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Report No: PAD4753

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT PAPER

ON A

PROPOSED THIRD ADDITIONAL CREDIT

IN THE AMOUNT OF US\$60.60 MILLION

TO THE

REPUBLIC OF GHANA

FOR THE

GHANA COVID-19 EMERGENCY PREPAREDNESS AND RESPONSE PROJECT

April 29, 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 & Population Global Practice
Western and Central Africa Region

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CURRENCY EQUIVALENTS

(Exchange Rate Effective March 31, 2022)

Currency Unit = Ghana Cedi (GHc)

7.11 = US\$1

FISCAL YEAR

January 1 - December 31

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ABBREVIATIONS AND ACRONYMS

AC	Audit Committee
AEFI	Adverse Events Following Immunization
AF	Additional Financing
AMSP	Africa Medical Supply Platform
ASA	Advisory Services and Analytics
AVAT	African Vaccine Acquisition Trust
BFP	World Bank Facilitated Procurement
CAGD	Controller and Accountant General's Department
CARES	COVID-19 Alleviation and Revitalization of Enterprises Support
CBO	Community-based Organization
CDC	Center for Disease Control and Prevention
CERC	Contingent Emergency Response Component
CHPS	Community-based Health Planning and Services
CMS	Central Medical Store
COVAX Facility	COVID-19 Vaccines Global Access Facility
COVID-19	Coronavirus Disease 2019
CPF	Country Partnership Framework
CSO	Civil Society Organization
E&S	Environmental and Social
EIB	European Investment Bank
EOC	Emergency Operations Center
EPRP	Emergency Preparedness and Response Plan
ESCP	Environmental and Social Commitment Plan
ESF	Environmental and Social Framework
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
EU	European Union
EUL	Emergency Use Listing
FC	Financial Controller
FDA	Food and Drugs Authority
FM	Financial Management
FTCF	Fast Track COVID-19 Facility
FY	Fiscal Year
GAS	Ghana Audit Service
GAVI	Global Alliance for Vaccines and Immunization
GDP	Gross Domestic Product
GHc	Ghana Cedi
GhiLMIS	Ghana Integrated Logistics Management Information System
GHS	Ghana Health Service
GIFMIS	Ghana Integrated Financial and Management Information System
GIZ	German Development Agency (<i>Deutsche Gesellschaft für Internationale</i>

	<i>Zusammenarbe)</i>
GoG	Government of Ghana
GRM	Grievance Redress Mechanism
GRS	Grievance Redress Service
HDP	Health Development Partner
HEIS	Hands-on Enhanced Implementation Support
HNP	Health, Nutrition, and Population
HNPGP	Health, Nutrition and Population Global Practice
IAD	Internal Audit Department
IBRD	International Bank for Reconstruction and Development
ICU	Intensive Care Unit
IDA	International Development Association
IEC	Information, Education and Communication
IFC	International Finance Corporation
IFMIS	Integrated Financial and Management Information System
IFR	Interim Financial Report
IMCC	Inter-ministerial Coordination Committee
IPC	Infection Prevention and Control
IPF	Investment Project Financing
ISM	Implementation Support Mission
ISR	Implementation Status and Results Report
LMIC	Low- and Middle-income Country
M&E	Monitoring and Evaluation
MDA	Ministries, Departments and Agencies
MDB	Multilateral Development Bank
MoF	Ministry of Finance
MoH	Ministry of Health
MoU	Memorandum of Understanding
MPA	Multiphase Programmatic Approach
MS	Moderately Satisfactory
MU	Moderately Unsatisfactory
NGO	Non-governmental Organization
NTCC	National Technical Coordinating Committee
NVDP	National Vaccination Development Plan
NVI	National Vaccine Institute
PDO	Project Development Objective
PHC	Primary Health Care
PIM	Project Implementation Manual
PIU	Project Implementation Unit
POE	Port of Entry
PPR	Procurement Post Review
PPSD	Project Procurement Strategy for Development
PQ	Prequalification
PrDO	Program Development Objective

PWD	Person with Disability
RCCE	Risk Communication and Community Engagement
SEA	Sexual Exploitation and Abuse
SEP	Stakeholder Engagement Plan
SH	Sexual Harassment
SPRP	Strategic Preparedness and Response Program, also known as Global COVID-19 MPA
SRA	Stringent Regulatory Authorities
STEP	Systematic Tracking of Exchanges in Procurement
UCCE	Ultra-Cold Chain Equipment
UHC	Universal Health Coverage
UN	United Nations
UNICEF	United Nations Children’s Fund
USAID	United States Agency for International Development
VAC	Vaccine Approval Criteria
VIRAT	Vaccine Introduction Readiness Assessment
VRAF	Vaccine Readiness Assessment Framework
WHO	World Health Organization

Republic of Ghana

Ghana COVID-19 Emergency Preparedness and Response Project Third Additional Financing

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BASIC INFORMATION – PARENT (Ghana COVID-19 Emergency Preparedness and Response Project - P173788)

Country Ghana	Product Line IBRD/IDA	Team Leader(s) Anthony Theophilus Seddoh		
Project ID P173788	Financing Instrument Investment Project Financing	Resp CC HAWH3 (9322)	Req CC AWCW1 (6547)	Practice Area (Lead) Health, Nutrition & Population

Implementing Agency: Ghana Health Services, Ministry of Health

Is this a regionally tagged project? No				
Bank/IFC Collaboration No				
Approval Date 02-Apr-2020	Closing Date 30-Jun-2023	Expected Guarantee Expiration Date	Environmental and Social Risk Classification 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 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 checked="" 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 057)

To prevent, detect and respond to the threat posed by COVID-19 and strengthen national systems for public health preparedness in Ghana

Ratings (from Parent ISR)

	Implementation			
	17-Aug-2020	19-Nov-2020	01-Jun-2021	24-Jan-2022
Progress towards achievement of PDO	S	S	S	S
Overall Implementation Progress (IP)	MS	S	S	S
Overall ESS Performance	MS	MS	MS	S
Overall Risk	S	M	M	S
Financial Management	MS	S	S	MU
Project Management	MS	S	S	MS
Procurement	MS	S	MS	MS
Monitoring and Evaluation	MS	MS	MU	MU

BASIC INFORMATION – ADDITIONAL FINANCING (Ghana COVID-19 Emergency Preparedness and Response Project Third Additional Financing - P178054)

Project ID	Project Name	Additional Financing Type	Urgent Need or Capacity Constraints
P178054	Ghana COVID-19 Emergency Preparedness	Cost Overrun/Financing Gap, Restructuring, Scale Up	No



	and Response Project Third Additional Financing		
Financing instrument	Product line	Approval Date	
Investment Project Financing	IBRD/IDA	29-April-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 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				%
IDA	365.00	192.32	173.38	53 %
Grants				%

MPA Financing Data (US\$, Millions)

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



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

PROJECT FINANCING DATA – ADDITIONAL FINANCING (Ghana COVID-19 Emergency Preparedness and Response Project Third Additional Financing - P178054)

FINANCING DATA (US\$, Millions)

SUMMARY (Total Financing)

	Current Financing	Proposed Additional Financing	Total Proposed Financing
Total Project Cost	365.00	60.60	425.60
Total Financing	365.00	60.60	425.60
of which IBRD/IDA	365.00	60.60	425.60
Financing Gap	0.00	0.00	0.00

DETAILS - Additional Financing

World Bank Group Financing

International Development Association (IDA)	60.60
IDA Credit	60.60

IDA Resources (in US\$, Millions)

	Credit Amount	Grant Amount	Guarantee Amount	Total Amount
Ghana	60.60	0.00	0.00	60.60
National PBA	60.60	0.00	0.00	60.60



Total	60.60	0.00	0.00	60.60
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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

Explanation

This AF3 is being processed using the following waiver(s) granted through the Global SPRP MPA Project (P173789):
(i) Waiver to enable Management approval of individual projects under SPRP rated Substantial for Environmental and Social risks.

Has the waiver(s) been endorsed or approved by Bank Management?

Approved by Management Endorsed by Management for Board Approval No

Explanation

The MPA-specific waivers have been endorsed by management as part of the Global SPRP MPA approval.



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
Anthony Theophilus Seddoh	Team Leader (ADM Responsible)	Senior Health Specialist	HAWH3
Kazumi Inden	Team Leader	Senior Health Specialist	HAWH2
Charles John Aryee Ashong	Procurement Specialist (ADM Responsible)	Senior Procurement Specialist	EAWRU
Patrick Kwadwo Ansah	Procurement Specialist	PPRs	EAWRU
Robert Wallace DeGraft-Hanson	Financial Management Specialist (ADM Responsible)	Sr Financial Management Specialist	EAWG2
Justice Odoiquaye Odoi	Environmental Specialist (ADM Responsible)	Environmental Specialist	SAWE4
Sarah Antwi Boasiako	Social Specialist (ADM Responsible)	Social Development Specialist	SAWS1
Christabel Ewuradjoa Dadzie	Team Member	Senior Social Protection Specialist	HAWS3
Daniela Hoshino	Team Member	Program Assistant	HAWH3
Enoch Oti Agyekum	Team Member	ET Consultant	HAWH3
Esinam Julia Nduom	Team Member	Financial Management Specialist	EAWG2
Eunice Yaa Brimfah Ackwerh	Team Member	Senior Education Specialist	HAWE3
Ines Melissa Emma Attoua Ety	Team Member	Finance Officer	WFACS
Lydia Sam	Procurement Team	Procurement Assistant	AWCW1
Maiada Mahmoud Abdel Fattah Kassem	Team Member	Finance Officer	WFACS
Nightingale Rukuba-Ngaiza	Counsel	Senior Counsel	LEGAM
Stephen Kwaku Tettevi	Team Member	Program Assistant	AWCW1
Victoria Ewura Ekuia Wood	Team Member	Associate Counsel	LEGAM

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 Regional Vice President to provide a credit in the amount of US\$60.60 million from IDA for an Additional Financing (AF).** The third Additional Financing (AF3) would support the costs of scaling up the Ghana COVID-19 Emergency Preparedness and Response (P173788) 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, 2020.¹ The Ghana COVID-19 Emergency Preparedness and Response Project (P173788) in an amount of SDR 25.5 million (US\$35.0 million equivalent) from IDA credit was approved on April 2, 2020, and became effective on April 3, 2020. The first AF (AF1) to the Ghana COVID-19 Emergency Preparedness and Response Project (P174839) in an amount of a US\$130.0 million IDA credit was approved on November 10, 2020 and became effective on December 14, 2020. The second AF (AF2) to the Ghana COVID-19 Emergency Preparedness and Response Project (P176485) in an amount of a US\$200.0 million IDA credit was approved on June 10, 2021 and became effective on July 15, 2021. The primary objectives of the AF3 are: (i) to scale up activities for prevention, effective vaccine management and deployment; (ii) to increase risk communication and community engagement (RCCE) to reduce vaccine hesitancy and increase COVID-19 vaccine uptake; (iii) to strengthen health systems to enhance the country’s pandemic preparedness and response capacity; and (iv) to improve project management, oversight and accountability.

2. The purpose of the proposed AF is to provide upfront financing to help the Government of Ghana (GoG) deploy COVID-19 vaccines that meet the World Bank’s vaccine approval criteria (VAC) and strengthen health systems that are necessary for a successful deployment and to prepare for the future. The proposed AF3 will help COVID-19 vaccine deployment to contribute to meeting the national target of vaccinating 72.4 percent of the country’s population. As of April 16, 2021, the World Bank accepts as threshold for eligibility of IBRD/IDA resources in COVID-19 vaccine acquisition and/or deployment under all Bank-financed projects: (i) the vaccine has received regular or emergency licensure or authorization from at least one of the Stringent Regulatory Authorities (SRAs) 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 (PQ) or WHO Emergency Use Listing (EUL). The country provides free of cost vaccination to the population.

3. **The need for additional resources in the amount of US\$60.60 million from IDA to expand the COVID-19 response was formally conveyed by the GoG in a letter dated January 19, 2022.** The proposed AF3 will form part of an expanded health response to the pandemic, which is being supported by development partners under the coordination of the GoG. Additional World Bank financing will provide

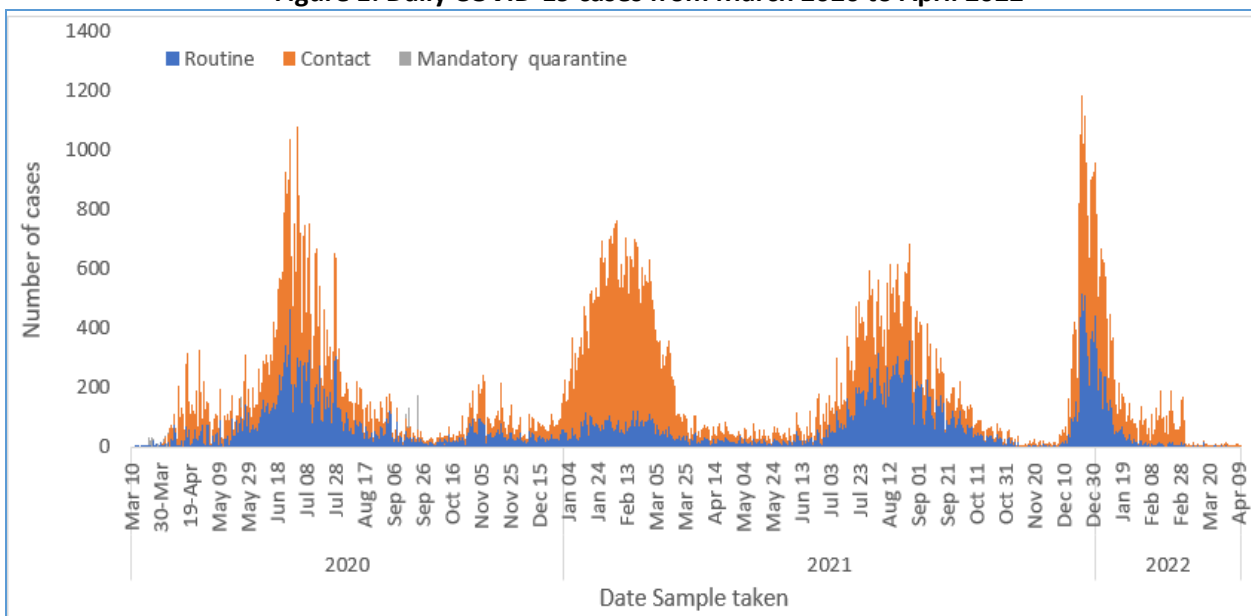
¹ The World Bank approved a US\$12 billion World Bank Group Fast Track COVID-19 Facility (FTCF or “the Facility”) to assist IBRD and IDA countries in addressing the global pandemic and its impacts. Of this amount, US\$6 billion came from IBRD/IDA (“the World Bank”) and US\$6 billion from the IFC. The IFC subsequently increased its contribution to US\$8 billion, bringing the FTCF total to US\$14 billion. The Additional Financing of US\$12 billion (IBRD/IDA) was approved on October 13, 2020 to support the purchase and deployment of COVID-19 vaccines as well as strengthening the related immunization and health care delivery system.

essential resources to enable the expansion of a sustained and comprehensive pandemic response that will appropriately include vaccination in Ghana.

4. The availability and terms of vaccines acquisition remain fluid, which prevents the planning of a firm sequence of vaccine deployment. Rather, the proposed AF3 financing enables a portfolio approach that will adjust during project implementation in response to developments in the country’s pandemic situations.

5. **Although cases could be underreported, as of April 11, 2022, the country has had 161,101 confirmed cases and 1,445 cumulative deaths (case fatality rate (CFR) of 0.90 percent).**² The country has overcome its fourth wave with the average number of daily reported cases less than 20 and zero admission of severe or critical cases since mid-March 2022. The average number of cases among international arrivals is four per month. As of April 18, 2022, 17.7 percent of the total population were fully vaccinated, and 29.5 percent of the population has received at least one dose. Figure 1 below shows the trend in the disease.

Figure 1: Daily COVID-19 cases from March 2020 to April 2022



Source: WHO Ghana. Emergency Preparedness and Response Update. April 19, 2022 edition

B. Consistency with the Country Partnership Framework (CPF)

6. **The AF3 is consistent with the World Bank’s fiscal year (FY) 22-26 Country Partnership Framework (CPF) for Ghana (Report No. 157249-GH), which was approved by the Board of Executive Directors on February 22, 2022.** Most particularly, the project contributes to attaining Objective 2.2 on improved quality of primary health care (PHC) in the Focus Area 2 on Improving Inclusive Service

² WHO Ghana. Emergency Preparedness and Response Update. April 19, 2022 edition.



Delivery. The AF3, like the parent project, the AF1 and the AF2, is also aligned with the GoG's strategic direction toward Universal Health Coverage (UHC), which was articulated in the UHC Roadmap 2020-2030 and the COVID-19 Preparedness and Response Plan 2020-2024, as well as the Health, Nutrition and Population Global Practice (HNPGP)'s strategy on reimagining PHC and COVID-19.³

C. Project Design and Scope

7. The Project Development Objective (PDO) of the parent project, AF1, AF2 and the proposed AF3 is to prevent, detect and respond to the threat posed by COVID-19 and strengthen national systems for public health preparedness in Ghana. There is no proposed change in the PDO. Since its approval on April 2, 2020, the project has been supporting the implementation of the country's Emergency Preparedness and Response Plan (EPRP) for the COVID-19 response (*Details: parent project PAD*). The parent project was successful in increasing capacity for case detection through improving availability of laboratory and personal protection equipment, treatment and case management. The AF1 resulted in the scaling up of treatment centers, while the AF2 finances the acquisition of COVID-19 vaccines through the African Vaccine Acquisition Trust (AVAT) and their deployment (*Details: AF1 Project Paper and Details: AF2 Project Paper*). The current project components as restructured under the AF2 are: *Component 1: Emergency COVID-19 Response; Component 2: Strengthening Multi-sector, National Institutions and Platforms for Policy Development and Coordination of Prevention and Preparedness using One Health Approach; Component 3: Community Engagement and Risk Communication; and Component 4: Implementation, Management, and Monitoring and Evaluation (M&E)*. This AF3 proposes to enlarge both the scale and the scope of the project, including social mobilization and RCCE for awareness and reduction in COVID-19 vaccine hesitancy and vaccine deployment for equitable access to COVID-19 vaccination till last mile. In addition, the AF3 aims to improve institutional capacity of diagnostics, case management and treatment. It will also provide training for port health management and support new activities such the operations of the National Vaccine Institute (NVI) once it is established. See details of the scaled-up sub-components and expanded scope of the project under *Proposed Scaled-up and New Activities* section below.

7. The implementation arrangements led by Ministry of Health (MoH) and the Ghana Health Service (GHS) remain unchanged. The AF3 follows the same implementation arrangements with the parent project, as revised under the AF1 and the AF2 with the expanded scope of the project. The MoH and the GHS remain the implementing agencies for the project. The Chief Director of the MoH is responsible for overall project management.⁴

³ World Bank. (2011). *Walking the Talk: Reimagining Primary Health Care After COVID-19*. World Bank, Washington, DC. © World Bank. <https://openknowledge.worldbank.org/handle/10986/35842> License: CC BY 3.0 IGO."

⁴ The detailed implementation arrangements are found in the AF2 project documents at: <https://documents1.worldbank.org/curated/en/403401623636115257/pdf/Ghana-COVID-19-Emergency-Preparedness-and-Response-Project.pdf>



D. Project Performance

8. **The project's progress towards achieving the PDO was rated Satisfactory in the last Implementation Status and Results Report (ISR) in January 2022 and the project continues to make good progress.** Four out of eight PDO indicators have already been achieved and maintain the good progress made thus far. The project extensively supports to strengthen case management capacity since the onset of the COVID-19 cases through training of health workers, provision of equipment, medicines and consumables to health facilities, support to develop protocols in the changing situations, and timely financing to lease isolation facilities. Thus, all the designated health facilities treat COVID-19 cases, including cases among health workers, as per the protocols and in isolation centers. Ghana has been conducting COVID-19 vaccination without differences in vaccination coverage by gender. The disbursement rate of the parent project is 94.7 percent. It is projected to disburse the rest of the remaining funds under the original financing by the end of June 2022. As of April 25, 2022, 52 percent of the total funding available has been disbursed directly to the GoG. The total amount disbursed under AF1 and AF2 was 64.7 percent and 33.5 percent, respectively, while another US\$86.5 million or 43.3 percent of the AF2 financing was committed to the United Nations Children's Fund (UNICEF) for COVID-19 vaccines acquisition through the AVAT. When including the above committed fund, the disbursement rate of the project is 85.6 percent.

9. **Ghana has adopted the stepped wedge approach⁵ to scale up the COVID-19 vaccination and has targeted to vaccinate 22.4 million persons or 72.4 percent of the total population.** The country started COVID-19 vaccinations in 43 hotspot districts in three regions. By mid-November 2021, vaccinations were rolled out nationwide including to the community level. The AF2 is financing the purchase of 16.9 million Janssen single dose vaccines through the AVAT platform of which 5.8 million have been delivered. AF1 and AF2 are both supporting COVID-19 vaccine awareness and deployment activities. As of end of March 2022, Ghana had received over 29.7 million doses in total of which 13 million have been administered. This accounts for 16.1 percent of the total population as fully vaccinated. About 28.5 percent of the population has received at least one dose, 159,092 people received a booster shot; and 337,557 doses were administered to children between ages 15-17 years old. Ghana constantly demonstrates its strong vaccination capacity with support from the AF1 and the AF2. The country administered 1.5 million doses of a short shelf-life of AstraZeneca vaccines (four weeks to expiry) acquired through the COVAX Facility within two weeks in October 2021. This is an exemplary achievement and shows the capacity of the country to deploy with the appropriate support. The country is supplementing routine vaccination with National Immunization Days (NID) campaign which will take place every other month. Refer to the results framework in this document for further details. These efforts ensure that no one is left behind. These engagements are iterative processes and receive feedback from civil society, including from the Associations for Persons with Disabilities (PWDs). Gender inclusiveness and equity in access have been at the center of a focus in tailored messages on COVID-19 vaccination aimed at addressing specific needs and vulnerabilities.

⁵ A stepped wedge approach involves a sequential rollout of an intervention to participants (individuals or clusters) over several distinct time periods. In this case, Ghana rolled out the COVID-19 vaccination in 43 hotspot districts in three regions in March 2021 as the Phase I. After September 24, 2021, it gradually expanded its vaccination sites nationwide in the Phase II.



10. **The Project Implementation Unit (PIU) has been effectively coordinating project planning and procurement.** The Ministers of Health and Finance have continued to provide oversight for project coordination. The technical project management has however remained problematic and was graded Moderately Satisfactory (MS). Financial Management (FM) was graded as Moderately Unsatisfactory (MU) in January 2022 due to a significant delay in submission of the 2020 audit report, then was upgraded to MS during the Implementation Support Missions (ISM) in March-April 2022. The 2020 audit report was submitted on February 11, 2022. The MoH and the World Bank extensively discussed each and every recommendation made by the GAS during the March-April ISM. The MoH submitted the action plan in response to the audit recommendations to improve the fiduciary management in April 2022. The previous two ISRs noted: (i) the continuous delay in documenting expenditures and submitting audit reports; and (ii) the non-compliance with procurement and construction process compliance and supervision. Many of the refurbishments and renovations are behind schedule. Procurement risk rating remains high. The audit report raised issues that need to be addressed including internal capacity strengthening, procurement and expenditure tracking. The project M&E was rated as MU in January 2022 due to the significant delay in submitting the 2021 Q3 progress report and was upgraded to MS during the ISM in March-April 2022 with the improved quality and timeliness of the 2021 Q4 report. The project will strengthen its support for financial and procurement monitoring and supervisory visits to project sites to ensure the quality and timeliness of project implementation.

E. Rationale for Additional Financing

11. The COVID-19 virus continues to mutate and present complications for prevention, case detection and response. While a lot has been achieved over the years, there are several activities that need to be supported to sustain the gains and the investment made so far. Ghana has adequate COVID-19 vaccines in stock and in the pipeline to cover over 100 percent of the target population. These include financing from the World Bank and contributions from the COVAX Facility and bilateral donors. The real risks are vaccine hesitancy, expiry and wastage. A recent study showed a high level of vaccine hesitancy which accounts for the low coverage observed. The current routine vaccine administration approach using health facilities does not appear to be yielding results. The GoG has therefore proposed a change in strategy by adopting the use of mass campaigns and National Immunizations Days. There is the need to ramp up community engagement and risk communication activities to support this activity. The cold chain system is inadequate, but Global Alliance for Vaccines and Immunization (GAVI) and UNICEF are helping to address this situation. The reopening of the borders has also exposed the weaknesses in managing the country's points of entry (POE). A recent assessment funded by the World Bank COVID-19 project showed that out of 56 known POEs, 40 were approved but none had adequate facility or capacity to manage traveler or routine public health functions. The infrastructure in several places were in poor conditions with few and inexperienced staff in place. Many of the refurbished treatment centers lack adequate equipment and human resources to manage highly infectious diseases. Had the disease intensified in children under the age of 15, Ghana had no dedicated children's hospital with adequate capacity to take on the cases. The only dedicated children's hospital, the Princess Marie Louise Hospital is about a century old and has fallen into disrepair. The AF3 will support long term institutional capacity development to increase systems resilience to prevent further increases in COVID-19 cases while readying institutions against future outbreak of diseases.

12. **The AF3 is being proposed at a crucial juncture of the GoG’s response to COVID-19.** A critically important change in the state of science since the early stages of the pandemic has been the emergence of new therapies and the successful development and expanding production of COVID-19 vaccines (see Annex 1 for status). A key rationale for the proposed AF3 is to provide upfront financing for safe and effective vaccine deployment in Ghana, thus enabling the country to equitably vaccinate the at risk and target population.

13. The proposed AF3 will form part of an expanded health response to the pandemic. The activities will build on the Ghana COVID-19 Emergency Preparedness and Response (P173788), the first AF (AF1) (P174839) and the second AF (AF2) (P176485) to the Ghana COVID-19 Emergency Preparedness and Response Project as well as the support of other developing partners in the context of the overall Government’s COVID-19 response. World Bank has been part of concerted efforts by the health development partners (HDP) to support the country’s COVID-19 vaccination, including the COVID-19 Vaccine Delivery Partnership. Box 1 below outlines new support provided by the United States Agency for International Development (USAID) and the European Investment Bank (EIB). These are in addition to ongoing support acknowledged in AF1 and AF2.

Box 1: Ongoing Supportive Roles for Partner Agencies in Implementation

USAID	Financing amount
<ul style="list-style-type: none"> • Supporting RCCE and community mobilization campaigns. • Supporting planning, resource mobilization and assisting to improve public financial management (PFM). • Supporting the Food and Drugs Authority (FDA) on Adverse Events Following Immunization (AEFI) monitoring and reporting and upgrading its maturity level for vaccines from Level 2 to Level 4. • Supporting the GHS with COVID-19 vaccination data management, M&E through the E-Tracker. • Supporting planning and coordination for supply chain through the Ghana Integrated Logistics Management Information System (GhiLMIS). • Supporting micro planning at the national and sub-national levels. 	US\$12.7 million
EIB	
<ul style="list-style-type: none"> • Providing financial support for new construction or rehabilitation of 90 health facilities at the sub-national level. • Providing medical and diagnostic equipment to the above health facilities. • Potential to support cold chain superstructures 	Euro 82.5 million

F. National Capacity and COVID-19 Vaccination Plan

(i) Vaccine Readiness Assessment

14. **Ghana has conducted the COVID-19 vaccine deployment readiness assessment, using the Vaccine Introduction Readiness Assessment Tool (VIRAT)/Vaccine Readiness Assessment Framework (VRAF) 2.0 tool.** This assessment aims to identify gaps and options to address them, as well as to estimate the cost of vaccine deployment. The updated assessment results as of February 2022 inform the



renewed vaccine deployment strategy. The assessment will continue to be an evolving process and will be updated as necessary.

(ii) National Vaccination and Deployment Plan (NVDP)

15. The GoG has revised its NVDP in February 2022, which draws on the findings of the VIRAT/VRAF 2.0 assessment and gap analysis. The NVDP projects the COVID-19 vaccination among those age 15 and above, including pregnant women, and a booster shot for all the eligible population. Starting from the February 2022 vaccination days campaign, the GoG will continue to implement periodic COVID-19 vaccination campaigns in April, May and June 2022 and at least every other month afterwards, during which the GoG aims to administer 2.5 million doses within five days at each campaign. These campaigns will especially target those who have not received any doses yet. While USAID and other development partners keep mobilizing resources for vaccine deployment, the World Bank is coordinating with the EIB to fill the gaps in strengthening the infrastructure of the ultra-cold chain equipment (UCCE) walk-in rooms and building up of the UCCE storage in the deprived regions.

16. The Project Implementation Manual (PIM) makes it clear that the FDA Ghana (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.



Table 1: National Vaccine Coverage and Acquisition Plan

(As of April 1, 2022)

Source of financing	Population targeted		Vaccine(s)				Number of doses needed	Estimated total cost (US\$ millions)	World Bank's VAC Status	Contract status	Vaccines already arrived in the country	
	%	Number	Source	Name	Price (\$/dose)	Shipping (\$/doses)					Name	Doses
Phase I: Health workers nationwide, security personnel and persons with known underlying medical conditions												
COVAX vaccines and IDA credit for deployment (AF2)	5.0%	1,578,121	COVAX	AstraZeneca	0	0	2 doses	2.4	1 SRA + WHO PR or EUL	Completed	AstraZeneca	3,156,242
Sub-total	5.0%	1,578,121						2.4				3,156,242
Phase II: Adults above 60 years, secondary and tertiary students, teachers, specialized groups on national assignment, executive and legislature, civil servants, and journalists												
COVAX vaccines and IDA credit for deployment (AF2)	4.9%	1,556,489	COVAX	AstraZeneca	0	0	2 doses	2.3	1 SRA + WHO PR or EUL	Completed	AstraZeneca	3,112,978
	4.8%	1,501,000	COVAX	Serum	0	0	2 doses	2.3	1 SRA + WHO PR or EUL	Completed	Serum	3,002,000
	2.0%	614,810	COVAX	Moderna	0	0	2 doses	0.9	2 SRA + WHO PR or EUL	Completed	Moderna	1,229,620
	3.5%	1,100,000	COVAX	Pfizer	0	0	2 doses	1.7	1 SRA + WHO PR or EUL	Completed	Pfizer	2,200,000
Other donors vaccines and IDA credit for deployment (AF2)	0.6%	183,425	MTN, Africa Medical Supply Platform (AMSP) and other sources	AstraZeneca	0	0	2 doses	0.3	1 SRA + WHO PR or EUL	Completed	AstraZeneca	366,850
	0.2%	77,500	Master Card Foundation	Janssen	0	0	1 dose	0.1	1 SRA + WHO PR or EUL	Completed	Janssen	77,500
	1.3%	400,000	Government of Hungary	AstraZeneca	0	0	2 doses	0.6	1 SRA + WHO PR or EUL	Completed	AstraZeneca	800,000
	0.2%	67,500	Government of Malta	AstraZeneca	0	0	2 doses	0.1	1 SRA + WHO PR or EUL	Completed	AstraZeneca	135,000
	2.7%	871,250		AstraZeneca			2 doses	1.3	1 SRA + WHO PR or EUL	Completed	AstraZeneca	1,742,500



Source of financing	Population targeted		Vaccine(s)				Number of doses needed	Estimated total cost (US\$ millions)	World Bank's VAC Status	Contract status	Vaccines already arrived in the country	
	%	Number	Source	Name	Price (\$/dose)	Shipping (\$/does)					Name	Doses
Other donors vaccines and deployment	0.0%	10,500	GoG through United Arab Emirates	Sputnik-V	0	0	2 doses	0.0		Completed	Sputnik-V	21,000
	0.0%	50	Danish Embassy	Janssen	0	0	1 dose	0.0	1 SRA + WHO PR or EUL	Completed	Janssen	50
Sub-total	20.2%	6,382,524						9.6				12,687,498
Phase III: General public age 15 and above and pregnant women												
COVAX vaccines and IDA credit for deployment (AF2 and AF3)	9.3%	2,923,200	COVAX	Janssen	0	0	1 dose	4.4	1 SRA + WHO PR or EUL	Completed	Janssen	2,923,200
	8.2%	2,583,745	COVAX	Pfizer	0	0	2 doses	3.9	1 SRA + WHO PR or EUL	Completed	Pfizer	5,167,490
	3.9%	1,232,010	COVAX	Pfizer	0	0	2 doses	1.8	1 SRA + WHO PR or EUL	Completed	Pfizer	
IDA credit for vaccines and deployment (AF2)	18.3%	5,788,100	AVAT (World Bank)	Janssen	7.5	0.5	1 dose	55.1	1 SRA + WHO PR or EUL	Completed	Janssen	5,788,100
	35.3%	11,130,649	AVAT (World Bank)	Janssen	7.5	0.5	1 dose	105.9	1 SRA + WHO PR or EUL	Completed	Janssen	
Sub-total	75.0%	23,657,704						171.1				13,878,790
National Total	100.2%	31,618,349		Multiple				183.0				29,722,530



II. DESCRIPTION OF ADDITIONAL FINANCING

A. Proposed Changes

17. The changes proposed to be financed under the AF3 will entail scaling up of activities and enlarging the scope of the project. As the proposed activities to be funded under the AF3 for Ghana COVID-19 Emergency Preparedness and Response Project are aligned with the original PDO, the PDO would remain unchanged.

18. The content of the components and the Results Framework of the parent project are adjusted to reflect the expanded scope and new activities proposed under the AF3. The project closing date is proposed to be extended by one year from June 30, 2023 to June 30, 2024.

(i) Proposed Scaled-up and New Activities

19. The additional activities to be incorporated into the existing components of the parent project are described below.

Component 1: Emergency COVID-19 response (total US\$376.26 million, of which AF3 US\$39.40 million)

Sub-component 1.1: Case Detection, Confirmation, Contact Tracing, Recording and Reporting (total US\$33.66 million, of which AF3 US\$9.70 million)

20. **This sub-component would be scaled up.** The AF3 will provide equip and upgrade diagnostic equipment and laboratories at the Korle Bu Teaching Hospital treatment center, 37 Military Hospital, Tetteh Quarshie Memorial Hospital and the Tamale Teaching Hospital treatment centers. It will also repair or maintain faulty imaging equipment in various health facilities. The project will provide funding to train selected radiologists, laboratory technicians and technologists in the tertiary and secondary facilities to upgrade their skills and competencies. The project will also finance the purchase of vehicles, motorbikes, refurbish, renovate, furnish and equip the Port Health facilities at the points of entry to limit importation of COVID-19 cases and other infectious diseases or disease outbreaks.

Sub-component 1.2: Containment, Isolation and Treatment (total US\$142.45 million, of which AF3 US\$24.70 million)

21. **This sub-component would be scaled up.** This is a continuation of support from the parent project and AF1 aimed at increasing and strengthening treatment capacity. Some primary and secondary facilities have benefitted from Pressure Swing Adsorption (PSA) 40-60nm³ capacity oxygen modules. These are not suitable for high dependency patients and high volumes in teaching hospitals. The AF3 will support the procurement of 80nm³ – 120nm³ capacity oxygen generators to be installed at high volume tertiary and secondary facilities. The AF3 will purchase cross-country vehicles for all regional and tertiary hospitals to support medical outreach and supportive supervision to the newly established treatment centers and district hospitals. It will also procure motorbikes and provide for their maintenance, and support waste management for district, regional and tertiary hospitals. With the advent of new COVID-19

medicines being developed, the project will support the purchase and distribution of medications, the development of training manuals and training workshops on the treatment protocols. The beneficiary health facilities will include the public, faith-based, quasi-government, and private health facilities to augment the country's case management capacity. Resources will also be made available to pay for treatment and case management services rendered by the treatment centers and teaching hospitals. The GoG identified gaps in port health facilities from the baseline assessment conducted in November-December 2021. Following the assessment, the AF3 will renovate or provide offices, holding rooms and accommodation at selected locations. Each office will be equipped and provided soft furnishings equivalent to those in Community-based Health Planning and Services (CHPS) compounds.

22. **This is a new activity under Sub-component 1.2.** The sub-component will support the construction or reconstruction of treatment centers for the Princess Marie Louise Children's Hospital and two additional selected facilities to serve as treatment and training centers. The AF3 will also support the training of intensivists, anesthetists, critical care and emergency pediatric care doctors and nurses to augment the capacities in the tertiary and regional facilities as part of the emergency preparedness and response framework. This will be done in collaboration with the Ghana College of Physicians and Surgeons, the Ghana College of Nursing and Midwifery, and the Ghana College of Pharmacy. Some persons may be sponsored for international training. The project will not finance the acquisition of land but will provide financing for survey, mapping, valuation and fencing of acquired or leased assets. To ensure adherence with the delivery schedules of individual contractors and compliance with social and environmental safeguards of ongoing refurbishments and renovations, the AF3 will recruit an independent supervision firm satisfactory to the World Bank to validate all new designs, bills of quantities and monitor and oversee all construction and equipment contracts as well as compliance with environmental and social (E&S) safeguards. The firm shall provide quarterly reports to the GoG.

Sub-component 1.5: Strengthening Vaccine Deployment (total US\$20.51 million, of which AF3 US\$5.00 million)

23. **This sub-component would be scaled up.** The GAVI and other partners are currently supporting vaccine deployment with over US\$12.0 million in addition to resources allocated under the AF2. The AF3 will augment any financing gaps specifically for vaccination campaigns and related activities. This will include: (i) training of immunization teams; (ii) national, regional, district and sub-district levels microplanning workshops; and (iii) transport and subsistence allowance for health staff and volunteers involved in national immunization days. The World Bank-supported activities require special care to ensure that the project support for vaccination campaigns is not intermingled with information campaigns that promote any mandatory vaccination policy.

Component 2: Strengthening Multi-sector, National Institutions and Platforms for Policy Development and Coordination of Prevention and Preparedness using One Health approach (total US\$15.60 million, of which AF3 US\$6.20 million)

Sub-component 2.1: Multiagency support to enhance response (total US\$6.35 million, of which AF3 US\$1.50 million)

24. **This sub-component will be scaled up.** Additional funds will be provided for the continuation of policy engagement, monitoring and supervision functions of the Ministry of Finance (MoF), the



Parliament, the Inter-ministerial Coordination Committee (IMCC) and the National Technical Coordinating Committee (NTCC). The AF3 will specifically support workshops and field visits organized and undertaken by these agencies to review project documents, monitor and supervise the project and to provide oversight for project implementation.

Sub-component 2.2: Strengthening policy and institutional capacity for disease control (total US\$6.25 million, of which AF3 US\$1.70 million)

25. **This sub-component will be scaled up.** A consultant or consulting firm will be recruited to design the appropriate types and cost for building and supervision. In addition, the project will fund workshops for the retraining of all POE staff and transport. A consultant will be recruited to support the development of the institutional manual, staffing norms and job descriptions.

Sub-component 2.3: Support for the National Vaccine Institute (new sub-component: total US\$3.00 million)

26. **This is a new sub-component and new activity.** This sub-component will support the NVI. The NVI is a continental effort to promote the domestic manufacturing of vaccines in Africa. Ghana envisages a longer-term vaccine manufacturing as it aims to graduate from GAVI's support as a lower middle-income country. The GoG has developed the Roadmap for the NVI and the Cabinet has approved a Bill, which is currently under consideration by the Parliament for its legal establishment. The International Finance Corporation (IFC) is also supporting the market assessment and will likely support the development of business plans for potential local manufacturer together with German Development Agency (*Deutsche Gesellschaft für Internationale Zusammenarbeit, GIZ*)/European Union (EU), USAID and other HDPs. Given that the exact nature and scope of NVI remains undetermined, the AF3 will hold an allocation of funds to support the NVI only after it is legally established and the necessary assessments are conducted, satisfactory to the World Bank. The details of the support will be elaborated and cleared by the World Bank before implementation.

Component 3: Community Engagement and Risk Communication (total US\$15.80 million, of which AF3 US\$5.00 million)

27. **This component is proposed to be scaled up.** A multi-layered RCCE COVID-19 response and vaccination approach is being implemented. Given the level of vaccine hesitancy and the population to be covered, RCCE will be scaled up under the project. The AF3 will fund additional mass media campaigns including the development of documentary-drama, electronic and print adverts and their broadcasts or distribution at the national and community levels. It will include airtime purchases, consultancy to develop documentaries, billboards and airtime payments and fees for drama groups. The AF3 will support community-based folk, cultural and drama groups as well as civil society organisations in bringing the message to the populations.

Component 4: Implementation Management, M&E and Project Management (total US\$12.94 million, of which AF3 US\$5.00 million)

Sub-component 4.1: Implementation, management, and oversight (total US\$5.00 million, of which AF3 US\$2.00 million)

28. **This sub-component is proposed to be scaled up.** The Central Medical Store (CMS) be supported to roll out a logistics management software. The project will fund the purchase of computers, the roll of the GhiLMIS software and training of staff at the CMS. This will ensure an appropriate capture and documentation of all World Bank financed logistics and enhance accountability to the point of use and document the state of all equipment. Complementary to this, consultancy services will take an inventory of all logistics, equipment, and their status and to ensure that they are reflected in the GhiLMIS. A limiting factor for staff at the PIU is mobility. The AF3 will also continue to support monthly PIU meetings, supervision and monitoring to ensure the timely and quality project implementation and reporting.

Sub-component 4.3: GHS project oversight (new sub-component: total US\$3.00 million)

29. **This proposed sub-component is new.** This is aimed at supporting the GHS to effectively manage the project. The funds will be used to recruit consultants for program coordination, M&E, infrastructure, and equipment supervision. It will also support the operations of the training of staff and equipping the unit as well as support financial and procurement review, inventory, mapping, survey, and supervision.

30. **Unallocated (total of US\$5.00 million):** One of the significant characteristics of the COVID-19 pandemic is its constant evolution. The virus has seen several variations that challenge existing technologies and interventions. Particularly, science is evolving to generate evidence for a new disease like COVID-19 on a daily basis. The vaccination protocols and eligibility vary by country. There is dynamic political economy in supporting the low- and middle-income countries (LMICs) with vaccine acquisition and deployment. Given such fluctuating situations, the project will hold five million United States dollars as unallocated funds to support emerging activities. A detailed workplan will be submitted by the GoG to the World Bank for its review and approval in the event of unforeseen demands placed on the country in response to the pandemic. To mitigate risks of funds not being used, the project will allocate all funds within 15 months. The funds will not be used for the purchase of hand sanitizers, detergents or face and nose masks.

Table 2: Priority Groups for Vaccination in Ghana

Ranking of vulnerable group, or inclusion in which stage	Population group	Number of people	% of population
First Stage	Health personnel (health providers and administrators), security personnel and persons with known underlying medical conditions	1.5 million	5.0%
Second Stage	Adults above 60 years, secondary and tertiary students, teachers, specialized groups on national assignment, executive and legislature, civil servants, and journalists	6.4 million	20.2%
Third Stage	General public age 15 years and above and pregnant women	23.7 million	75.0%
Total		31.6 million	100.2%

(i) **Financing Arrangements**

31. The increase in scope as outlined above will be reflected in an increase in indicative component allocation from US\$365.00 million to US\$425.60 million. While the allocation to Component 1 will be about US\$376.26 million to reflect the AF made available for prevention, surveillance and case containment, the allocation to Component 2 will be US\$15.60 million to focus on Strengthening Multi-sector, National Institutions and Platforms for Policy Development and Coordination of Prevention and Preparedness using One Health Approach. The allocation for Component 3 will be US\$15.80 million with a critical need for scaling up RCCE to promote vaccine acceptancy and increase COVID-19 vaccination coverage. The allocation for Component 4 will be US\$12.94 million with an emphasis on improving project management and oversight.

32. The Table 3 below provides the total project cost summary by components, including the sum of the Parent Project, the AF1 and the AF2 (P173788, P174839 and P176485) and the proposed AF3 (P178054).

Table 3: Project Cost and Financing

Project Components	Parent Project + AF1 + AF2 (US\$ million)	Parent + AF1 + AF2 + AF3 (US\$ million)	Proposed AF3 IDA credit (US\$ million)	Co-financed with
Component 1: Emergency COVID-19 Response	US\$336.86	US\$376.26	US\$39.40	N/A
Sub-component 1.1: Case detection, confirmation, contact tracing, recording and reporting	US\$23.96	US\$33.66	US\$9.70	N/A
Sub-component 1.2: Containment, isolation and treatment	US\$117.75	US\$142.45	US\$24.70	N/A
Sub-component 1.3: Social support to vulnerable groups	US\$6.56	US\$6.56	US\$0.00	N/A
Sub-component 1.4: Securing primary care essential services provision	US\$25.60	US\$25.60	US\$0.00	N/A
Sub-component 1.5: Strengthening vaccine deployment	US\$15.51	US\$20.51	US\$5.00	N/A
Sub-component 1.6: COVID-19 vaccines acquisition	US\$147.48	US\$147.48	US\$0.00	N/A
Component 2: Strengthening Multi-sector, National Institutions and Platforms for Policy Development and Coordination of Prevention and	US\$9.40	US\$15.60	US\$6.20	N/A

Project Components	Parent Project + AF1 + AF2 (US\$ million)	Parent + AF1 + AF2 + AF3 (US\$ million)	Proposed AF3 IDA credit (US\$ million)	Co-financed with
Preparedness using One Health Approach				
Sub-component 2.1: multi-agency support to enhance response	US\$4.85	US\$6.35	US\$1.50	N/A
Sub-component 2.2: Strengthening policy and institutional capacity for disease control	US\$4.55	US\$6.25	US\$1.70	N/A
Sub-component 2.3: Support for the NVI	US\$0.00	US\$3.00	US\$3.00	N/A
Component 3: Community Engagement and Risk Communication	US\$10.80	US\$15.80	US\$5.00	N/A
Component 4: Implementation Management, M&E and Project Management	US\$7.94	US\$12.94	US\$5.00	N/A
Sub-component 4.1: Implementation, management and oversight	US\$3.00	US\$5.00	US\$2.00	N/A
Sub-component 4.2: Strong institutions for managing Ghana CDC	US\$4.94	US\$4.94	US\$0.00	N/A
Sub-component 4.3 GHS project oversight	US\$0.00	US\$3.00	US\$3.00	N/A
Unallocated	US\$0.00	US\$5.00	US\$5.00	N/A
Total Costs	US\$365.00	US\$425.60	US\$60.60	

Table 4: Summary of COVID-19 Vaccine Sourcing and World Bank Financing

COVAX grant	World Bank-financed			Specific vaccines and sourcing plans	Doses purchased with World Bank finance	Estimated allocation of World Bank financing (US\$ million)
	Through AVAT	Through direct purchase	From other sources			
0%	0%	0%	0%			Purchase: US\$0.0 M Deployment: US\$5.00 M Other: US\$55.6 M for strengthening diagnostic, case management, RCCE, coordination, the NVI and project management
0%	53.6%	0%	0%	Janssen through AVAT;	16.9 million	Purchase: US\$147.48 M Deployment: US\$15.51 M

World Bank-financed			From other sources	Specific vaccines and sourcing plans	Doses purchased with World Bank finance	Estimated allocation of World Bank financing (US\$ million)
COVAX grant	Through AVAT	Through direct purchase				
				AstraZeneca, Moderna, Pfizer and Janssen from the COVAX Facility; AstraZeneca, Sputnik-V, and Janssen from bilateral donors	doses	Other: US\$202.01 for strengthening Infection Prevention and Control (IPC), case management, and essential health and nutrition service delivery (P174839 and P176485)

(ii) Retroactive Financing

33. Retroactive financing is not anticipated under the AF3.

(iii) Changes in Institutional Arrangements for NVDP Implementation and Oversight

34. The AF3 follows the same implementation arrangements with the parent project, as revised under the AF1 and the AF2 given the expanded vaccination scope. The MoH and the GHS remain the implementing agencies for this project. The Chief Director of the MoH is responsible for overall project management. The detailed arrangements are found in the AF2 project documents at: <https://documents1.worldbank.org/curated/en/403401623636115257/pdf/Ghana-COVID-19-Emergency-Preparedness-and-Response-Project.pdf>.

(iv) Changes in the disbursement categories

35. There are changes in the disbursement categories to accommodate the new activities under the new expenditure categories (7) and (8), as described in the Financing Agreement. There is a new expenditure category (10) for the unallocated fund of US\$5.00 million. The expenditure categories (1), (2), (3) and (4) under the AF3 will be disbursed after the funds under the AF1 and the AF2 are fully withdrawn and satisfactorily documented as these activities are the continuation of AF1 and AF2 and are being scaled up under the AF3. The expenditure category (5) was restructured to the expenditure category (9), which allows the GHS to manage and account for results of Component 3.

(v) Results Framework

36. Additional intermediate results indicators are introduced to measure the progress on COVID-19 vaccination for adolescents and children aged 15 and above as well as booster shots for all the eligible population for COVID-19 vaccination. The definition of the eligibility for these population will be evolving based on the national guidelines and scientific evidence on the vaccine safety. Since some other indicators already exceed their project targets, targets for diagnostic, case management capacity are



revised upwards to continuously enhance effective COVID-19 response activities in the evolving situations amid the prolonged COVID-19 pandemic.

B. Sustainability

37. There is strong political commitment in Ghana to mobilize financial resources for COVID-19 response, including for vaccine acquisition and deployment. Having additional funds through the AF3 will further create an enabling environment for Multilateral Development Bank (MDBs) and United Nations (UN) agencies, and other development partners to accelerate alignment and coordination in support for the country. The World Bank is also financing a Sustainable Use and Financing Plan for all the laboratories and treatment centers being put in place. The GoG is conducting inter-action review with support from WHO to document good practices and lessons learned from the COVID-19 response, including COVID-19 vaccination. The GoG is launching the NVI to promote domestic production of vaccines, including COVID-19 vaccines. The GHS has developed the guidance on the continuity of essential health services during disease outbreaks to increase resilience in service delivery. The World Bank supported the GoG to further analyze residual gaps in public health emergency preparedness and response with costing (Pandemic Prepared Assessment Advisory Services and Analytics (ASA); P175353), and the final report was endorsed by the GoG in January 2022. Investments under the parent project, AF1, AF2 and the AF3 are expected to further strengthen the health systems in the country, not only for public health preparedness and response but also for PHC systems strengthening. This is expected to synchronize the planned investment under the Primary Health Care Investment Program (P173168) planned to be approved by the Board of Executive Directors in June 2022, ensuring institutional sustainability and building resilience of health systems to deal with infectious diseases and other acute shocks. These efforts would eventually contribute to achieving the national goal of UHC and to enhancing human capital in the country.

III. KEY RISKS

38. **The overall risk to achieving the PDO with the AF3 is rated Substantial.** Massive efforts are being made to bring COVID-19 vaccines to the LMICs through the COVAX Facility, bilateral donors and the AVAT, which the World Bank successfully concluded a global contract among the AVAT, UNICEF and Janssen in March 2021 to procure additional doses of Janssen vaccines to African countries. This initiative guarantees a bulk of sales for a manufacturer with the World Bank's cumulative funds for multiple countries in Africa, which significantly helps the acceleration of production and transportation. However, the COVID-19 vaccine acquisition efforts may not be necessarily well coordinated. It also remains uncertain how many booster shots are required in the near future. This led the scope of the AF3 to require flexibility in financing necessary activities in evolving priorities. Multiple COVID-19 medicines have been developed to treat patients. Yet, the large-scale acquisition of COVID-19 vaccines and newly developed COVID-19 medicines entail certain important risks, especially their equitable deployment across and within the country. The AF3 plans to mitigate these risks by developing a thorough investment in health systems strengthening as described above.

39. **Fiduciary risks associated with the AF3 remain Substantial.** The procurement and FM risks, specific to COVID-19 vaccines include:



- (a) **Procurement: The residual procurement risk remains Substantial.** Market dynamics of the COVID-19 vaccines continue to bring a tremendous challenge to the country. In case of vaccine acquisition under the AF3, the key procurement risk associated with COVID-19 vaccination include: (i) the residual complexity of the vaccines market given the significant market power enjoyed by vaccine manufacturers; (ii) inability of the market to supply adequate quantities of vaccines or adequate shelf-life of vaccines to meet the demand of the LMICs, including Ghana; and (iii) the limited market access for LMICs, thus weak bargaining power of the country, especially when more players express interests in contributing to vaccine acquisition in a rather fragmented manner. The procurement risks under the AF3 will be mitigated by supporting the GoG through the World Bank Facilitated Procurement (BFP), while the World Bank will continue to offer day-to-day support. Further details are described in the procurement section below.
- (b) **FM: The residual FM risk is increased from Moderate to Substantial.** These residual risks include: (i) challenges in coordinating amongst multiple sub-national implementing agencies and other allied health facilities for effective project implementation; (ii) systemic weaknesses in internal audit and financial monitoring at the national and sub-national levels; and (iii) administrative delays and bureaucratic challenges in reporting on the use of funds from the different sub-national implementing agencies with differential fiduciary capabilities. To mitigate these FM risks, the World Bank will continuously follow up the client to ensure the compliance of the timely submission of financial reports in quality, especially interim financial reports (IFRs) and annual audit reports. The World Bank advises the client to conduct biannual in-depth fiduciary reviews on the project expenditures. Additionally, based on the findings of the April 2022 ISM and other challenges during project implementation, the World Bank may advise the use of an independent third-party agency or consultant to complement the Accountant Unit of the MoH for extensively monitor and track the flow of funds to various implementation agencies.

40. **The overall E&S risks remain Substantial.** The E&S risks and the measures to address them under the parent project remain relevant for the AF3. Risks include occupational health and safety, and medical waste management. The mitigation measures of these risks are incrementally important as inoculation sites will be expanded in scaling up of COVID-19 vaccination. Social dimensions remain significant for COVID-19 vaccination even though Ghana has no cases of observed discrimination in health services delivery recorded since March 2021. The GoG intends to vaccinate the entire population against COVID-19 based on the established protocols of eligibility. However, broader social risks of inequity remain in accessing COVID-19 vaccines due to the geographical prioritization based on the epidemiological data in the Phase I. As of March 21, 2022, 30.8 percent of the residents in the Greater Accra Region were fully vaccinated, while the Volta Region remains 11.1 percent.⁶ If this trend continues in scaling up of COVID-19 vaccination, it may lead to the exclusion of certain groups of people from the COVID-19 vaccination. Consequently, gender or socioeconomic inequalities and disparities might be widened. Moreover, the physical distance and difficult terrains to some vaccination centers, communication barriers, negative attitudes of vaccinators towards the vulnerable could make it harder for this group of people to access the vaccination sites and/or health facilities in case of AEFIs. Another potential risk is the increased incidence of reprisals and retaliation, especially against healthcare workers

⁶ GHS. COVID-19 Update in Ghana. March 24, 2022 edition for the April 2022 ISM.



and researchers related to both suspicions of the motives and legitimacy of the vaccinators.

41. These risks will be mitigated with measures to ensure COVID-19 vaccination, targeting the most vulnerable populations, particularly women, the elderly, the poor, persons with disabilities, refugees, migrants, and people in remote communities and informal settlements. First, the World Bank will continue to support the GoG to enforce the compliance of an explicit, contextually appropriate, and well-communicated targeting criteria, set in the NVDP and the National Communication Strategy for the COVID-19 vaccination. The GoG would ensure that these national plans are continuously subjected to timely and meaningful consultations required by the Stakeholder Engagement Plan (SEP) prepared in accordance with Environmental and Social Standard (ESS) 10. The priority groups with high risks of infection remain valid among health workers, security services, other essential government workers, people at educational institutions, and commercial drivers. The risk of reprisals and retaliation against health workers and researchers will be mitigated through explicit inclusion in robust stakeholder consultation processes to engage identified stakeholders and advocacy for stakeholder buy-in. The planned mandatory vaccination announced by the GoG for a defined group of people (e.g., health workers and security agencies) has been suspended.⁷ If mandatory vaccination is re-introduced during the project implementation, regulations will be integrated into the National COVID-19 Vaccination Plan, including any provisions for exceptions, due process, grievance redress and restrictive measures, such as measures that may interfere with labor and working standards described in ESS Labor and Working Conditions (ESS2).

42. The GoG's engagements with Civil Society Organizations (CSOs), community-based organizations (CBOs) and traditional and religious leaders will continue under the AF3 and will provide a mechanism for soliciting citizen feedback to inform project interventions on a regular basis. In addition, the grievance mechanisms, including the COVID-19 call centers in all the 16 regions, will be further strengthened to address grievances related to such issues as workers grievance redress mechanisms (GRM) to address labor and working conditions, and Sexual Exploitation and Abuse (SEA) and Sexual Harassment (SH). The proportion of grievances addressed through the project specific GRM will be monitored through a beneficiary feedback indicator in the Project Results Framework.

43. All reconstruction and/or rehabilitation of health infrastructure proposed under the AF3 will be undertaken within the premise of the existing health facilities, which are encumbrance free, therefore, physical and economic displacement are not anticipated. The civil works activities under the AF3 are not expected to lead to any land acquisition and involuntary resettlement or restrictions on land use and access to natural resources. If land acquisition and involuntary resettlement becomes necessary during implementation, adequate measures will be developed to address the impacts on project affected persons.

⁷ <https://citinewsroom.com/2022/01/theres-no-mandatory-covid-19-vaccination-in-ghana-presidency/>



IV. APPRAISAL SUMMARY

A. Technical, Economic and Financial Analysis

44. **The economic rationale for investment in the COVID-19 vaccination is strong, considering the massive and continuing health and economic losses due to the pandemic.** The GoG has managed the COVID-19 crisis well and adopted an ambitious recovery strategy underpinned by a vigorous vaccination program. Ghana's economy is expected to rebound quickly, with the growth for 2021 estimated at 4.9 percent following a significant pandemic-induced slowdown in 2020. After contracting for two quarters (in 2020 Q2 and Q3), quarterly Gross Domestic Product (GDP) grew for two consecutive periods, reaching 3.1 percent (y-o-y) in 2021 Q1. The economy is expected to continue to bounce back if the pandemic subsides and demand recovers domestically and abroad. Outputs are conservatively expected to grow by 5.1 percent per year on average over 2021-2023, driven primarily by: (i) mining and oil production; and (ii) the impulse provided by the Ghana COVID-19 Alleviation and Revitalization of Enterprises Support (CARES) program, which aims to improve the business climate and public service delivery. The pandemic nevertheless exacerbated pre-existing fiscal weaknesses. The fiscal deficit increased to 15.2 percent of GDP in 2020, from 7.6 percent in 2019, and public debt is expected to reach approximately 85 percent of GDP in 2022 from a pre-crisis level of 63.3 percent in 2019.

45. **The successful development, production, and delivery of a vaccine, however, has the best potential to reverse these trends, generating benefits that will far exceed vaccine-related costs.** Indeed, a rapid and well-targeted deployment of a COVID-19 vaccine can help reduce the increases in poverty and accelerate economic recovery. COVID-19 vaccines have been introduced and deployed effectively to the general populations which has reduced mortality and accelerated a safe reopening of key sectors that are impacted. The effective administration of a COVID-19 vaccine will also help avoid the associated health care costs for potentially millions of additional cases of infection and associated health-related impoverishment. For the most vulnerable population groups, especially as Ghana is moving towards achieving UHC, the potential health-related costs in the absence of a vaccine represent a significant or even catastrophic financial impact and risk of impoverishment.

B. Financial Management

46. There is no change in FM implementation arrangements under the AF3. The FM arrangements at both the MoH and the GHS were assessed and confirmed that their fiduciary systems satisfy the World Bank's minimum requirements as per the World Bank Policy for Investment Project Financing (IPF).

47. Within the **MoH**, the Financial Controller (FC) of the MoH, who is a staff of the Controller and Accountant General's Department (CAGD), will have overall fiduciary responsibility for all FM aspects of the project, but the daily transactional processing and reporting will be assigned to a fully dedicated Deputy FC, who is a staff of the CAGD working with a team of accounts officers. In the same manner, within the **GHS**, the Director of Accounts will be responsible for all aspects of FM. Both implementing agencies have a fully compliment of accounts officers who have been involved with implementing the current and ongoing IDA funded projects and have a good understanding of public sector accounts and IDA's FM and disbursement arrangements. The MoF may request to review all payment vouchers before



countersigning payments in which case the MoF will be required to jointly respond to all procurement and financial audit issues arising from the implementation of the project.

48. Specifically, in terms of systems for accounting and financial reporting, the project will use the existing GoG accounting and reporting processes, and guidelines as provided by the MoF, the CAGD and the Ghana Audit Service (GAS). The GoG may use the Integrated Financial and Management Information System (IFMIS) as the primary system for FM of all funding i.e., discretionary budget allocations, donor funding and internally generated funding. To the extent possible and as feasible and based on practical pace of deployment by the CAGD, the project's FM arrangement will be migrated unto the Ghana GIFMIS.

49. Based on the identified residual FM risks in the section above, the FM performance at the MoH for the managing of the existing project is being upgraded to **MS**. There are systemic shortcomings in FM, which limits the ability of the MoH to provide timely and reliable financial information required to manage and monitor the implementation of the project. Major risks include weaknesses in internal control, delays in submission of financial reports in compliance with the financial covenants, including consistent delays in submitting quarterly IFRs and annual audit reports. The GoG has however shown commitment towards ameliorating the situation has completed the audit report and issued the respective IFRs. The outstanding expenditures documentation have also been completed.

Compliance with Financial Covenants

50. The World Bank's review of the 2020 audit report noted that the GAS issued an independent opinion and expressed a *qualified* audit opinion. The *qualified* audit opinion was based on issues with the recognition and reporting of selected project assets and instances of a lack of accounting of funds transferred. Though the basis of the qualification was not due to fraud, corruption, or any malfeasance on the part of the project, the review of the management letter indicated that there were instances of significant lapses or weaknesses in the internal control environment. The issues highlighted focused on project performance and matters that does not provide the necessary assurances to ensure value for money and effective utilization of assets and/or resources provided under the project. These included observations such as non-discretionary use of funds, poor store management practices, delays in providing essential equipment to health facilities, equipment not adequately protected, delays in the refurbishment of isolation and treatment centers, non-compliance with procurement guidelines, and delays in accounting for funds transferred to various implementation agencies. To ensure the compliance, the Recipient has agreed to: (i) track and validate the flow of funds to various agencies, regional, district and sub-district level beneficiaries; (ii) conduct half year review on project expenditure; and (iii) complete an inventory of assets and items procured under the World Bank supported project with records of their locations, usage, and the status.

Funds Flow and Disbursement Arrangements

51. Proceeds of the finance will be used by the implementing and participating Ministries, Departments and Agencies (MDAs) for payment for eligible expenditures as defined in the Financing Agreement and further detailed in the respective Annual Work Plans and Budgets and Procurement Plans. Disbursement arrangements have been designed in consultation with the Recipient after considering the assessments of the Implementing Agency's FM capacities and anticipated cash flow



needs of the operation.

52. As per the design of the parent project, each implementing agency currently has its own segregated designated account. Under the AF3, the designated accounts for each of the Agencies will **not be pooled** with the existing Designated Account under the Original Funding, the AF1 and the AF2.

53. The MoH and the GHS, may open **local currency** “Project Accounts” to facilitate local currency payments and transfer to the key beneficiary agencies involved in the project as may be considered appropriate to facilitate the implementation. For procurements through third party systems such as the UN Agencies, the project shall adopt the use of direct payments and transfers shall be done directly from the IDA allocations, based on established Memorandum of Understanding (MoU) and procurement documentation as cleared by the World Bank. The operations including transfers and reconciliation of these subsidiary accounts will follow the GoG approval and authorization hierarchy as pertains in the respective agencies.

Financing COVID-19 Vaccines Acquisition

54. The AF3 does not allocate funds for vaccine purchases. However, it may finance the COVID-19 vaccines acquisition from UNICEF when a need arises in the evolving situations, using the framework agreement with the World Bank based on established need. UNICEF is also currently procuring COVID-19 vaccines to the country through the AVAT under the World Bank financing under the AF2, which performance is satisfactory.

55. The AF3 financial statements shall contain supplemental schedules that will provide information on: (i) COVID-19 vaccine doses acquired; (ii) COVID-19 vaccines administered; (iii) COVID-19 vaccines out-of-stock not administered (e.g., expired, wasted, lost etc.); (iv) closing inventory of COVID-19 vaccine doses; and (v) summary of COVID-19 vaccines administered by target population groups.

Disbursement Arrangements

56. For both implementing agencies (the MoH and the GHS) and for both Designated Accounts, proceeds of the financing will follow the standard World Bank procedures for IPF, for use by the Recipient for eligible expenditures as defined in the Financing Agreement. Fund flow and disbursement will be implemented under the principles of traditional IPF arrangements, using the **report-based disbursement arrangements**. Under this arrangement, the allocated resources will be advanced to the respective Designated Accounts based on **approved six-monthly forecasts of expenditures** and replenished quarterly for further periods of six months using unaudited IFRs.

57. Upon effectiveness, the initial request for advance will be based on fully documenting all allocations under the expenditure categories 1, 2 and 5, the consolidated expenditure forecasts for other categories of expenditure for six months, subject to the World Bank’s approval of the estimates and cashflows. Subsequent replenishments of the Designated Accounts will be done quarterly based on the forecasts of the net expenditures and cash flow requirements for the subsequent half-year period. The IFRs and Designated Accounts’ reconciliation statement will serve as the basis for requesting for advances and for documentation.

Supervision

58. Based on the Substantial risk rating of the project FM and the current FM arrangement, it is expected that during implementation of the project, there will be quarterly onsite visits to ascertain adequacy of systems and supplemented by desk reviews of IFR and audit reports. The FM supervision mission's objectives will include ensuring that strong FM systems are maintained for the project throughout project tenure. In adopting a risk-based approach to FM supervision, the key risk areas of focus will include assessing the accuracy and reasonableness of budgets, their predictability and budget execution, compliance with payment and fund disbursement arrangements and the ability of the systems to generate reliable financial reports. To address and mitigate the identified risk the World Bank recommends the following risk mitigation action plan.

Table 5: Risk Mitigation Action Plan

No.	Identified Risk or Action	Proposed Mitigation	Responsibility	Target Completion Date
i.	Non-compliance with project funds use and delay in submitting timely financial reports including IFRs and audits	The financial and audit reports should be submitted at least seven days before the end date. The World Bank to continuously follow up to ensure compliance.	FC and Director of Finance of the MoH, GHS and MoF	As per the dates in the Financing Agreement.
ii.		Supervision of sub-national level implementation agencies on FM	FC and Director of Finance	Biannual (linked to the IFRs).
iii.	The Audit Committee (AC) of the MoH to follow up on finding in 2020 Audit Report	The AC to submit a Management Response Letter to the World Bank, addressing the audit observations raised with appropriate timelines to ameliorate any lapses observed. The World Bank will hold bi-weekly meetings to follow up for compliance.	Chief Director/Project Coordinator	All corrective measures recommended should be completed satisfactory to the World Bank not later than June 15, 2022.
iv.	Conduct biannual in-depth fiduciary review	To ensure compliance, the Internal Audit Department (IAD) should: (i) track and validate the flow of funds to various	Heads of Internal Audit of the MoH, GHS and MoF	First report due not later than July 31, 2022.

No.	Identified Risk or Action	Proposed Mitigation	Responsibility	Target Completion Date
		agencies, regional, district and sub-district level beneficiaries; and (ii) conduct half year review on project expenditure.		
v.	Improve on assets management	(i) Complete inventory of assets and items procured with World Bank financing, track location and document their use and status; and (iii) verify the status of completion of civil works at the 15 isolation and treatment centers.	Independent Consultants or firms	The MoH to recruit consultants by end May 2022 and complete work not later than August 31, 2022, followed by quarterly reports.

C. Procurement

59. Procurement under AF3 will be carried out in accordance with the World Bank's Procurement Regulations for IPF Borrowers for Goods, Works, Non-Consulting and Consulting Services, dated November 2020. As with the parent project, the AF3 will be subject to the World Bank's Anticorruption Guidelines, dated October 15, 2006, revised in January 2011, and as of July 1, 2016. The project will use the Systematic Tracking of Exchanges in Procurement (STEP) to plan, record, and track procurement transactions.

60. The major planned procurement under the AF3 will include: (i) laboratory, diagnostic and medical equipment; (ii) COVID-19 medicines; (iii) infrastructure; and (iv) motorbikes and other transportation vehicles.

61. In case of vaccines purchase under the AF3, as described in paragraph 54 above, all contracts for vaccines purchase financed by the World Bank will remain subject to the World Bank's **prior review** irrespective of value and procurement approach. The freight arrangements for vaccines have been negotiated with UNICEF and standardized across the countries.

62. Procurement for non-vaccine items under the AF3 will follow procedures and flexibilities specified in the parent project. This includes: (i) streamlined competitive procedures with shorter bidding time; (ii) use of framework agreements, including existing ones; (iii) procurement from UN Agencies enabled and expedited by the World Bank procedures and standard agreements; and (iv) increased thresholds for Requests for Quotations and national procurement, among others.



63. Procurement implementation will be undertaken by the MoH. The Finance, Procurement and Supply Directorates of the MoH are responsible for procurement processes with technical inputs and contract management from the appropriate health agencies and units. The procurement team of the MoH and the GHS, who are currently working on the COVID-19 parent project, the AF1 and the AF2 will continue to work for the implementation of the AF3.

64. The Recipient has prepared a Project Procurement Strategy for Development (PPSD), which provides details of the current client capacity (strengths and weaknesses), the market dynamics and procurement trends, and a procurement strategy, to propose the appropriate procurement approaches and packages for the COVID-19 procurements and related activities. The PPSD for the AF3 is built on the PPSD of the AF1 and the AF2 because of the similarities of context and procurement activities.

65. Upon the Recipient’s request, the World Bank may provide the BFP for diagnostic, laboratory and medical equipment and medicines.

66. The procurement risk is **Substantial**. The World Bank’s oversight for procurement will be done through increased project implementation support. The World Bank’s standard prior- and post-review arrangements will apply as specified in the procurement plan. The World Bank or a third party will undertake Procurement Post Review (PPR) for the post-review procurements under the AF3.

D. Legal Operational Policies

67. Neither legal operational policy is triggered for this AF3.

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

E. Environmental and Social

68. Activities under the AF3 should have positive impacts as it will improve capacity for COVID-19 vaccination. However, it could also cause environment, health, and safety risks due to the dangerous nature of the pathogen (COVID-19) and reagents and equipment used in the project-supported activities. The negative social risks relates to a broad risk of inequality in access to vaccines resulting from exclusion of vulnerable and marginalized groups due to socio-cultural and religious beliefs, disability, geographical location and political pressure to provide vaccines to groups not prioritised. Other social risks include likely communication gaps in access to COVID-19 information sources and absorption levels among women and men. Misinformation and inequitable information dissemination may also give rise to COVID-19 vaccine hesitancy, reprisals and retaliation against healthcare workers.

69. The E&S risks rating of the AF3 remains Substantial as the parent project, the AF1 and the AF2 due to concerns relating to the key risks stated above. Reconstruction or rehabilitation of Princess Marie Louise Children’s Hospital in Accra is anticipated under the AF3, and all works will be limited to existing



government health facility, which are free from encumbrance. Hence, the E&S footprint are expected to be minimal. The key E&S issues anticipated at this stage are related to: (i) nuisance related to air and noise emissions; (ii) health and safety of health workers; (iii) disposal and management of rehabilitation and construction waste; (iv) traffic management; (v) workers occupational health and safety; (vi) community health and safety due to improper disposal of medical waste; and (vii) erosion of debris (especially if works are carried out in the rainy season). The AF3 will comply with the national legal and policy framework and guidelines for the management of Hazardous Medical waste, including the Hazardous and Electronic Waste Control and Management Act, 2016 (Act 917) and the Health Care Waste Management policy, as well as occupational health and safety standards, specific infectious control strategies, guidelines, and requirements as recommended by WHO and United States Center for Disease Control and Prevention (CDC).

70. The overall E&S performance for the parent project, the AF1 and the AF2 as of December 2021 is rated as **Satisfactory**. The E&S Focal Officers at the MoH/GHS have undertaken field visits to some sites where construction and rehabilitation activities are ongoing. The project is using the Environmental and Social Management Framework (ESMF) and the National Healthcare Waste Management Policy and Guidelines (revised in January 2020), to guide the screening of project activities and healthcare waste management. The MoH has also sustained awareness raising using the comprehensive RCCE Action Plan and the project SEP to ensure adequate and inclusive stakeholder consultations. Under the project, the GoG has developed key COVID-19 information, education and communication (IEC) materials to target different stakeholders; and have also sustained engagement with key stakeholders including CSOs and Non-governmental Organizations (NGOs) working with vulnerable individuals and groups e.g., Ghana Federation of Disability Organizations, Ghana Integrity Initiative, Ghana Anti-Corruption Coalition etc. Notwithstanding, the MoH and GHS need to intensify effort to reach out to the population less likely or not willing to be vaccinated and tackle challenges of fatigue in compliance with the social distance measures as the pandemic prolongs. The E&S Focal Officers at the MoH/GHS have undertaken some field visits to the sites where construction and rehabilitation activities are ongoing. The MoH/GHS needs to further improve and intensify field supervision to these sites.

71. Effective administrative and infectious controlling and engineering controls, which put in place under the parent project, the AF1 and the AF2 to minimize these risks, will continue to be strengthened as outlined in the updated ESMF. In line with the WHO Interim Guidance (February 12, 2020) on “Laboratory Biosafety Guidance related to the novel coronavirus (2019-nCoV)”, and other guidelines, the parent project developed a Hospitals’ Waste Management Plan. The ESMF for the parent project, AF1 and the AF2 were approved by the World Bank and disclosed on November 10, 2020, and June 30, 2021, respectively. The ESMFs for the parent project, the AF1 and the AF2 remains relevant for the AF3. The Recipient will be required to prepare the relevant Environmental and Social Framework (ESF) instruments (Environmental and Social Management Plan (ESMP)/Environmental and Social Impact Assessment (ESIA) prior to civil works on the reconstruction of the Princess Marie Louise Children’s Hospital under this AF3. The MoH and the GHS updated the Environmental and Social Commitment Plan (ESCP) and the SEP for the AF2, including stakeholder engagement requirements for vaccines deployment. The ESCP and the SEP for the AF2 was approved by the World Bank and disclosed on May 5, 2021. The ESCP and the SEP for the



AF3 were prepared and disclosed by the MoH on April 26, 2022 and March 3, 2022, respectively, and by the World Bank on April 29, 2022.⁸

72. **Gender gap analysis.** Ghana has achieved certain progress in addressing socio-economic gaps between women and men, however, gender inequalities persist. The country has a gender inequality index of 0.54 and ranks 135 out of 189 countries in 2019. The proportion of adult women who have reached at least a secondary level of education is 55.7 percent, lower than the 71.6 percent for males. In the context of COVID-19 pandemic, marginalized and vulnerable social groups, including women and persons with disabilities, may have more barriers to access to COVID-19-related services and information due to lower literacy. Misinformation, misperception, inequitable information dissemination may also give rise to COVID-19 vaccine hesitancy, reduced access to vaccine services, especially among vulnerable groups, reprisals and retaliation against healthcare workers and researchers with suspicion of the motives and legitimacy of the vaccinators. In rapid urbanization and feminization of rural-to urban migration in Ghana, more women reside in urban areas,⁹ some of which are hotspots of COVID-19 pandemic. They are more exposed to risks of infection and likely defer care seeking for due to their striving for daily earnings.¹⁰

73. **Measures to be undertaken to reduce the above gender gaps.** With support from the parent project, the GoG is mitigating these risks of leaving these vulnerable women behind with multi-layered strategies. They include: (i) the collaboration with influencers such as the First Lady, the Second Lady and female celebrities as role models; (ii) the engagement of the women caucus in the Parliament; (iii) mobilization of Queen Mothers to reach hard-to-reach communities; (iv) the collaboration with associations of women's groups (i.e. market women, head potters (Kayayi), seamstress associations), NGOs and CSOs to advocate in their local communities; (v) setting up vaccination sites closer to them such as churches, marketplaces and workplaces as well as facilitate gender sensitive information dissemination at the call centers; and (vi) provision of incentives for COVID-19 vaccination to residents in informal settlements, and vulnerable groups on the Livelihood Empowerment Against Poverty Program (LEAP), the majority of which members are women and farmers. Currently, more women (85 percent) were willing to take COVID-19 vaccine than men (81 percent). To date, there is no significant gender disparities in the COVID-19 vaccination coverage observed by the GHS. These proactive measures to engage women need to be continued to improve vaccine literacy even among those with little educational background. Five key indicators will be kept under the AF3 to measure disproportionate effects of COVID-19 among women. These are: (i) the proportion of females among those vaccinated (with an aim to constantly exceed 50 percent); (ii) the proportion of diagnosed cases treated in the designated treatment centers per approved protocol (disaggregated by females); (iii) the percentage of infected health workers to COVID-19 treated (disaggregated by female); (iv) the percentage of people having adequate knowledge on IPC measures (disaggregated by female); and (v) the percentage of people willing to take up COVID-19 vaccination (disaggregated by female).

⁸ SEP: <https://www.moh.gov.gh/wp-content/uploads/2022/03/Additional-Financing-Stakeholder-Engagement-Plan-SEP-1.pdf>
ESCP: <https://www.moh.gov.gh/wp-content/uploads/2022/04/AF3-ESCP-Negotiated-April-25-2022.pdf>

⁹ Ghana Statistical Service (GSS). (2016). 2015 Labor Force Report.

¹⁰ Lattof, S. R., Coast, E., & Leone, T. (2018). Priorities and Challenges Accessing Health Care Among Female Migrants. *Health Services Insights*, 11, 117863291880482. <https://doi.org/10.1177/1178632918804825>



74. **The GoG continues to proactively citizens in providing ideas and feedback on program delivery and the World Bank keeps providing effective platforms for such dialogue between the GoG and CSOs at each ISM.** The MoH and the GHS continue to ensure representatives of women’s associations to be present at the IMCC to identify their needs and make informed decisions to address them in a timely and strategic manner. Following the consultation meeting with CSOs and associations with persons with disabilities during the ISM on November 18, 2021, the participated CSOs expressed their gratitude and satisfaction to the GoG’s proactive engagement with CSOs, especially with persons with disabilities. The MoH, the GHS and the World Bank teams reiterated the significance of and committed to further engaging CSOs, traditional and religious leaders in accelerating RCCE in scaling up of COVID-19 vaccination and further disease prevention and control.

75. **GRM.** The parent project incorporates a comprehensive project wide GRM, which enables a broad range of stakeholders to channel concerns, questions, and complaints to the various implementation agencies and COVID-19 call centers. The project supports the COVID-19 call centers with toll-free numbers and COVID-19 information centers in all the 16 regions. These numbers have been publicly disclosed throughout the country in the broadcast and print media. The GRM is equipped to handle cases of SEA/SH, as rapid guidance on how to respond to these cases has been developed and shared with operators. This will follow a survivor-centered approach. To date, the call centers have recorded and responded to 147,050 calls and complaints. The GRM will continue to be strengthened and publicized by the MoH and GHS and other relevant agencies.

F. Climate Co-Benefits

86. **Climate change risks and vulnerabilities.** Climate change can affect the trajectory of the COVID-19 pandemic and impact the vulnerable groups that are most susceptible to the virus, including healthcare workers, the elderly, those with co-morbidities, people with disabilities and other disadvantaged groups. However, the risk on project activities and outcomes is categorized as low due to several adaptation measures to ensure climate resilience in the future. The following mitigation measures will also be put in place to reduce the impact of the project's activities on the environment and reduce greenhouse gases.

87. **The parent project addresses the above-mentioned climate vulnerabilities and assists the GoG to adapt to climate change.** The Emergency COVID-19 Response aims at strengthening the national laboratory network will further enhance the ability of the health systems to detect future outbreaks of climate-related diseases in a timely manner. It will strengthen case management system with the procurement of new COVID-19 medicines for effective treatment, which will strengthen the adaptative capacity of the health systems to climate-related challenges by reducing the risk from waterborne and vector borne diseases. The National COVID-19 Vaccine Deployment Plan and its micro-plans include measures to deal with any unexpected disruptions to the vaccine supply chain, distribution and storage from climate change impacts and other unexpected disasters (i.e., power outages). The AF3 will continue to ensure effective waste management for COVID-19 vaccination and reduce the project’s impact on the country’s greenhouse gas emissions.



V. WORLD BANK GRIEVANCE REDRESS

88. 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 in order 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 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)	✓	
Reallocation between Disbursement Categories	✓	
Disbursements Arrangements	✓	
Implementing Agency		✓
Project's Development Objectives		✓
Cancellations Proposed		✓
Legal Covenants		✓
Institutional Arrangements		✓
Financial Management		✓
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)
Emergency COVID-19 Response	336.86	Revised	Emergency COVID-19 Response	376.26

Strengthening Multi-sector, National Institutions and Platforms for Policy Development and Coordination of Prevention and Preparedness using One Health approach	9.40	Revised	Strengthening Multi-sector, National Institutions and Platforms for Policy Development and Coordination of Prevention and Preparedness using One Health approach	15.60
Community Engagement and Risk Communication	10.80	Revised	Community Engagement and Risk Communication	15.80
Implementation management and monitoring and evaluation and project management	7.94	Revised	Implementation management and monitoring and evaluation and project management	12.94
	0.00	New	Unallocated	5.00
TOTAL	365.00			425.60

LOAN CLOSING DATE(S)

Ln/Cr/Tf	Status	Original Closing	Current Closing(s)	Proposed Closing	Proposed Deadline for Withdrawal Applications
IDA-66020	Effective	30-Jun-2022	30-Jun-2022	30-Jun-2022	30-Oct-2022
IDA-67950	Effective	30-Jun-2022	30-Jun-2022	30-Jun-2024	30-Oct-2024
IDA-69230	Effective	30-Jun-2023	30-Jun-2023	30-Jun-2024	30-Oct-2024

REALLOCATION BETWEEN DISBURSEMENT CATEGORIES

Current Allocation	Actuals + Committed	Proposed Allocation	Financing % (Type Total)	
			Current	Proposed

IDA-66020-001 | Currency: XDR

iLap Category Sequence No: 1

Current Expenditure Category: (PM) GD,WK,NCS,CS,TR&OC

6,937,532.00	6,937,531.31	6,937,532.00	100.00	100.00
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iLap Category Sequence No: 2

Current Expenditure Category: MOH-G,W,N/CS,O&T-1.1d-e;1.see more.

	0.00	0.00	0.00	100.00	100.00
iLap Category Sequence No: 3		Current Expenditure Category: MOH-G,W,N/CS,O&T-1.1a-c;see more			
	18,562,468.00	8,647,873.39	18,562,468.00	100.00	100.00
Total	25,500,000.00	16,435,998.66	25,500,000.00		
IDA-67950-001 Currency: USD					
iLap Category Sequence No: 1		Current Expenditure Category: MOH-G,W,N/CS,T&O Pt1.1a-c, 1.2 b-j, 1.3 c, 2.1, 4.1, 4.2			
	22,100,000.00	0.00	43,035,028.08	0.00	0.00
iLap Category Sequence No: 2		Current Expenditure Category: MOH-G,W,N/CS,T&O Pt1.1f&g, 1.2 k&l, 1.4, 4.3			
	70,500,000.00	51,125,789.83	51,714,986.28	100.00	100.00
iLap Category Sequence No: 3		Current Expenditure Category: GHS-G,W,N/CS,T&O Pt 1.5&2.2			
	28,900,000.00	4,635,785.64	4,635,785.64	100.00	100.00
iLap Category Sequence No: 4		Current Expenditure Category: GHS-Vaccine Preparedness Pt 1.6a-e			
	8,500,000.00	8,461,650.39	8,500,000.00	100.00	100.00
iLap Category Sequence No:		Current Expenditure Category: GHS-Vaccine Deployment Pt 1.6 f&g			
	0.00	0.00	1,200,000.00		100.00
iLap Category Sequence No:		Current Expenditure Category: GHS-G,W,N/CS,T&O Pt 3			
	0.00	0.00	1,250,000.00		100.00
iLap Category Sequence No:		Current Expenditure Category: GHSG,W,N/CS,T&O Pt 1.5, 2.2, 4.4			
	0.00	0.00	19,664,200.00		100.00

Total	130,000,000.00	64,812,422.31	130,000,000.00		
IDA-69230-001 Currency: USD					
iLap Category Sequence No: 1		Current Expenditure Category: MOH-G,W,N/CS,O&T 1.1a-c;see more...			
14,960,000.00	0.00	4,610,000.00	0.00	0.00	
iLap Category Sequence No: 2		Current Expenditure Category: MOH-G,W,N/CS,O&T1.1f-g;see more....			
40,881,720.00	0.00	40,881,720.00	0.00	0.00	
iLap Category Sequence No: 3		Current Expenditure Category: GHS-G,W,N/CS,O&T Pt 1.5&2.2			
0.00	0.00	0.00	0.00	0.00	
iLap Category Sequence No: 4		Current Expenditure Category: GHS-Vaccine Preparedness Pt 1.6a-e			
0.00	0.00	0.00	0.00	0.00	
iLap Category Sequence No: 5		Current Expenditure Category: GHS-G,W,N/CS,O&T Pt 1.6f-g			
7,008,280.00	0.00	7,008,280.00	100.00	0.00	
iLap Category Sequence No: 6		Current Expenditure Category: MOH-Vaccine Acquisition Part 1.7			
137,150,000.00	147,483,170.16	147,500,000.00	100.00	100.00	
iLap Category Sequence No:		Current Expenditure Category: GHS-G,W,N/CS,O&T Pt 3			
0.00	0.00	0.00		0.00	
Total	200,000,000.00	147,483,170.16	200,000,000.00		

DISBURSEMENT ARRANGEMENTS

Change in Disbursement Arrangements

Yes

Expected Disbursements (in US\$)

Fiscal Year	Annual	Cumulative
2020	10,488,324.46	10,488,324.46
2021	96,309,543.15	106,797,867.61
2022	170,000,000.00	276,797,867.61
2023	130,000,000.00	406,797,867.61
2024	18,802,132.39	425,600,000.00
2025	0.00	425,600,000.00

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Latest ISR Rating	Current Rating
Political and Governance	● Moderate	● Moderate
Macroeconomic	● Substantial	● Moderate
Sector Strategies and Policies	● Moderate	● Moderate
Technical Design of Project or Program	● Moderate	● Moderate
Institutional Capacity for Implementation and Sustainability	● Moderate	● Moderate
Fiduciary	● Substantial	● Substantial
Environment and Social	● Substantial	● Substantial
Stakeholders	● Low	● Low
Other		
Overall	● Substantial	● Substantial

LEGAL COVENANTS – Ghana COVID-19 Emergency Preparedness and Response Project Third Additional Financing (P178054)

Sections and Description

The Recipient shall not later than eighteen (18) months from the Effectiveness Date establish and thereafter maintain, at all times during the implementation of the Project, the Ghana Centers for Disease Control (Ghana CDC), with composition, powers, functions, staffing, facilities and other resources satisfactory to the Association.



Conditions		
Type	Financing source	Description
Disbursement	IBRD/IDA	1. FA, Schedule 2, Section III, B, 1, (b) - Notwithstanding the provisions of Part A of this section in the FA, no withdrawal shall be made under Categories 1, 2, 3 and 4 unless and until the Recipient has fully disbursed all the funds in connection with the Original Project, Additional Financing Project and Second Additional Financing Project.
Disbursement	IBRD/IDA	2. FA, Schedule 2, Section III, B, 1, (c) - Notwithstanding the provisions of Part A of this section in the FA, no withdrawal shall be made under Category 8, unless and until the Recipient has established the NVI in a manner satisfactory to the Association.

VIII. RESULTS FRAMEWORK AND MONITORING

Results Framework

COUNTRY: Ghana

Ghana COVID-19 Emergency Preparedness and Response Project Third Additional Financing

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 Ghana

Project Development Objective Indicators by Objectives/ Outcomes

Indicator Name	PBC	Baseline	Intermediate Targets		End Target
			1	2	
Emergency COVID-19 Response					
Diagnosed cases treated in the designated treatment centers per approved protocol (Percentage)		0.00	80.00	80.00	80.00
<i>Action: This indicator has been Revised</i>	Rationale: <i>As the GoG continues to expand the number of designated treatment centers for COVID-19 during the project implementation, the definition of denominator has been modified rather than the static number of 42.</i>				
Diagnosed cases treated in the designated treatment centers per approved protocol (by % female) (Percentage)		0.00	80.00		80.00
Designated acute healthcare facilities with isolation capacity (Number)		0.00	50.00		80.00
<i>Action: This indicator has been Revised</i>	Rationale: <i>As the project target exceeds during the project implementation, the end target has been revised upward.</i>				

Indicator Name	PBC	Baseline	Intermediate Targets		End Target
			1	2	
Confirmed COVID-19 cases that conducted contact tracing (Percentage)		0.00	100.00		100.00
Infected health workers to COVID-19 treated (Percentage)		0.00	100.00		100.00
Infected health workers to COVID-19 treated (by % female) (Percentage)		0.00	100.00		100.00
Population vaccinated, who are included in the target population groups defined in the National COVID-19 Vaccine Deployment Plan (Percentage)		0.00			41.60
Proportion of females among those vaccinated (Percentage)		0.00	50.00	50.00	50.00

Intermediate Results Indicators by Components

Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Emergency COVID-19 Response							
Designated laboratories with COVID-19 diagnostic equipment, test kits and reagents (Number)		2.00	14.00				20.00
		Rationale: <i>As of the end of 2021, the number of laboratories has been expanded to 63. All these designated laboratories can diagnose suspected COVID-19 cases within 24 hours. Fifteen out of the 63 laboratories were supported by the project.</i>					
		Action: <i>This indicator has been Revised</i> <i>Since the project target exceeds during the project implementation, the project target has been revised upward, considering the continuous and expanded support for the six newly administered regions with improved equity.</i>					

Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Designated laboratories diagnosed suspected COVID-19 cases within 24 hrs (Number)		2.00	15.00				20.00
Action: This indicator has been Revised	<p>Rationale: As of the end of 2021, the number of laboratories has been expanded to 63. All these designated laboratories can diagnose suspected COVID-19 cases within 24 hours. Fifteen out of the 63 laboratories were supported by the project.</p> <p>Since the project target exceeds during the project implementation, the project target has been revised upward, considering the continuous and expanded support for the six newly administered regions with improved equity.</p>						
Referral system to care for COVID-19 patients prepared (Yes/No)		No	Yes				Yes
Treatment centers completed with ICU beds and providing services (Number)		0.00	0.00	0.00	8.00	15.00	19.00
Action: This indicator has been Revised	<p>Rationale: The project target is revised upward to 19 and the timeline has been extended to June 30, 2024 with support from the Third Additional Financing.</p> <p>As of the end of 2021, the cumulative number of isolation and treatment centers with ICU capacity is 24 in the country. Fifteen isolation and treatment centers being constructed or remodeled in different locations of the country with support from the project, one of which is completed.</p> <p>The Third Additional Financing is planning to support Children's Emergency and Infectious Diseases Hospital in Accra and three health facilities in newly divided administrative regions.</p>						
Cold chain system functional (Percentage)		62.70	80.00	90.00			100.00
People who have received essential health, nutrition, and population (HNP) services (CRI, Number)		0.00	11,600,000.00	23,200,000.00			34,800,000.00
People who have received essential health, nutrition,		0.00	5,800,000.00	11,600,000.00			17,400,000.00

Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
and population (HNP) services - Female (RMS requirement) (CRI, Number)							
Number of children immunized (CRI, Number)	0.00	825,000.00	1,650,000.00				2,475,000.00
Number of women and children who have received basic nutrition services (CRI, Number)	0.00	900,000.00	1,800,000.00				2,700,000.00
Number of deliveries attended by skilled health personnel (CRI, Number)	0.00	230,000.00	460,000.00				690,000.00
Number of adolescents and children under 17 years of age vaccinated, which is included in the priority population targets defined in national plan (Number)	0.00	800,000.00					1,090,000.00
Action: This indicator is New	<p>Rationale: Fully vaccinated means the receipt of one shot of a single-one regimen or a second shot of a two-dose regimen according to the national policy. On November 15, 2021, the FDA Ghana approved the use of Pfizer vaccines to vaccinate children aged 15 years old and above, and pregnant women. As of December 14, 2021, 132,721 children at age 15-17 received their first shot of Pfizer vaccine. The milestone target for this indicator is set to vaccinate 50 percent of those at age 15-17 (5 percent of the total population) by end of 2022. The end project target is to set set to vaccinate 70 percent of those at age 15-17 by June 2024. These targets will be revisited when the national COVID-19 vaccination policy is revised.</p>						
Percentage of population receiving a booster, which is included in the population targets defined in the national plan (Percentage)	0.00	10.00	20.00				30.00

Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Action: This indicator is New		Rationale: <i>In January 2022, the Government of Ghana introduced a booster shot among health workers, those at age 60 and above, and the government officials.</i>					
Strengthening Multi-sector, National Institutions and Platforms							
Designated facilities for COVID-19 received monitoring and supportive supervision in preceding quarter (Percentage)		0.00	80.00				80.00
Designated highly fuel-efficient, low-carbon fuels or electric powered vehicles procured (Number)		0.00	12.00				12.00
Community Engagement and Risk Communication							
People having adequate knowledge on Infection Prevention and Control (IPC) measures (Percentage)		70.00	80.00	85.00			90.00
Women having adequate knowledge on Infection Prevention and Control (IPC) measures (Percentage)		0.00	80.00	85.00			90.00
All the regions have functional COVID-19 information centers (Number) (Number)		2.00					16.00
People are willing to take up COVID-19 vaccination (Percentage)		0.00	60.00	70.00			80.00
Women are willing to take up COVID-19 vaccination		0.00	60.00	70.00			80.00

Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
(Percentage)							
Implementation Management, Monitoring and Evaluation and Project Management							
Quarterly reports with IDSR data submitted in a timely manner (Percentage)		0.00	80.00	85.00			90.00
Complaints received and addressed within one week through the project GRM (Percentage)		0.00	70.00	85.00			100.00

Monitoring & Evaluation Plan: PDO Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Diagnosed cases treated in the designated treatment centers per approved protocol	Numerator: Number of designated treatment centers diagnosed cases treated per the approved protocol Denominator: Total number of designated treatment centers for COVID-19	Quarterly	Project Reports	Review of Quarterly Project Reports	GHS EOC
Diagnosed cases treated in the designated treatment centers per approved protocol (by % female)	Numerator: Number of diagnosed severe cases among females requiring hospitalization and treated	Quarterly	Project Reports	Review of Annual Project Reports	GHS

	in designated treatment centers as per the approved protocol Denominator: The total number of diagnosed severe cases among females requiring hospitalization and treatment				
Designated acute healthcare facilities with isolation capacity	Number of designated treatment centers with isolation unit within the facility, trained personnel and equipment	Quarterly	Project Reports	Review of Quarterly Project Reports	GHS EOC
Confirmed COVID-19 cases that conducted contact tracing	Numerator: Number of confirmed COVID-19 cases that conducted contact tracing Denominator: Total number of confirmed COVID-19 cases	Quarterly	EOC administrative data	Records kept by GHS EOC	GHS EOC
Infected health workers to COVID-19 treated	Numerator: Number of infected health workers to COVID-19 treated Denominator: Total number of infected health workers	Six monthly	Project reports	Review of Annual Project Reports	GHS
Infected health workers to COVID-19 treated (by % female)	Numerator: Number of infected female health workers to COVID-19 treated	Six monthly	Project Reports	Review of Annual Project Reports	GHS

	Denominator: Total number of infected female health workers				
Population vaccinated, who are included in the target population groups defined in the National COVID-19 Vaccine Deployment Plan	As of November 20, 2021, 4.3 million people received at least one dose of COVID-19 vaccine and 1.3 million people were fully vaccinated, consisting of 6.6 percent of the total population.	Quarterly	Project reports and Situation Reports on COVID-19 vaccine deployment	Review of project reports and Situation Reports on COVID-19 vaccine deployment	GHS
Proportion of females among those vaccinated	Numerator: Number of females vaccinated with two doses Denominator: Number of people vaccinated with two doses	Quarterly	Progress reports and Situation Reports on COVID-19 vaccine deployment	Review of progress reports and Situation Reports on COVID-19 vaccine deployment	GHS

Monitoring & Evaluation Plan: Intermediate Results Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Designated laboratories with COVID-19 diagnostic equipment, test kits and reagents	Number of designated laboratories with COVID-19 diagnostic equipment, test kits and reagents	Quarterly	Project Reports	Review of Annual Project Reports	GHS EOC
Designated laboratories diagnosed suspected COVID-19 cases within 24 hrs	Number of the designated laboratories diagnosed	Quarterly	Project Reports	Review of Annual Project Reports	GHS EOC

	suspected COVID-19 cases within 24 hrs				
Referral system to care for COVID-19 patients prepared	Referral system to care for COVID-19 patients has been prepared	Quarterly	Project Reports	Review of Annual Project Reports	GHS EOC
Treatment centers completed with ICU beds and providing services	The number of newly refurbished treatment and isolation centers and the number of ICU/HCU beds added to the national stock	Quarterly	Project Progress Report	Routine Annual Review	Ministry of Health
Cold chain system functional	Numerator: Number of districts with fully functional cold chain system (cold chain equipment and storage capacity) Denominator: Number of districts (260)	Biannally	Progress reports	Review of progress reports	GHS
People who have received essential health, nutrition, and population (HNP) services		Six monthly	District Health Information Management System (DHIMS)	Routine data reported into DHIMS by primary health care facilities up to district level	GHS
People who have received essential health, nutrition, and population (HNP) services - Female (RMS requirement)		Six monthly	DHIMS	Routine data reported into DHIMS by primary health care facilities up to district level	GHS
Number of children immunized		Six monthly	DHIMS	Routine data reported into DHIMS by primary health care facilities up	GHS


				to district level	
Number of women and children who have received basic nutrition services		Six monthly	DHIMS	Routine data reported into DHIMS by primary health care facilities up to district level	GHS
Number of deliveries attended by skilled health personnel		Six monthly	DHIMS	Routine data reported into DHIMS by primary health care facilities up to district level	GHS
Number of adolescents and children under 17 years of age vaccinated, which is included in the priority population targets defined in national plan	Number of adolescents and children under 17 years of age vaccinated, which is included in the priority population targets defined in national plan	Quarterly	COVID-19 vaccination situation reports	DHIS2 and COVID-19 vaccination database	GHS
Percentage of population receiving a booster, which is included in the population targets defined in the national plan	<p>Numerator: Number of people receiving a booster, which is included in the population targets defined in the national plan</p> <p>Denominator: Number of total population</p> <p>A booster means the receipt of second shot of a single-one regimen or a third shot of a two-dose regimen according to the national policy.</p>	Quarterly	COVID-19 vaccination situation reports	DHIS2 and COVID-19 vaccination database	GHS

Designated facilities for COVID-19 received monitoring and supportive supervision in preceding quarter	<p>Numerator: Number of designated laboratories, POEs, isolation & quarantine centers for COVID-19 received monitoring and supportive supervision by IMCC and EOC in preceding quarter</p> <p>Denominator: Total number of designated laboratories, POEs, isolation & quarantine centers for COVID-19</p>	Quarterly	Project Reports	Review of Annual Project Reports	GHS EOC
Designated highly fuel-efficient, low-carbon fuels or electric powered vehicles procured	Number of procured vehicle with designated highly fuel-efficient, low-carbon fuels or electric powered	Annually	Project reports	Review of Annual Project Reports	MOH
People having adequate knowledge on Infection Prevention and Control (IPC) measures	Percentage of people who can adequately cite the correct preventive measures against COVID-19	Biannually	Phone survey reports	Review of phone survey reports	GHS and Ministry of Information
Women having adequate knowledge on Infection Prevention and Control (IPC) measures	<p>Numerator: Number of women who cited adequate preventive measures against COVID-19</p> <p>Denominator: Total number of women in survey respondents</p>	Biannually	Phone survey reports	Review of phone survey reports	GHS and Ministry of Information
All the regions have functional COVID-19 information centers (Number)	The number of regions have functional COVID-19	Quarterly	Project Reports	Review of Annual Project Reports	GHS and Ministry of Information

	information centers				
People are willing to take up COVID-19 vaccination	Percentage of survey respondents who show willingness to take COVID-19 vaccine	Biannually	Survey reports	Review of survey reports	GHS and Ministry of Information
Women are willing to take up COVID-19 vaccination	Percentage of female survey respondents who show willingness to take COVID-19 vaccine	Biannally	Survey reports	Review of survey reports	GHS and Ministry of Information
Quarterly reports with IDSR data submitted in a timely manner	Quarterly reports with IDSR data submitted in a timely manner in the two previous quarters (average)	Quarterly	Project Reports	Submission of quarterly reports	PIU (MOH and GHS)
Complaints received and addressed within one week through the project GRM	Numerator: Number of complaints received in the proceeding quarter and addressed within one week through the project GRM Denominator: Total number of complaints received in the proceeding quarter	Quarterly	Project Reports	Review of Annual Project Reports	MoH and GHS


ANNEX 1: SUMMARY TABLE ON VACCINE DEVELOPMENT AND APPROVAL STATUS



List of COVID-19 vaccines meeting World Bank Approval Criteria as of April 2, 2022




	Manufacturer / WHO EUL holder	Name of Vaccine	SRA approval received	WHO EUL ¹¹		
				Platform	NRA of Record for WHO EUL	Status of assessment
1.	 BioNTech Manufacturing GmbH	BNT162b2/COMIRNATY Tozinameran (INN)	United Kingdom: December 2, 2020 Canada: December 9, 2020 United States of America: December 11, 2020 European Union: December 21, 2020 Switzerland: December 19, 2020 Australia: January 25, 2021	Nucleoside modified mRNA	EMA	<ul style="list-style-type: none"> ▪ Finalized: 31/12/2020 ▪ Additional sites: <ul style="list-style-type: none"> – Baxter Oncology GmbH Germany (DP). 30/06/2021 – Novartis Switzerland. 08/07/2021 – Mibe (Dermapharm) Germany (DP). 16/07/2021 – Delpharm, Saint-Remy FRANCE (DP). 17/09/2021 – Sanofi-Aventis Deutschland GmbH. Germany 18/06/2021 – Siegfried Hameln GmbH, Germany (DP). 11/11/2021 – Patheon Italia S.p.A, Italy (DP). 07/12/2021



¹¹ https://extranet.who.int/pqweb/sites/default/files/documents/Status_COVID_VAX_02April2022.pdf

	Manufacturer / WHO EUL holder	Name of Vaccine	SRA approval received	WHO EUL ¹¹		
				Platform	NRA of Record for WHO EUL	Status of assessment
						<ul style="list-style-type: none"> – Catalent Agnani. 21/01/2022 – Exela Pharma Sciences, LLC, NC. 16/03/2022 ▪ Shelf life extension: 09 months at -70 to - 90°C. 20/09/2021 ▪ Diluent suppliers: <ul style="list-style-type: none"> – Pfizer Perth, Australia. 20/00/2021 – Fresenius Kabi, USA. 20/09/2021 – Pfizer Manufacturing, Belgium. 30/11/2021 – Kwang Myung Pharm Co., Ltd. 12/01/2022 ▪ Booster dose approved for adults 18 years of age and older 14/12/2021 ▪ Age extension to children 5-11 years of age 12/02/2022
					USFDA	<ul style="list-style-type: none"> ▪ Additional sites: <ul style="list-style-type: none"> – Pharmacia & Upjohn, Kalamazoo (DP)PGS McPherson (DP). 16/07/2021

	Manufacturer / WHO EUL holder	Name of Vaccine	SRA approval received	WHO EUL ¹¹		
				Platform	NRA of Record for WHO EUL	Status of assessment
						– Exelead, Inc. Indianapolis USA. 30/09/2021
2.	 AstraZeneca, AB	AZD1222 Vaxzevria	UK: December 30, 2020 EU: January 29, 2021 Australia: February 16th, 2021 (overseas manufacturing); March 21st, 2021 (for local manufacturing by CSL – Seqirus) Canada: February 26, 2021	Recombinant ChAdOx1 adenoviral vector encoding the Spike protein antigen of the SARS-CoV-2.	EMA	<ul style="list-style-type: none"> ▪ Core data finalized. 16 April 2021 ▪ Additional sites: <ul style="list-style-type: none"> – SK-Catalent 16/04/2021 – Wuxi (DS). 30/04/2021 – Chemo Spain. 04/06/2021 – Amylin Ohio US (DP). 23/07/2021 – WuXi Biologics, Germany (DP) 08/03/2022
					MFDS KOREA	▪ Finalized. 15 Feb 2021
					Japan MHLW/PMDA	<ul style="list-style-type: none"> ▪ Finalized. 09 July 2021 ▪ Additional site: <ul style="list-style-type: none"> – Nipro Pharma Corporation Ise, Japan. 11/10/2021
					Australia TGA	<ul style="list-style-type: none"> ▪ Finalized. 09 July 2021 ▪ Additional site: <ul style="list-style-type: none"> – Siam Bioscience Co., Ltd Thailand. 11/10/2021

	Manufacturer / WHO EUL holder	Name of Vaccine	SRA approval received	WHO EUL ¹¹		
				Platform	NRA of Record for WHO EUL	Status of assessment
					COFEPRIS (Mexico) ANMAT (Argentina)	<ul style="list-style-type: none"> Finalized. 23 December 2021
3.	 Serum Institute of India Pvt.Ltd	Covishield (ChAdOx1_nCoV-19)		Recombinant ChAdOx1 adenoviralvector encoding the Spike protein antigen of the SARS-CoV-2.	DCGI	<ul style="list-style-type: none"> Finalized. 15 Feb 2021 – DS and DP Manjari Bk Pune. 12/11/2021
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. 17 December 2021
5.		mRNA-1273	USA: December 18, 2020 Canada: December 23, 2020 EU: January 6, 2021 Switzerland: January 12 th , 2021 UK: January 8, 2021	mNRA-based vaccine encapsulated in lipid nanoparticle (LNP)	EMA	<ul style="list-style-type: none"> Finalized. 30 April 2021 Shelf life extension to 09 months -20±5°C. 14/02/2022
					USFDA	<ul style="list-style-type: none"> Additional Sites. 06 August 2021 – ModernaTx. Norwood (DS) – Catalent Indiana, LLC (DP) – Lonza Biologics, Inc. Portsmouth, USA (DS)

	Manufacturer / WHO EUL holder	Name of Vaccine	SRA approval received	WHO EUL ¹¹		
				Platform	NRA of Record for WHO EUL	Status of assessment
						<ul style="list-style-type: none"> – Baxter, Bloomington, USA (DP)
					MFDS	<ul style="list-style-type: none"> ▪ Finalized. 23 December 2021
6.	 Sinopharm / BIBP¹ 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. 07 May 2021 ▪ <i>2 and 5 dose presentation (new manufacturing site) -- TBC after ongoing inspection</i>
7.	 sinovac Sinovac Life Sciences Co., Ltd. Sinovac Life Sciences Co., Ltd.	COVID-19 Vaccine (VeroCell), Inactivated/ Coronavac™		Inactivated, produced in Vero cells		<ul style="list-style-type: none"> ▪ Finalized. 01 June 2021 ▪ 2 dose presentation. 30 September 2021
8.	 Janssen–Cilag International NV	Ad26.COV2.S	USA: February 27th, 2021 Canada: March 5th, 2021 EU: March 11th, 2021 Switzerland: March 22nd, 2021 UK: May 28th, 2021 Australia: June 25th, 2021	Recombinant, replication-incompetent adenovirus type 26 (Ad26) vectored vaccine encoding the (SARS-CoV-2) Spike (S) protein	EMA	<ul style="list-style-type: none"> ▪ Core data finalized (US +NL sites). 12 March 2021 ▪ Additional sites: <ul style="list-style-type: none"> – Aspen RSA (DP). 25/06/2021 – Catalent Agnani Italy (DP). 02/07/2021 – Grand River Aseptic Manufacturing Inc., USA. 05/11/2021 – MSD (Merck), West Point/PA, USA (DP). 05/11/2021

	Manufacturer / WHO EUL holder	Name of Vaccine	SRA approval received	WHO EUL ¹¹		
				Platform	NRA of Record for WHO EUL	Status of assessment
						<ul style="list-style-type: none"> – Sanofi Pasteur France (DP). 27/01/2022 ▪ Storage conditions extension: at 2-8°C from 4.5 months to 11 months within the 24 months of shelf-life at -25°C to -15°C. 16/03/2022
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. 03 Nov 2021 ▪ Suspension of supply due to outcomes of post EUL inspection (14 – 22 March 2022). 02 April 2022
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. 20 December 2021



ANNEX 2: Revisions to the Results Framework

PDO/INDICATOR	PROPOSED CHANGES	COMMENTS/RATIONALE
The PDO is to prevent, detect and respond to the threat posed by COVID-19 and strengthen national systems for public health preparedness in Ghana.	No change	The PDO is still relevant to the country and sector context, and in alignment with the World Bank’s COVID-19 response strategy.
PDO level indicators		
PDO indicator 1 - Diagnosed cases treated in the designated treatment centers per approved protocol (by % female) (Percentage)	Revised the definition of denominator	As the GoG continues to expand the number of designated treatment centers for COVID-19 during project implementation, the definition of denominator has been modified rather than the static number of 42.
PDO indicator 2 - Designated acute healthcare facilities with isolation capacity (Number)	Revised the end target	As the project target has already achieved, the project target has been increased from 50 to 80.
PDO indicator 3 - Confirmed COVID-19 cases that conducted contact tracing (Percentage)	No change	
PDO indicator 4 - Infected health workers to COVID-19 treated (by % female) (Percentage)	No change	Indicator introduced to measure progress in addressing special needs that would affect women and men differently. Add sub-indicator to disaggregate by % female.
PDO indicator 5 - Population vaccinated, who is included in the target population groups defined in the national plan (Percentage) (by % female) (Percentage)	No change	
Intermediate results indicators		
Component 1: Emergency COVID-19 Response		
Designated laboratories with COVID-19 diagnostic equipment, test kits and reagents (Number)	Revised the end target	Further revised the project end target from 14 to 20 as the activities have been scaled up.
Designated laboratories diagnosed suspected COVID-19 cases within 24 hrs (Number)	Revised the end target	Further revised the project end target from 14 to 20 as the activities have been scaled up.
Referral system to care for COVID-19 patients prepared (Yes/No)	No change	
Treatment centers completed with Intensive Care Unit (ICU) beds and providing services (Number)	Revised the end target	Revised the project end target from 15 to 19 as the activities are going to be scaled up under the AF3.
Cold chain system functional (Percentage)	No change	
People who have received essential health, nutrition, and population (HNP) services (CRI, Number) i) Females who have received essential HNP	No change	



PDO/INDICATOR	PROPOSED CHANGES	COMMENTS/RATIONALE
services (Number) ii) Number of children immunized (Number) iii) Women and children who have received basic nutrition services (Number) iv) Number of deliveries attended by skilled health personnel (Number)		
Number of adolescents and children under 17 years of age vaccinated, which is included in the priority population targets defined in national plan (Number)	New	This indicator is introduced to monitor the progress on the COVID-19 vaccination among adolescents and children. On November 15, 2021, the FDA Ghana approved the use of Pfizer vaccines to vaccinate children aged 15 years old and above, and pregnant women. And the NTCC is discussing the further lowering the eligibility age for the COVID-19 vaccination. Currently, the project targets are set to achieve 50 percent of this age-specific population with COVID-19 vaccination by the end of 2022 and 60 percent by June 2024.
Percentage of population receiving a booster, which is included in the population targets defined in the national plan (Percentage)	New	This indicator is introduced to monitor the progress on the COVID-19 vaccination booster shots, separately from the indicator to measure the progress on the fully vaccinated. In January 2022, the GoG introduced a booster shot among health workers, those at age 60 and above, and the government officials. The project target is set to achieve 30 percent of all the eligible population (currently, those age 15 and above) by June 2024.
Component 2: Strengthening Multi-sector, National Institutions and Platforms		
Designated facilities for COVID-19 received monitoring and supportive supervision in preceding quarter (Percentage)	No change	
Designated highly fuel-efficient, low-carbon fuels or electric powered vehicles procured (Number)	No change	
Component 3: Community Engagement and Risk Communication		
People having adequate knowledge on IPC measures (by % female) (Percentage)	No change	
All the regions have functional COVID-19 information centers (Number)	No change	

PDO/INDICATOR	PROPOSED CHANGES	COMMENTS/RATIONALE
People are willing to take up COVID-19 vaccination (by % female) (Percentage)	No change	
Component 4: Implementation Management, M&E and Project Management		
Quarterly reports with IDSR data submitted in a timely manner	No change	
Complaints received and addressed within one week through the project GRM (Percentage)	No change	