purchased through COVAX, J&J purchased through AVAT,</i>	<i>6,978,800</i>	Purchase: US\$56.7 million Deployment: US\$31.9 million Other: 11.4 First AF (P176257), (* other includes: COVID-19 preparedness and response; M&R Program manager.

(iii) Results Framework

34. The RF has been modified to reflect the expanded scope and the new activities under the proposed second AF and measures overall progress in the coverage and deployment of the COVID-19 vaccine. Changes to the RF are reflected in the RF section of the project paper.

Changes in Institutional Arrangements for NDVP Implementation and Oversight

35. The MSHP-CMU is the implementing unit for the parent project and the first AF, and this will be



maintained under the second AF. However, the institutional arrangements will be modified to enhance the implementation of the project at the operational level. The MSHP-CMU has an established and well-functioning PIU (L'UCPS-BM) responsible for the overall project planning, oversight, coordination, and management, in collaboration with relevant divisions and departments of the MSHP-CMU. L'UCP-BM is organized in three services: (i) administrative and FM; (ii) programs and M&E; and (iii) procurement and contract management. The L'UCP-BM has extensive experience in managing projects financed by the World Bank and other partners. The project will leverage the capacity of the existing PIU within the MSHP-CMU to ensure effective implementation of the proposed second AF. The overall governance of the second AF will be provided by a new Steering Committee, which will be established by an inter-ministerial order (*arrêté*) before effectiveness. The Steering Committee, whose composition will be approved by the World Bank and AIB, will provide strategic and policy guidance and oversight, as well as ensure the supervision and execution of the project. The existing Steering Committee²² (for the parent project and first AF) was originally established in 2020 to coordinate the national COVID-19 Preparedness and Response Plan. With the evolution of the pandemic, the introduction of vaccines and the shift in priority towards the preparedness and resilience of the health system, the Government plans to modify the composition of the Steering Committee to better support project implementation. A technical monitoring committee will be established for the coordination of activities at the national level.

36. **As with the parent project and first AF, the MSHP-CMU technical units²³, under the supervision of the Direction General of health, will continue the technical implementation of activities under the second AF.** However, these technical units will benefit from reinforcements and technical assistance support by the project and intensive support and supervision of project implementation will continue. The MSHP-CMU will partner with other partners (United Nations (UN) Agency, civil society, private sector, etc.) for the deployment of COVID-19 vaccines.

B. Sustainability

37. **There is a strong political commitment from the Government to mobilize financial resources for the response to COVID-19, including the procurement and deployment of COVID-19 vaccines.** Funding for vaccine procurement and deployment through the proposed second AF will create an enabling environment for other donors, multilateral development banks, and UN agencies to also support efforts in the country. The investments made under the parent project, the first AF and the proposed second AF are expected to strengthen the country's health system, ensuring the institutional sustainability needed to combat vaccine-preventable infectious diseases with epidemic potential. Moreover, given the protracted nature of the COVID-19 pandemic, the recent waves of resurgence around the world, and the likelihood that COVID-19 will become a seasonal disease in the future, the Ivorian Government plans to incorporate the COVID-19 vaccine into its routine immunization schedule and leverage the existing immunization infrastructure to ensure the sustainability of the program.

²² The parent project and first AF's overall governance is provided by the Steering Committee for the national COVID-19 Preparedness and Response, which is chaired by the Chief of Staff of the Prime Minister. The secretariat of the Steering Committee is led by the MSHP-CMU. The National COVID-19 Steering Committee provides both strategic and policy guidance and oversight for the Government's emergency response; it coordinates the activities of the sub-committees and mobilizes resources for the implementation of the Government's plan.

²³ The MSHP-CMU technical units include the National Institute of Public Health, the Expanded Program on Immunization.



III. KEY RISKS

38. **The overall risk to the achievement of the PDO is revised to substantial.** While this financing scales activities that have been successfully implemented under the first AF, it also introduces new activities and a complex co-financing with AIIB. The substantial rating reflects a variety of risks across critical domains, namely the technical design, fiduciary, environment and social, which could compromise the success of the proposed operation.

39. **Political and Governance residual risks remain moderate.** The Ivorian authorities have maintained a strong commitment to the success of the COVID-19 vaccination campaign since its launch, and they have played a critical role in raising awareness around the importance of the vaccination campaign and continue to encourage the population to get vaccinated. However, the limited supply of vaccines on the international market, which could be further constrained in the short term given the increased demand for booster shots in most high-income countries, as well as recurrent waves of COVID-19 infections and the global pressure to vaccinate populations, could create undue pressure to advance rapidly in the procurement of vaccines through intermediaries with predatory/fraudulent practices and vaccines of substandard quality, or through other sources (e.g. manufacturers) before they have been properly certified. The proposed second AF will mitigate these risks by (i) only financing the procurement and deployment of vaccines that meet the World Bank VAC eligibility requirements and are procured through World Bank approved sources (COVAX facility, AVAT mechanism, direct procurement); (ii) providing an option to fast-track procurement through direct or advance purchase; (iii) early involvement in the prior reviewing of vaccine contracts; and (iv) the requirement to publish contract award information in accordance with the procurement regulations. The proposed second AF will also continue to support the Government implement a rigorous vaccine oversight, verification, and monitoring regime, and anti-corruption guidelines for vaccine procurement and deployment, including support to improve the traceability of supply.

40. **The residual risk related to the technical design of the project remains high.** These risks relate to: (i) the continued uncertainties around the timing of the delivery of COVID-19 vaccines given the continued supply chain challenges under the current COVID-19 context; (ii) the fact that even if vaccines procured and deployed meet all the required approvals (e.g. SRA's), they may not be the most effective given the rapid evolution of the virus, concerns around the possible emergence of highly transmissible, vaccine-resistant COVID-19 variants²⁴, and the fact that CIV's immunization infrastructure can only effectively deploy vaccines at scale with a specific cold-chain requirement (2-8°C); (iii) limited global supply of medical equipment, COVID-19 tests, PPEs and other medical supplies (e.g. syringes) needed to control the pandemic and roll out the vaccination campaign; and (iv) the complexity of this mass vaccination campaign, including the need to target populations with specific characteristics (e.g. certain comorbidities), and vaccinate them at two separate time points, with an increasing portfolio of vaccines²⁵, some requiring a heterologous second dose, and all of which is implemented through a strained health system and in a context of pandemic fatigue coupled with vaccine hesitancy. To mitigate this risk, the World Bank will continue to work closely with the Ivorian Government, key technical units within the

²⁴ Nature (8 Feb 2021): Variant-proof vaccines – invest now for the next pandemic. This article reports that two clinical trials suggest reduced efficacy in preventing mild to moderate COVID-19 in individuals infected with the B.1.351 COVID-19 variant, source: <https://www.nature.com/articles/d41586-021-00340-4>

²⁵ CIV currently has four types of vaccines in its vaccination portfolio: Pfizer, Sinopharm, AstraZeneca and J&J.



MSHP-CMU, and technical and financial development partners (GAVI, WHO, UNICEF, French Development Agency (*Agence Française de Développement*, AFD), the French embassy) to support the country in the coordination, and implementation of the second AF activities, which will also include support for the response to rapidly adapt and course-correct given the many uncertainties.

41. **The residual risk related to institutional capacity for implementation remains moderate.** The MSHP-CMU has been implementing the ongoing vaccination campaign for nine months, and it has shown itself to be adaptable and resilient to challenges that emerge during implementation. Moreover, MSHP-CMU has a well-established and well-functioning PIU (I'UCP-BM), which has managed all World Bank financed health projects since its creation in 2015, including the parent project and the first AF. Lessons learned during the campaign have been incorporated in the design of the second AF (see paragraph 49), and the project will support the training and deployment of human resources to enhance the effectiveness of the campaign.

42. **The residual fiduciary risks associated with the project remain substantial.** The procurement and FM risks identified under the proposed second AF include:

- **The residual risk related to FM remains substantial due to** i) emergency nature of the project which may lead to untimely fund flows or lack of liquidity and inconsistent application of internal control mechanisms; ii) increased complexity of funds flow and reporting arrangements due to the WB and AIIB co-financing arrangements; and iii) other than vaccination procurement, the project will also finance various non-contractual expenses such as risk premium payments, human resources capacity building, incremental expenses for missions or training activities, etc. Such expenditures increase management complexity and present a higher exposure to the risk of misuse of project funds. Additionally, the procurement of a large volume of PPE brings higher asset management risks. To mitigate these risks the FM arrangements under the project will be reinforced and implementation support will be enhanced. Specifically, (a) the annual work plan and budget (AWPB) should be prepared by MSHP-CMU and approved by the World Bank and AIIB; (b) the unified cost sharing percentage between World Bank and AIIB for the whole project will simplify the disbursement and reporting complexity of the co-financing operation; (c) internal audits will be conducted against project expenditures and assets management to enhance the internal control and ensure proper usage of loan proceeds; and (d) World Bank and AIIB Task Teams and FM specialists will work closely during implementation and conduct joint supervision missions to monitor implementation and ensure effective FM performance.
- **The residual risk related to procurement is moderate.** Key risks identified include: (i) unrealistic planning of procurement activities; (ii) weak contract management capacity of the PIU; (iii) long waiting periods for the delivery of vaccines and supplies ordered; (iv) unavailability of certain supplies and vaccines at the local level; (v) delays in the procurement process due to conflicts between the procurement waivers granted by the World Bank and standard procedures put in place by the General Directorate of Public Procurement; and (vi) inconsistent availability of vaccines through the AVAT and COVAX mechanisms. To mitigate these risks, the Task Team will work closely with the PIU and MSHP-CMU to: (a) support to the PIU improve the planning around the delivery schedules of vaccines; (b) implement regular monitoring of contracts to ensure the contract provisions are adhered to; and (c) verify the availability of goods and equipment before the signing of contracts. The Task Team will also work closely with the Recipient to ensure that the General Directorate of Public Procurement supports



the project on the implementation of emergency procedures and takes all necessary measures to accelerate the approval process.

43. **The Stakeholder residual risk remains moderate.** This risk relates to the continued climate of vaccine hesitancy owing to: (i) the population's perceived concerns and increased public anxiety around the accelerated pace of vaccine development; and (ii) misinformation, rumors and misconceptions conveyed through social media and certain communication outlets. The generalized anxiety around the vaccines is compounded by the pandemic fatigue being experienced by communities, who also worry about potential economic impacts of future lockdowns given the recurrent waves of COVID-19 infections. The proposed second AF will mitigate these risks through the strengthening and implementation of an integrated, credible and culturally sensitive risk communication and demand creation strategy, which will prioritize the provision of accurate information on, among other things, the manufacturing process, vaccine safety, vaccine benefits, and management of AEFIs. The proposed Second AF will also amplify messaging around the pandemic and the Government's response.

44. **Sector strategies and policies risk remains moderate** due to the fact that the country is still in the process of updating the NDVP to integrate the expanded coverage target for the campaign (70 percent), the expansion of the campaign to children and adolescents, the introduction of booster doses and the integration of COVID-19 vaccination into routine health services, all of which impact the implementation of the second AF. To mitigate this risk, the first AF is supporting the Government identify key policy gaps and strategies to be implemented, and the World Bank is coordinating with other key partners, including WHO, GAVI and UNICEF to help the Government strengthen its COVID-19 framework and finalize the updated NDVP.

IV. APPRAISAL SUMMARY

A. Technical, Economic and Financial Analysis

45. **The massive and ongoing health, social and economic losses due to the COVID-19 pandemic continues to present a strong rationale for countries like CIV to invest in COVID-19 vaccines.** As of March 23, 2022, an estimated 472,816,657 million COVID-19 cases have been confirmed globally, including 6,099,380 million deaths²⁶. Growth in Sub-Saharan Africa in 2020 remains the worst on record, with a contraction in activity of 1.9 percent, leading to a sharp rise in inequality. In 2021, the region's economy resumed its expansion, growing by 3.7 percent, compared to 6 percent for the rest of the world, in a context marked by low vaccination coverage (only 11 percent of the population fully vaccinated) and limited fiscal space to support the crisis response and recovery²⁷. The projected cumulative output losses from the pandemic between 2020-2024 are around US\$13.8 trillion globally²⁸

²⁶ WHO (October 19, 2021). WHO Coronavirus Disease (COVID-19) Dashboard. Source: <https://covid19.who.int>

²⁷ International Monetary Fund (IMF) (October 2021). Regional Economics Prospects. Source: <https://www.imf.org/fr/Publications/REO/SSA/Issues/2021/04/15/regional-economic-outlook-for-sub-saharan-africa-april-2021>

²⁸ Agarwal, R; Farrar, J; Gopinath, G; Hatchett, R and Sands, P. (March 2022). Building resilience to long-term COVID-19. JEL Classification numbers H4,I1,L6,04.



46. **With the onset of COVID-19 in March 2020, CIV's gross domestic product (GDP) slowed to 2.0 percent against a projected growth of about 7 percent pre-pandemic, and the pandemic has led to significant income losses for more than 70 percent of Ivorian households across all economic sectors and income levels worsening the living conditions of already vulnerable households.** Ivorian households have been hit hard by the pandemic, and while conditions have improved following the easing of lockdown measures, households are still struggling. National poverty increased during the pandemic, reversing the positive trends observed between 2015 and 2019. Poverty rates are estimated to have reached 41.5 percent in October 2020, up from 39.4 percent in 2018. The resurgence of the virus and potential introduction of new, more virulent COVID-19 variants could overwhelm the health system, that is already overstretched. Confinement measures, if re-introduced, could have a devastating impact on the economy and further deteriorate growth. Demand and output, across all sectors, would be constrained at the same time, as buffers in savings (for enterprises and households) have been depleted by the first four waves of the pandemic, including the most recent surges under the Delta and Omicron variants,²⁹ and Government resources would come under even more strain as both spending pressures and revenue losses would be more severe. Rising fiscal deficits and public debt would in turn make the eventual recovery in subsequent years harder.

47. **The successful development, production and deployment of COVID-19 vaccines offers the best chance to reverse these trends.** The rapid and well-targeted deployment of effective COVID-19 vaccines can help reduce the increase in poverty, allow the country and economy to open completely and accelerate economic recovery. Evidence from across the world shows a strong and positive correlation between a country's standards of living and its vaccination rates³⁰. Increasing COVID-19 vaccination coverage, and providing booster doses for those with waning immunity, will also avoid COVID-19-associated health costs for potentially millions of additional cases of infection, and associated health-related impoverishment. For the most vulnerable population groups in CIV, where Universal Health Coverage (UHC) is not yet effective, the potential health-related costs of millions of additional cases of COVID-19 infections in the absence of vaccines represent significant or even catastrophic financial impact and serious risks of impoverishment. Increasing COVID-19 vaccination coverage would reduce the frequency of disruptions in routine/essential health services experienced during the pandemic and under the containment measures implemented. These disruptions hindered access to care for people with non-COVID-19 health needs, including maternal and child health services and chronic conditions. Routine immunizations have been affected, threatening polio eradication and potentially leading to new outbreaks of preventable disease, with their own related deaths, illnesses, and long-term costs. The effective deployment of COVID-19 vaccines could also start the process of recovery.

48. **Vaccines are a well-established "best buy" in public health³¹, and while the uncertainty around the costs and long-term effectiveness of COVID-19 vaccines make it difficult to calculate its cost-effectiveness, the effective scale-up of COVID-19 vaccinations will have direct benefits in terms of averted costs of treatment and disability, as well as strengthened health system, generating benefits that far outweigh the vaccine-related costs.** Vaccines significantly reduce morbidity and mortality from

²⁹ World Bank (2020). Côte d'Ivoire Economic Update: Taking stock and looking ahead: Côte d'Ivoire and the COVID-19 Pandemic.

³⁰ Libération (September 2021). Source : https://www.liberation.fr/international/covid-19-plus-un-pays-est-riche-plus-sa-population-a-tendance-a-etre-vaccinee-20210916_577DINRZHVEPLMVYJ7RSXFT55U/

³¹ GAVI (2016). New data confirms immunization as a best buy in public health. Source : <https://www.gavi.org/news/media-room/new-data-confirms-immunisation-best-buy-public-health>



infectious diseases. For example, vaccines are estimated to prevent nearly six million deaths/year and save 386 million life-years and 96 million disability-adjusted life years (DALYs) worldwide³². Estimated COVID-19 treatment costs from low- and middle-income countries are US\$50 for a mild case and US\$300 for a severe case. This excludes the costs of screening negative cases, as well as medical costs associated with delayed or forgone care-seeking, which generally result in higher costs. Moreover, investments in the vaccine delivery system generate health and economic benefits that go beyond the simple distribution of COVID-19 vaccines. For example, investments in last mile delivery systems to deliver COVID-19 vaccine to remote communities will strengthen community health systems, which may impact the effective delivery of other services, thereby helping to bridge the significant gap between urban and rural areas. Even at imperfect levels of effectiveness, a COVID-19 vaccine that is effectively introduced and deployed in priority populations can contribute to a significant reduction in the mortality and spread of coronavirus and accelerate the safe reopening of key affected areas. Given the economic and health benefits, there are considerable advantages to effectively deploying the COVID-19 vaccine and reaching an effective vaccine coverage.

49. **The proposed second AF addresses the Ivorian Government's urgent priorities to maintain a robust response to the pandemic to contain the spread of the virus, while simultaneously ensuring effective, widespread distribution of COVID-19 vaccines.** The activities supported by the proposed second AF, and the technical design of the project are pragmatic, consistent with international best practice and in line with global recommended strategies to slow the transmission of COVID-19 and prevent associated illness and death. Political support for the implementation of the vaccination campaign in CIV is high. Implementation under the parent project and first AF are functioning well and, with additional capacity strengthening, will help ensure efficient and effective implementation of the second AF. Organizational coordination structures have been put in place to manage the multisectoral response, and a detailed deployment plan has been developed by the MSHP-CMU and is being revised to update the government strategy based on the evolving nature of the pandemic.

50. **Lessons learned during the ongoing vaccination campaign, have informed the proposed second AF design.** Several critical lessons have been learned during the implementation of the ongoing vaccination campaign that has positively impacted the demand for and use of vaccination services:

- **Leadership at the highest level of government is critical for the success of the COVID-19 vaccination campaign.** Since the launch of the vaccination campaign in March 2021, Authorities at the highest level of government (President, Prime Minister's office, Minister of Finance, Minister of Health) have demonstrated their commitment to the success of the campaign and mobilized the population to get vaccinated. The Prime Minister received the first dose of the vaccine on live television, and the Minister of Health has championed the implementation of an aggressive communication campaign to combat vaccine hesitancy, raise awareness around the COVID-19 pandemic and the vaccination campaign, and create demand for the vaccine.
- **Given the evolving nature of the virus and the complexity of the vaccination context, the deployment strategy needs to be flexible/adaptable and community-centered, to remain effective.** At the start of the vaccination campaign, high levels of vaccine hesitancy led to low vaccine uptake, and only around 2000 vaccine doses were administered a day. In response, the GOCI strengthened its communication and community mobilization campaign and it contextualized and modified the

³² Ehreth, J. (2003). The global value of vaccination. *Vaccine* 21, 596–600.



deployment strategy to bring services closer to the population and make the vaccination services more community centered. The modifications made to the campaign included the following:

- Vaccination sites were increased from around 50 to more than 2300 sites, and vaccination services were expanded to the interior of the country, beyond Abidjan.
- Mobile vaccination units were introduced and deployed near strategic sites (communal markets) or during major sports or cultural events, and vaccination teams were deployed to large companies so employees could be vaccinated at work.
- The quality and speed of vaccination services were prioritized, particularly at large vaccination sites, like the “vaccinodrome” at the *Treichville-Marcory* Sports park, which remains the largest vaccine site in the sub-region, with the ability to administer around 600 doses a day.
- The training of vaccinators is updated frequently to ensure that they understand how to administer new vaccines introduced under the campaign and provide a quality and efficient service.
- The MSHP-CMU introduced periods of intensification of the campaign for 15 days of every month to scale-up the deployment of the vaccine through the introduction of additional outreach sites. Intensification periods are normally initiated during resurgences of the virus when demand increases, and when the country receives large quantities of vaccines.
- Following months of supply disruptions of the AstraZeneca vaccine, and after carefully studying the international literature, the MSHP-CMU adopted the policy of providing the Pfizer vaccine as the second dose for individuals who received a first dose of AstraZeneca. The adoption of this strategy allowed more individuals to be fully vaccinated, and thus better protected from severe forms of the disease.
- Following a sharp increase in cases and individuals exposed to COVID-19 at the start of the third wave, the MSHP-CMU introduced free rapid tests for screening COVID-19 cases at all health facilities. This significantly reduced pressure on the Polymerase Chain Reaction (PCR) testing system, which was reserved for those with a positive rapid test or travelers and was also more cost effective.
- **Real-time monitoring of vaccine deployment and storage capacity in country and coordinating with suppliers is critical** to ensure that the vaccines delivered do not substantially exceed the demand and risk expiring.
- **The digitalization of the campaign and its integration into routine health systems remains a priority for the GOCI to improve the efficiency of the campaign and ensure its sustainability.** Countries that were able to mount a rapid and robust response to COVID-19, did so on the backbone of functional digital systems (digital public health). Digitalization is an important driver of future health system success, not only for UHC, but also for future emergency preparedness efforts. Efforts to digitalize the vaccination campaign have created a parallel system, with COVID-19 vaccination data not being linked to the patient’s medical records nor incorporated in the DHIS2 system. Given the protracted nature of the pandemic and the transition of COVID-19 to an endemic disease requiring (possibly annual) booster shots, the proposed second AF will support the country integrate data on a patient’s COVID-19 and vaccination status, as well as AEFIs experienced, into routine health data through electronic medical records. This data will also be integrated directly into the national DHIS database. This aspect falls under the Government’s commitment to strengthen relevant health systems to enhance the government’s response to COVID-19 and strengthen CIV’s overall level of pandemic preparedness.



- **Communication and community mobilization are a critical pillar of the campaign.** The communication strategy needs to be adapted continuously and key messages need to be refined based on the evolution of the pandemic and vaccination campaign, ongoing diagnostics and to address vaccine hesitancy.

51. **The proposed second AF supports priority investments in emergency preparedness and health system strengthening, to improve the country's level of functionality across all health security functions, thus enabling the country to better prepare for future pandemics, and anticipate, prevent, detect, and respond with more urgency, adapt quickly and thrive in spite of future emergencies.** The 2021 Global Health Security Index report showed significant gaps in terms of CIV's capability to prevent, detect, and respond to biological threats, as well as factors that can hinder or enhance that capability such as health systems, norms and risks (Figure 2). CIV ranks 125 of 195 countries in terms of pandemic preparedness and health security capabilities, and in all categories, CIV scores lower than 50 percent and lower than the global average with the lowest score reported on the country's ability to prevent the emergence and spread of pathogens. The global cost of unpreparedness for COVID-19 has been estimated at US\$13.8 trillion, therefore, comprehensive investments in emergency preparedness is a critical priority, whilst political will for it still exists, and to ensure an inclusive and resilient recovery.

Figure 2: Cote d'Ivoire's Score across the six categories of the Global Health Security Index (GHSI) Scores



GHSI Categories: (1) **Prevent:** prevention of the emergency or release of pathogens; (2) **Detect:** strength and quality of laboratory systems, laboratory supply chain, real-time surveillance and reporting capacity for epidemics; (3) **Respond:** rapid response to and mitigation of the spread of an epidemic; (4) **Health system:** capacity at the health clinics, hospitals and community centers; (5) **Norms:** commitment to improving national capacity, financing and global norms (6) **Risk:** National environment factors e.g. orderly transfer of power, social unrest, international tensions and trust in medical and health advice from government.

B. Financial Management

52. **The MSHP-CMU, through the PIU (I'UCP-BM) of the parent project, the first AF and the ongoing SPARK-Health Project (P-167559), will have overall responsibility for accounting, spending, and resourcing under the proposed second AF.** A recent assessment of the FM arrangements of I'UCP-BM concluded that the arrangements in place are adequate and meet the minimum fiduciary requirements under the WB's policy and directive for Investment Project Financing (IPF). **The World Bank's FM and audit procedures and requirements will be followed for the proposed second AF.** All eligible expenditures under the project will be jointly financed with World Bank and AIIB resources in the ratio of 44:56. The unaudited Interim Financial Reports (IFR) format will be modified to indicate the AIIB share of



financing. No significant deviations are expected from the FM arrangements of the original credit or first AF, including reporting and auditing arrangements, which remain unchanged.

53. **The IDA portion of the proposed second AF will be paid into the existing Designated Account (DA) held at the Central Bank of West African States (*Banque Centrale des Etats de l'Afrique de l'Ouest; BCEAO*). A second DA will be opened for disbursement of AIB resources. The two DAs will disburse resources concurrently in a new Project Account (PA) that will be opened in a commercial bank. Both DA accounts will be managed by the General Directorate of the Treasury and Public Accounting (*Direction Générale du Trésor et de la Comptabilité Publique (DGTCP)*) (Figure 3 illustrates the flow of funds under the proposed second AF). The PA of the parent project will continue to be used for the original credit (6652-CI) and the first AF (6869-CI). Disbursements made on the basis of the Statement of Expenditures (SOE) will continue to serve as the basis for withdrawal of funds from the proposed second AF. Other methods of disbursing funds (reimbursements, direct payment, and special commitment) will also be available for the project. The minimum claim value for these methods will be indicated in the Disbursement and Financial Information Letter (DFIL). If warranted and necessary, statement-based disbursements using an agreed IFR format will be used at any time during the implementation of the proposed second AF. FM performance and related risk were rated satisfactory and substantial, respectively, for the project, following the most recent supervision mission conducted in October 2021. In general, the IFRs were submitted on time for the project and were found to be acceptable. The first audited financial statements, for the year ending on December 31, 2022, will be due on June 30, 2023. There are no overdue audits or IFRs for the project.**

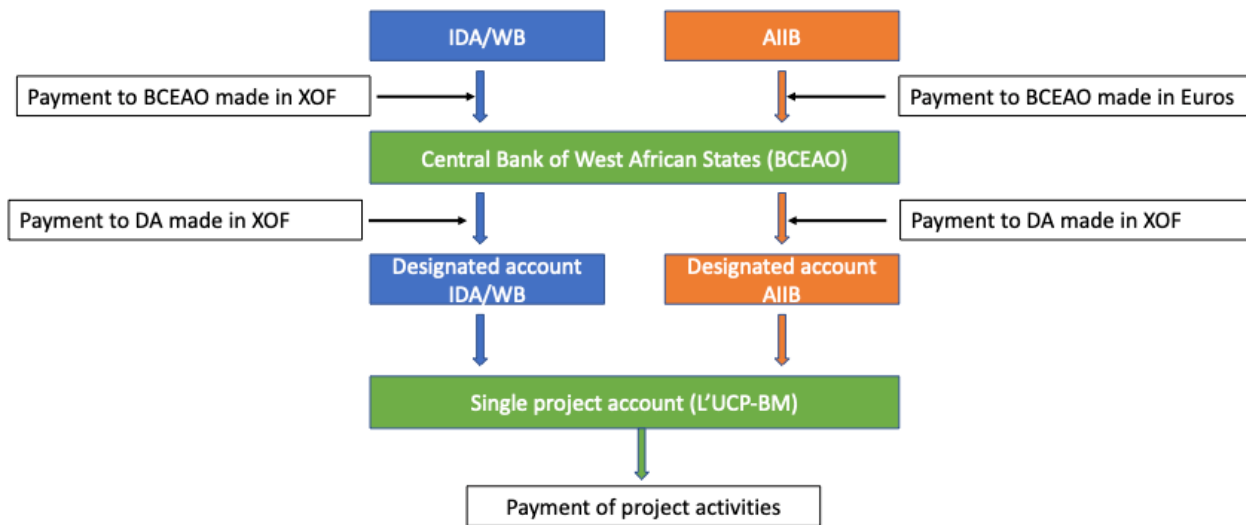
54. **L'UCP-BM is using the Integrated FM System accounting software** to account for transactions under the project, and payments for project expenses will follow mechanism under the parent project and first AF.

55. **The Inspector General of Finance (IGF)** is responsible for performing the internal audit functions for this operation. To this end, discussions around the proposed second AF will take place between MSHP-CMU, through l'UCP-BM, and the IGF to integrate the second AF into their annual plan.

56. **The financial statements of the project are audited by a private audit firm in accordance with the International Standard on Auditing.** These arrangements will continue for the proposed second AF, and the presentation of the audited financial statements of the project will also comply with the WB's requirement for the proposed second AF. The current Terms of Reference (ToR) and the external auditor's contract will be amended to incorporate the second AF.



Figure 3: Flow of funds under the proposed second AF



57. **FM implementation support will be provided over the life of the project.** The project will be supervised using a risk-based approach, taking into account the alternative options developed under the Operations Policy and Country Services (OPCS) Guidelines issued on March 24, 2020 (Streamlined Fiduciary Implementation Support Measures for Active World Bank-financed IPF operations given travel limitations due to the COVID-19 Pandemic) and the IPF guidelines under the Global MPA. FM under the project will be strengthened by: (i) updating the FM procedure manual to include the specific arrangements related to the second AF; (ii) using the existing accounting software for the second AF, as well as IGF for internal audits of the project, which has worked well under both the parent project and first AF; (iii) requiring L'UCP-BM to (a) by no later than one (1) month after the effective date, prepare a draft work plan and budget for project implementation (b) submit a consolidated AWPB not later than November 30 of the year preceding the year of the AWPB will be executed; (c) submit consolidated biannual IFRs; and (d) consolidated audited annual financial statements (e.g. audit reports issued by independent external auditors who will be recruited with the ToRs acceptable to World Bank and AIB) submitted to the World Bank not later than June 30 of each year. These reports will consolidate both operations under the second AF; and (iv) auditing the project's accounts audited annually by an independent external auditor to be recruited in compliance with ToRs acceptable to World Bank and AIB. The overall FM residual risk for the project is assessed as substantial. However, based on the mitigation measures outlined above, the proposed FM arrangements for this financing are considered adequate to meet the World Bank's minimum FM requirements under the FM Manual for World Bank for IPF operations.

58. **Under the proposed second AF, the Government may contract with UN Agencies, such as UNICEF and WHO to leverage their experience and expertise and use their support in the procurement and delivery of vaccines, as well as their specialized technical assistance.** In the case of contracting the UN, a Standard Agreement shall be signed between the Government, through the MSHP-CMU, and the UN that will clearly indicate the level of involvement and the specific role of the UN under the proposed second AF. The Standard Agreement template shall be modified to incorporate AIB as a co-financier of



the project, and it will contain specific annexes on the mechanisms of payment for each institution, payment schedule and reporting requirements by the UN. Therefore, the fiduciary arrangements pertaining to the contracting of the UN will follow the agreed upon arrangements that will be included as part of the modified Standard Agreement to be signed between the Government and the selected UN agency. In cases where World Bank-Facilitated Procurement (BFP) is requested and utilized by the Government, all related payments to suppliers under the BFP will be through direct payment methods regardless of the payment amount. In terms of fiduciary requirements, the World Bank's traditional reporting format will apply to the Recipient, with the Recipient having ultimate responsibility for ensuring that the UN provide financial reports with sufficient information and on a timely basis so that the Recipient can meet this requirement. The agreement between the Recipient and the UN should provide for an agreed format, content, and periodicity of the financial reports to support effective supervision of the proposed project. The financial reports should be generated from the UN FM system, which is covered by the internal control and fiduciary oversight arrangements of that UN agency. This helps mitigate the risk of errors and irregularities in the process of submission of such reports to the World Bank and provide reasonable assurance on the accuracy and validity of those reports. Furthermore, the World Bank's audit requirement continues to apply to the Recipient; therefore, the contract between the Recipient and the UN should ensure that all required information is provided on a timely basis for audit purposes. The WB relies on the annual audit of the UN conducted by the UN Board of Auditors. The audit report is reviewed at the corporate level and published on the OPCS website.

C. Procurement

59. Procurement under the project will be carried out in accordance with the World Bank's Procurement Framework. Procurement will follow the World Bank's Procurement Regulations for IPF Recipients for Goods, Works, Non-Consulting and Consulting Services, dated July 1, 2016 (revised in November 2017, August 2018, and November 2020). The project will be subject to the World Bank's Anticorruption Guidelines, dated October 15, 2006, revised in January 2011, and July 1, 2016. The proposed second AF will use the Systematic Tracking of Exchanges in Procurement (STEP) system as the primary platform to plan, submit, record, and track procurement transactions. Given the emergency nature of the materials, the Recipient has developed a Project Procurement Strategy for Development (PPSD) and a Procurement Plan during the project preparation phase, which will be updated, if needed, during implementation. As with the parent project and first AF, the MSHP-CMU's PIU (I'UCP-BM) will be responsible for the fiduciary management of the second AF. The World Bank conducted a Procurement Capacity and Risk Assessment of I'UCP-BM, which revealed that I'UCP-BM has the experience, skills, knowledge, staff and procedural manuals necessary, according to World Bank standards, to implement this project in a timely manner. As with the parent project and the first AF, I'UCP-BM will be responsible for the fiduciary management of the second AF.

60. The proposed procurement approach prioritizes fast-track emergency procurement for the required emergency goods, works and services. Key measures to fast-track procurement include the following measures: (i) Direct Contracting and/or Limited Competition with identified manufacturers, suppliers, and providers for most of the items; (ii) Request for Quotations (RFQ) with the possibility of increased thresholds; and (iii) use of UN agencies and non-governmental organizations (NGO), as well as and any other fit for purpose methods that will be approved in the procurement plan. Other measures such as shorter bidding times, no bid security, advance payments, and direct payments, will also be applied on a



case-by-case basis in line with recommendations from the Accredited Procurement Specialist (APS).

61. Given the significant disruptions in the usual supply chains for medical consumables and equipment for the COVID-19 response, in addition to the above procurement approach options available to countries, the World Bank will provide, at the Recipients' request, the BFP mechanism to proactively assist the Recipient to rapidly access existing supply chains. Under this approach, once suppliers are identified, the World Bank may proactively support the Recipient in negotiating prices and other contract conditions. The Recipient remains responsible for signing and entering contracts, and for the implementation of activities, including assuring relevant logistics with suppliers such as arranging the necessary freight/shipment of goods to their destination, receiving, and inspecting the goods and paying the suppliers. The Recipient also has the option to request that the World Bank disburses funds directly to the supplier (Direct payment).

62. The current demand for COVID-19 vaccines exceeds the supply in the market which makes it more difficult for client countries to negotiate terms and conditions. Procurement of vaccines will therefore follow direct selection. The country plans to procure vaccines through multilateral arrangements including COVAX and/or AVAT (AMC) and direct purchases from manufacturers through bilateral arrangements. Contracts for vaccines purchase financed by the World Bank and AIIB will be subject to the World Bank's prior review irrespective of value and procurement approach.

63. The PPSD was developed to analyze the key characteristics of the project and the associated risks and contracting opportunities, based on lessons learned during the first AF and other projects. The objective is to ensure that there is a market with qualified national and international contractors, identify potential risks, including unavailability of specific expertise required for project contracts, delays in receipt of imported goods, and delays in national procurement approval processes. Major procurement activities under the proposed second AF include:

Goods: Almost all the procurement under the "Goods" category is devoted to the acquisition of vaccines and other inputs (62.0 percent of the financing and 80.3 percent of the procurement activities) for which the procurement process is primarily oriented towards agreements with UNICEF, under the framework of the COVAX and AVAT mechanisms. However, direct procurement with vaccine manufacturers will be considered to better control delivery times and schedules. The vaccine market is still characterized by the law of supply and demand, making this a high-risk market. As a result, L'UCP-BM will need to work closely with the MSHP-CMU for better coordination of UNICEF contracts and negotiations with manufacturers. In addition, all contracts related to the procurement of vaccines will need to be submitted to the World Bank and AIIB's prior review, through the validation of these contracts by the OPRC department of the World Bank. These procedures are well known to the procurement team in place at L'UCP-BM, and its experience with both the original project and first AF is an asset. However, contract management will need to be monitored.

- Apart from the acquisition of vaccines, the other supplies mainly concern standard goods and equipment already procured during the implementation of the parent project and the first AF, and for which the PIU is well versed in the procedures. Given the urgency of the actions to be carried out under this project, the procurement of these goods will be done mainly by RFQ.
- **Consultants:** Consultant services are estimated at 4.94 percent of the amount of the second AF (6.59 percent of the procurement activities) and mainly concerns the recruitment of consulting firms or individual consultants available at the local level to carry out studies and surveys at the national level



on, among other things, the population’s perception and awareness around COVID-19 immunization. These services are estimated at US\$8,899,291. Given the PIU’s experience with these types of procurements, no particular challenges are expected in the awarding and execution of these contract under the second AF.

- **Other services:** Other services are estimated at 7.71 percent of the amount of the proposed second AF and includes, mainly, the signing of agreements with community organizations and local radio stations to promote the vaccination campaign and encourage the population to get vaccinated. These services are estimated at US\$13,884,027.
- **Works:** This essentially involves rehabilitation work on the medical imaging centers, the decentralized structures of the MSHP-CMU, and regional laboratories. These works are estimated at US\$4,308,798.

64. **For all contracts, the project will prioritize the use of standard procurement packages provided by the World Bank as part of the emergency response to the COVID-19 pandemic.** Given the urgent nature of the procurement under the project, most of the contracts will be awarded either by direct selection of by RFQs. Apart from contracts for the procurement of vaccines, and give the context of this financing, all other contracts will be subject to post reviews. Special attention will be placed on contract management given the sensitivity of the products to be procured and the shortage of some of these items on the market. In addition, clear delivery schedules will need to be agreed on between the PIU and suppliers before contracts are signed to anticipate the risks of disruptions in the supply chain.

Table 6: Major Procurement Risks and Proposed Mitigations

Description of risk	Measure to mitigate risk	Responsible
Unavailability of certain supplies and vaccines at the local level	Identify reliable supply mechanisms	L'UCP-BM
Long waiting periods for the delivery of vaccines and supplies ordered	Confirm the availability of goods and equipment before the signing of contracts	L'UCP-BM
Unavailability of consultants at the local level	Map the resources (consultants) available for the different themes and foresee the need for international recruitments, taking into consideration the constraints related to COVID-19	L'UCP-BM
Delays in the procurement process due to conflicts between the procurement waivers granted by the WB and standard procedures put in place by the General Directorate of Public Procurement	Ensure that the General Directorate of Public Procurement supports the project on the implementation of emergency procedures and taking all necessary measures to accelerate the approval process	Government
Unavailability of vaccines throughout the country	Identify sources of vaccine supply, other than COVAX and AVAT	L'UCP-BM

65. **The procurement risk is substantial, however, with the implementation of the proposed mitigation measures as outlined above (Table 6) and the support of World Bank, the overall residual procurement risk is rated as Moderate.** The World Bank’s oversight of procurement under the proposed second AF will be done through increased implementation support and, mostly, procurement post reviews.



D. Legal Operational Policies

66. Neither legal operational policy is triggered for this additional financing. This is consistent with the parent project and first AF.

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

E. Environmental and Social

67. **The environmental risks rating remains substantial** due to inherent occupational and community health and safety risks and the challenges associated with medical waste management. In addition, there are several short-term risks which are expected to be mostly temporary, predictable, and reversible. The main environmental risks of the project include: (i) environmental and community health related risks from the inadequate storage, transportation, and disposal of medical waste. This includes waste resulting from vaccine delivery, such as sharps, and the disposal of used and expired vaccine vials as a result of AF activities. Waste materials generated from labs, quarantine facilities, screening, treatment and vaccination facilities to be supported by the parent project, the first and the proposed second AF, all require special handling and awareness as they may pose a risk of infection for healthcare workers handling; (ii) occupational health and safety (OHS) issues related to the availability and supply of PPE for healthcare workers and the logistical challenges in transporting PPE across the CIV in a timely manner; (iii) community health and safety risks, given close social contact and limited sanitary and hygiene services (clean water, soap and disinfectants) and isolation capabilities at healthcare facilities across the country; (iv) OHS risks related to the rehabilitation of existing facilities; and (v) climate change can impact groups that are most susceptible to the virus including healthcare workers, the elderly, those with pre-existing conditions, people with disabilities and other disadvantaged groups. The project will have long-term, positive environmental impacts as it will strengthen COVID-19 surveillance, monitoring, treatment, containment, and response in accordance with WHO (ESF and WHO) guidelines and prepare the country for future pandemics. The increased scope financed by the proposed second AF is expected to further enhance these positive impacts through additional investments in the procurement of mobile vaccination clinics, handwashing, and sanitation facilities, the rehabilitation of facilities, vaccine administration sites, the maintenance of existing incinerators for medical waste management, as well as the acquisition of materials and equipment for medical waste management.

68. **The social risk rating remains substantial** - possible risks and impacts are reversible but, given the highly infectious nature of the COVID-19 virus, some risks could persist. The main social risks are related to: (i) difficulties in access to health services and facilities by vulnerable social groups (that is people with chronic conditions/disabled, poor people, migrants, the elderly and disadvantaged sub-groups of women); (ii) lack of access to vaccine supplies, facilities and services designed to control the disease by marginalized and vulnerable social groups; (iii) the accelerated pace of vaccine development and the information conveyed by media on associated risks that could increase public anxiety and compromise public acceptance. This risk could be exacerbated by a lack of transparency in the dissemination of information



by the Government, which may create public mistrust of vaccines; (iv) social conflicts and risks to human safety resulting from diagnostic testing; (v) the limited availability of vaccines and social tensions related to the challenges of a pandemic situation; (vi) the risks of sexual exploitation and abuse/sexual harassment (SEA/SH) among patients and health care providers, particularly with regard to vaccine distribution; (vii) labor influx and the issue of migrant workers; (viii) inadequate data protection measures and insufficient or ineffective communication by stakeholders on vaccine deployment strategy; and (ix) risks related to AEFIs, which may lead to the stigmatization of vaccine-friendly populations in certain communities and contribute to refusal of vaccines or second dose. These risks will be mitigated through effective risk communication and community engagement to raise awareness among the general population. Continuous awareness raising and education campaigns that will help rebuild community and citizen trust will be done through engagement with religious leaders, political and local traditional leaders, and women's and young people's associative movements, which are generally very dynamic and representative. Potential risks and impacts are mostly temporary or reversible but could become widespread given the highly infectious nature of the COVID-19 virus. This proposed second AF will invest in small civil works to rehabilitate existing health facilities, but no new land will be acquired or accessed.

69. The coordination and roles of key staffs responsible for implementation have been defined and function in a satisfactory manner. The PIU's E&S specialists, hired respectively in May 2020 and in July 2020, are experts in their fields with experience in implementing E&S risk management strategies, including mass media campaigns and aspects of social inclusion for public health projects. Together with a biomedical specialist, who has been in the PIU since February 2018, they are dedicated to ensuring compliance with the environmental and social commitment plan (ESCP) and supervising the implementation of the recommended E&S risk mitigation measures through the screening of proposed activities and preparation of site-specific ESMPs and Infection Control and Health Care Waste Management Plans (HCWMPs) and any other requirements that may arise from the present second AF. As such, the capacities of the PIU to manage ongoing and emerging E&S risks are deemed to be adequate. E&S implementation by the specialists under the parent project and the first AF have been limited to refurbishment of existing health facilities, procurement and distribution of medical equipment, management of COVID-19 medical waste from testing and vaccination campaigns, stakeholder consultations, grievance resolution, preparation of E&S reports and updating of existing instruments under the parent project. Thus, institutional capacity is gradually improving, and overall E&S performance has been rated moderately satisfactory. Notwithstanding, the capacity of the implementing agencies would be further strengthened to ensure compliance with the E&S requirements of the second AF. The, ESCP, Stakeholder Engagement Plan (SEP) has been updated and disclosed on March 22, 2022, and the Labor Management Procedures (LMP), HCWMP and Environmental and Social Management Framework (ESMF) have been updated and will be disclosed by the effectiveness date of the project.

F. Gender analysis

70. CIV is one of the lowest ranking countries in terms of gender equality, with women facing high levels of discrimination and inequality, factors that were further exacerbated during the COVID-19 pandemic. The Gender Equality Index ranks CIV as 43rd of 52 countries tracked in Africa and 136 of 144 countries



tracked globally.³³ Only 37 percent of women versus 51 percent of men in CIV are literate. The 2022 poverty assessment (forthcoming) found that more than 40 percent of married women do not have any decision-making power in their homes and 38 percent of women do not have a say when making purchases. Women in CIV are overrepresented in non-agricultural self-employment, especially in the informal sector, and underrepresented in wage jobs. Moreover, the gender gap in terms of productivity between male-owned and female-owned informal businesses is significant and estimated at 57 percent at national level. Therefore, Ivorian women lack any form of social protection, unless covered by those provided by the state (e.g., the National Social Protection Program). The containment measures adopted to limit the spread of COVID-19 and deaths associated with the disease, had a significant, negative impact on women, as the curfews disproportionately affected the informal sector. The lack of income for women meant that they became more reliant on male partners of family networks, which made them more susceptible to GBV and SEA/SH.

71. When it comes to the vaccination campaign, women are at greatest risk of contracting the disease, hence their prioritization in the vaccination campaign. These include female health workers often at the frontline of disease control efforts as nurses or community workers, female teachers in schools, and women caregivers to elderly family members who are at high risk of COVID-19. At a global level, it is well established that women constitute the majority of frontline workers in the health (67 percent of the health workforce, especially nurses and midwives)³⁴ and education sector (60 percent of teachers globally³⁵), which within the present COVID-19 context, disproportionately exposes them to the virus and the risk of acquiring the disease. As a critical part of the workforce that delivers the COVID-19 vaccines, female healthcare workers, through the administration of the doses of COVID-19 vaccines to patients, could expose themselves to harm and will have an increased workload.³⁶ These female healthcare workers are also at risk of violence, as was observed during vaccination campaigns against polio and Ebola.³⁷ Women also make up the absolute majority (60 percent) of both paid and unpaid caregivers,³⁸ including to elderly family members who are at high risk for COVID-19. Moreover, the delivery and facilitation of COVID-19 vaccines could disproportionately depend on the unpaid labor of women. For example, as caregivers, women typically have the responsibility for arranging when and how family members, including elderly relatives, get vaccinated. They need to give up time otherwise spent on paid work or education, and incur out-of-pocket expenses (e.g., multiple trips to the vaccination point) to access vaccines for those they care for and themselves. This is especially true for women in precarious work and those who live in poverty or rural areas.³⁹ The vaccination context also exposes women to risks of SEA/SH. For example, in the Ebola vaccination in some countries, male healthcare workers offered Ebola-related

³³ Nakoulma, VK (2020). COVID-19, Sexual and Gender-Based Violence (SGBV) and women's precarity in Ivory coast. Institute for African Women in Law. Source: <https://www.africanwomeninlaw.com/post/covid-19-sexual-and-gender-based-violence-sgbv-and-women-s-precarity-in-ivory-coast>

³⁴ Boniol m, McIsaac M, Xu L, Wuliji T, et al. Gender equity in the health workforce: analysis of 104 countries. Working paper 1. Geneva WHO; 2019. Source : <https://apps.who.int/iris/bitstream/handle/10665/311314/WHO-HIS-HWF-Gender-WP1-2019.1-eng.pdf>

³⁵ Center for Global Development. Six things you should know about female teachers; March 6, 2020. Source : <https://www.cgdev.org/blog/six-things-you-should-know-about-female-teachers>

³⁶ Harman, S.; Herten-Crabb, A, Morgan, R. et al. 202. COVID-19 vaccines and women's security. Lancet (2021) vol. 397 pg. 357.

³⁷ Idem.

³⁸ National partnership for women and families (2018). The female face of family caregiving. <https://www.nationalpartnership.org/our-work/resources/economic-justice/female-face-family-caregiving.pdf>

³⁹ Harman, S.; Herten-Crabb, A, Morgan, R. et al. 202. COVID-19 vaccines and women's security. Lancet (2021) vol. 397 pg. 357.



services, including vaccination, in exchange for sexual favors from women and girls.⁴⁰

72. **To narrow the gender gap**, the following proactive steps will be taken by the proposed second AF (Table 7): (i) supporting the expansion of the government’s mobile-COVID-19-vaccination-clinic approach, which, under the first AF, successfully reached women working in busy informal market places and schools, enabling them to get vaccinated without having to give up that day’s income by travelling to a clinic or fixed vaccination site to access the COVID-19 vaccine; (ii) supporting the procurement of correctly sized PPE for women frontline workers as well as their training and capacity building; (iii) provision of hazard-pay for women health workers working in COVID-19 treatment centers and financial incentives (per diems and allowance) for women vaccinators – all at the same rate as that provided to men; (iv) recruitment of 1000 newly graduated women nurses from INFAS to support vaccination deployment, especially in deprived communities, and to support routine service delivery, especially for maternal and child health services; (v) provision of training for healthcare workers to equip them with knowledge to identify and care for GBV/SEA/SH victims, support for interventions and mechanisms to ensure that women are safe during the vaccination process (e.g. vaccination sites are well-lit and secure); work closely with the National Committee for the Fight against Violence against Women and Children to implement the revised action plan against GBV/SEA/SH; (vi) provision of vaccinations at no cost to the population; (vii) provision of training to all health care workers (including vaccinators), contractors and sub-contractors under the project on GBV/SEA/SH, and who will be required to sign a Code of Conduct (COC) with clear sanctions for violations, which will be enforced; (viii) to ensure that women are not disadvantaged during vaccine deployment, the proposed second AF will support data collection efforts, to inform the development gender sensitive communication and community mobilization interventions to reduce gender-related barriers and enhance gender equity in the distribution of the COVID-19-vaccines. The information campaign will specifically incorporate approaches to reach women by involving local women leaders in the community awareness groups and mediums shown to women, to address factors that promote vaccine hesitancy in women and debunking misconceptions around vaccines (e.g., the impacts of vaccines on fertility, abortion, or sterilization.

Table 7: Summary of Interventions financed by the proposed second AF to narrow the gender gap

Analysis	Operational action supported under the proposed second AF	Indicator included in RF
Women may need to give up time otherwise spent on paid work and incur out-of-pocket expenses (e.g., multiple trips to the vaccination point) to access vaccines. This is especially true for women in precarious work and those who live in poverty or rural areas.	<ul style="list-style-type: none"> To strengthen women’s involvement and access to vaccination, the project will support the scale-up of the <u>mobile-COVID-19-vaccination-clinics strategy</u> to informal markets and schools where women frequent and work. Vaccinations will be provided at no cost to the population. 	Women accessing COVID-19 vaccines through mobile clinics (number)
The vaccination context exposes women and female vaccinators to the risk of GBV/SEA/SH.	<ul style="list-style-type: none"> Revision of the action plan against GBV/SEA/SH work closely with the National Committee for the Fight against Violence against Women and Children, who already has a call center with a toll-free number, to implement the plan. Training of vaccinators on GBV/SEA/SH to equip 	Vaccinators trained on SEA/SH (disaggregated by sex) (number)

⁴⁰ Harman, S.; Herten-Crabb, A, Morgan, R. et al. 202. COVID-19 vaccines and women’s security. Lancet (2021) vol. 397 pg. 357.



Analysis	Operational action supported under the proposed second AF	Indicator included in RF
	<p>them with knowledge to identify and care for GBV victims.</p> <ul style="list-style-type: none"> Support for interventions and mechanisms to ensure that women are safe during the vaccination process (e.g., vaccination sites are well-lit and secure). All health care workers, contractors and sub-contractors under the project will receive training on GBV/SEA/SH and will be required to sign a CoC with clear sanctions for violations, which will be enforced. 	
<p>Women in CIV are overrepresented in non-agricultural self-employment, especially in the informal sector, and underrepresented in wage jobs.</p>	<ul style="list-style-type: none"> Recruitment of female nurses to support vaccination deployment, especially in deprived communities, and to support routine service delivery especially for maternal and child health services. Equal hazard-pay and financial incentives (per diems and allowance) for women healthcare workers and vaccinators, as men. 	<p>None</p>
<p>Females disadvantaged in accessing vaccines due to information gaps, misinformation, rumors, and misconceptions conveyed through social media and certain communication outlets.</p>	<ul style="list-style-type: none"> Support data collection efforts, to inform the development gender sensitive communication and community mobilization interventions to reduce gender-related barriers and enhance gender equity in the distribution of the COVID-19-vaccines. The information campaign will specifically incorporate approaches to reach women, in their native language, by involving local women leaders in the community awareness groups and mediums shown to women, to address factors that promote vaccine hesitancy in women and debunking misconceptions around vaccines (e.g., the impacts of vaccines on fertility, abortion, or sterilization). 	<p>None</p>
<p>Women health workers often at the frontline of disease control efforts as nurses or community workers, are at high risk of COVID-19.</p>	<ul style="list-style-type: none"> Support for the vaccination and boosting (booster doses) of women health workers, as a priority. Support for the procurement of correctly sized PPE for women frontline workers. Cover costs for training and capacity building of healthcare workers. 	<ul style="list-style-type: none"> Priority population vaccinated, based on the targets defined in the National plan (disaggregated by priority group and sex) (percentage) Healthcare workers trained by project on COVID-19 IPC preparedness and response (disaggregated by sex) (number)

Ensure equitable access to services for vulnerable people.

73. The vulnerability of a group of people may be due to race, ethnic or social origin, color, sex, language, religion, political or other beliefs, age, education, illness, physical or mental disability, and poverty or economic insecurity. There is a risk that vaccine roll-out plans may leave these individuals behind, given their physical and moral circumstances. This risk was mitigated under the first AF through the inclusion of



vulnerable groups (e.g., organizations for persons with disabilities, economically vulnerable persons etc.), during the stakeholder consultations, which informed the implementation of activities in an equitable manner. These inclusive consultations will continue under the proposed second AF.

G. Citizen engagement and outreach

74. The local communities' ownership is essential for sustainable project development results, and to mitigate E&S risks related to the project interventions. In the context of infectious diseases, broad, culturally appropriate, and adapted awareness raising activities are particularly important to properly sensitize the communities to the risks related to infectious diseases. As such, the project developed a SEP to identify project stakeholders and, particularly, vulnerable groups and defined a program for stakeholder engagement, including public information disclosure and consultation, throughout the entire project cycle. The SEP has been updated for the proposed second AF and outlines the ways in which the project team will consult stakeholders. It ensures that the client engages in continuous, meaningful, and safe consultations on policies, and procedures (including addressing grievances) with all stakeholders, providing them with timely, and accessible information throughout the project life cycle and integrating their feedback in order to inform the implementation of project interventions. The community engagement under the project will be tracked with the following indicators: (i) ***“Proportion of health districts that have functional committees in place for management of complaints”*** and (ii) ***“Proportion of Health Districts whose beneficiaries provide feedback on COVID vaccination through traditional channels and digital platforms”***

H. Grievance redress mechanism.

75. To ensure accountability to project beneficiaries, a complaint management mechanism, which was put in place under the parent project and first AF, will be scaled-up to receive various grievances, including cases related to GBV/SEA/SH. The mechanism will be accessible and secure to ensure confidentiality and security, especially for survivors.

I. Climate co-benefits

76. **Climate change risks and vulnerabilities.** CIV has been assessed for climate change and disaster risks and is highly exposed to extreme precipitation and flooding, drought (especially, leading to food shortages), heavy storms, sea level rise, and storm surges. This exposure risk is assessed at this level for both the current and future timescales. Flooding and inconsistent rainfall is one of major climate change risks, which can threaten the health, lives, and livelihood of the population. For instance, poor sanitation systems within urban areas, such as clogged drains and sewers, may lead to contamination of water and foods. Infrastructure, including health facilities, could be impacted and reduce their functionality during flooding events. Flooding has also been known to increase vector- and water-borne diseases due to standing water. Populations living in coastal cities (approximately 36 percent of the Ivorian population) have also been threatened by flooding. Moreover, rising temperatures in the country can lead to heat waves, which have damaging effects on crop production, which impacts nutrition levels of children. Droughts, particularly around the northern savannah region of the country is also a major risk, which has made access to clean water and sanitation as well as food a major challenge, leading adults, and children to suffer from diarrhea and other diseases linked to poor hygiene. CIV is ranked 142 in the University of



Notre Dame Global Adaptation Initiative (ND-GAIN), which shows that the country has a high vulnerability score and low readiness for climate change impacts.⁴¹ Furthermore, although the health sector was discussed as a vulnerable sector in the country's first National Determined Contributions in October 2016, it was not identified as one of the major sectors for specific adaptation and mitigation activities. The impact of these hazards identified in the short-to medium term are assessed as “moderate” due to several adaptation and mitigation measures to ensure climate resilience.

77. **The second AF intends to address climate change vulnerabilities, enhance climate resilience and adaptation, and mitigate greenhouse gas emissions.** It is important to note that this project is being co-financed with AIIB. All activities are co-financed at a ratio of 44 percent IDA and 56 percent AIIB. In terms of climate adaptation measures, under **Sub-component 1.1: Strengthening national and sub-national capacities for COVID-19 case detection and clinical management (IDA: US\$21.47 million)**, the strengthened case management capabilities and disease surveillance system will enhance the ability of health services to better respond to future climate-related health impacts from extreme weather events. Additional support will be provided to operationalize a network of public health EOCs. This will include the integration of weather surveillance to improve the use of information for detecting, investigating, and responding to public health threats. Moreover, special attention will be given to healthcare facilities, laboratories, warehouses, and regional and district health offices that have unstable electricity supply and weak health infrastructure that may be affected by climate change and climate variability (that is, heat waves, flooding). The widespread loss of power may seriously threaten the COVID-19 vaccine cold chain as vaccine conservation standards will be affected. Therefore, as an adaptation measure, some of the cold chain equipment purchased will be off-grid solar equipment/supplies such as solar-powered fridges and freezers that will provide reliable 24/7 power and efficient cooling and battery-powered coolers (provide up to seven days of cooling during emergencies). Moreover, solar panels will be procured and installed. Low-carbon, energy efficient waste management equipment will be procured to enhance climate resilience to flooding threats faced by the country. This will include properly and safely disposing supplies/products such as syringes, partially used COVID-19 vaccines, unrefrigerated vaccines that are rendered ineffective, expired vaccines, PPE, and other vaccine-related waste in compliant containments. EOC plans will include contingency measures will include measures to deal with any unexpected disruptions to the vaccine supply chain, distribution and storage from climate change impacts, and other unexpected disasters.

78. **Under Sub-component 1.2: COVID-19 vaccine planning, procurement, and deployment (IDA: US\$42.20 million)**, purchase of the COVID-19 vaccines by IDA will consume US\$25 million of the budget. This includes the costs of the vaccines, supplies, safety boxes for disposal of syringes, syringes, international freight, procurement fees to UNICEF, and other deployment-related costs. While no direct climate financing is expected to be assigned at this time to any of these investments, it is expected that some suppliers are taking active steps to ensure climate-resilient considerations are taken into account during the manufacturing, shipment, and distribution stages of the vaccines. The WB team, together with UNICEF, the WHO, and GAVI will continue to explore these areas to provide the latest information on any specific climate adaptation and mitigation actions taken about the vaccines. Moreover, training and capacity building of health personnel, particularly nursing graduates recruited, on case management, disease surveillance, personal protection, infection control, and vaccine administration, which will also include a module on climate related health impacts and steps that can be taken to reduce risks, will be

⁴¹ CIV ND-GAIN Matrix. 2019. Available at: <https://gain-new.crc.nd.edu/country/c-te-d-ivoire>



financed. Additional adaptation activities will be financed under **Component 2 (IDA: US\$5.7 million)** such as community outreach, sensitization activities at the community level, and raising awareness of COVID-19 vaccinations. This will include capacity building and training on important health information on climate-change-related health risks linked to the COVID-19 crisis, such as the increased risks associated with quarantine in extreme heat events and the promotion of healthy behaviors, will be provided.

79. **In terms of climate mitigation activities, under Sub-component 1.1: Strengthening national and sub-national capacities for COVID-19 case detection and clinical management (IDA: US\$21.47 million),** additional procurement of WHO Performance Quality Safety -certified solar and off-the-grid fridges/freezers, and other low Global Warming Potential (GWP) medical and laboratory equipment below 125 for regions, which will reduce the impact of the project on the country's greenhouse gas (GHG) emissions. The installation of temperature controls and monitoring systems on the fridges and freezers will monitor any fluctuations and will cut down on excessive use of energy. Energy-efficient lighting (i.e., LED lights) and light control measures (such as dimming and occupancy sensors) will also be procured. Energy-efficient biomedical equipment such as energy-efficient exam lights, medical imaging devices, and low-carbon medical waste management equipment (i.e., proper waste segregation, equipment such as auto-claving, microwaving, and steam treatment) will be procured. Climate-resilient and energy-efficient water supply and storage infrastructure will be procured such as well-sealed containers, solar water heaters, and toilets that can safely use harvested rainwater or grey water and infrastructure such as hand washing stations will be rehabilitated to reduce water waste. These investments will improve water access and water-use efficiency and improve hygiene and reduce the risk of infection. Climate-smart rehabilitation will also be financed to ensure improved insulation of the central warehouse against extreme heat such as thermal insulation and solar reflective roofs. **Under Sub-component 1.2: COVID-19 vaccine planning, procurement, and deployment (IDA: US\$42.20 million),** 10 fuel-efficient mobile vaccination clinics (electric or hybrid) will be procured, and route optimization will be considered for vaccine transportation by adjusting routes for vehicles depending on weather and road conditions. This will improve fuel mileage and fuel efficiency of the vehicles.

V. WORLD BANK GRIEVANCE REDRESS

80. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed to address project-related concerns. Project 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/en/projects-operations/products-and-services/grievance-redress-service>. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org



VI SUMMARY TABLE OF CHANGES

	Changed	Not Changed
Results Framework	✓	
Components and Cost	✓	
Loan Closing Date(s)	✓	
Disbursements Arrangements	✓	
Implementing Agency		✓
Project's Development Objectives		✓
Cancellations Proposed		✓
Reallocation between Disbursement Categories		✓
Legal Covenants		✓
Procurement		✓

VII DETAILED CHANGE(S)

MPA PROGRAM DEVELOPMENT OBJECTIVE

Current MPA Program Development Objective

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

Proposed New MPA Program Development Objective

EXPECTED MPA PROGRAM RESULTS

Current Expected MPA Results and their Indicators for the MPA Program

Progress towards the achievement of the PDO would be measured by outcome indicators. Individual country-



specific projects (or phases) under the MPA Program will identify relevant indicators, including among others:

- Country has activated their public health Emergency Operations Centre or a coordination mechanism for COVID-19;
- Number of designated laboratories with COVID-19 diagnostic equipment, test kits, and reagents;
- Number of acute healthcare facilities with isolation capacity;
- Number of suspected cases of COVID-19 reported and investigated per approved protocol;
- Number of diagnosed cases treated per approved protocol;
- Personal and community non-pharmaceutical interventions adopted by the country (e.g., installation of handwashing facilities, provision of supplies and behavior change campaigns, continuity of water and sanitation service provision in public facilities and households, schools closures, telework and remote meetings, reduce/cancel mass gatherings);
- Policies, regulations, guidelines, or other relevant government strategic documents incorporating a multi-sectoral health approach developed/or revised and adopted;
- Multi-sectoral operational mechanism for coordinated response to outbreaks by human, animal and wildlife sectors in place;
- Coordinated surveillance systems in place in the animal health and public health sectors for zoonotic diseases/pathogens identified as joint priorities; and
- Mechanisms for responding to infectious and potential zoonotic diseases established and functional; and
- Outbreak/pandemic emergency risk communication plan and activities developed and tested

Proposed Expected MPA Results and their Indicators for the MPA Program

COMPONENTS

Current Component Name	Current Cost (US\$, millions)	Action	Proposed Component Name	Proposed Cost (US\$, millions)
Component 1: Emergency COVID-19 response	122.50	Revised	Component 1: Emergency COVID-19 response	267.40
Component 2: Health Communication and Community Engagement	6.90	Revised	Component 2: Health Communication and Community Engagement	19.70
Component 3: Project	5.60	Revised	Component 3: Project	27.90



implementation management and monitoring and evaluation			implementation management and monitoring and evaluation	
TOTAL		135.00		315.00

LOAN CLOSING DATE(S)

Ln/Cr/Tf	Status	Original Closing	Current Closing(s)	Proposed Closing	Proposed Deadline for Withdrawal Applications
IDA-66520	Effective	31-May-2021	30-Jun-2022	30-Jun-2024	30-Oct-2024
IDA-68690	Effective	30-Jun-2022	30-Jun-2022	30-Jun-2024	30-Oct-2024

DISBURSEMENT ARRANGEMENTS

Change in Disbursement Arrangements

Yes

Expected Disbursements (in US\$)

Fiscal Year	Annual	Cumulative
2020	1,725,113.08	1,725,113.08
2021	31,262,595.81	32,987,708.89
2022	105,000,000.00	137,987,708.89
2023	97,000,000.00	234,987,708.89
2024	40,012,291.11	275,000,000.00
2025	40,000,000.00	315,000,000.00

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Latest ISR Rating	Current Rating
Political and Governance	● Moderate	● Moderate
Macroeconomic	● Low	● Low
Sector Strategies and Policies	● Moderate	● Moderate
Technical Design of Project or Program	● High	● High



Institutional Capacity for Implementation and Sustainability	● Moderate	● Moderate
Fiduciary	● Substantial	● Substantial
Environment and Social	● Substantial	● Substantial
Stakeholders	● Moderate	● Moderate
Other		
Overall	● High	● Substantial

LEGAL COVENANTS – Côte d'Ivoire COVID-19 Strategic Preparedness and Response Project Second AF (P177836)

Sections and Description

Article IV, 4.02: The Co-financing Deadline for the effectiveness of the Co-financing Agreement is the date forty-five (45) days after the Effective Date.

Schedule 2, Section I, B,2 : (a) by no later than one (1) month after the Effective Date, prepare a draft work plan and budget for Project implementation, setting forth, inter alia: (i) a detailed description of the planned activities, including any proposed conferences and Training, under the Project for the period covered by the plan; (ii) the sources and proposed use of funds therefor including the Co-financier’s shares of the costs; (iii) procurement and environmental and social safeguards arrangements therefor, as applicable; and (iv) responsibility for the execution of said Project activities, budgets, start and completion dates, outputs and monitoring indicators to track progress of each activity;

Conditions

Type	Financing source	Description
Effectiveness	IBRD/IDA	Article V, 5.01(a): the Recipient has established the Steering Committee, with mandate and resources satisfactory to the Association;
Effectiveness	IBRD/IDA	Article V, 5.01(b) :the Recipient has prepared and adopted the Project Implementation Manual, as referred to in Section I.B of Schedule 2 to this Agreement, in a form and substance satisfactory to the Association;
Effectiveness	IBRD/IDA	Article V, 5.01(c): the Recipient has recruited a gender-based violence consultant, with qualifications and experience satisfactory to the Association;
Effectiveness	IBRD/IDA	Article V, 5.01(d): the Recipient has prepared, consulted upon, adopted and disclosed (i) the LMP, (ii) the ESMF



		and (iii) the HCWMP.
Type Disbursement	Financing source IBRD/IDA	Description Schedule 2, Section III, B,1 (b) No withdrawal shall be made under Category (2), for delivery or distribution of Project COVID-19 Vaccines, unless and until the Vaccine Delivery and Distribution Manual, in form and substance acceptable to the Association, has been duly updated in accordance with Section I.B.1(b) of Schedule 2 to this Agreement.
Type Disbursement	Financing source IBRD/IDA	Description Schedule 2, Section IV: No later than the Co-financing Deadline, the Co-financing Agreement shall be executed and delivered respectively and all conditions precedent to its respective effectiveness or to the right of the Recipient to make withdrawals under it (other than the effectiveness of this Agreement) shall have been fulfilled.



VIII. RESULTS FRAMEWORK AND MONITORING

Results Framework

COUNTRY: Cote d'Ivoire

Côte d'Ivoire COVID-19 Strategic Preparedness and Response Project Second AF

Project Development Objective(s)

To prevent, detect, and respond to the threat posed by COVID-19 and strengthen national systems for public health preparedness in Cote d'Ivoire.

Project Development Objective Indicators by Objectives/ Outcomes

Indicator Name	PBC	Baseline	Intermediate Targets		End Target
			1	2	
Strengthen national public health preparedness capacity to prevent, detect and respond to COVID-19					
COVID-19 tests conducted (disaggregated by sex of beneficiary) (Number)		0.00	1,017,531.00	1,917,531.00	2,277,531.00
Action: This indicator has been Revised	Rationale: Formulation modified and target revised to account for the extended closing date				
COVID-19 tests conducted in females) (Number)		0.00	508,766.00	958,766.00	1,138,766.00
Action: This indicator is New					
COVID-19 tests conducted in males (Number)		0.00	508,766.00	958,766.00	1,138,766.00
Action: This indicator is New					
Positive COVID-19 cases (disaggregated by sex) (Percentage)		0.00	7.77	6.40	5.52



Indicator Name	PBC	Baseline	Intermediate Targets		End Target
			1	2	
Action: This indicator has been Revised	Rationale: <i>The formulation of this indicator has been revised.</i>				
Positive COVID-19 cases in female (Percentage)	0.00	7.77	6.40	5.52	
Action: This indicator is New					
Positive Covid-19 cases in men (Percentage)	0.00	7.77	6.40	5.52	
Action: This indicator is New					
Number of severe cases of COVID-19 treated (disaggregated by sex) (Number)	0.00				15,731.00
Action: This indicator has been Marked for Deletion	Rationale: <i>This indicator has been deleted due to challenges experienced in the collection of this indicator during the implementation of the first AF</i>				
Proportion of deaths among confirmed COVID-19 cases (disaggregated by sex) (Percentage)	0.58				1.00
Action: This indicator has been Marked for Deletion	Rationale: <i>This indicator has been deleted due to challenges in the collection of this indicator during the implementation of the first AF.</i>				
Percentage of the target population vaccinated against COVID-19 vaccine (disaggregated by sex) (Percentage)	0.00				70.00
Action: This indicator has been Marked for Deletion	Rationale: <i>This indicator is marked for deletion because it captures the same information as another indicator in the results framework</i>				



Indicator Name	PBC	Baseline	Intermediate Targets		End Target
			1	2	
Population vaccinated, based on the targets defined in the National Plan (disaggregated by priority group and sex) (Percentage)		0.00	3.50	30.00	70.00
Action: This indicator has been Revised	Rationale: This indicator has been reformulated and the targets have been revised.				
Female population vaccinated, based on the targets defined in the national plan (Percentage)		0.00	3.50	30.00	70.00
Action: This indicator is New					
Male population vaccinated, based on the targets defined in the national plan (Percentage)		0.00	3.50	30.00	70.00
Action: This indicator is New					
Population covered by the communication, consultantion, social and community mobilization interventions (Percentage)		0.00	60.00	70.00	80.00
Action: This indicator has been Revised	Rationale: The target end date and target has been revised.				
Regional health poles that have an operational Emergency Operations Centre (EOC) (Percentage)		0.00	40.00	70.00	100.00
Action: This indicator is New	Rationale: New indicator to monitor enhance preparedness activities in the 10 PRES.				



Intermediate Results Indicators by Components

Indicator Name	PBC	Baseline	Intermediate Targets		End Target
			1	2	
Component 1: Emergency COVID-19 Response					
Healthcare workers trained by project on COVID-19 infection, prevention and control (IPC), preparedness and response (dissaggregated by sex) (Number)		282.00	6,100.00	6,500.00	7,950.00
<i>Action: This indicator has been Revised</i>					
Female healthcare workers trained by project on COVID-19 infection, prevention and control (IPC), preparedness and response (Number)		0.00	3,050.00	3,025.00	3,975.00
<i>Action: This indicator is New</i>					
Rationale: <i>To monitor the projects efforts to reduce the gender gap</i>					
Male healthcare workers trained by project on COVID-19 infection, prevention and control (IPC), preparedness and response (Number)		0.00	3,050.00	3,250.00	3,975.00
<i>Action: This indicator is New</i>					
Rationale: <i>To monitor the impact of the project on reducing the gender gap.</i>					
Target health structures (health facilities, isolation centers, and cold chain facilities) renovated and/or equipped (Percentage)		5.22	53.00	58.42	62.92
<i>Action: This indicator has been Revised</i>					
Rationale:					



Indicator Name	PBC	Baseline	Intermediate Targets		End Target
			1	2	
			<i>Formulation modified and target revised to account for extended scope of project and change in project closing date</i>		
AEFIs notified (disaggregated as severe or non-severe) (Number)		0.00	595,330.00	1,389,104.00	1,991,305.00
<i>Action: This indicator has been Revised</i>			<i>Rationale: The endline target and closing date has been revised.</i>		
Non-severe AEFIs notified (Number)		0.00	585,209.00	1,365,489.00	1,957,453.00
<i>Action: This indicator is New</i>			<i>Rationale: This indicator serves to monitor the total number of non-severe AEFIs under the project</i>		
Severe AEFIs notified (Number)		0.00	10,121.00	23,615.00	33,852.00
<i>Action: This indicator is New</i>			<i>Rationale: This indicator serves to monitor the total number of severe AEFIs under the project</i>		
Health districts with a budgeted micro-plan for COVID-19 vaccination campaign, according to the evolution of different phases of the campaign (Percentage)		0.00	100.00	100.00	100.00
<i>Action: This indicator has been Revised</i>			<i>Rationale: Formulation modified and closing date updated.</i>		
Population who received a booster dose (Percentage)		0.00	0.00	5.00	14.80
<i>Action: This indicator is New</i>			<i>Rationale: This indicator serves to monitor the percentage of the population who receives booster doses</i>		



Indicator Name	PBC	Baseline	Intermediate Targets		End Target
			1	2	
Regional health poles with a laboratory capable of performing PCR tests (Percentage)		0.00	40.00	70.00	100.00
Action: This indicator is New	Rationale: This indicator serves to monitor the increase preparedness capacity in terms of laboratory testing				
Women accessing COVID-19 vaccinations on mobile vaccination clinics (Number)		0.00	16,068.00	52,171.00	70,222.00
Action: This indicator is New	Rationale: This indicator aims to monitor the impact of the project on reducing the gender gap				
Component 2: Community Engagement and risk communication					
Local radio stations communicating awareness campaigns about COVID-19 and the COVID-19 vaccination campaign (Percentage)		0.00	58.50	75.00	75.00
Action: This indicator has been Revised	Rationale: Formulation modified and end target and closing date revised				
Planned communication interventions implemented (Percentage)		0.00	50.00	70.00	80.00
Action: This indicator has been Revised	Rationale: Formulation modified and target and end date revised				
Health districts covered by communication activities (Percentage)		0.00	100.00	100.00	100.00



Indicator Name	PBC	Baseline	Intermediate Targets		End Target
			1	2	
<i>Action: This indicator has been Revised</i>		<i>Rationale: Formulation modified and end target and closing date revised.</i>			
Component 3: Project management and monitoring and evaluation					
Proportion of vaccination sites that transmit their data via DHIS2 (Percentage)		0.00			100.00
<i>Action: This indicator has been Marked for Deletion</i>		<i>Rationale: This indicator has been deleted due to the challenges collecting the data.</i>			
Vaccinators trained on GBV/SEA/SH (Number)		0.00	2,939.00	3,918.00	3,918.00
<i>Action: This indicator has been Revised</i>					
Female vaccinators trained on GBV/SEA/SH (Number)		0.00	1,470.00	1,459.00	1,959.00
<i>Action: This indicator is New</i>		<i>Rationale: This indicator serves to monitor the impact of the project on reducing the gender gap</i>			
Male vaccinators trained on GBV/SEA/SH (Number)		0.00	1,470.00	1,459.00	1,959.00
<i>Action: This indicator is New</i>		<i>Rationale: To monitor the impact of the project on reducing the gender gap</i>			
Percentage of complaints managed according to project GRM protocol (Percentage)		0.00			80.00



Indicator Name	PBC	Baseline	Intermediate Targets		End Target
			1	2	
Action: This indicator has been Marked for Deletion	Rationale: <i>This indicate has been deleted as it does not accurately reflect the Citizen engagement activities under the project</i>				
Health districts with committees for the management of complaints (Percentage)	0.00		50.00	70.00	100.00
Action: This indicator has been Revised	Rationale: <i>Formulation modified and end target and closing date revised</i>				
Administrative doses (vaccination cards) captured in the digital vaccination platform (Percentage)	3.00		30.00	80.00	100.00
Action: This indicator is New	Rationale: <i>This indicator has been included to monitor investments made in the digitation of the vaccination campaign.</i>				
Health Districts whose beneficiaries provide feedback on COVID vaccination through traditional channels and digital platforms (Percentage)	0.00		100.00	100.00	100.00
Action: This indicator is New					

Monitoring & Evaluation Plan: PDO Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
COVID-19 tests conducted (dissagregated by sex of beneficiary)	Cumulative number of COVID-19 tests conducted, disaggregated by sex of	Monthly	- Administrative data from	Routine monitoring by INHP	MSPH-CMU/INHP



	beneficiaries		INHP		
COVID-19 tests conducted in females)	Cumulative number of COVID-19 tests conducted in females	Monthly	Administrative data from INHP	Routine monitoring by INHP	MSPH-CMU/INHP
COVID-19 tests conducted in males	Cumulative number of COVID-19 tests conducted in men	Monthly	Administrative data from INHP	Routine monitoring by INHP	MSHP-CMU/INHP
Positive COVID-19 cases (disaggregated by sex)	Numerator = Number of positive COVID-19 tests/ Denominator = Number of all COVID-19 tests conducted. Presented as a percentage.	Monthly	Administrative data of INHP	Routine monitoring by INHP	MSPH-CMU/INHP
Positive COVID-19 cases in female	Numerator = Number of positive COVID-19 tests in females/ Denominator = Number of all COVID-19 tests conducted in females. Presented as a percentage.	Monthly	Administrative data of INHP	Routine monitoring by INHP	MSHP-CMU/INHP
Positive Covid-19 cases in men	Numerator = Number of positive COVID-19 tests in males/ Denominator = Number of all COVID-19 tests conducted in males. Presented as a percentage.	Monthly	Administrative data of INHP	Routine monitoring by INHP	MSHP-CMU/INHP
Number of severe cases of COVID-19 treated (disaggregated by sex)	Cumulative number of severe COVID-19 cases treated	Trimester	SMIT registry	Routine monitoring by NIPH	MSPH/NIPH



Proportion of deaths among confirmed COVID-19 cases (disaggregated by sex)	Proportion of COVID-19 deaths among COVID-19 cases	Monthly	SMIT registry	Routine monitoring by NIPH	MSPH/NIPH
Percentage of the target population vaccinated against COVID-19 vaccine (disaggregated by sex)		2-monthly	DS register DHIS2	Routine monitoring by EPI Routine monitoring by DIIS	MSPH/PEV/DIIS
Population vaccinated, based on the targets defined in the National Plan (disaggregated by priority group and sex)	The total number of people in the priority population who received all doses of vaccine divided by the total number of people in the priority population	Monthly	Administrative data of MSHP-CMU/EPI/DHI S2 Digital vaccination platform	Routine monitoring by EPI Routine monitoring by DIIS	MSHP-CMU/EPI/DIIS
Female population vaccinated, based on the targets defined in the national plan	The total number of females in the priority population who received all doses of vaccine divided by the total number of females in the priority population	Monthly	Administrative data of MSHP-CMU/EPI/DHI S2 Digital vaccination platform	Routine monitoring by EPI Routine monitoring by DIIS	MSHP-CMU/EPI/DIIS
Male population vaccinated, based on the targets defined in the national plan	The total number of males in the priority population who received all doses of vaccine divided by the total number of males in the priority population	Monthly	Administrative data of MSHP-CMU/EPI/DHI S2 Digital vaccination platform	Routine monitoring by DIIS	MSHP-CMU/EPI/DIIS



<p>Population covered by the communication, consultation, social and community mobilization interventions</p>	<p>The number of people who have heard or seen awareness messages about COVID19 and/or immunization in the districts covered by the outreach, community mobilization, or social mobilization interventions as a proportion of the population of people surveyed in those districts</p>	<p>6-Monthly</p>	<p>- Survey data - Field reports</p>	<p>Survey</p>	<p>MSHP-CMU/ INHP/ EPI/DIIS/ Direction of communication</p>
<p>Regional health poles that have an operational Emergency Operations Centre (EOC)</p>	<p>Numerator = Total number of regional poles with an operational EOC/ total number of poles (10) A EOC is operational if it has been legally constituted (existence of a decree describing its composition), has materials and equipment (offices, video conference system) and its members have been trained.</p>	<p>6-Monthly</p>	<p>Administrative data of MSHP-CMU/INHP Activity report of I'UCP-BM</p>	<p>Routine monitoring by MSHP-CMU/ INHP and I'UCP-BM</p>	<p>INHP/ L'UCP-BM</p>



Monitoring & Evaluation Plan: Intermediate Results Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Healthcare workers trained by project on COVID-19 infection, prevention and control (IPC), preparedness and response (disaggregated by sex)	Cumulative number of people who will be trained under the project. This refers to all the trainings that will be carried out on COVID19 preparation, prevention and response	Monthly	General Direction of Health Report/ EPI Reports/ INHP Report	General Direction of Health monitors training sessions	MShP-CMU/ General Direction of Health
Female healthcare workers trained by project on COVID-19 infection, prevention and control (IPC), preparedness and response	Cumulative number of female health workers who will be trained under the project. This refers to all the trainings that will be carried out on COVID19 preparation, prevention and response	Monthly	General Direction of Health Report/EPI Reports/INHP Report	General Direction of Health monitors training sessions	MShP-CMU/General Direction of Health
Male healthcare workers trained by project on COVID-19 infection, prevention and control (IPC), preparedness and response	Cumulative number of male healthcare workers who will be trained under the project. This refers to all the trainings that will be carried out on COVID19 preparation, prevention and response	Monthly	General Direction of Health report/ EPI reports/ INHP Report	General Direction of Health monitors training sessions	MShP-CMU/General Direction of Health
Target health structures (health facilities, isolation centers, and cold chain facilities) renovated and/or equipped	Numerator: Total number of health facilities, isolation and cold chain centers, EOCs and laboratories that have benefited from	6-Monthly	Activity report by the DIEM Activity report by the INHP Activity report	Site visits of rehabilitation and inspection of equipment by the DIEM, INHP, LNSP and L'UCPS-BM	MShP-CMU/ DIEM/ INHP/ LNSP/ L'UCPS-BM



	rehabilitation and/or equipment/ Denominator: Total number of existing isolation centers and cold rooms, EOCs and laboratories planned for rehabilitation/equipping by the project (total of 15 COVID PEC centers and 56 cold rooms 9 COUSPs, 9 laboratories). The denominator is 89		by LNSP Activity report by L'UCPS-BM		
AEFIs notified (disaggregated as severe or non-severe)	This is the total number of severe and non-severe AEFI cases that have been reported	Monthly	Administrative data of EPI	Routine monitoring by EPI	MSHP-CMU/ EPI
Non-severe AEFIs notified	This is the total number of non-severe AEFI cases that have been reported	Monthly	Administrative data of EPI	Routine monitoring by EPI	MSHP-CMU/EPI
Severe AEFIs notified	This is the total number of severe AEFI cases that have been reported	Monthly	Administrative data of EPI	Routine monitoring by EPI	MSHP-CMU/EPI
Health districts with a budgeted micro-plan for COVID-19 vaccination campaign, according to the evolution of different phases of the campaign	The total number of health districts that have developed a budgeted micro plan for the immunization campaign compared to the number of districts that have organized the immunization campaign	Trimester	Administrative data of the EPI	Routine monitoring by the EPI	MSHP-CMU/ EPI



Population who received a booster dose	The total number of people who received a booster dose compared to the total number of fully vaccinated people (single or dual dose vaccine)	Monthly	Administrative data of MSHP-CMU/EPI/DHI S2 Digital vaccination platform	Routine monitoring by EPI Routine monitoring by DIIS Digital vaccination platform	MSHP-CMU/ EPI/ DIIS/ SAH Analytics
Regional health poles with a laboratory capable of performing PCR tests	This is the total number of regional health poles that have a laboratory that can perform PCR tests (numerator) compared to the total number of regional health poles (10) (denominator)	6-monthly	MSHP-CMU/ EPI administrative data L'UCPS-BM Activity Report	MSHP-CMU and L'UCPS-BM ensure the rehabilitation, equipment and training of these laboratories.	LNSP/ IPCI/ L'UCPS-BM
Women accessing COVID-19 vaccinations on mobile vaccination clinics	This is the total number of women who received at least one vaccine dose during the activities of the mobile vaccination clinics	Monthly	Administrative data of MSHP-CMU/EPI L'UCPS-BM Activity Report	Routine monitoring by MSHP-CMU/ EPI	MSHP-CMU/ EPI/ DIIS/ SAH Analytics
Local radio stations communicating awareness campaigns about COVID-19 and the COVID-19 vaccination campaign	Numerator = number of local radio stations broadcasting context-specific COVID-19 response and vaccine campaign awareness materials/ Denominator = Total number of local radios available	Trimester	Activity report of the General Direction of Health Administrative data of L'UCPS-BM	The General Direction of Health ensures the follow-up of the training sessions Routine follow-up by the L'UCPS-BM	MSHP-CMU /DGS / L'UCPS-BM



Planned communication interventions implemented	This is the total number of communication operations carried out on the project's interventions in relation to the number of communication operations planned in the project.	Trimester	Administrative data collected by L'UCPS-BM Administrative data collected by MSHP-CMU /Direction of Communication	Routine monitoring by L'UCPS-BM	L'UCPS-BM/ MSHP-CMU/ Direction of communication/ DSC
Health districts covered by communication activities	This is the number of health districts in which communication activities are implemented. These activities are carried out through agreements with organizations such as ALLIANCE CI, FENOCCI, ANADER, UNICEF, in relation to the total number of health districts in Côte d'Ivoire	Monthly	Administrative data collected by L'UCPS-BM	Routine monitoring by L'UCPS-BM	L'UCPS-BM
Proportion of vaccination sites that transmit their data via DHIS2	The number of immunization sites that have reported at least once their immunization data collected via DHIS2 as a proportion of the number of immunization sites	Monthly	DHIS2	Routine supervision by DIIS	DIIS
Vaccinators trained on GBV/SEA/SH	Total number of actors (health care provider,	Monthly	Activity report of the General	Routine data collection by the General	MSHP-CMU/DGS/L'UCPS-BM



	CHWs, community members, etc.) who have received training on GBVSEA/SH		Direction of Health Activity report of L'UCPS-BM	Direction of Health and L'UCPS-BM during the training sessions	
Female vaccinators trained on GBV/SEA/SH	Total number of female vaccinators (healthcare providers, CHWs, community members, etc) who have received training on GBV/SEA/SH	Monthly	Activity report of the General Director of Health Activity report of L'UCPS-BM	Routine data collection by the General Direction of Health L'UCPS-BM during the training sessions	MSHP-CMU/DGS/L'UCPS-BM
Male vaccinators trained on GBV/SEA/SH	Total number of male vaccinators (health care provider, CHW, community members, etc) who have received training on GBV/SEA/SH.	Monthly	Activity report of the General Direction of Health Activity report of L'UCP-BM	Routine data collection by the General Direction of Health and L'UCPS-BM during the training sessions	MSHP-CMU/DGS/L'UCP-BM
Percentage of complaints managed according to project GRM protocol	Number of project complaints managed according to the project's GRM protocol/Total number of complaints	Monthly	L'UCP-BM Project report	Routine data collection by l'UCP-BM	L'UCP-BM
Health districts with committees for the management of complaints	This is the number of health districts that have a functional complaint management committee out of the total number of districts that have complaint management committees. Functionality	Trimester	Activity reports of L'UCPS-BM	Routine monitoring by L'UCPS-BM	L'UCPS-BM



	refers to whether committee members held at least one meeting during the period				
Administrative doses (vaccination cards) captured in the digital vaccination platform	This is the number of vaccine doses tracked in the electronic system set up for vaccination campaign, compared to the total number of doses administered	Monthly	Routine data collected by EPI Activity report by SAH ANALYTICS	Routine monitoring by the EPI and SAH ANALYTICS	MSHP-CMU/ EPI/ SAH ANALYTICS
Health Districts whose beneficiaries provide feedback on COVID vaccination through traditional channels and digital platforms	Numerator: The number of health districts that have received a return from beneficiaries through the various channels compared to the total number of health districts/ Denominator: Total number of health districts	Quarterly	Activity report of l'UCPS-BM	Routine monitoring of activities by l'UCPS-BM	L'UCPS-BM







ANNEX 1: SUMMARY TABLE ON VACCINE DEVELOPMENT AND APPROVAL STATUS




Status of Vaccine Approvals as of March 2022

	Manufacturer / WHO EUL holder	Name of Vaccine	SRA approval received	WHO EUL*		
				Platform	NRA of Record for WHO EUL	Status of assessment
1.	 BioNTech Manufacturing GmbH	BNT162b2/CO MIRNATY Tozinameran (INN)	<ul style="list-style-type: none"> ▪ United Kingdom: December 2, 2020 ▪ Canada: December 9, 2020 ▪ United States of America: December 11, 2020 ▪ European Union: December 21, 2020 ▪ Switzerland: December 19, 2020 ▪ Australia: January 25, 2021 	Nucleoside modified mRNA	EMA	<ul style="list-style-type: none"> ▪ Finalized: December 31, 2020 ▪ Additional sites: <ul style="list-style-type: none"> – Baxter Oncology GmbH Germany (DP). June 30, 2021 – Novartis Switzerland. July 08, 2021 – Mibe (Dermapharm) Germany (DP). July 16, 2021 – Delpharm, Saint-Remy FRANCE (DP). September 17, 2021 – Siegfried Hameln GmbH, Germany (DP). November 11, 2021 – Patheon Italia S.p.A, Italy (DP). December 07, 2021 ▪ Shelf-life extension: 09 months at -70 to -90°C. September 20, 2021 <ul style="list-style-type: none"> – Sanofi-Aventis Deutschland GmbH, Germany October 06, 2021 ▪ Diluent suppliers: <ul style="list-style-type: none"> – Pfizer Perth, Australia Fresenius Kabi, USA. June 18, 2021 – Fresenius Kabi, USA. September 20, 2021 – Pfizer Manufacturing Belgium. November 30, 2021 ▪ Booster dose approved for adults 18 years of age and older. December 17, 2021 ▪ Age extension to children 5-11 years of age. February 12, 2022
					USFDA	<ul style="list-style-type: none"> ▪ Additional sites: <ul style="list-style-type: none"> – Pharmacia & Upjohn, Kalamazoo (DP)PGS McPherson (DP). July 16, 2021 – Exelead, Inc. Indianapolis USA. September 30, 2021
2.	 AstraZeneca, AB	AZD1222 Vaxzevria	<ul style="list-style-type: none"> ▪ UK: December 30, 2020 ▪ EU: January 29, 2021 ▪ Australia: February 16, 2021 (overseas manufacturing); March 21, 2021 	Recombinant ChAdOx1 adenoviral vector encoding the Spike protein antigen of the SARS*-CoV-2.	EMA	<ul style="list-style-type: none"> ▪ Core data finalized. 16 April 16, 2021 ▪ Additional sites: <ul style="list-style-type: none"> – SK-Catalent – Wuxi (DS). April 16, 2021 – Chemo Spain. April 30, 2021 – Amylin Ohio US (DP). July 23, 2021
					MFDS KOREA	▪ Finalized. February 15, 2021
					Japan	▪ Finalized. July 09, 2021



			(for local manufacturing by CSL – Seqirus) <ul style="list-style-type: none"> Canada: February 26, 2021 		MHLW/PMDA Australia TGA COFEPRIS (Mexico) ANMAT (Argentina)	<ul style="list-style-type: none"> Additional site: <ul style="list-style-type: none"> – Nipro Pharma Corporation Ise, Japan. October 11, 2021 Finalized. July 09, 2021 Additional site: <ul style="list-style-type: none"> – Siam Bioscience Co., Ltd Thailand. October 11, 2021 Finalized. December 23, 2021
3.	 Serum Institute of India Pvt. Ltd	Covishield (ChAdOx1_nCoV-19)		Recombinant ChAdOx1 adenoviral vector encoding the Spike protein antigen of the SARS-CoV-2.	DCGI	<ul style="list-style-type: none"> Finalized. February 15, 2021 <ul style="list-style-type: none"> – DS and DP Manjari Bk Pune. December 11, 2021
4.		COVOVAX™ COVID-19 vaccine (SARS-CoV-2 rS Protein Nanoparticle [Recombinant])		Recombinant nanoparticle prefusion spike protein formulated with Matrix-M™ adjuvant	DCGI	<ul style="list-style-type: none"> Finalized. December 17, 2021
5.		mRNA-1273	<ul style="list-style-type: none"> USA: December 18, 2020 Canada: December 23, 2020 EU: January 6, 2021 Switzerland: January 12, 2021 UK: January 8, 2021 	mRNA-based vaccine encapsulated in lipid nanoparticle (LNP)	EMA USFDA MFDS	<ul style="list-style-type: none"> Finalized. April 30, 2021 Shelf-life extension to 09 months - 20±5°C. February 14, 2022 Additional Sites. August 06, 2021 <ul style="list-style-type: none"> – ModernaTx. Norwood (DS) – Catalent Indiana, LLC (DP) – Lonza Biologics, Inc. Portsmouth, USA (DS) – Baxter, Bloomington, USA (DP) Finalized. December 23, 2021
6.	 Sinopharm /Beijing Institute of Biological Products Co., Ltd. (BIBP)	SARS-CoV-2 Vaccine (Vero Cell), Inactivated (InCoV)		Inactivated, produced in Vero cells	NMPA	<ul style="list-style-type: none"> Finalized. May 07, 2021 2 and 5 dose presentation (new manufacturing site) -- TBC after ongoing inspection
7.	 Sinovac Life Sciences Co., Ltd.	COVID-19 Vaccine (Vero Cell), Inactivated/		Inactivated, produced in Vero cells		<ul style="list-style-type: none"> Finalized. June 01, 2021 2 dose presentation. September 30, 2021



	Sinovac Life Sciences Co., Ltd.	Coronavac™				
8.	 Janssen–Cilag International NV	Ad26.COVS.2.S	<ul style="list-style-type: none"> ▪ USA: February 27, 2021 ▪ Canada: March 05, 2021 ▪ EU: March 11, 2021 ▪ Switzerland: March 22, 2021 ▪ UK: May 28, 2021 ▪ Australia: June 25, 2021 	Recombinant, replication-incompetent adenovirus type 26 (Ad26) vectored vaccine encoding the (SARS-CoV-2) Spike (S) protein	EMA	<ul style="list-style-type: none"> ▪ Core data finalized (US +NL sites). March 12, 2021 ▪ Additional sites: <ul style="list-style-type: none"> – Aspen RSA (DP). June 25, 2021 – Catalent Agnani Italy (DP). July 02, 2021 – Grand River Aseptic Manufacturing Inc., USA. November 05, 2021 – MSD (Merck), West Point/PA, USA (DP). November 05, 2021 – Sanofi Pasteur France (DP). January 27, 2022
9.	 Bharat Biotech, India	SARS-CoV-2 Vaccine, Inactivated (Vero Cell)/COVAXIN		Whole-Virion Inactivated Vero Cell	DCGI	<ul style="list-style-type: none"> ▪ Finalized. November 03, 2021
10.	 Creating Tomorrow's Vaccines Today	NVX-CoV2373/Nuvaxovid		Recombinant nanoparticle prefusion spike protein formulated with Matrix-M™ adjuvant	EMA	<ul style="list-style-type: none"> ▪ Finalized. December 20, 2021