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IDA/R2017-0025/1

February 9, 2017

Closing Date: Wednesday, March 1, 2017 at 6 p.m.

FROM: Acting Vice President and Corporate Secretary

Guinea Bissau, Liberia, Nigeria and Togo
Regional Disease Surveillance Systems Enhancement Phase II

Project Appraisal Document

Attached is the Project Appraisal Document regarding proposed credits and a proposed grant to Guinea Bissau, Liberia, Nigeria and Togo for a Regional Disease Surveillance Systems Enhancement (REDISSE) Phase II (IDA/R2017-0025), which is being processed on an absence-of-objection basis.

Distribution:
Executive Directors and Alternates
President
Bank Group Senior Management
Vice Presidents, Bank, IFC and MIGA
Directors and Department Heads, Bank, IFC and MIGA

Document of

The World Bank

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Report No: PAD2200

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON

PROPOSED CREDITS

TO THE

REPUBLIC OF GUINEA BISSAU IN THE AMOUNT OF EUR 19.9 MILLION
(US$21 MILLION EQUIVALENT)

REPUBLIC OF LIBERIA IN THE AMOUNT OF SDR 11.2 MILLION
(US$15 MILLION EQUIVALENT)

FEDERAL REPUBLIC OF NIGERIA IN THE AMOUNT OF SDR 66.5 MILLION
(US$90 MILLION EQUIVALENT)

REPUBLIC OF TOGO IN THE AMOUNT OF EUR 13.3 MILLION .
(US$14 MILLION EQUIVALENT)

AND A PROPOSED GRANT

TO THE

REPUBLIC OF TOGO IN THE AMOUNT OF SDR 5.3 MILLION
(US$7 MILLION EQUIVALENT)

FOR A

REGIONAL DISEASE SURVEILLANCE SYSTEMS ENHANCEMENT
(REDISSE) PHASE II

February 6, 2017

Health, Nutrition & Population
AFRICA

CURRENCY EQUIVALENTS

(Exchange Rate Effective November 30, 2016)

Currency Unit	=	FCFA, LRD, NGN
607 FCFA; 93.50 LRD; 314.25 NGN	=	US$1
US$	=	SDR 1 = 0.73868337
US$	=	EUR 1 = 0.94701054

FISCAL YEAR
January 1 - December 31

Regional Vice President:	Makhtar Diop
Country Director:	Rachid Benmessaoud
Senior Global Practice Director:	Timothy Grant Evans / Juergen Voegele
Practice Manager:	Trina S. Haque / Simeon Ehui
Task Team Leader(s):	John Paul Clark / Francois G. Le Gall

ABBREVIATIONS AND ACRONYMS

AAT	African Animal Trypanosomiasis
ACE	African Center of Excellence
ACGF	Africa Catalytic Growth Fund
AfDB	African Development Bank
AFENET	African Field Epidemiology Network
AHI	Avian and Human Influenza
AI	Avian Influenza
AMR	Antimicrobial Resistance
ASF	African Swine Fever
ASLM	*Société africaine pour la médecine de laboratoire* (African Society for Laboratory Medecine)
AU	African Union
AU-IBAR	Inter-African Bureau for Animal Resources of the African Union
AWP	Annual Work Plan
BMGF	Bill and Melinda Gates Foundation
BP	Bank Procedure
CAD	Canadian Dollar
CBA	Cost benefit Analysis
CBPP	Contagious Bovine pleuropneumonia
CCISD	Centre for International Cooperation in Health and Development
CDC	Center for Disease Control and Prevention
CDs	Communicable Diseases
CERC	Contingent Emergency Response Component
CHAMPS	Child Health and Mortality Prevention Surveillance
CIDA	Canadian International Development Agency
CORDS	Connecting Organizations for Regional Disease Surveillance
CPS	Country Partnership Strategy
CRSA	*Centre Régional de Santé Animale* (Regional Animal Health Center)
CSO	Civil Society Organization
CY	Calendar Year
DGS	*Direction Générale de la Santé*
DHS	Demographic and Health Survey
DON	Disease Outbreak Notification
DP	Development Partner
DSA	Daily Subsistence Allowance
DSR	Disease Surveillance and Response
EA	Environmental Assessment
EAC	East Africa Community
EAPHLN	East Africa Public Health and Laboratory Networking Project
ECOWAS	Economic Community of West African States
ECOWAS-RAHC	Regional Animal Health Center of the Economic Community of West African States
ECTAD	Emergency Centre for Transboundary Animal Diseases

EERP	Ebola Emergency Response Project
EIDS	Emerging Infectious Diseases
EISMV	*(École Inter-États des Sciences et Médecine Vétérinaires de Dakar)* Dakar Inter-State School of Sciences and Veterinary Medicine
EOC	Emergency Operations Center
EPT	Emerging Pandemic Threat
EPT-2	Emerging Pandemic Threats 2
EROM	Emergency Response Operating Manual
ESMF	Environment and Social Management Framework
ESMP	Environmental and Social Management Plan
ESS	Epidemic Surveillance System
ESSAF	Environmental and Social Screening and Assessment Framework
EVD	Ebola Virus Disease
FAO	Food and Agriculture Organization of the United Nations
FCFA	*Franc de la Communauté Financière Africaine*
FELTP	Field Epidemiology and Laboratory Training Program
FETP	Field Epidemiology Training Program
FMD	Foot and Mouth Disease
FPFMD	Federal Project Financial Management Divisions
FY	Fiscal Year
GAC	Governance and Anti-Corruption
GDP	Gross Domestic Product
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
GF-TAD	FAO/OIE Global Framework for the Progressive Control of Transboundary Animal Diseases
GGE	Gross Government Expenditure
GHSA	Global Health Security Agenda
GIS	Geographic Information System
GPAI	Global Program for Avian Influenza Control and Human Pandemic Preparedness and Response
GPN	General Procurement Notice
GRM	Grievance Redress Mechanism
GRS	Grievance Redress System
H5N1	Avian Influenza Strain H5N1
HCWMP	Healthcare Waste Management Plan
HIS	Health Information System
HMIS	Health Management Information Systems
HNFP	Health and Nutrition Financing Project
HPAI	Highly Pathogenic Avian Influenza
HRH	Human Resources for Health
IBRD	International Bank for Reconstruction and Development
ICB	International Competitive Bidding
ICT	Information and Communication Technology
IDA	International Development Agency
IDSR	International Disease Surveillance and Response
IEG	Independent Evaluation Group

IFC	International Financial Corporation
IFMIS	Internal Financial Management Information System
IHPAU	Integrated Health Project Administration Unit
IHR	International Health Regulations
ILRI	International Livestock Research Institute
IMC	International Medical Corporation
INAP	Integrated National Action Plan
IPC	Infection Prevention and Control
IPF	Investment Project Financing
IPVMP	Integrated Pest and Vector Management Pan
IRCM	Integrated Regional Coordination Mechanisms for the Control of TADs and Zoonoses
ISR	Implementation Status Report
ISRA	*Institut Sénégalais de Recherches Agricoles* (Senegalese Institute of Agricultural Research)
JEE	Joint External Evaluation
JICA	Japan International Cooperation Agency
LSU	Livestock Unit
M&E	Monitoring and Evaluation
MADR	Ministry of Agriculture and Rural Development
MAFFS	Ministry of Agriculture Forestry and Food Security
MCHNSS	Maternal and Child Health and Nutrition Services Support
MCMC	Markov Chain Monte Carlo
MDBS	Mekong Basin Disease Surveillance
MDTF	Multi-Donor Trust Fund
MECIDS	Middle East Consortium for Infectious Disease Surveillance
MEDD	Ministry of Environment and Sustainable Development
MEPA	Ministry of Livestock and Animal Production
MERS	Middle East Respiratory Syndrome
MERS-CoV	Middle East Respiratory Syndrome Coronavirus
MINSAP	Ministry of Public Health
MITS	Minimally Invasive Autopsy Tissue Sample
MOA	Ministry of Agriculture
MOH	Ministry of Health
MOHS	Ministry of Health and Sanitation (Sierra Leone)
MOHSA	Ministry of Health and Social Action
MoU	Memorandum of Understanding
MRRT	Multidisciplinary Rapid Response Team
MRU	Mano River Union
MSAS	Ministry of Health and Social Action
MWMP	Medical Waste Management Plan
NCB	National Competitive Bidding
NCDC	Nigeria Centre for Disease Control
NGO	Non-Governmental Organization
N-PCU	National Project Coordination Unit
NPF	New Procurement Framework

NSC	National Steering Committee
NTD	Neglected Tropical Disease
OAGF	Office of Auditor General for the Federation
OH	One Health
OIE	World Organization for Animal Health
OP	Operations Policy
PACE	Pan-African Program for the Control of Epizootics
PATH	Program for Appropriate Technology in Health
PASSP	Primary Health Services Improvement Project in Guinea
PCU	Project Coordination Unit
PDO	Project Development Objective
PEF	Pandemic Emergency Facility
PHEIC	Public Health Emergency of International Concern
PIM	Project Implementation Manual
PIU	Project Implementation Unit
PMU	Project Management Unit
PPA	Project Preparation Advance
PPR	*Peste des Petits Ruminants* (Small Ruminants' Plague)
PPSD	Project Procurement Strategy for Development
PVS	Performance of Veterinary Services
RAP	Resettlement Action Plan
RCDC	Regional Center for Disease Control and Prevention (of ECOWAS)
RDSR	Regional Disease Surveillance and Response
REDISSE	Regional Disease Surveillance Systems Enhancement Project
REOI	Request for Expression of Interest
RESEPI	Regional Network of National Epidemic surveillance Systems for HPAI and other Priority Animal Diseases in West Africa
RESOLAB	Veterinary Laboratory Network for Avian Influenza and other Transboundary Animal Diseases in West Africa
RF	Results Framework
RHAC	Recovery Health Access Center
RIAS	Regional Integration Assistance Strategy
R-PCU	REDISSE Project Coordination Unit
RPF	Resettlement Policy Framework
R-PIU	Regional Project Implementation Unit
RRT	Rapid Response Team
RSC	Regional Steering Committee
RVF	Rift Valley Fever
SACIDS	South African Center for Infectious Disease Surveillance
SARS	Severe Acute Respiratory Syndrome
SDGs	Sustainable Development Goals
SESFP	Social and Environment Focal Point
SMP	Social Management Plan
SOP	Series of Projects
SPINAP	Support Program for Integrated National Action Plans for Avian and Human Influenza

SPN	Specific Procurement Notice
SWEDD	Sahel Women Economic Empowerment and Demographic Dividend project
SWOT	Strengths, Weaknesses, Opportunities and Threat
TAD	Transboundary Animal Disease
TB	Tuberculosis
TOMPRO	TOMPRO accounting software
ToR	Terms of Reference
UHC	Universal Health Coverage
UN	United Nations
UNDB	United Nations Development Business
UNDG	United Nations Development Group
UNDP	United Nations Development Program
UNEP	United Nations Environment Program
US	United States
US CDC	United States Centers for Disease Control and Prevention
USAID	United States Agency for International Development
VACNADA	Control of trans-boundary animal diseases in Africa
Vet-GOV	Reinforcing Veterinary Governance in Africa Program
V-FETP	Veterinarian Field Epidemiology Training Program
VS	Veterinary Services
WAEMU	West African Economic and Monetary Union
WAHO	West Africa Health Organization
WANIDS	West African Network of Infectious Diseases Surveillance
WARDS	West Africa Regional Disease Surveillance Project
WB	World Bank
WBG	World Bank Group
WHO	World Health Organization
WHO/IST/WA	World Health Organization – Inter-Country Support Team for West-Africa
WHO-AFRO	World Health Organization – Africa Region
WMP	Waste Management Plan

BASIC INFORMATION

Is this a regionally tagged project?	Country(ies)	Lending Instrument
Yes	Guinea-Bissau, Liberia, Nigeria, Togo	Investment Project Financing

[ ] Situations of Urgent Need of Assistance or Capacity Constraints

[ ] Financial Intermediaries

[✓] Series of Projects

Approval Date	Closing Date	Environmental Assessment Category
28-Feb-2017	31-Aug-2023	B - Partial Assessment

Bank/IFC Collaboration
No

Proposed Development Objective(s)

The PDOs are : (i) to strengthen national and regional cross-sectoral capacity for collaborative disease surveillance and epidemic preparedness in West Africa, thereby addressing systemic weaknesses within the animal and human health systems that hinder effective disease surveillance and response; and (ii) in the event of an Eligible Emergency, to provide immediate and effective response to said Eligible Emergency.

Components

Component Name	Cost (US$, millions)
Component 1: Surveillance and Information Systems	45.33
Component 2: Strengthening of Laboratory Capacity	30.89
Component 3: Preparedness and Emergency Response	26.08
Component 4: Human Resource Management for Effective Disease Surveillance and Epidemic Preparedness	22.64
Component 5: Institutional Capacity Building, Project Management, Coordination and Advocacy	22.06

Organizations

Borrower :	Federal Republic of Nigeria Republic of Togo Government of Liberia Republic of Guinea Bissau
Implementing Agency :	West African Health Organization (WAHO) MINISTRY OF PUBLIC HEALTH (MINSAP) OF GUINEA BISSAU MINISTRY OF HEALTH (MOH) OF LIBERIA NIGERIA CENTER FOR DISEASE CONTROL (NCDC) MINISTRY OF HEALTH (MOH) OF TOGO

[ ] Counterpart Funding	[ ] IBRD	[✓] IDA Credit [ ] Crisis Response Window [✓] Regional Projects Window	[✓] IDA Grant [ ] Crisis Response Window [ ] Regional Projects Window	[ ] Trust Funds	[ ] Parallel Financing

Total Project Cost:	Total Financing:	Financing Gap:
147.00	147.00	0.00
	Of Which Bank Financing (IBRD/IDA): 147.00	

Financing (in US$, millions)

Financing Source	Amount
IDA-59680	140.00
IDA-D1700	7.00
Total	**147.00**

Expected Disbursements (in US$, millions)

Fiscal Year	2017	2018	2019	2020	2021	2022	2023	2024
Annual	0.40	4.53	7.91	11.90	14.36	12.38	9.93	1.76
Cumulative	0.40	4.93	12.84	24.74	39.10	51.48	61.41	64.00

INSTITUTIONAL DATA

Practice Area (Lead)

Health, Nutrition & Population

Contributing Practice Areas

Agriculture

Climate Change and Disaster Screening

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

Gender Tag

Does the project plan to undertake any of the following?

a. Analysis to identify Project-relevant gaps between males and females, especially in light of country gaps identified through SCD and CPF

Yes

b. Specific action(s) to address the gender gaps identified in (a) and/or to improve women or men's empowerment

Yes

c. Include Indicators in results framework to monitor outcomes from actions identified in (b)

Yes

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	Substantial

2. Macroeconomic	Substantial
3. Sector Strategies and Policies	Moderate
4. Technical Design of Project or Program	Substantial
5. Institutional Capacity for Implementation and Sustainability	High
6. Fiduciary	Substantial
7. Environment and Social	Moderate
8. Stakeholders	Substantial
9. Other	
10. Overall	Substantial

COMPLIANCE

Policy

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

[ ] Yes [✓] No

Does the project require any waivers of Bank policies?

[ ] Yes [✓] No

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment OP/BP 4.01	✓	
Natural Habitats OP/BP 4.04		✓
Forests OP/BP 4.36		✓
Pest Management OP 4.09	✓	
Physical Cultural Resources OP/BP 4.11		✓
Indigenous Peoples OP/BP 4.10		✓
Involuntary Resettlement OP/BP 4.12		✓
Safety of Dams OP/BP 4.37		✓
Projects on International Waterways OP/BP 7.50		✓
Projects in Disputed Areas OP/BP 7.60		✓

Legal Covenants

Sections and Description

GUINEA BISSAU: PROJECT STEERING COMMITTEE - Schedule 2. Section I.A.2. The Recipient shall establish no later than three (3) months after the Effective Date and thereafter maintain, throughout Project implementation, all supported by qualified and experienced staff in adequate numbers, and under terms of reference satisfactory to the Association, a Project Steering Committee and vested with responsibility for overseeing the planning, management and monitoring of Project activities, including focusing on policy issues related to the project and based on existing One Health Network in Guinea Bissau.

Sections and Description

GUINEA BISSAU: PROJECT IMPLEMENTATION MANUAL - Schedule 2. Section I.E.(b). The Recipient shall, not later than three (3) months after the Effective Date, revise and update the Project Implementation Manual in form and substance satisfactory to the Association.

Sections and Description

GUINEA BISSAU: OTHER UNDERTAKINGS - Schedule 2. Section I.H. The Recipient shall for the purposes of strengthening the financial management arrangements of the Project:
(a) prepare, no later than three months after the Effective Date, a Financial Management Manual satisfactory to the Association;
(b) recruit, no later than three months after the Effective Date, a qualified and experienced accountant to account for the Project funds;
(c) no later than three months after the Effective Date, assign from existing staff or recruit a qualified and experienced internal auditor; and
(d) establish, no later than six months after the Effective Date a functional complaint handling mechanism to enhance service delivery.

Sections and Description

LIBERIA: NATIONAL STEERING COMMITTEE - Schedule 2. Section I.A.2. The Recipient shall: (i) not later than (3) months after the Effective Date, establish within the MoH, and (ii) thereafter, maintain during Project implementation, a One Health Committee, under terms of reference and supported by qualified and experienced staff in adequate numbers, all satisfactory to the Association, to function as the policy advisory and oversight body for the national program for disease surveillance, preparedness and response, of which the Project shall be an integral part.

Sections and Description

LIBERIA: PROJECT COORDINATION UNIT - Schedule 2. Section I.A.3. The Recipient shall maintain, throughout Project implementation and within the MoH, the Project Coordination Unit headed by the Project Coordinator, under terms of reference and supported by qualified and experienced staff in adequate numbers, all satisfactory

to the Association, thereby ensuring the PCU oversee and takes all measures necessary for the suitable coordination and management of Project activities pursuant to the provisions of this Agreement, including without limitation: (i) coordinating the development of the AWP&B; (ii) collating the results of the monitoring and evaluation activities under the Project; (iii) ensuring the compliance with the Recipient's social and environment instruments prepared for the Project; (iv) preparing the Project Reports referred to in Section II.A of this Schedule 2, including the preparation by the Project Coordinator of an annual report not later than October 31 each year on the carrying out of the precedent AWP&B; and (v) liaising at all times with the Recipient's national technical coordination taskforce made up of technical working groups, relevant technical departments, and other relevant stakeholders. For such purposes, the Recipient shall, not later than three (3) months after the Effective Date, recruit for the PCU one (1) Project Coordinator , (2) two sectoral liaison officers representing each the MoH and the MoA, and one (1) Project assistant.

Sections and Description

LIBERIA: PROJECT IMPLEMENTATION MANUAL - Schedule 2. Section I.E.(b). The Recipient shall not later than three (3) months after the Effective Date, revise and update the Project Implementation Manual in form and substance satisfactory to the Association.

Sections and Description

LIBERIA: OTHER UNDERTAKINGS - Schedule 2. Section I.H. The Recipient shall for the purposes of strengthening the financial management arrangements of the Project:
(a) prepare, no later than three months after the Effective Date, a Financial Management Manual satisfactory to the Association;
(b) recruit, no later than three months after the Effective Date, a qualified and experienced accountant to account for the Project funds;
(c) no later than three months after the Effective Date, assign from existing staff or recruit a qualified and experienced internal auditor; and
(d) establish, no later than six months after the Effective Date a functional complaint handling mechanism to enhance service delivery.

Sections and Description

NIGERIA: NATIONAL STEERING COMMITTEE AND NATIONAL TECHNICAL COMMITTEE - Schedule 2. Section I.A.2. (a) The Recipient shall establish not later than three (3) months after the Effective Date and thereafter maintain, throughout Project implementation a National Steering Committee and vested with responsibility for overseeing the planning, management and monitoring of Project activities, including focusing on policy issues related to the Project; (b) The Recipient shall establish not later than three (3) months after the Effective Date and thereafter maintain throughout Project implementation a National Technical Committee with composition, powers, functions and resources satisfactory to the Association. The Recipient shall cause the National Technical Committee to review and approve the draft AWP&B progress reports to be prepared by the PCU so as to ensure agreed performance targets and timelines for activities under the different components of the Project are met, and

ensure timely implementation of the project by the PCU.

Sections and Description

NIGERIA: PROJECT COORDINATION UNIT - Schedule 2. Section I.A.3. The Recipient shall maintain, throughout Project implementation and within the NCDC, the Project Coordination Unit headed by the Project Coordinator, under terms of reference and supported by qualified and experienced staff in adequate numbers, all satisfactory to the Association, thereby ensuring that the PCU oversee and takes all measures necessary for the suitable coordination and management of Project activities pursuant to the provisions of this Agreement, including without limitation: (i) in general, the coordination and management of the Credit and the carrying out of the procurement, monitoring, evaluation and reporting functions; and (ii) in particular, the transfer of Credit funds and monitoring of the use of Credit proceeds by other implementing ministries and partners. For such purposes, the Recipient shall, not later than three (3) months after the Effective Date, recruit for the PCU one (1) procurement specialist, one (1) financial management specialist, one (1) monitoring and evaluation officer, one communication specialist, and one (1) safeguards specialist, all on the basis of terms of reference and with qualifications and experience satisfactory to the Association.

Sections and Description

NIGERIA: PROJECT IMPLEMENTATION MANUAL - Schedule 2. Section I.E.(b). The Recipient shall, not later than three (3) months after the Effective Date, revise and update the Project Implementation Manual in form and substance satisfactory to the Association.

Sections and Description

NIGERIA: OTHER UNDERTAKINGS - Schedule 2. Section I.H. The Recipient shall for the purposes of strengthening the financial management arrangements of the Project:
(a) prepare, no later than three months after the Effective Date, a Financial Management Manual satisfactory to the Association;
(b) recruit, no later than three months after the Effective Date, a qualified and experienced accountant to account for the Project funds;
(c) no later than three months after the Effective Date, assign from existing staff or recruit a qualified and experienced internal auditor; and
(d) establish, no later than six months after the Effective Date a functional complaint handling mechanism to enhance service delivery.

Sections and Description

TOGO: PROJECT MONITORING GROUP - Schedule 2. Section I.A.2. The Recipient shall establish no later than three (3) months after the Effective Date and thereafter maintain, throughout Project implementation, all supported by qualified and experienced staff in adequate numbers, and under terms of reference satisfactory to the Association, a Project Monitoring Group vested with responsibility for overseeing the planning, management and monitoring of Project activities, including focusing on policy issues related to the Project.

Sections and Description
TOGO: PROJECT COORDINATION UNIT - Schedule 2. Section I.A.3. The Recipient shall maintain, throughout Project implementation and within the MoH, the Project Coordination Unit headed by the Project Coordinator, under terms of reference and supported by qualified and experienced staff in adequate numbers, all satisfactory to the Association, thereby ensuring that the PCU oversees and takes all measures necessary for the suitable coordination and management of Project activities pursuant to the provisions of this Agreement, including without limitation: (i) in general, the coordination and management of the Financing and the carrying out of the procurement, monitoring, evaluation and reporting functions; and (ii) in particular, the transfer of Financing funds and monitoring of the use of Financing proceeds by other implementing ministries and partners. For such purposes, the Recipient shall, not later than three (3) months after the Effective Date, recruit for the PCU one (1) procurement assistant, one (1) financial management assistant, one (1) monitoring and evaluation assistant, and one (1) safeguards specialist, all on the basis of terms of reference and with qualifications and experience satisfactory to the Association.

Sections and Description
TOGO: PROJECT IMPLEMENTATION MANUAL - Schedule 2. Section I.E.(b). The Recipient shall not later than three (3) months after the Effective Date, revise and update the Project Implementation Manual in form and substance satisfactory to the Association.

Sections and Description
TOGO: OTHER UNDERTAKINGS - Schedule 2. Section I.H. The Recipient shall for the purposes of strengthening the financial management arrangements of the Project:
(a) prepare, no later than three months after the Effective Date, a Financial Management Manual satisfactory to the Association;
(b) recruit, no later than three months after the Effective Date, a qualified and experienced accountant to account for the Project funds;
(c) no later than three months after the Effective Date, assign from existing staff or recruit a qualified and experienced internal auditor; and
(d) establish, no later than six months after the Effective Date a functional complaint handling mechanism to enhance service delivery.

Conditions

Type	Description
Disbursement	WITHDRAWAL CONDITIONS - GUINEA BISSAU - SECTION IV.B.1.(a). No withdrawal shall be made for payments made prior to the date of this Agreement, except that withdrawals up to an aggregate amount not to exceed the equivalent of EURO 200,000 may be made for payments made prior to this date but on or after

	February 1, 2017, for Eligible Expenditures under Category (1).
Type Disbursement	Description WITHDRAWAL CONDITIONS - LIBERIA - SECTION IV.B.1.(a). No withdrawal shall be made for payments made prior to the date of this Agreement, except that withdrawals up to an aggregate amount not to exceed the equivalent of SDR 2,200,000 may be made for payments made prior to this date but on or after February 1, 2017, for Eligible Expenditures under Category (1).
Type Disbursement	Description WITHDRAWAL CONDITIONS - NIGERIA - SECTION IV.B.1.(a). No withdrawal shall be made for payments made prior to the date of this Agreement, except that withdrawals up to an aggregate amount not to exceed the equivalent of SDR 13,300,000 may be made for payments made prior to this date but on or after January 1, 2017, for Eligible Expenditures under Category (1)
Type Disbursement	Description WITHDRAWAL CONDITIONS - TOGO - SECTION IV.B.1.(a). No withdrawal shall be made for payments made prior to the date of this Agreement, except that withdrawals up to an aggregate amount not to exceed the equivalent of 2,100,000 USD may be made for payments made prior to this date but on or after February 1, 2017, for Eligible Expenditures under Category (1) and (2).
Type Disbursement	Description CONDITIONS FOR ALL PARTICIPATING COUNTRIES (GUINEA BISSAU, LIBERIA, NIGERIA, TOGO) - SECTION IV. B.1.(b). No withdrawal shall be made under Category (2), until and unless the Recipient: (i) shall have adopted the ESMP and/or WMP, as the case may be, and the same documents have been consulted upon and disclosed as approved by the Association; and (ii) shall have verified, through its own staff, outside experts, or existing environmental/social institutions, that the activities under Part 2.1 of the Project meet the environmental, social, and waste management requirements of appropriate national and local authorities and that they comply with the review procedures set forth in the ESMP and/or WMP, as the case may be, and the provisions of the Project Implementation Manual.
Type Disbursement	Description CONDITIONS FOR ALL PARTICIPATING COUNTRIES (GUINEA BISSAU, LIBERIA, NIGERIA, TOGO) - SECTION IV. B.1.(c). No withdrawal shall be made under Category (3), for Emergency Expenditures under Part 3.3 of the Project, unless and until the Association is satisfied, and has notified the Recipient of its satisfaction, that all of the following conditions have been met in respect of said Emergency

	Expenditures: (i) the Recipient has determined that an Eligible Emergency has occurred, has furnished to the Association a request to include said Eligible Emergency under Part 3.3 of the Project in order to respond to said Eligible Emergency, and the Association has agreed with such determination, accepted said request and notified the Recipient thereof; (ii) the Recipient has prepared and disclosed all safeguards instruments required for said Eligible Emergency, and the Recipient has implemented any actions which are required to be taken under said instruments, all in accordance with the provisions of Section I.B.2. (c)(ii) this Schedule; (iii) the Coordinating Authority has adequate staff and resources, in accordance with the provisions of Section I.B.2(b) of this Schedule 2 to this Agreement, for the purposes of said activities; and (iv) the Recipient has adopted the Emergency Response Operations Manual in form, substance and manner acceptable to the Association and the provisions of the Emergency Response Operations Manual are fully current accordance with the provisions of Section I.B.2.(a) (iv) of this Schedule 2 so as to be appropriate for the inclusion and implementation Part 3.3 of the Project.

PROJECT TEAM

Bank Staff

Name	Role	Specialization	Unit
John Paul Clark	Team Leader(ADM Responsible)		GHN07
Francois G. Le Gall	Team Leader		GFA01
Elzbieta Sieminska	Procurement Specialist(ADM Responsible)		GGO01
Mohamed El Hafedh Hendah	Procurement Specialist	Procurement	GGO07
Bella Diallo	Financial Management Specialist		GGO25
Abimbola Adubi	Team Member	Agriculture Liberia	GFA01
Abiodun Elufioye	Team Member	Team Assistant	AFCW2
Adetunji A. Oredipe	Team Member		GFA01
Adewunmi Cosmas Ameer Adekoya	Team Member		GGO25
Aissatou Chipkaou	Team Member		GHN13

Akinrinmola Oyenuga Akinyele	Team Member	Financial Management	GGO25
Alaa Mahmoud Hamed Abdel-Hamid	Team Member		GHN07
Alexandra C. Bezeredi	Environmental Specialist	Social Safeguards	GSU01
Amos Abu	Safeguards Specialist	Senior Environmental Specialist	GEN07
Ayodeji Oluwole Odutolu	Team Member	Co-TTL Nigeria	GHN07
Benjamin P. Loevinsohn	Team Member		GHN07
Brahim Sall	Team Member	Agriculture GB	GFA01
Caroline Aurelie Plante	Team Member	Animal Health	GFA04
Celestin Adjalou Niamien	Team Member	Finacial Management	GGO26
Daniel Rikichi Kajang	Team Member	Proc-Nigeria	GGO01
Edson Correia Araujo	Team Member	TTL Guinea Bissau	GHN04
Enias Baganizi	Team Member	TTL Nigeria	GHN13
Erick Herman Abiassi	Team Member	Ag TTL Togo	GFA01
Esinam Hlomador-Lawson	Team Member		AFMTG
Essienawan Ekpenyong Essien	Team Member		GPV03
Faly Diallo	Team Member	Finance Officer	WFALA
Fatou Fall Samba	Team Member	Fiancial Management	GGO26
Fernando Lavadenz	Team Member		GHN04
Frode Davanger	Team Member		DFIRM
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WESTERN AFRICA
REGIONAL DISEASE SURVEILLANCE SYSTEMS ENHANCEMENT (REDISSE) PHASE II

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I. STRATEGIC CONTEXT

A. Regional and Country Context

1. **The Ebola Virus Disease (EVD) epidemic in West Africa confirmed the critical importance of strengthening national disease surveillance systems and inter-country collaboration in order to detect disease outbreaks earlier and respond more swiftly and effectively, such that the loss of human lives and economic costs are minimized.** The West Africa Ebola outbreak demonstrated that there can be rapid and large spill-over effects of disease outbreaks that can transcend local and national boundaries. Ebola emerged in a remote rural area of Guinea, but spread rapidly to neighbouring nations across porous borders (Liberia, Sierra Leone), within the broader sub-region (Mali, Nigeria, Senegal), and then to other parts of the globe given the inter-connectedness of today's commerce and transport systems.[1] The concept of the proposed Regional Disease Surveillance Systems Enhancement Program ("REDISSE" and/or "Program") is thus linked to the commitment that the global community has made to the countries of West Africa in light of the huge human and economic costs of Ebola, to strengthen weak human health, animal health, and disaster response systems to improve the preparedness of the region to handle future disease outbreaks, and thereby minimize the national, regional, and potential global effects of such events.

2. **The regional benefits and positive externalities of effective disease surveillance and response are substantial**. Collective action and cross-border collaboration are essential and emphasized throughout the Program: (i) the Program will support countries' efforts to harmonize policies and procedures; (ii) countries will be empowered to engage in joint planning, implementation and evaluation of program activities across borders at regional, national and district levels, and; (iii) the Program will promote resource sharing of high-cost specialized assets. The cross-border spread of pathogens is extremely important well beyond shared borders as the migration of birds, bats, and other wild animals travel with impunity. The surveillance and response capacity of the regional system depends on the strength of the individual national systems and the front-line or community-level capacities that need to be in place throughout the countries. In other words, a regional disease surveillance network is only as strong as its weakest link. The Program thus proposes to strengthen the full "value-chain" of disease surveillance across community, national, and regional institutions.

3. **REDISSE II is a second project under the REDISSE Program, which is being prepared as a series of interdependent projects (SOP).** The utilization of an SOP approach is deemed necessary given high country demand for participation in the program, the multiple and complex issues involved, and the large number of stakeholders. The projects in the series support

[1] The World Bank Group (WBG) financial support following the Ebola crisis amounted to US$1.62 billion. This support included IDA financing of $1.17 billion and $450 million from the International Financial Corporation (IFC), which supported critical emergency and humanitarian response control efforts in Guinea, Liberia, and Sierra Leone. The proposed REDISSE project is part of the Bank's longer-term support following the Ebola crisis.

a program involving multiple borrowers –i.e. the Economic Community of West African States (ECOWAS) member countries. The program promotes a "One Health" (OH) approach that provides a platform for high-level policy and regulatory harmonization, cooperation, and coordination between the animal health and human health sectors within and across countries for the earlier detection of infectious diseases, and a more effective response to infectious disease outbreaks. The expected benefits from participation in the program will go beyond each country's boundaries; creating regional public goods that generate positive externalities, and/or mitigate negative ones. Overall, the program aims to address the gaps and weaknesses in disease surveillance, preparedness and response systems across all countries in West Africa and will support country-led efforts to increase the resilience of the animal and human health systems of countries in the sub-region to better prevent and control infectious disease outbreaks.

4. **The countries under REDISSE I are Guinea, Senegal and Sierra Leone.** REDISSE I also included a regional IDA Grant and donor co-financing[2] for the West African Health Organization (WAHO) and was approved by the World Bank Board of Directors on June 29, 2016. REDISSE II will engage Guinea Bissau, Liberia, Nigeria and Togo. Since two countries share borders with countries included in REDISSE I (Guinea Bissau is bordered by Guinea and Senegal and Liberia shares borders with Guinea and Sierra Leone), this will increase the scope for cross-border collaboration under the Program. The Program will be further expanded to include other ECOWAS member states in subsequent phases to ensure that countries with contiguous borders are included in the program, and have the means for cross-border collaboration and exchange. REDISSE III, presently at the inception stage, targeting Benin, Burkina Faso, Côte d'Ivoire, and Ghana will help to fill in the REDISSE "map" so that a continuous band of 11 countries with shared borders –from Senegal in the west to Nigeria in the east - will be participating in the program by the end of the Calendar Year (CY) 2017. Meanwhile cross-border collaboration between REDISSE program countries and other ECOWAS member states will be facilitated by WAHO and the Regional Animal Health Center (RAHC), with support from international partners.

5. **The countries of West Africa belong to the ECOWAS, which comprises 15 countries and is home to more than 335 million people**. ECOWAS is a regional organization that serves to promote economic integration across the West Africa region. The region is very heterogeneous in terms of cultural, economic, and human development. Overall, member states rank low on the United Nations Development Programme's (UNDP) human development index[3]; as of 2015, life expectancy at birth and gross national income per capita of countries in the region ranged from 50.9 to 73.3 years and from $805 to $6,094 respectively.

[2] Canadian Dollar (CAD) $20 million has been committed by the Government of Canada, Department of Foreign Affairs, Trade and Development to support activities under the REDISSE Program. These funds have been used to establish a flexible multidonor trust fund mechanism capable of financing both Bank-executed and recipient-executed activities. This mechanism is available to other donors who wish to co-finance the REDISSE Program, including through support to specific countries, institutions or program components.

[3] Human Development index is defined as the summary measure of average achievement of countries in key dimensions of human development: a long and health life; knowledge; and having a decent standard of living (UNDP, 2015).

Major infectious diseases affecting human population in West Africa

6. **Over the last four decades, the world has witnessed one to three newly emerging infectious diseases annually.** Of infectious diseases in humans, the majority have their origin in animals, with more than 70 percent of emerging zoonotic infectious diseases coming from wildlife. Recent outbreaks, such as EVD, H7N9 avian influenza, Middle East Respiratory Syndrome (MERS-CoV), Marburg virus, Nipah virus infection, bovine spongiform encephalopathy and HIV/AIDS provide abundant evidence of the catastrophic health and economic effects of emerging zoonotic diseases. The West Africa region is both a hotspot for emerging infectious diseases (EIDS) and a region where the burden of zoonotic diseases is particularly high. In this region, emerging and re-emerging diseases at the human-animal-ecosystems interface are occurring with increased frequency, which makes it paramount to adopt a OH approach to addressing infectious diseases outbreak threats.

7. **In West Africa, communicable diseases (CDs) and neo-natal conditions remain the predominating disease groups affecting the region, and have devastating impacts that result in severe human and economic losses.** The World Health Organization (WHO) reports that of the 55 registered disease outbreaks that occurred in Africa over the last decade, 42 took place in West Africa.[4] The sub-region also bears a disproportionate burden of malaria, TB, HIV and the neglected tropical diseases, many of which are at risk of resurgence due to drug and insecticide resistance. Most recently, there have been reported cases of Zika virus in Cape Verde and Guinea Bissau, wild polio virus and vaccine-derived polio in Nigeria (the first since 2014), and 2016 outbreaks of H5N1 and Crimean-Congo fever in parts of several countries in West Africa, each of which if not properly contained, can easily spread to other countries.

8. **The impacts of infectious disease outbreaks can be devastating to the fragile social and economic situation of countries.** The World Bank (WB) estimates a global cost of US$3 trillion[5] in the event of a severe global pandemic such as the 1918 Spanish Flu. In addition, the occurrence of a global pandemic could have a death toll in the millions. In the West Africa region, the 2014 EVD outbreak eroded hard-won gains in the fight against poverty, including gains in human development and economic growth in Guinea, Liberia and Sierra Leone and the region as a whole. In these three countries 28,616 suspected cases of EVD resulted in 11,310 deaths, and the estimated forgone output reached US$1.6 billion, which represents over 12 percent of the countries' combined outputs. Overall, the estimated loss in Gross Domestic Product (GDP) for the 15 countries in the ECOWAS region was approximately US$1.8 billion in 2014, and was projected to increase to US$4.7 billion in 2016.[6] These economic losses were over and above the day to day

[4] Some common outbreaks in the region include Cholera, Dysentery, Malaria, Hemorrhagic fevers (e.g. Ebola, Rift Valley fever, Crimean-Congo fever, Lassa fever, and Yellow fever), and Meningococcal Meningitis outbreaks endemic to countries along the "meningitis belt.

[5] Burns et al. (2008) Evaluating the economic consequences of avian influenza (http://siteresources.worldbank.org/EXTAVIANFLU/Resources/EvaluatingAHIeconomics_2008.pdf).

[6] UNDG (2015) Socio-Economic impacts of EVD in West African Countries: A call for national and regional containment, recovery and prevention.

burden that endemic human and animal diseases, including zoonoses, inflict on the people of West Africa.

9. **The accelerated emergence of infectious diseases has been the result of multiple factors, including:**

- Population growth and rapid urbanization: As of 2015, the population of sub-Saharan Africa (SSA) was estimated at 1 billion, with the African Population and Health Research Centre projecting an increase up to 1.9 billion by 2050. Urban population densities have dramatically increased due largely to migration from rural to urban areas. Improved infrastructure has led to increases in travel and trade in the sub-region. Further, civil war and social turmoil have also been common in West Africa. Population growth coupled with social instability and its consequent population relocation and breakdown of government services provide fertile ground for the rampant spread of infectious diseases.
- Changes in land use including deforestation: According to the Food and Agriculture Organization of the United Nations (FAO) data, Western Africa is suffering deforestation at approximately twice the world rate. The links between deforestation and infectious disease outbreaks is well documented; deforestation and encroachment into natural habitats is also claimed to be responsible for the EVD outbreak in West Africa.
- Other factors that facilitate and accelerate the spread of infectious diseases include, international travel and trade, microbial adaptation and change, cultural aspects, availability of infrastructure, water/sanitation and breakdown of public health measures.

10. **Effect of Climate Change: Changes in the epidemiology of infectious diseases associated with climate variability in West Africa over the last 40 years has been reviewed and documented, and there is also growing evidence of the impact of climate change on infectious disease transmission patterns, nutritional status, reproduction and geographic range.**[7,8] According to the WHO, the risk of malaria and other mosquito-borne disease outbreaks increases by approximately five-fold in the year following an El Nino event. Similarly, climate impacts could increase the burden of diarrhoea by up to 10 percent by 2030 in some regions, and partly because of impact on agriculture, climate change could sharply increase rates of severe stunting, leading to an absolute increase in the number of stunted children in some parts of Africa.

[7] Thompson et al (2004) Impact of Climate Variability on Infectious Disease in West Africa
[8] WHO (2015) Climate Change and Human Health - Risk and Responses

B. Sectoral and Institutional Context

Human Health

11. **The performance of health systems in many countries in West Africa is weak.** They suffer from chronic insufficiency of financial and human resources, limited institutional capacity and infrastructure, weak health information systems, prevailing inequity and discrimination in availability of services, absence of community participation, lack of transparency and accountability, and a need for management capacity building. Public sector spending on health is generally low. None of the ECOWAS member states exceeds the Abuja target of ensuring 15 percent of Gross Government Expenditure (GGE) is allocated to health.

12. **Country-led self-assessment on disease surveillance, preparedness and response capacity in Nigeria and Togo, as well as the lessons learnt from the EVD outbreak revealed some key weaknesses of health systems in terms of infectious disease surveillance, epidemic preparedness and response.** These include: (i) a fit for purpose health workforce for disease surveillance, preparedness and response is lacking at each level of the health pyramid; (ii) community engagement and community level surveillance and response structures either do not exist or need significant improvement; (iii) limited availability of laboratory infrastructure in place for timely and quality diagnosis of epidemic-prone diseases; (iv) lack of interoperability of different information systems hampers analysis and utilization of information for decision making and disease mitigation measures; (v) infection prevention and control standards, infrastructure and practices are generally inadequate; (vi) management of the supply chain system is weak and inefficient; and (vii) there are significant gaps in regional level surge capacity for outbreak response, stockpiling of essential goods, information sharing and collaboration. Similar findings were also documented by the Global Health Security Agenda (GHSA) baseline assessments in a number of countries including Liberia.

13. **Guinea-Bissau has achieved some progress in health in recent years, nevertheless some critical challenges remain.**[9] According to the last Multi Indicators Cluster Survey (MICS), the maternal mortality rate (MMR) is estimated at 900 maternal deaths per 100,000 live births, one of the highest rates in the world.[10] Progress has been made to reduce infant mortality, but both infant mortality rate (IMR) and under-five mortality rate (U5MR) remain among the highest in the world, 60 and 88.8 per 1,000 live births, respectively.[11] Malaria is the single largest cause of deaths (15.8%), followed by HIV, neonatal disorders, lower respiratory infections, diarrheal diseases and nutritional deficiencies. The burden of HIV in Guinea-Bissau is the highest in West Africa. The country's health system faces persistent challenges related to inadequate supply of health workers, low public spending, poor infrastructure, and weak governance.

[9] World Bank (2016). Guinea-Bissau Systematic Country Diagnostic: turning challenges into opportunities for poverty reduction and inclusive growth. World Bank, Washing/DC
[10] UNICEF (2014). Multi Indicators Cluster Survey (MICS)
[11] World Development Indicators (2014)

14. **A recent Center for Disease Control and Prevention (CDC) assessment identified critical challenges in the disease surveillance strategies in the country.** These include: (i) analysis and interpretation of surveillance data as well as reports and outbreak summaries are not routinely performed; (ii) data quality assurance protocols and supervision to ensure data completeness and accuracy are not fully implemented; (iii) functional field epidemiology and laboratory capacity in the country are limited (iv); deficiencies in infrastructure affect the ability for staff to complete required functions (sanitary areas often lack a surveillance office with appropriate equipment to efficiently perform surveillance duties); and (v) laboratory and drug supply chains are not fully capable of ensuring effective use of surveillance and detection tests.[12]

15. **Prior to the EVD crisis, Liberia's health outcomes had been improving steadily since the end of the second civil war in 2003.** Figures from the 2013 Liberia Demographic Health Survey (LDHS) showed a 15 percent decline in U5MR and a corresponding decline in two subset indicators of U5MR, in the 10-year period prior to the survey. By 2012, Liberia was also one of the first countries in SSA to achieve its MDG target of reducing U5MR to less than one-third of its 1990 level (as of 2015, U5MR was estimated at 70 per 1,000 live births compared to 255 in 1990). However, the EVD crisis led to a devastation of the already fragile healthcare system in Liberia and severely constrained the ability of the Government of Liberia (GOL) to deliver key social services, including basic and secondary health services, thereby leading to many preventable deaths.

16. **A 2016 WHO-led IHR (2005) core capacity assessment in Liberia using the Joint External Evaluation (JEE) tool shows significant improvements in the national surveillance systems post-EVD crisis, with country-wide coverage on the human health side, and the establishment of a robust emergency operations center (EOC) and incidence management system at the national and sub-national level.** However, key weaknesses continue to exist including reported challenges with the community level surveillance structure; lack of a national laboratory network and national laboratory quality standards/quality management system; the shortage of a multidisciplinary workforce to implement the International Health Regulations (IHR) core capacities; and the absence of a multi-hazard National Public Health Emergency Preparedness and Response Plan. Overall, the assessment report emphasizes an urgent need to strengthen and sustain a multidisciplinary coordination and communication mechanism required for the implementation of the IHR core capacities in the country.

17. **The health sector of Nigeria is characterized by vast regional disparities in service delivery, health outcomes and resource availability.** The adverse effects of diseases in the country are often exacerbated by lack of education, gender disparities and ineffective communication, especially in the North-eastern zones where health outcomes are grimmer than other parts of the country (as of 2014 U5MR was reported to be 54% higher; and DPT3 immunization coverage was only 20.6% in the North East compared to 72% in the southern zones).[13] Training on the implementation of the Integrated Disease Surveillance and Response

[12] CDC (2015). Guinea-Bissau Country Work Plan. Field Epidemiology Training Program Frontline (FETP-Frontline), US Centers for Disease Control
[13] Nigeria Demographic and Health Survey (2013)

(IDSR) strategy[14] has been facilitated by the establishment of Nigeria Field Epidemiology and Laboratory Training Program (NFELTP) in 2008.[15] However, threats to the implementation of the IDSR are mainly attributable to the non-activation of the community level surveillance system and inefficient coordination and collaboration across all levels of the health system in the country.

18. **Health outcomes in Togo remain characterized by high levels of morbidity and mortality due to infectious diseases (overall mortality rate is estimated at 8 per 1,000 live births; as of 2015, U5MR was estimated at 78 per 1,000 live births) although the rise in non-communicable diseases (NCDs) provides growing evidence of the epidemiologic transition currently underway.** As a major hub for air and ground transportation in the sub-region, the country is ranked by the WHO as "high risk" for Ebola and other Public Health Emergencies of International Concern (PHEIC). Surveillance of epidemic-prone diseases remains a key priority of the Togolese Government. Notwithstanding, a major obstacle to better stewardship, planning and coordination of the health sector in Togo is the fragmentation of the country's disease surveillance and other health information across dozens of different, inconsistent and sometimes overlapping vertical systems. Limited capacities for data collection, reporting and analysis, especially at decentralized levels, create difficulties in the efficient and effective monitoring of health interventions and their outcomes.

Animal Health

19. **The animal health sector of countries in the ECOWAS region is characterized by a high incidence and prevalence of infectious communicable diseases, both zoonotic and non-zoonotic, impacting veterinary and public health, trade, rural development and livelihoods.** A recent summary of evaluations of Veterinary Services by the World Organization for Animal Health (OIE) in ECOWAS countries highlighted the services' lack of budgetary resources and mismatch between the human resources required and those actually available for preventing and controlling animal diseases. In terms of the strategic action required to sustain animal health, all of the countries identified the need to improve the coverage of their surveillance programs as well as the control of high-priority animal diseases[16]. Lack of preparedness, insufficient human, physical and financial resources, and the lack of cross-sector collaboration were again emphasized by the FAO and OIE as causes for failure to address promptly and efficiently the resurgence of highly pathogenic avian influenza in the region.

20. **Improvement of animal health requires increased and sustained investments in national Veterinary Services (VS) to meet international standards of quality defined by the OIE.** Any country failing to prevent, detect, inform, react and control sanitary issues, such as

[14] An Integrated Disease Surveillance and Response (IDSR) strategy is a tool developed by the WHO to promote rational use of resources by integrating and streamlining common surveillance activities

[15] The Nigeria Field Epidemiology and Laboratory Training Program (NFELTP) is a two-year training program aimed at improving public health systems in Nigeria through training of field epidemiologists and public health laboratorians and provision of epidemiological services.

[16] OIE (2013). Feasibility study for a program to improve veterinary governance and the control of priority transboundary animal diseases in West Africa

infectious diseases or antimicrobial resistance places other countries at risk, hence the importance of regional approaches. All countries in the region have engaged in the OIE Performance of Veterinary Services (PVS) Pathway[17], a program which provides independent qualitative (PVS evaluation) and quantitative (PVS Gap Analysis) evaluations of VS, identifying their strengths and weaknesses, prioritizing interventions and costing activities needed to address deficiencies.[18] Some countries have also received support to review their veterinary legislation

21. **In Guinea Bissau, the 2015 PVS evaluation mission found that the Veterinary Services could not ensure the sanitary security of livestock and animal products, nor the security of the population against zoonotic and animal production food safety risks.** Lacking critical competencies include human resources, financial resources, legal basis and enforcement as well as all technical capacities, including laboratory diagnostics, risk analysis, border security, epidemic surveillance, prevention and control of diseases, rapid response to emergencies, veterinary medicinal products and food inspection.

22. **Liberia faces major gaps in VS which are still critically understaffed, thereby affecting its overall capacity to tackle immediate and future challenges of a growing, unchecked livestock population.** In 2013, there was no veterinarian in the country, no formal passive nor active epidemic surveillance program, no diagnostic capacity in the field nor in laboratories, hence the sanitary status could not be ascertained. Similar diseases to those present in neighbouring countries were deemed to be present. Various externally funded projects have helped Liberia to implement some programs over the past decade, such as the Support Programme for Integrated National Action Plans for Avian and Human Influenza (SPINAP) Avian flu 2007/2011; the Control of trans-boundary animal diseases in Africa (VACNADA) with a massive vaccination campaign against *Peste des Petits Ruminants* (PPR); the Reinforcing Veterinary Governance in Africa Program (Vet-Gov) with activities on modernization of veterinary legislation; and currently the USAID financed Emerging Pandemics Threats Program (EPT2). The country underwent a PVS GAP Analysis in the summer of 2016 that will provide a solid basis for a stepwise holistic strengthening of the Liberia VS.

23. **Nigeria's animal disease surveillance and control system has suffered from setbacks in recent times, linked to general funding shortfalls as well as security challenges that have hampered operations in some parts of the country.** Nigeria has the largest population of animals in West Africa, and is also a net importer of livestock, mainly from neighbouring countries. The

[17] The PVS evaluation tool is composed of 46 critical competencies, grouped in 4 components (Human, Physical, and Financial Resources, Technical Authority and Capability, Interaction with Interested Parties, Access to Markets), each being evaluated on a scale of 1 (no compliance) to 5 (full compliance). The evaluations of VS are expected to be done regularly in order to measure progress made and establish recommendations for continuous improvement. This tool, and the JEE which is to periodically monitor progress in the implementation of the WHO International Health Regulations (IHR), will be central to project monitoring and evaluation activities.

[18] State of play of PVS pathway evaluations in, Guinea Bissau, Liberia, Nigeria, and Togo: Guinea Bissau (PVS evaluation in Mar 2008, Gap Analysis in Sept 2009, PVS Follow-up in Nov 2015); Nigeria (PVS evaluation in Aug. 2007, the PVS Gap Analysis in Sep. 2010, legislation mission in Jan. 2011); Liberia (PVS evaluation in Jan 2013, Gap Analysis in July 2016); Togo (PVS evaluation in Oct/Nov 2007, Gap Analysis in Jan 2010, Legislation mission in Jan 2010)

recent resurgence of the Highly Pathogenic Avian Influenza (HPAI) (January 2015) in the country, a strain closely related to an isolate from China, highlighted again the risks of occurrence of disease through both formal and informal trade as well as wildlife, requiring strengthened systems and sustained efforts to assess and mitigate them. Surveillance activities focus on selected priority diseases present in the country, however strong linkages with communities, private sector veterinarians and vet paraprofessionals as well as other sectors like environment are still missing.

24. **In Togo, the national economy pays a heavy price for the rise in the number of deadly diseases of livestock that pose a threat to humans including Anthrax, Bovine Tuberculosis, Cysticercoids, Salmonellosis and Canine Rabies Infectious diseases of livestock that remain a key priority for the country's network of epidemiologic surveillance of animal diseases (REMATO).** Highly Pathogenic Avian Influenza H5N1 has resurfaced in Nigeria since January 2015 and most recently, spread to various countries in the region including Togo where it was diagnosed and reported in August 2016 to the OIE.

25. **Insufficient government funding and limited interest from donors to support VS have not allowed significant progress to date in addressing systemic issues.** However, some important programs are worth noting in the animal health sector, such as USAID's multicountry Emerging Pandemic Threats (EPT2) program which is implemented in many of the ECOWAS countries through FAO and other implementing agencies; FAO support to HPAI infected countries; and Inter-African Bureau for Animal Resources of the African Union (AU-IBAR) support through the Vet-GOV program. In the last 15 years, two main regional and global programs significantly contributed to strengthening national VS, namely the Pan-African Program for the Control of Epizootics (PACE) program and the World Bank Financed Avian Influenza Global Program which were implemented in many countries of the region. The lessons and best practices derived from these two programs are reflected in this project. The Regional Network of National Epidemic surveillance Systems for HPAI and other Priority Animal Diseases in West-Africa (RESEPI) and Veterinary Laboratory Network for Avian Influenza and other Transboundary Animal Diseases in West-Africa (RESOLAB) networks were also supported and facilitated by FAO under different projects and handed over in 2012 to ECOWAS.

26. **ECOWAS and the West African Economic and Monetary Union (WAEMU) have set a target of harmonizing national animal health systems**. WAEMU, which covers 8 countries in the region, has moved forward on the harmonization of regulations on veterinary medicinal products, but progress has been slow due to administrative, human, organizational and financial constraints. In 2012, ECOWAS member countries declared the RAHC —an informal platform originally set up in 2006 by OIE, FAO and AU-IBAR— as the ECOWAS specialized technical centre for animal health. An operational plan for RAHC was developed in August 2014. However, delays in staff recruitment and establishment of a dedicated operational budget have kept the institution from implementing this plan and rolling-out activities in accordance with its mandate. The RAHC is currently supported through a limited number of initiatives with specific objectives, including to further develop the One Health agenda in the region, and to develop Integrated Regional Coordination Mechanisms for the control of transboundary animal diseases (TADs) and Zoonoses (IRCM). The Bank's Regional Sahel Pastoral Support project (PRAPS), which supports

the improvement of animal health in six West African Sahel countries, and REDISSE I, specifically aims at contributing to the operationalization of the RAHC.

27. **Tackling multisectoral issues efficiently requires working across sectors and disciplines and across borders.** Yet very few countries have adopted coordinated approaches, along the lines of the OH concept. The response to the HPAI crisis since 2005 contributed to enhancing cooperation between the human and veterinary health sectors in many countries in the region, but in the absence of a dedicated program incentivizing such a joint approach, a silo approach still prevails. In Nigeria for instance, an OH approach to tackling infectious diseases has been widely publicized and conceptualized in key ministries. However, animal and human health disease surveillance systems have experienced major setbacks due to general funding shortfalls that have severely impacted both animal health and human health care delivery system in the country. Nonetheless, important lessons have been learned and experience gained, and successful regional programs for the control of selected priority diseases, both within and outside the region, have demonstrated the efficiency of a regionally coordinated approach to disease surveillance and response. In November 2016, technical and ministerial meetings on One Health took place in Senegal. The Communique highlighted the role of Governments in articulating intersectoral coordination (human, animal and environmental health), conducting sub-regional hazards and risk assessments, setting up national and sub-regional alert mechanisms as well as regular information sharing, carrying out joint external evaluations of IHR (2005) and in joint planning of preparedness and response interventions.[19]

Partner Coordination

28. **The Development Partner landscape in the sub-region is complex, particularly in the countries most affected by the 2014-2015 EVD epidemic.** The Ebola outbreak triggered a significant international response that brought many partners together to address the crisis and support the post-Ebola agenda of health systems recovery and strengthening. It also highlighted the need to focus attention on building the capacity for disease surveillance and response in the sub-region for both human and zoonotic diseases. Development partners engaged in the EVD response included development banks, multilateral and bilateral donors and private foundations, UN system agencies other technical agencies, academic and research institutions and large numbers of international and local non-governmental organizations. Collaboration on Ebola containment in the most affected countries continues and has been extended beyond Ebola.

29. **The World Bank Group is well positioned to promote regional and global propositions that address the fundamental weaknesses of health systems and their interoperability.** The World Bank's convening power is highly instrumental to forging a coalition of national, regional, and global technical and financial institutions to support this neglected agenda in West Africa including the U.S. CDC, the China CDC, the WHO, the OIE, the African Development Bank, bi-lateral development partners and private foundations. To date, the Bank

[19] Communique: One Health Ministerial Meeting to Address Zoonotic Diseases and other related Health threats. Dakar, Senegal 11 November 2016

team has been successful in mobilizing project preparation financing from the Bill and Melinda Gates Foundation, co-financing from the Government of Canada, Department of Foreign Assistance, Trade and Development and Trust Funds from the Government of the People's Republic of China. REDISSE has systematically engaged the technical expertise of institutions and individual experts from across multilateral, governmental, non-governmental academic and private institutions and is establishing coordinating mechanisms, such as a Regional One-health Platform and a Monitoring and Evaluation Reference Group for disease surveillance and response systems.

C. Higher Level Objectives to which the Project Contributes

30. **The project is aligned with pillar III of the Regional Integration Assistance Strategy (RIAS) for the region (2008/rev 2011), building coordinated interventions to provide regional public goods (See Box 1).** The RIAS specifically identifies regional and sub-regional programs to address the cross-border dimensions of disease prevention and treatment as an area of focus. The project meets the four regional criteria for utilizing the regional International Development Association (IDA) funds: (i) involves three or more countries: the project involves four countries (Guinea Bissau, Liberia, Nigeria, and Togo); (ii) has benefits, either economic or social, that spill over country boundaries; (iii) reflects strong interest from regional bodies and the region's countries in the project; and (iv) provides a platform for a high level of policy harmonization between countries. With these minimum criteria addressed it is important to note that collaboration and collective action across borders to address disease threats is one of the clearest examples of a global public good. The increasing frequency of disease outbreaks and the rapid spread of disease requires regionally aligned information and surveillance systems, harmonized policies and standard operational procedures. As part of REDISSE, the countries under REDISSE II will benefit from regional activities financed under REDISSE I through a US$20 million IDA grant and a US$12 million MDTF. This includes the creation and strengthening of regional institutions, platforms and networks.

31. **The project is in line with the WBG's mission to end extreme poverty and boost shared prosperity.** Communicable and non-communicable diseases are a major constraint to the health, education and potential earnings of people living in the ECOWAS region and have greatest impact on the most vulnerable population. Hence, the economic rationale for investing in these interventions is strong, given that success can mitigate the economic burden suffered both by individuals and the country as a whole. The Country Partnership Strategy (CPS) documents for the four countries under REDISSE II emphasize the need to strengthen the capacity of health systems of which disease surveillance is a key pillar, in order to improve health outcomes and reduce vulnerability.

Box 1: Why a Regional Approach to Disease Surveillance, Preparedness and Response in West Africa?[20]

- The Project will be implemented in the context of the African Integrated Disease Surveillance and Response Strategy and the One Health Approach, based on regional best practices and WHO, OIE and FAO guidance.
- The Project will support the countries to establish a coordinated approach to detecting and swiftly responding to regional public health threats. Cooperation among West African countries to prevent and control potential cross-border diseases is a regional public good. The regional benefits and positive externalities of effective disease surveillance and response are substantial.
- The West African Health Organization (WAHO) and Regional Animal Health Centre (RAHC), both of which are affiliated with ECOWAS, will be responsible for the regional coordination and day-to-day oversight of this Project (their financing being however included in REDISSE I). Collective action and cross-border collaboration are emphasized throughout the Project:
    - the Project will support countries' efforts to harmonize policies and procedures;
    - countries will be empowered to engage in joint planning, implementation and evaluation of program activities across borders at regional national and district levels, and;
    - the Project will promote resource sharing of high cost specialized assets such as reference laboratories and training center and pooled procurement of difficult to access commodities.

It is anticipated that the overall REDISSE program will cover all member countries of the ECOWAS to ensure that gaps in diseases surveillance, preparedness, and response across all countries in West Africa region are properly addressed.

By considering activities that can only be achieved through multi-country collaboration, priority will be placed on three areas:

- control and prevention of cross-border spread of communicable disease;
- research, including targeted research and development, and;
- harmonized policies, standardized technical guidelines as well as information collection and sharing

32. **The project complements both WBG and development partner investments in health systems strengthening, disease control and surveillance, attention to changing individual and institutional behaviour, and citizen engagement.** In Liberia, the EVD epidemic created an unprecedented impetus to address critical health system vulnerabilities to building resilience against future shocks, in tandem with broader multi-sector reconstruction and recovery efforts. In response to this, a key pillar under the Liberia Health Systems Strengthening Investment Plan (2015 – 2021) is to establish an Integrated Disease Surveillance and Response (IDSR) and Early Warning and Alert Response Network (EWARN) structures at national, county, district and community levels; to set up priority cross-border surveillance interventions; and to address the human resource crisis. The project also aligns with the Nigeria National Health Act (2014), which stipulates rights and access to any public health emergency at the three tiers of the government. In Togo, the project is well aligned with the Accelerated Growth Strategy and Employment Promotion (SCAPE), the National Health Development Plan (NHDP) and the National Program for Agricultural Investment and Food Security (PNIASA). Similarly, in Guinea Bissau the project is aligned with the Second National Plan for Health Development (PNDS II). The PNDS II

[20] Preparedness for pandemics refers to a variety of health and non-health interventions, capabilities and capacities put in place at community, country, regional and global levels to better detect, prevent, protect, control and respond to the spread of disease and other hazards as well as mitigate risks to international travel and trade and social disruptions.

identifies the integrated disease surveillance and response systems as one of the six strategic areas to strengthen the national health system. The project is also in line with the recommendations from the recent World Bank Systematic Country Diagnostic (SCD) which recommends Guinea-Bissau strengthen health information systems, including disease surveillance capacity for early detection and response to disease outbreaks, as a priority policy action.[21] (see also Annex 6 "Alignment with Other Bank-Supported and Other Partners Projects"). The project contributes to the implementation of the WHO IHR (2005) and the OIE terrestrial animal health Code and Manual, the One Health Agenda, the Global Health Security Agenda, the Universal Health Coverage (UHC) and attainment of the Sustainable Development Goals (SDG).

33. **Complementary to REDISSE, the World Bank and its key partners have been working on the Global Pandemic Emergency Facility (PEF**). The PEF, which was approved by the World Bank in May 2016, aims to provide immediate support to countries experiencing an infectious disease outbreak that meets predefined triggers, either defined as a public health emergency of international concern (PHEIC) or a certain disease outbreak notification (DON) event, through both an insurance funding mechanism and a public funding mechanism. The PEF initially targets 77 IDA countries and aims to get the funds to a country within a maximum of one to two days. REDISSE complements the PEF since (i) by focusing on capacity for disease surveillance and epidemic preparedness, countries will be better able to contain outbreaks before they develop into PHEIC or DON events and trigger the PEF; and (ii) it includes a contingent emergency response component (CERC) so that countries will be able to mobilize funds quickly from within the project in the event of an outbreak which may assist in preventing the need to trigger PEF.

34. **Similarly, the World Bank and development partners in West Africa have undertaken the Africa Higher Education Centers of Excellence (ACE) program.** This program is designed to promote regional specialization among participating universities, including the human and animal health disciplines, training epidemiologists, laboratory technicians and public human and animal health specialists.

II. PROJECT DEVELOPMENT OBJECTIVES

A. PDO

35. The PDOs, key results and indicators under REDISSE remain the same across the SOPs. As adopted under REDISSE I, the PDOs are: (i) to strengthen national and regional cross-sectoral capacity for collaborative disease surveillance and epidemic preparedness in West Africa, thereby addressing systemic weaknesses within the animal and human health sectors that hinder effective disease surveillance and response; and (ii) in the event of an Eligible Emergency, to provide immediate and effective response to said Eligible Emergency.

[21] World Bank (2016). Guinea-Bissau Systematic Country Diagnostic: turning challenges into opportunities for poverty reduction and inclusive growth. World Bank, Washington/DC.

B. Project Beneficiaries

36. The main beneficiaries of the program will be the populations of ECOWAS countries. Under REDISSE all 15 countries will participate in regional policy and standard setting activities led by WAHO and RAHC. In addition, Guinea Bissau, Liberia, Nigeria and Togo will receive financing for systems strengthening. Hence, REDISSE II is expected to benefit over 191.1 million people[22] (1.9 million in Guinea Bissau, 4.4 million in Liberia, 177.5 million in Nigeria and 7.3 in Togo) whose livelihoods may be affected by diseases.

37. Secondary beneficiaries include service providers (both public and private), as well as national and regional institutions involved in human and animal health. WAHO is a major institutional beneficiary of the REDISSE program, alongside the RAHC as well as the Regional Center for Disease Control and Prevention (RCDC) and other regional technical partners. Hence the population of the region will also benefit from the strengthened regional capacity to prevent, detect and react promptly to sanitary events of importance.

C. PDO-Level Results Indicators

38. The proposed PDO will contribute to: (i) develop national and regional capacity to fully implement the Integrated Disease Surveillance and Response (IDSR) strategy, which calls for the continuous monitoring of mortality and morbidity to identify and respond to threats before they can develop into large scale or transboundary epidemics; (ii) facilitate country and regional compliance with international standards for veterinary services, with a particular focus on early detection and rapid response capacity, as adopted by the OIE members states in the Terrestrial Animal Health Code , and utilize the findings and recommendations from the OIE PVS pathway; and (iii) ensure more efficient collaboration and synergies between human and animal epidemiological surveillance and response networks at country and regional levels. The following key indicators will be used to track progress towards the PDOs:

a. Laboratory testing capacity for detection of priority diseases: number of countries that achieve a JEE score of 4 or higher out of 5;

b. Progress in establishing indicator and event-based surveillance systems: number of countries that achieve a JEE score of 4 or higher out of 5;

c. Availability of human resources to implement IHR core capacity requirements; number of countries that achieve a JEE score of 3 or higher out of 5;

d. Multi-hazard national public health emergency preparedness and response plan is developed and implemented: number of countries that achieve a JEE score of 4 or higher out of 5;

[22] Based on 2014 World Development Indicators.

e. Progress on cross-border collaboration and exchange of information across countries: number of countries that achieve a score of 4 or higher out of 5.

f. Progress towards establishing an active, functional regional One Health Platform (Number based on 5 point Likert scale)

Four of the six PDO level indicators will be based on the periodic Joint External Evaluation (JEE) for monitoring progress in the implementation of the WHO IHR (2005)[23].

III. PROJECT DESCRIPTION

A. Project Components

39. A streamlined consultative process was adopted under REDISSE to inform the detailed project design, which will enhance the capacities of the human and veterinary public health systems of Guinea Bissau, Liberia, Nigeria, and Togo for efficient and effective surveillance, preparedness and early response to infectious disease threats, and via a collaborative regional approach that promotes the One Health approach and supports the implementation of the IHR (2005) and OIE standards.

40. Adopting the same design under REDISSE I, the REDISSE II project will comprise 5 components as follows:

Component 1: Surveillance and Information Systems (US$45.33 Million)

41. This component will involve the enhancement of national surveillance and reporting systems and their interoperability at the different tiers of the health systems. This component will support national and regional efforts, including cross-border coordination, in the surveillance of priority diseases (including emerging, re-emerging and endemic diseases) and the timely reporting of human public health and animal health emergencies in line with the IHR (2005) and the OIE Terrestrial Animal Health Code. This component also seeks to strengthen the linkages of surveillance and response processes at the local level through citizen and community engagement, sub-national and national levels of the health system to ensure the rapid detection of new cases and potential disease outbreaks within high-risk communities via early reporting to local/district health structures in real-time; and laboratory confirmation and classification of collected samples, supported by a regional network (a presentation of the linkages between community action and

[23] The World Health Organization, together with other partners, has developed a Joint External Evaluation Tool-International Health Regulations (2005) (JEE-IHR) to assess country capacity to prevent, detect, and rapidly respond to public health threats. The tool allows countries to identify the most urgent needs within their health security system, to prioritize opportunities for enhanced preparedness, response and action, and, through regular evaluations, will help monitor the progress by country in implementation of the International Health Regulations (2005). *http://apps.who.int/iris/bitstream/10665/204368/1/9789241510172_eng.pdf*. The JEE makes use of the PVS evaluation missions' results which provide an assessment of the strengths and weaknesses of the national Veterinary Services (http://www.oie.int/support-to-oie-members/pvs-evaluations/oie-pvs-tool/)

regional surveillance and response is provided in Annex 1, paragraph 13, page 108). For individuals, communities, and the institutions involved, there will be need to promote relevant behavioural change. Linkages along these different levels and steps within an animal health epidemiology and surveillance system shall be analysed, optimized and formalized.

42. Sub-components are: (I) support coordinated community-level surveillance systems and processes across the animal and human health sectors; (II) develop capacity for interoperable surveillance and reporting systems; and (III) establish an early warning system for infectious disease trends prediction.

43. Potential activities will include: (i) establishment of appropriate linkages between national animal health and human health surveillance information systems, between national systems to regional/international disease surveillance and reporting systems, and adaptation of potentially cost-effective risk-based approaches to surveillance; (ii) cross-border collaboration in surveillance (including active/event-based, passive and syndromic surveillance) for the early detection of cases; (iii) timely reporting by community-level surveillance agents as well as district health and veterinary facilities, and minimization of turnaround time from specimen collection to laboratory confirmation and reporting; (iv) the use of surveillance data for risk analysis (assessment, management and communication) to implement appropriate outbreaks prevention and control interventions across the sub-region.

Component 2: Strengthening of Laboratory Capacity (US$30.89 Million)

44. This component will involve the identification and/or establishment of networks of efficient, high quality, accessible public health, and veterinary laboratories (public or private) for the diagnosis of infectious human and animal diseases, and the establishment of a regional networking platform to improve collaboration for laboratory investigation. Adapting some lessons learned from the East Africa Public Health and Laboratory Networking Project (EAPHLN) project, the regional laboratory network will contribute towards strengthening the capacities of national veterinary and public health laboratories as well as public health institutes, most notably in the areas of surveillance, pathology for the earlier identification and diagnosis of priority infectious disease pathogens, Antimicrobial Resistance (AMR) and insecticide resistance monitoring and mapping. The national laboratory network in each country will be linked to and supported by the network of regional reference laboratories (RRL) being established with support from the Program through the REDISSE 1 project. RRLs are being developed in five ECOWAS member states: Burkina Faso, Cote d'Ivoire, Ghana, Nigeria and Senegal.

45. The sub-components are: (I) Review, upgrade and network laboratory facilities; (II) Improve data management and specimen management systems; and (III) Enhance regional reference laboratory networking functions.

46. Potential activities under this component include: (i) provision of technical support for laboratory information systems and the interoperability with disease surveillance and reporting systems; (ii) streamlining of laboratory specimen referral process and improving the efficiency of

the specimen transport and disposal systems; (iii) application of the World Health Organization – Africa Region (WHO/AFRO) five-step accreditation process and technical assistance to support accreditation of regional reference laboratories.

Component 3: Preparedness and Emergency Response (US$26.08 Million)

47. Component 3 will support national/regional efforts to enhance infectious disease outbreak preparedness and response capacity by improving local (community), national and regional capacities to prepare for impending epidemics in humans and animals, and to respond effectively to disease outbreak threats including the resulting mortality risks posed by infectious diseases. Project interventions will provide support to improve country and regional surge capacity to ensure a rapid response during an emergency and, for what concerns the human health sector, a better performance of the healthcare system in service delivery. This component will seek to better educate/change behaviour and prepare communities for outbreaks and emergencies as part of the routine delivery of health services. As part of the cross-sectoral efforts, the development of joint planning and joint implementation will be pursued. The project will also support enhancing country health system capacities for management of disaster recovery priorities including the capacity for the integration of community-centre emergency care into the broader healthcare system.

48. The sub-components are: (I) Enhance cross-sectoral coordination and collaboration for preparedness and response; (II) Strengthen capacity for emergency response; and (III) Contingency emergency response; a sub-component, which has the objective to improve the Government's response capacity in the event of an emergency, following the procedures governed by OP/BP 10.00 paragraph 13 (Rapid Response to Crisis and Emergencies) (see box 3).

Box 3: Contingent Emergency Response Component (US$0)

The objective of this sub-component is to improve the Government's response capacity in the event of an emergency, following the procedures governed by OP/BP 10.00 paragraph 13 (Rapid Response to Crisis and Emergencies). There is a moderate to high probability that during the life of the project one or more countries will experience an epidemic or outbreak of public health importance or other health emergency with the potential to cause a major adverse economic and/or social impact which would result in a request to the Bank to support mitigation, response, and recovery in the region(s) affected by such an emergency. In anticipation of such an event, this contingent emergency response component (CERC) provides for a request from countries participating in REDISSE the Bank to support mitigation, response, and recovery in the district(s) affected by such event. This Program provides an important opportunity for clients to stop epidemics from spreading within and across borders through early intervention, without the need to set financing aside in a conventional contingency fund.

An "Emergency Response Operational Manual" (EROM) will be prepared by each country as a condition of disbursement. Countries will begin drafting the EROM immediately to ensure that the CERC is in place as soon as possible in the event that an emergency occurs early in the implementation of the Project. Triggers for the CERC will be clearly outlined in the EROM acceptable to the World Bank. Disbursements will be made against an approved list of goods, works, and services required to support crisis mitigation, response and recovery. All expenditures under this activity will be in accordance with paragraph 12 of World Bank OP 10.00 (Investment Project Financing) and will be appraised, reviewed, and found to be acceptable to the World Bank before any disbursement is made.

49. Potential activities include: (i) updating and/or development of cross-sectoral emergency preparedness and response plans (national and regional) for priority diseases, and ensuring their integration into the broader national all-hazards disaster risk management framework; (ii) regular testing, assessment, and improvements of plans; (iii) expansion of the health system surge capacity including the allocation and utilization of existing pre-identified structures and resources (at the national and regional level) for emergency response, and infection prevention and control (IPC); (iv) establishment of multidisciplinary rapid response teams at both national and regional level; and, (v) periodic conduct of outbreak simulation exercises to assess functionality.

Component 4: Human Resource Management for Effective Disease Surveillance and Epidemic Preparedness (US$22.64 Million)

50. The fourth component is cross cutting of the previous three and aims to strengthen government capacity to plan, implement and monitor human resource interventions by establishing long-term capacity for improved management of human resources. This component will provide support to the development of institutional capacity for planning and managing continuing workforce training by leveraging existing training structures and programs across countries in the region such as the Field Epidemiology Training Program (FETP), Field Epidemiology and Laboratory Training Program (FELTP), Veterinary-FETP, and other workforce training programs that address critical public health and veterinary health needs.

51. This component will analyse and seek to address the incentive environment within which public health and veterinary health workers operate. The project will seek to implement activities which create incentives that not only draw those with relevant skills to the public sector, but also

improve staff motivation and retention, taking into account gender differences within the health workforce. Viable options will be explored under this component to ensure a centrally coordinated and efficient process for the retention of a skilled workforce (for both animal and human health) available for routine surveillance and rapid deployment for case detection, laboratory confirmation of suspected cases, vaccine distribution logistics, and for the delivery of primary healthcare needs for common illnesses as part of outbreak response.

52. Sub-components under this component are: (I) Healthcare Workforce mapping, planning and recruitment; and (II) Enhance Health Workforce training, motivation and retention.

53. This sub-component includes: (i) assessments of current workforce in terms of quantity, geographical and gender distribution and capacity; (ii) strengthening capacity for human resource management for disease surveillance and response; (iii) supporting the capacity of governments to recruit health workers and create an incentive environment which encourages skilled individuals to join the public sector; and (iv) using private actors to deliver public sector activities through delegation of power (e.g. sanitary mandates for veterinarians).

Component 5: Institutional Capacity Building, Project Management, Coordination and Advocacy (US$22.06 Million)

54. Component 5 focuses on all aspects related to project management. It includes fiduciary aspects (financial management and procurement), monitoring and evaluation (M&E), knowledge generation and management, communication, and management (capacity building, monitoring and evaluation) of social and environmental safeguard mitigation measures. It also provides for critical cross-cutting institutional support, meeting capacity-building and training needs identified in the four countries on top of specific technical capacity-building activities undertaken within the four technical components (including support to the management of operational research). It will support the routine external independent assessment of critical animal health and human health capacities of national systems using reference tools (such as OIE PVS and JEE) to identify weaknesses and monitor progress. This component will build on, and complement other projects and initiatives such as the West Africa Regional Disease Surveillance Project (WARDS) (which has been supporting the development of the institutional capacity of WAHO), East Africa Public Health and Laboratory Networking Project (EAPHLN), Global Health Security Agenda (GHSA), and Emerging Pandemic Threat (EPT2) and other discrete activities to foster the harmonization of a functional regional disease surveillance and response network in the ECOWAS region.

55. Sub-components are: (I) Project coordination, fiduciary management, monitoring and evaluation, data generation, and knowledge management; and (II) Institutional support, capacity building, advocacy, and communication at the regional level.

56. Potential activities under this component include: (i) strengthen the capacities of national institutions to efficiently perform core project management functions including operational planning, financial management, procurement arrangements, and environmental and social safeguards policies in accordance with WB guidelines and procedures. (ii) enhance M&E systems

including routine health management and information systems (HMIS) and other data sources, including regular JEE and PVS pathway evaluations; (iii) manage an operational research program and economic analysis of disease outbreaks and epidemics in the ECOWAS region implemented by national and regional institutions; (iv) promote the design of impact evaluation studies to measure the impact of project interventions; and (v) coordinate the roles of existing national and regional institutions to better support the planned project activities.

57. As with REDISSE I, WAHO will host the regional coordination unit and will be primarily responsible for regional coordination, including cross-border coordination, guided by the decisions of the REDISSE Regional Steering Committee under the political leadership of ECOWAS. For the regional oversight of the animal health area, WAHO would delegate operational coordination and implementation of regional animal health activities to RAHC, with the support of OIE. WAHO will also be responsible for supporting the establishment of national and regional One Health coordination platforms for the purpose of developing synergies, joint planning, implementation and communication. Strategies will be adopted for generating evidence to be used to advocate for increased and sustained financing for disease surveillance and preparedness from domestic sources.

Private Sector Engagement

58. **Across all project components, the project will promote partnership with the private sector to improve areas of known weaknesses in the provision of public goods across all project activities.** Potential areas of private sector engagement will involve aspects where the private sector may have a comparative advantage over, or complementary to, the public sector such as in logistics and supply chain management, information communication and technology development, and improvement of specimen transportation systems. In order to take advantage of existing professional skills and to contribute towards achieving proper geographical meshing of the animal health and human health national surveillance networks, private medical practitioners, veterinarians and veterinary paraprofessionals may be entrusted with official tasks through contractual arrangements. Under similar contractual mechanisms, the project will also explore possible partnerships, with identified centers of excellence and private laboratories with the appropriate capacity to play a critical role in the provision of diagnostic and reporting services for diseases of national, regional and/or global importance.

59. The Project will engage the private sector to develop partnerships across three broad areas:

a. **Private Health Practitioners and NGOs:** The project will collaborate with private health practitioners and NGOs working across the animal and human health sector to strengthen disease surveillance, preparedness and response as a collective responsibility of both the public and private sector. To this end, policies, strategies, and action plans (including those that address the incentives and disincentives for early reporting of suspected cases at “point-of-care” (POC) and by/within the community, will be developed with clearly defined roles and responsibilities of the various actors, and with the establishment of the appropriate legal frameworks and financing mechanisms. The project will support the development of effective

evidence-based approaches to identify and engage with private health practitioners and local NGOs that will be a part of the long-term surveillance system, as well as those experts with skillsets to be contracted mainly for outbreak preparedness and response including the use of behavior change communication and the development of other effective public health communication/awareness strategies. Capacity building activities including the adoption of communities of practices (CoP) will also be supported to reinforce effective collaborations between the public and private healthcare providers.

b. **Private Centers of Excellence, Laboratories and Manufacturers:** Partnerships with identified centers of excellence, private laboratories, and manufacturers will be established for the purpose of improving rapid diagnostic tests (RDTs) capabilities and detection rates via the use of cost-efficient methods, including increasing the range of emerging and reemerging infectious disease pathogens that can be detected in each tests, and for making accurate diagnosis of disease pathogens at POC. Public-Private partnerships will also be established in specific areas of expertise for the delivery of animal health and human health laboratory services to enhance epidemic surveillance and laboratory confirmation of notifiable diseases, and to improve the timeliness and completeness of the system of reporting surveillance data.

c. **Systems Development (ICT, Logistics and Supply Chain Management System):** The project will explore partnerships with the private sector in the development of efficient systems to improve surveillance data management, reporting and communication, and for preparedness planning before and during an outbreak response. This will include the enhancement and/or development of (a) information communication and technology (ICT) such as the use of mobile technology and geographic information systems (GIS) for integrated and interoperable data reporting, adoption of unique identifier codes to improve surveillance records, and the integration of surveillance data into the national health management information systems; (b) specimen transportation systems to facilitate the shipping of specimens to national, regional and/or global reference laboratories; and (c) supply chain management systems to enhance the effectiveness of supply chain distribution logistics for outbreak preparedness planning and during an emergency response.

Table 1: Estimated Project Budget Allocations by Component

Project Components	**Budget Allocation (US $ Million)**
Component 1: Surveillance and Information Systems	45.33
Component 2: Strengthening of Laboratory Capacity	30.89
Component 3: Preparedness and Emergency Response	26.08
Component 4: Human Resources Management for Effective Disease Surveillance and Epidemic Preparedness	22.64
Component 5: Institutional Capacity Building, Project Management, Coordination and Advocacy	22.06
Total	**147.0**

Table 2: Funding by component and sub-component

Project activities	Guinea Bissau	Liberia	Nigeria	Togo	TOTAL
COMPONENT 1					
Sub-Component 1.1 Support coordinated community-level surveillance systems and processes across the animal and human health sectors	0.39	0.56.	19.5	1.89	22.34
Sub-Component 1.2 Develop capacity for interoperable surveillance and reporting systems	2.65	0.31	8.0	1.26	12.22
Sub-Component 1.3 Establish an early warning system for infectious disease trends prediction	1.61	0.61	7.5	1.05	10.77
Sub-total component 1	**4.65**	**1.48**	**35.0**	**4.2**	**45.33**

Project activities	Guinea Bissau	Liberia	Nigeria	Togo	TOTAL
COMPONENT 2					
Sub-Component 2.1 Review, upgrade and network laboratory facilities	0.05	1.34	9.0	1.32	11.71
Sub-Component 2.2 Improve data management and specimen management systems	5.82	0.18	5.5	0.53	12.03
Sub-Component 2.3 Enhance regional reference laboratory networking functions	0.85	1.01	4.5	0.79	7.15
Sub-total component 2	6.72	**2.53**	**19.0**	**2.64**	**30.89**

Project activities	Guinea Bissau	Liberia	Nigeria	Togo	TOTAL
COMPONENT 3					
Sub-Component 3.1 Enhance cross-sectoral coordination and collaboration for preparedness and response	1.15	0.61	4.0	6.42	12.18
Sub-Component 3.2 Strengthen capacity for emergency response	1.18	1.94	6.5	4.28	13.9
Sub-Component 3.3 Contingency emergency response	0.0	0.0	0.0	0.0	
Sub-total component 3	2.33	**2.55**	**10.5**	**10.7**	**26.08**

Project activities	Guinea Bissau	Liberia	Nigeria	Togo	TOTAL
COMPONENT 4					
Sub-Component 4.1 Healthcare Workforce mapping, planning and recruitment.	3.62	0.08	4.5	0.36	8.56

Sub-Component 4.2 Enhance health workforce Training, Motivation and Retention	0.36	2.88	10.0	0.84	14.08
Sub-total component 4	**3.98**	**2.96**	**14.5**	**1.2**	**22.64**

Project activities	**Guinea Bissau**	**Liberia**	**Nigeria**	**Togo**	**TOTAL**
COMPONENT 5					
Sub-component 5.1 Project coordination, fiduciary management, monitoring and evaluation, data generation, and knowledge management	3.32	5.48	11.0	2.26	22.06
Sub-component 5.2 Institutional support, capacity building, advocacy, and communication	0.0	0.0	0.0	0.0	0.0
Sub-total of component 5	**3.32**	**5.48**	**11.0**	**2.26**	**22.06**

B. Project Cost and Financing

60. **The tentative project financing in the amount of US$147 million is considered a second project investment under the SOP approach of the Program**. Project financing will be mobilized via contributions from individual country allocation of International Development Association (IDA) funds and a regional integration matching fund mechanism (1:2 IDA - RI match fund for Guinea Bissau, Liberia, and Togo; and 1:1 IDA - RI match fund for Nigeria) (Table 3). Co-financing will also be mobilized through a multi-donor trust fund (MDTF) associated with the REDISSE Program. Current commitments under the MDTF total CAD 20 million for Bank executed and recipient (WAHO) executed activities.

Table 3: Breakdown of Project Financing

Country / Regional Institution	**Country IDA ($ Million)**	**Regional IDA ($ Million)**	**Total ($ Million)**
Guinea Bissau	7.0	14.0	21.0
Liberia	5.0	10.0	15.0
Nigeria	45.0	45.0	90.0
Togo	7.0	14.0	21.0
TOTAL	**64.0**	**83.0**	**147.0**

C. Lessons Learned and Reflected in the Project Design

61. **The design of the REDISSE program benefits from a rich set of lessons drawn from a variety of sources including** (i) the achievements and challenges faced by World Bank health systems strengthening and disease control operations that are contributing to disease surveillance capacity for human and animal health, (ii) a comprehensive literature review of existing regional disease surveillance and response networking arrangements from other regions, (iii) best practices and lessons learned from international initiatives and development partner projects with similar objectives, and (iv) lessons learned from major infectious disease outbreaks. A detailed set of

lessons learned and reflected in the Project design are included in Annex 2. Some of the most salient experiences and lessons learned incorporated in the REDISSE II are noted below:

a. Institutional implementation capacity and capacity building: At the regional level WAHO has built a robust management implementation unit which includes separate project coordinators for existing World Bank projects including REDISSE I, components in the West Africa Regional Disease Surveillance Capacity Strengthening Project, and the Sahel Women's Empowerment and Demographics Project. WAHO has strengthened its expertise in financial management, accounting, M&E, and communications, which is shared among its externally funded projects. In addition, additional WAHO staff has been recruited with the objective of improving World Bank non-objection requests including procurement requests. Further, ECOWAS delegations of authority requiring actions/signatures from ECOWAS to the WAHO Director General, has been significantly streamlined. More broadly, the project recognizes the need for institutional capacity building and support at both regional and national levels, in both substantive areas and program management.
b. Address weaknesses in the M&E/Results Framework: the quality-at-entry issues most commonly cited in the Independent Evaluation Group (IEG) reviews are: weaknesses in monitoring and evaluation systems, including indicators that measure outputs rather than capacity building and the use of too many indicators, which overwhelm the limited capacity of project management units. REDISSE focuses on a set of PDO-level indicators that can assess the progress in improving institutional capacity and the results framework makes use of existing tools such as the JEE and PVS tools.
c. Clearly outlined project activities: The Program and this project address the importance of identifying both country-implemented activities and activities implemented by regional institutions that contribute to the global public good nature, and therefore the regional nature of the project.
d. Improving cooperation across sectors, among countries and between countries at critical cross-border junctures, as well as with development partners: the design of the REDISSE promotes cooperation across sectors through adoption of a One Health approach, linkages between disease surveillance and epidemic preparedness systems, and all hazard disaster management systems at country and regional levels. Collaboration among countries and with development partners will be facilitated through the establishment of national and regional platforms for joint planning and resource coordination.
e. Building better health systems: the project design thus contributes to long-term systems capacity building across the two sectors to effectively detect and respond to infectious diseases of zoonotic nature in a more integrated manner.
f. Climate change: The Program contributes to climate change adaptation by improving general disaster education, deployment of early warning systems which include community mobilization, planning for relocation efforts should the need arise, and increasing connectivity of health facilities in high-risk areas. Guinea Bissau, Liberia, and Togo have explicitly included health considerations in their (intended) Nationally Determined Contribution (NDC) to emission reductions document. REDISSE II

components and sub-components addressing surveillance and information systems, preparedness and emergency response, and human resource capacity, will factor in climate change considerations, gauging how to effectively integrate them into each country's efforts, as well as ensure that other climate change planning, programming and funding can complement and be coordinated with the REDISSSE program, including that provided through external partner support. In this regard, the WBG Climate Change Action Plan has a target of 20% of new Health, Nutrition, and Population (HNP) projects to ensure climate change is included in their design. Further, the WBG has recently developed health-sector specific operational guidance, and forged critical partnerships with collaborating partners and technical agencies, including additional resources, directed at improving HNP investments while launching a new era of "climate smart healthcare". REDISSE II countries will be encouraged to actively pursue these opportunities to enhance climate change adaptation strategies for improved health outcomes.

g. Gender consideration: a substantial portion of the health workforce frontlines are the nurses, health assistants and community health workers, the majority of who are women. The risks of contagion are significant. By strengthening their training and having equipment available, such risks would be reduced. Further, with respect to the potential threat of infectious diseases, these present greater and different risks for young girls, women of childbearing age, pregnant women, and mothers.
h. Private sector and non-governmental engagement: adopting lessons learned from other regional projects, the project also promotes partnership with the private sector and non-governmental networks to improve performance in areas where the private sector and other entities may have a comparative advantage and/or complement the public sector service delivery, for example in early disease outbreak reporting, logistics and supply chain management or information technology development.
i. Ensuring cost-effectiveness of interventions: the IEG report highlights that while many projects supported significant improvement in disease diagnostic capacity, there was a tendency for projects to focus too much on investing in laboratory infrastructure and equipment rather than in systems development and human capacity. REDISSE will apply cost-effectiveness considerations in all aspects of strategic planning and implementation.
j. Client ownership: another important lesson is that along with the support from donor partners and other international agencies, individual countries are central to ensuring a coordinated regional program that successfully addresses the threats posed by infectious diseases. REDISSE communications activities are intended to keep the issue high on the agendas of Ministers and Heads of State in the region and promote domestic investment in systems maintenance for sustainability.
k. Sustainability plans: while WB performance in developing and managing the Global Program for Avian Influenza Control and Human Pandemic Preparedness and Response (GPAI) was overall successful, the failure to sustain its support to infectious disease prevention and control left countries insufficiently prepared to face recurrent or new threats. Moving away from emergency response, and working toward long-term capacity building to support health systems using a cross-sectoral interventions was

identified as the proper approach, which is incorporated in the REDISSE II project design.

IV. IMPLEMENTATION

A. Institutional and Implementation Arrangements

62. **Following the same mechanism as under REDISSE I, project implementation will be coordinated by WAHO, an affiliate organization of ECOWAS, which will host the regional secretariat of REDISSE.** WAHO has taken steps to strengthen its procurement and financial management, M & E and project management competencies. It will continue to do so with support provided under REDISSE I. Governments of the four participating countries will implement country-level tasks and project funds will flow directly from IDA to the individual countries for country level activities. In Liberia, Guinea-Bissau and Togo, country level activities will be led and coordinated by the Ministry of Health (MoH) in the respective countries, while implementation will be carried out by the relevant programs and divisions under the MoH and Ministry of Agriculture/Livestock. In Nigeria, country level activities will be led and coordinated by the Nigeria Center for Disease Control (NCDC).

63. **Using the funding arrangements under REDISSE I, regional level activities, including cross-border coordination efforts planned under REDISSE II will be coordinated by WAHO.** WAHO will also ensure capacity building for the RAHC to perform regional animal health related functions under the project through a contract and memorandum of agreement with the OIE until RAHC has achieved sufficient capability and capacity to perform these functions without external assistance. WAHO will also coordinate with and, when required, establish contracts and/or memoranda with other specialized technical agencies such as the WHO Regional Office for Africa and FAO.

64. The following country-specific arrangements have been proposed during project appraisal:

65. **Guinea Bissau:** A Project Steering Committee (PSC) will be established. Membership of the PSC will consist of representatives from the Ministry of Public Health (MINSAP), Ministry of Agriculture and Rural Development (MADR, Ministry of Finance, Ministry of Environment, Ministry of Education, Ministry of Communications, and representatives of local, regional and global partners (WAHO, CDC, European Union, UNICEF, UNFPA, OIE, WHO, USAID, and others), and will be based on existing One Health Network in Guinea-Bissau. The PSC will provide guidance and strategic directions, and monitor the implementation of the project on an annual basis. Multisectoral technical working groups (TWG) will be established with technical staff from relevant ministries and technical experts from partners. These TWGs will be responsible for ensuring the project's annual plan is consistent with local and regional priorities identified during project preparation and to adapt the project activities when necessary.

66. The MINSAP will lead the implementation of the REDISSE II in close collaboration with the MADR. The Project Coordination Unit (PCU) will be established within the office of the

DGASS. The PCU will report directly to the Secretary-General of the MINSAP and will be responsible for: (i) ensure the financial management of the project activities in all components; (ii) prepare consolidated annual work plans, budgets, monitoring and evaluation report (M&E in English), and the implementation report of the project to be submitted to the steering committee and the World Bank.

67. **Liberia:** A One Health Steering Committee has been established and serves as the advisory and oversight body for the project. The committee meets once every quarter. Membership shall include the following: National Public Health Institute (NPHI), MOH, MOA, MFDP, FDA, MOCI, MIA, WHO, CDC, USAID, FAO and PREDICT-2. The PIU is housed in the MOH and will provide oversight of procurement activities for both MoH and MoA, financial management and ensure adherence to all WBG implementation and reporting guidelines for REDISSE. Implementation shall also be carried out by the NPHI, which is currently under establishment. Other implementing agencies, such as the MoA, will be financed through MOU for agreed deliverables with associated indicators and targets.

68. **Nigeria:** A National Steering Committee will be constituted and will have oversight responsibilities of the project including planning, management and monitoring of project activities. The committee will also focus on policy issues related to the project and ensure coordination and linkages across relevant agencies and international partners. The members of the steering committee will include Honourable Ministers of Federal Ministry of Health, Federal Ministry of Agriculture and Rural Development, Federal Ministry of Finance, Federal Ministry of Environment and Federal Ministry of Information. The Committee will also include the Chief Executive Officer (CEO) of NCDC and Director of the Department of Veterinary and Pest Control Services including three Commissioners each from State Ministry of Agriculture and Rural Development (SMARD) and State Ministry of Health (SMOH) drawn from the six geopolitical zones. The Steering Committee will be chaired by the Minister of Health and co-chaired by the Minister of Agriculture. There shall also be a National Technical Committee, chaired by the CEO of NCDC which will provide guidance and supervision to the PCU on technical matters and shall meet quarterly or as may be necessary.

69. The NCDC will host the PCU. The PCU under the guidance of NCDC CEO will work with and ensure that Memorandum of Understanding (MOU) or services contracts are signed for technical support with development partners and other implementing partners with demonstrable capacity following due process.

70. **Togo:** The coordination and the daily management of the project will be the responsibility of the existing Project Management Unit (PMU) in the Ministry of Health and Social Protection. The PMU was established to manage the implementation of the WBG financed Maternal and Child and Nutrition Services Support Project (P143843). The PMU will be responsible for general planning, fiduciary management, internal audit, procurement and the M&E. The project will support the authorities responsible for animal and human health at the regional level and the prefect/health district for supervision and coordination of the activities at peripheral and community level including surveillance and reporting, data management, communications and

community mobilization, and the provision of services in response to epidemics/epizootics. These activities will be implemented by health center and health unit staff, community health workers, the CSCV, the heads in charge of the veterinary observation, the private veterinarians and health practitioners, village auxiliaries and farmers. At the level of both prefectures and health districts, existing management frameworks for multisectoral and multidisciplinary response to epidemics and disasters will allow the actors to share and exchange information as well as best practices. The entities involved in the implementation of REDISSE will sign contracts with the PMU.

B. Results Monitoring and Evaluation

71. **A set of indicators to be monitored and documented to assess performance and progress toward meeting the project objectives are described in the Results Framework (RF) in Section VII.** There is an overall RF to measure regional progress and country-specific RFs with customized annual targets. Results will be reported annually in the Implementation Status Reports (ISRs). As noted in Section VII, most indicators rely on existing international tools for evaluating IHR and OIE compliance and progress, namely the JEE and PVS tools to minimize the burden of data collection on countries. These measurement tools are being reviewed and may be modified over time, and REDISSE indicator adjustments will be made, as appropriate. Data sources also may vary by country and WAHO will establish a mechanism for ensuring the quality of the data.

72. **M&E will be undertaken at the national level by the four participating countries and aggregated at the regional level by WAHO.** The countries will be responsible for conducting annual self-assessments using the JEE and PVS tools, and the JEE will be carried out by external experts biennially to validate the quality of the data and findings from the national self-assessments. In principle, PVS external evaluations would be carried out shortly prior to the JEE to streamline findings into the JEE. WAHO will coordinate the M&E function for the project as a whole, based on an M&E manual detailing the requirements for all countries and at the regional level. This will be harmonized with the project implementation manuals (PIM) for all implementing agencies which are expected to be ready within three months of project effectiveness. WAHO will also implement data collection for specific indicators of regional level activities, and will ensure that all participating countries provide data and information of the required quality on time. WAHO will also provide technical backstopping in M&E to participating countries and encourage cross-country learning. At the national level the PCUs of the four participating countries would be responsible for collecting and compiling all national level data, with the assistance of external partners through external evaluations, including the United States Center for Disease Control (U.S. CDC), WHO for the human health sector, and OIE for the animal health sector.

C. Sustainability

73. **Development of a resilient disease surveillance and response systems for both human health and animal health sectors requires long term investment (See: Annex 4A Economic and Financial Analysis).** As pointed out by the IEG report, sustainability can be compromised where activities are largely outsourced, leaving government agencies with little ownership and when the focus is primarily on costly infrastructure and equipment, rather than on developing systems and human capacity. Operations aimed at building or strengthening such systems contribute to making them more sustainable, and more cost-effective. Some actions often require more time than ordinarily granted during a project lifetime, such as legal frameworks, reforming and then stabilizing policies and strategies, high level staff training and recruitments and regionally coordinated activities, among others. The decision to use the SOP approach to systematically address health systems weaknesses of selected West African countries to implement the IHR (2005) and the OIE standards, establish and invest in platforms for collaboration and continuous high level visibility of disease surveillance and response and eventually expand this regional collaboration on disease surveillance to encompass all the countries in West Africa takes into account the findings of the IEG report.

74. Specifically, the project intends to generate sustainable impact on the capacity for disease surveillance and response at country and regional levels through the following interventions:

a. Disease surveillance and response policies, standard operating procedures, and relevant technical guidelines will be reviewed and updated;
b. The workforce from the human, animal health and environmental sectors will be trained on different technical topics such as epidemiology, risk communication, laboratory investigation, health information management, rapid response. The project will promote regional dialogue and identification of best practices for health workforce development; motivation and retention will be addressed to make sure that critical posts for public health systems, in particular, disease surveillance and response within both human and animal health sectors would be filled, gender considerations taken into account, and workforce retained. In addition, simulations and drills will be held for the trained personnel to test efficiency and responsiveness of disease surveillance and response systems built by the project. Twinning between the institutions in the region and the centers of excellence outside will be explored as a means to sustain the training initiatives started under the project. Another important element will be the enhancement of managerial capacities within the involved ministries to better manage resources (human and financial) and operations;
c. Review and prioritization of disease surveillance and control in each country is planned under the project in order to improve technical and allocative efficiency of funding for the diseases surveillance and control systems for the diseases affecting human and animals in the countries. As the current situation suggests, countries tend to have multiple, vertical disease surveillance systems for a large number of diseases, some of which contribute little to the disease burden. Regular disease burden assessments and prioritization based on the findings will streamline the disease surveillance program and improve better targeting; and

d. Awareness raising, communication and advocacy materials will be tailored to strategic audiences, with a particular emphasis on political leaders and decision makers.

75. **The World Bank has been supporting Liberia, Sierra Leone and Guinea in assessing financial sustainability for disease surveillance and response.** This effort will be expanded to include all countries in REDISSE in an effort to identify strategies to sustain disease surveillance and response financing from domestic revenue sources. In addition, this project has begun identifying and exploiting opportunities for collaboration with ongoing and future investments from countries or development organizations in order to build synergies and ensure that investments and outcomes will be sustained. One of the primary engagements is with the United States Government and other contributors to the Global Health Security Agenda (GHSA). In addition, the World Bank has initiated the development of a mechanism for pooling contributions from multiple donors, the REDISSE MDTF, with the objective of insuring improved resource coordination and longer term commitment to health systems capacity building for disease surveillance and response. Efforts will also be made to estimate future financial and technical needs for both the regional and individual country requirements as to infectious disease surveillance, preparedness, laboratory and human capacity, as well as institutional support. Multi-partner discussions will be held with potential resource providers to assess needs and seek commitments of assistance in the post-REDISSE period. First and foremost, however, sustainability will depend on commitments of the REDISSE governments and WAHO-ECOWAS to treat these needs as a high priority, and reflected in policies, programs, and financing. In short, inclusion of incremental domestic financing by the countries needs to be incorporated in their annual budgets.

D. Role of Partners

76. **Development partner engagement is extensive in the sub-region and in each of the four project countries, reflecting the widening recognition that disease surveillance, preparation, detection, and response is a critical element of the development challenge and one which touches upon nearly all of the seventeen Sustainable Development Goals**. Beyond good health, disease prevention and containment affects SDG targets in reducing poverty, hunger, inequality, among others. Given the breadth of the potential participants which provide technical know-how and funding with respect to human and zoonotic diseases, and to eco-system mediation, the responsibility for coordinating and efficiently guiding the many participants must be done by the countries themselves and WAHO. As was done in developing this project and will be the case in going forward with its implementation, the World Bank will be active in contributing to the common effort in each country, and with WAHO for the sub-region.

77. **At global level and in the formation of normative policies, the WHO, the OIE and FAO will each provide the normative guidance and frameworks for action in their respective areas of concentration, engaging various UN agencies, multilateral and bilateral technical providers, academic and research universities and institutions, NGOs, and the private sector, in terms of coordination and in forming coalitions.** Major contributing bilateral and non-governmental partners for technical support and financing include the U.S. Centers for Disease

Control, the China Centers for Disease Control, Canadian Government support from its Department of Foreign Affairs, the Bill and Melinda Gates Foundation, as well as national country members of the Global Health Security Agenda (GHSA) of which USAID's Emerging Pandemic Threats 2 Program is a part.

78. At sub-regional and country level, each has its own various coordinating and collaborating partners which will be drawn on as the program evolves, and brought together by the national steering committees. The intention is for transparency of effort and dissemination of results on a regular basis in order to assure that the relevant entities are aware of and assess progress in carrying out project objectives.

V. KEY RISKS

A. Overall Risk Rating and Explanation of Key Risks

79. **The overall risk rating for the project is categorized as substantial.** The overall rating is based on an assessment of component risks in which the risk was rated as substantial in five categories: (i) Political and Governance; (ii) Macroeconomic; (iii) Technical Design of Project or Program; (iv) Fiduciary, and (v) Stakeholders. Sector Strategies and Policies and Environment and Social risks are rated moderate; whereas risks related to Institutional Capacity for Implementation and Sustainability is rated high. These risk ratings have been validated during project appraisal. A further discussion on risks and their mitigation can be found in Annex 5.

80. **A review of country reports and forecasts published by the Economist Intelligence Unit indicate that political and governance risks are heterogeneous across the ECOWAS region**. Looking at the overall risk rating across the four countries covered under REDISSE II, Liberia, Nigeria, and Guinea Bissau are rated as substantial risk while Togo is rated as low risk.

VI. APPRAISAL SUMMARY

A. Economic and Financial Analysis

81. **There is a strong economic case for investing in integrated disease surveillance and response systems.** Preventing and controlling zoonotic disease outbreaks yields large economic benefits by reducing the threats of epidemics and pandemics. Such benefits of disease surveillance and prompt effective control go well beyond the health benefits of reducing the number of infections, reducing mortality and morbidity, and avoiding increases in health care costs. Disease outbreaks affect economic activity by decreasing demand (in response to reduced consumer and business confidence, which can substantially and abruptly reduce spending; exports may fall due to disruptions in logistics) and reducing supply (labor absenteeism and disruptions of supply chains will reduce production in agriculture and other sectors; some businesses will close altogether). The impacts of contagion will be to reduce productivity of both labor and capital, which are the major components of growth (UNDP, 2014). The estimated forgone output due to the latest Ebola

epidemics in Guinea, Liberia and Sierra Leone was staggering -- over 12 percent of the countries' combined output. The vast majority of these costs were not directly due to illness and death of workers or to increased healthcare costs; the negative impact was in all economic sectors. The regional loss of output due to slower growth rate was estimated to be US$7.35 billion in 2014 (World Bank, 2014). Considering that the estimates of the required investments to build a well-functioning global disease surveillance system and response are relatively modest, the expected returns on investment of avoiding such large losses are very high – as high as 123 percent annually (World Bank, 2012). This is far above the expected rates of return on nearly all other public and private investments.

82. **By strengthening cross-sectoral and inter-country capacity for integrated disease surveillance and response, REDISSE will enhance ECOWAS member states' capacity to rapidly detect and respond to public health threats of national and international concern.** Ultimately, the Program will contribute towards significantly reducing the burden of diseases, particularly among poor and vulnerable populations, mitigating the public health and economic risks posed by infectious diseases in humans and animals, and decreasing the threats of future disease outbreaks. These impacts will improve economic security in ECOWAS member states, resulting in stronger growth and development prospects. In addition, REDISSE will enable ECOWAS member states to contribute a global public good, that of increased global health security.

RATIONALE FOR PUBLIC SECTOR PROVISION/FINANCING

83. **There are three primary rationales for a publicly-provided regional approach to disease surveillance and response network in West Africa.** The first is simply the overwhelming economic burden that infectious diseases, individually and collectively, place on the region, constraining regional and national economic development. Communicable diseases decrease productivity, undermine the human resource base and deter foreign investment in Africa. Infectious diseases, particularly those that cause epidemics, continue to make costly disruptions to trade and commerce in every region of the world. Under conservative assumptions, the expected annual economic losses due to pandemics are high, at least US$60 billion (GHRF, 2016). The economic impact associated with outbreaks of HPAI H5N1 between 2003 and 2006 resulted in nearly 2 percent loss of the regional East Asia GDP (IOM, 2009). In an interconnected world, a pathogen from a remote village can reach major cities in any continent in 36 hours (Jonas, 2013). On the animal health side, the OIE estimates that around 10 percent of animal production is lost through diseases in countries with poor performing VS.

84. **The second rationale rests on the status of a disease surveillance system as a global public good.** The benefit from preventing the spread of infectious disease is spread across individuals and countries, but there is no practical way to restrict the benefits to those who pay for maintaining it (non-excludable). Additionally, the consumption by one person does not reduce the availability to others, within or across nations (Jonas, 2013; WHO, 2005). The benefits of a surveillance and response system go beyond national borders since an undetected, or uncontrolled outbreak is more likely to spread to other countries (WHO, 2005). These benefits accrue to all

countries and thus describe a 'pure' global public good. A defining characteristic of a global public good is that there is no practical way to make those who benefit from it to pay ('free-rider' problem). For that reason, surveillance and response to infectious diseases have to be funded collectively, by agreement among some or all of the beneficiaries. Finally, there are also externalities that justify the public financing of disease surveillance and response system. For instance, the risk of disease outbreaks discourages foreign investment not only because the country's economic prospects are reduced by disease threats but also because investors have to bear the additional costs of protecting their workforce. Unmitigated risks of zoonotic diseases will tend to limit countries' capacity to trade livestock internationally. Reducing this risk will not only promote trade but also result in poverty alleviation since the burden of infectious diseases affects the poor disproportionally and livestock is often the most important asset of poor households in West Africa and other regions.

85. **The third rationale is based on the sharing of resources to enhance efficiency**. Examples of resurgent polio, meningitis, cholera and yellow fever in West African countries that were thought to have eliminated or controlled them demonstrate the need for a coordinated regional response. Costly high-level resources, such as level 3 reference laboratories, specialized research institutions, and advanced training facilities may efficiently serve the needs of more than one country. It would be wasteful and duplicative to establish these resources in every country, particularly when the critical mass of highly trained personnel and the volume of services are considered. There are also cost savings realizable through the implementation of the One Health approach. The World Bank estimates that the total cost savings are 10 percent to 15 percent of the system's total cost, depending on the prevalence of diseases (World Bank, 2012).

86. **Delays between the onset of the epidemic and the implementation of control measures are costly.** Too often detection, diagnosis, and control of disease outbreaks are attempted only with delay and after many humans are infected. Whereas the recent EVD outbreak could have been controlled for less than US$200 million in April 2014, according to UN estimates, by October 2014, this cost had already risen to US$4 billion. When public veterinary authorities are not prepared and equipped to control outbreaks, or to detect them in the first place, delays in control and eradication are likely. Furthermore, when outbreak control fails, prevention of an epidemic becomes more challenging and costlier as contagion spreads, and eventually becomes impossible. Mitigation of the epidemic then remains the only policy option. Delays in detection and control are ultimately very costly because contagion and mitigation costs grow exponentially.

Value added of Bank's support

87. **The proposed project fits into the WB's Regional Framework for Communicable Disease Control and Preparedness (RFCDCP).** The framework focuses on three objectives: (a) develop regional integrated multi diseases surveillance and response capacity; (b) strengthen regional capacity for laboratory diagnostics of infectious diseases; and (c) strengthen regional institutions and network for inter-country collaboration (see Annex 2 of the PAD). Complementing the objectives of national disease control and health systems programs, the RFCDCP aligns with one of the key six strategic directions for the WB in "playing a more active role with regional and

global public goods on issues crossing national borders", including communicable diseases and public health. The framework also prioritizes the West African sub-region based on its commitment to disease surveillance and control, as well as its assets, which increase well-organized sub regional institutions such as ECOWAS and ECOWAS-WAHO.

88. **The WB played a leading role in the response to HPAI and EVD and thus has a stock of experience, established relationships within countries and among other stakeholders**. The RFCDCP builds on various operational experiences including on the lessons learned from the GPAI and EVD responses to present a menu of activities with relevant references and case studies to help countries in the design and implementation of projects that build sustainable and efficient country systems and collaborations. To this end, the WB is committed to increasing cross-pollination of interests and collaboration among teams. The recent WB Public Health policy document, "Connecting Sectors and Systems for Health Results," sets out a multi-pillared approach to achieving health goals and emphasizes galvanization of actors outside the traditional public health sphere.

89. **One of the WB's most effective HIV projects involved the five countries on the Abidjan-Lagos transport corridor; and health projects in the Horn of Africa region have also benefitted by taking a regional approach.** The Great Lakes HIV/AIDS regional project has bolstered regional collaboration for improved disease control outcomes. The East African Public Health Laboratory Networking project (EAHLPN) is focusing on regional capacity building and targeting TB control. Taking a regional approach to surveillance and vaccine stockpiling and management has also improved the effectiveness of the meningitis outbreak response in West Africa. Further, the African Centers of Excellence Project is strengthening the training of epidemiologists, laboratory technicians and public health specialists in West Africa.

90. **Without regional collaboration, national health program efforts are undermined.** Examples of resurgent polio, meningitis, cholera and yellow fever in West African countries that had thought to have eliminated it demonstrate the need for a coordinated regional response. Similarly, pooled procurement and management of other commodities or services, such as long-lasting insecticidal nets or TB treatments could result in financial savings due to economies of scale. In addition, costly high-level resources, such as high biosecurity reference laboratories, specialized research institutions and advanced training facilities may efficiently serve the needs of more than one country.

91. **Although the regional communicable disease control and preparedness framework is focused on regional public goods and activities, it is also imperative to place these efforts in the context of nationally led efforts.** Collective action at the regional level requires that participating governments: (i) adhere to a negotiated set of norms and standards; (ii) strengthen their capacity for disease control, including surveillance, prevention and treatment through routine and complementary efforts; and (iii) engage actively in regional or international dialogue, planning and information sharing. In this context, the strengthening of national level capacity and health systems is considered within the regional framework and must be financed and supported, either directly through regional investment or through bilateral investment. Country operations in the

health sector that are intended to strengthen health systems and/or decrease the burden of priority communicable diseases fall in the latter category. This may include the national health budget, WB operations in the health sector, multilateral or bilateral support to systems strengthening (particularly for monitoring, evaluation and surveillance) and disease control.

B. Technical

92. **In addition to strengthening national veterinary and human public health systems and their respective regional cooperation mechanisms, there is an urgent need to establish or reinforce and maintain strong collaboration between systems at national, cross-border, and regional levels in order to better manage risks that arise at the animal-human-ecosystem interface (the 'One Heath' concept).** For that to happen, particular attention will be given to priority core public functions (veterinary public health and human public health) that would reduce these risks. Assessing these core functions, bridging divides among systems and ministries and reducing capacity gaps would constitute a critical element of the program. Country assessment tools now exist for both systems (PVS, JEE, and IHR monitoring framework) as well as identified bridges for One Health competencies between these tools. Finally, countries will establish a necessary One Health national platform for intersectoral collaboration, planning and monitoring, and, when desirable, joint implementation. At the regional level, activities will support the establishment of a network of those country One Health platforms. Technical domains to be strengthened. While all proposed activities will contribute to the program objective, some will be implemented at country level and some at regional level. For both human and animal public health surveillance the activities in the following domains are required and have been identified as core areas. At regional level, activities will support sectoral networks pertaining to these four domains: (i) surveillance and information systems; (ii) strengthening of laboratory capacity; (iii) epidemic preparedness and emergency response capacity; and (iv) workforce development.

93. **Surveillance systems will provide the capacity either in-country or regionally to detect outbreaks and public health threats in time to implement an appropriate, relevant and coordinated response.** Foundational capacity is necessary for both indicator-based (including syndromic) surveillance and event-based surveillance, in order to support prevention and control activities and intervention targeting for both established infectious diseases and new and emerging public health threats. Strong surveillance, supported by modern information technology, will support the timely recognition of the emergence of relatively rare or previously undescribed pathogens in specific countries.

94. **Laboratory capacity.** A national laboratory system or network is needed to ensure the safe and accurate detecting and characterizing of pathogens causing epidemic diseases, including both known and novel threats, from all parts of the country. Laboratory quality can be defined as accuracy, reliability and timeliness of reported test results and is necessary to identify emergent public health threats and to implement appropriate interventions. Although it is important to strengthen laboratory capacity at all levels of each country's health system, for purposes of efficiency and quality specialized and higher level laboratory functions will be a shared resource at regional level.

95. **Preparedness and emergency response capacity.** Preparedness and response to public health threats involves promoting local emergency awareness and response expertise, creating interconnected robust public health emergency management programs, surveillance and platforms to support planning and decision making, and a trained public health workforce to respond. Public health rapid response teams will need to be established and supported. Similarly, veterinary rapid response teams would have to be prepared to intervene for animal disease outbreaks of major importance. Involvement of other key sectors and actors (such as law enforcement, customs, military) for emergency response should also be ensured when cases of zoonotic outbreaks are suspected, collaboration between public health and veterinary services would be warranted. One Health platforms are necessary for multisectoral collaboration, planning, monitoring and evaluation, and joint intervention for specific diseases/issues.

96. **Workforce development.** A multi-sectoral workforce that is fully trained and competent, coordinated, evaluated, and equipped is needed for prevention, detection, and response activities to be conducted effectively in response to both public health routine functions and emergencies. While developing additional capacity in participating countries for workforce in surveillance, laboratory, and preparedness and emergency response is necessary, workforce resources, especially in specialized fields, can be leveraged regionally as appropriate.

C. Financial Management

97. **As part of the REDISSE preparation, a financial management assessment of the implementing units has been conducted.** The assessment (see Annex 2 for full assessment) was done on the coordinating implementing entities at national level that are the Ministries of Health for Guinea Bissau, Liberia, Nigeria and Togo (using existing PCUs within respective ministries/organizations).

98. **In order to strengthen the financial management arrangements of the project, within three months after effectiveness, project operations manuals will be prepared by the PCUs in the four countries.** The implementing agencies in the four countries will, within three months after effectiveness, each need to recruit a qualified and experienced accountant to account for the project funds. The implementing agencies in the four countries will need to assign from existing staff or recruit a qualified and experienced internal auditor within three months after effectiveness; and the implementing entities in the three countries will each need to put in place a functional complaint handling mechanism to enhance service delivery within six months after effectiveness.

99. **The Emergency Response Operations Manual (EROM) and the Disbursement Letter will include the detailed disbursement arrangements applicable under the CERC component of the proposed project.** As part of such arrangements, a positive list could be used, which would be featured in the EROM, and would include the items against which disbursements will be made. Where a positive list of expenditures is used, the documentation required to support disbursement requests should be agreed (for example, invoices and bills of lading for food imports) and recorded in the EROM and the Disbursement Letter.

100. **The conclusion of the assessment is that the financial management arrangements in place meet the World Bank's minimum requirements** and, subject to the application of the enhanced accountability principles (see Annex 7), are therefore adequate to provide, with reasonable assurance, accurate and timely information on the status of the project required by World Bank. **The overall Financial Management residual risk rating is substantial for three countries (Liberia, Nigeria and Togo), and moderate for Guinea Bissau.**

Togo - Summary of the Financial Management Assessment

Financial management

101. **In accordance with the Financial Management Manual for World Bank-Financed Investment Operations that became effective on March 1, 2010, the financial management systems of REDISSE II have been assessed to determine whether it is acceptable to the Bank.** To this end, the financial management aspects of the World Bank-financed Maternal and Child Health and Nutrition Services Support Project / Projet d'Appui aux services de Santé Maternelle et Infantile et de Nutrition (MCHNSS / PASMIN) - P143843, on which the proposed project will be entrusted, have been reviewed. The proposed project will follow an approach similar to the arrangements in place for the MCHNSS / PASMIN Project that will be strengthened. The financial management performance of MCHNSS / PASMIN was rated satisfactory following the supervision mission conducted in January 2016. MCHNSS has no overdue audit reports.

102. **The overall FM risk is considered Substantial**. The proposed financial management arrangements including the mitigation measures for this project are considered adequate to meet the Bank's minimum fiduciary requirements under OP/BP10.00.

103. **The review revealed that the following actions will need to be completed** (i) the Project Implementation Manual will be developed with specific provisions related to financial management; (ii) the recruitment of one additional Accountant dedicated to the new project; (iii) the procurement of a new multi-project version of the accounting software (TOM2PRO) MCHNSS / PASMIN is currently using; (iv) the recruitment of a qualified and experienced internal auditor to support the General Inspectorate of Finance of Togo (IGF) which will include the new project audit in its annual work program; and (v) the recruitment of an independent external auditor in compliance with acceptable Terms of Reference.

Financial Management and Disbursement Arrangements

Country issues

104. **The Country Inherent Risk of the public financial management system in Togo is rated as substantial.** The FM assessment of GoT financial procedures revealed significant FM weaknesses at the government level as well as the sector ministerial level in terms of: (i) budget formulation and execution, financial reporting, and oversight systems; and (ii) weak linkage between agreed policies, budget planning, and execution. Actions are being taken to address all these issues.

Implementing entity

105. The project will be entrusted at the MCHNSS / PASMIN and rely on its fiduciary arrangements that will be strengthened.

Risk Assessment and Mitigation Measures

106. **The Bank's principal concern is to ensure that project funds are used economically and efficiently for the intended purpose.** The risk features are determined over two elements: (i) the risk associated to the project as a whole (inherent risk); and (ii) the risk linked to a weak control environment of the project implementation (control risk). The content of these risks is described below.

Risk	Risk rating	Risk Mitigating Measures Incorporated into Project Design	Risk after mitigation measures
INHERENT RISK	**S**		**S**
Country level Weak governance and anti-corruption institutions.	H		H
Entity level No risk identified.	M	MCHNSS / PASMIN is familiar with IDA FM procedures and is well staffed.	M
Project level The project funds may not reach all beneficiaries and would be used for goals other than the intended purposes. It would also generate additional workload.	S	MCHNSS / PASMIN will strengthen ex-ante and ex-post control of funds allocated to the implementing entities. The scope of the external audit and Bank's FM supervision will include review of expenditures incurred at all levels. Project's staff fiduciaries capacity will be strengthened to strictly adhere to the fiduciary procedures included in the Project manual. Recruit one more Accountant recruited on competitive basis.	S
CONTROL RISK	**M**		**M**
Budgeting No risk identified.	M	Budgeting procedures are well established and applied.	M

Accounting Risk of increasing of the FM team workload leading to some delays in the submission of the required reporting.	M	The current FM staffing arrangement is adequate but may be strengthened with one additional Accountant recruited on competitive basis.	M
Internal Controls and Internal Audit Weak compliance with FM procedures manual and of circumventing internal control systems	S	(i) Regular internal audit missions (technical and financial audit) will be conducted during the project implementation with a focus on fraud and corruption risk; (ii) Recruit a qualified and experienced internal auditor to support the General Inspectorate of Finance of Togo (IGF) which will include the new project audit in its annual work program; and (iii) Update the Agreement will be made with the General Inspectorate of Finance of Togo (IGF) to reflect the new project specificities.	S
Funds Flow - Risk of misused of funds and use funds to pay non eligible purposes or combined with other projects funds managed by MCHNSS / PASMIN - Risk of misused and inefficient use of funds. - Weak capacity in the disbursement procedures of the World Bank which could affect the disbursement rate.	S	- Organize frequent controls in each involved actor in order to help to prevent and mitigate the risk of diversion of funds. - Payment requests will be approved by the Coordinator and the financial management specialist prior to disbursement of funds. - Require of the FM team to ensure monthly submission of the withdrawal application. - Perform external audit.	S
Financial Reporting (i) Delay in the submission of IFRs due to the increase in the PCU activities; (ii) format and content of the IFR may not be appropriate	M	(i) A computerized accounting system in place and adequate staffing arrangements are in place under the Maternal and Child Health and Nutrition Services Support Project. (ii) The current content and format of the MCHNSS / PASMIN's IFR are acceptable to IDA. The IFR of the new project will use the same format and content.	M
External Auditing External audit arrangements are not defined and lack of capacity of public institutions of control to assure the external audit of the project	M	Recruitment of independent external auditor based on agreed TOR developed in line with International Accounting Standards (including fraud and corruption) under the oversight of Togo Supreme Audit institution.	M
Governance and Accountability Risk of fraud & corruption	H	(i) The TOR of the external auditor will comprise a specific chapter on corruption auditing (ii) the PIM will include anti-corruption measures with a specific safety mechanism that enables individual persons and NGOs to denounce abuses or irregularities ; (iii) Robust FM arrangements designed to mitigate the fiduciary risks; (iv) Measures to improve transparency such as providing information on the project status to the	H

		public, and to encourage participation of civil society and other stakeholder will be built into the project design.	
Overall FM risk	**S**		**S**

The overall risk rating at preparation is **Substantial**.

Financial Management Action Plan to reinforce the control environment

Issue	Remedial action recommended	Responsible entity	Completion
Staffing	Recruit one additional accountant dedicated to the new project.	PASMIN	Within three months after effectiveness
Information system accounting software	Purchase a new multi-project version of the accounting software (TOM2PRO) currently on use at PASMIN level	PASMIN	Within three months after effectiveness
Administrative, Accounting and Financial Manual of procedures	Develop a Project Implementation Manual with specific provisions related to financial management.	PASMIN	Within one month after effectiveness
Internal auditing	Recruit a qualified and experienced internal auditor to support the General Inspectorate of Finance of Togo (IGF) which will include the new project audit in its IGF annual work program.	PASMIN	Within three months after effectiveness
External financial auditing	Recruitment of the external auditor acceptable to IDA	PASMIN	Within three months after effectiveness

107. **Fraud and Corruption:** The existence of several entities in charge of different types of controls (verifiers, independent controller, PASMIN internal audit, and external audit arrangements) are concrete mitigation measures aiming at addressing the risk of fraud and corruption. Lastly a mechanism of sanctions of fraudulent cases will be developed and made publicly available.

108. **Staffing and Training**: PASMIN is staffed with a Finance Management Consultant, a Financial Assistant, and an Accountant all well experienced in the implementation of Bank-financed projects. One additional Accountant will be recruited to reinforce the FM team in the perspective of the workload which the new project will generate. The team will have the overall FM responsibility over, budgeting, accounting, reporting, disbursement, internal control and auditing.

109. **Budgeting:** The budgeting arrangements designed for the ongoing MCHNSS Project, implemented by PASMIN will be applied for this project.

110. **Accounting Policies and Procedures:** The MCHNSS's manual of procedures currently used by PASMIN details the accounting policies and procedures which are in line with OHADA (*Organisation pour l'Harmonisation en Afrique du Droit des Affaires*) accounting principles. This manual of procedures will be revised to include the new project's specifics. The current MCHNSS's accounting software TOM2PRO with mono-project will be replaced by TOM2PRO multi-project, multi-site, and multi-donor for managing both MCHNSS and the new project.

111. **Internal Control and Internal Auditing:** Subject to revision of the manual of procedures, the existing internal control arrangements will be applied. The PCU's internal audit arrangement is acceptable and will be applied to the new project. The PCU will recruit a qualified and experienced internal auditor to support the General Inspectorate of Finance of Togo (IGF). The Agreement made with the General Inspectorate of Finance of Togo (IGF) will be updated within three months after effectiveness to include the new project audit in is annual work program. This will contribute to reinforce the project governance and to mitigate fraud and corruption risks inherent to the public sector in Togo.

112. **Financial Reporting and Monitoring**: The Project will use the same format of IFRs as the MCHNSS Project which will be automatically generated from the project's accounting software. The IFR includes (i) the statements of sources and used funds, and utilization of funds per category, (ii) the updated of the procurement plan, (iii) the physical progress, (iv) expenditure types and implementing agent, showing comparisons with budgets; (iv) Designated Account (DA) activity statements and explanation notes to the IFR; and (v) the summary of missions of internal audit as well as implementation status of the recommendations of internal or external audit and supervision missions. The IFR will be prepared by the PASMIN and submitted to IDA 45 days after the end of each calendar quarter. In compliance with OHADA Accounting Standards (SYSCOHADA) and IDA requirements, the project will produce annual financial statements. SYSCOHADA is the assigned accounting system in West African Francophone countries. These include: (i) a Balance Sheet that shows Assets and Liabilities; (ii) a Statement of Sources and Uses of Funds showing all the sources of Project funds, expenditures analysed by Project component and category expenditures; (iii) a DA Activity Statement; (iv) an Implementation Report containing a narrative summary of the implementation progress of the Project; (v) a Summary of Withdrawals using SOE (transactions-based disbursement), listing individual withdrawal applications by reference number, date and amount; and (vi) notes related to significant accounting policies and accounting standards adopted by management and underlying the preparation of financial statements. The financial statements will be submitted for audit at the end of each year or other periods to be stated.

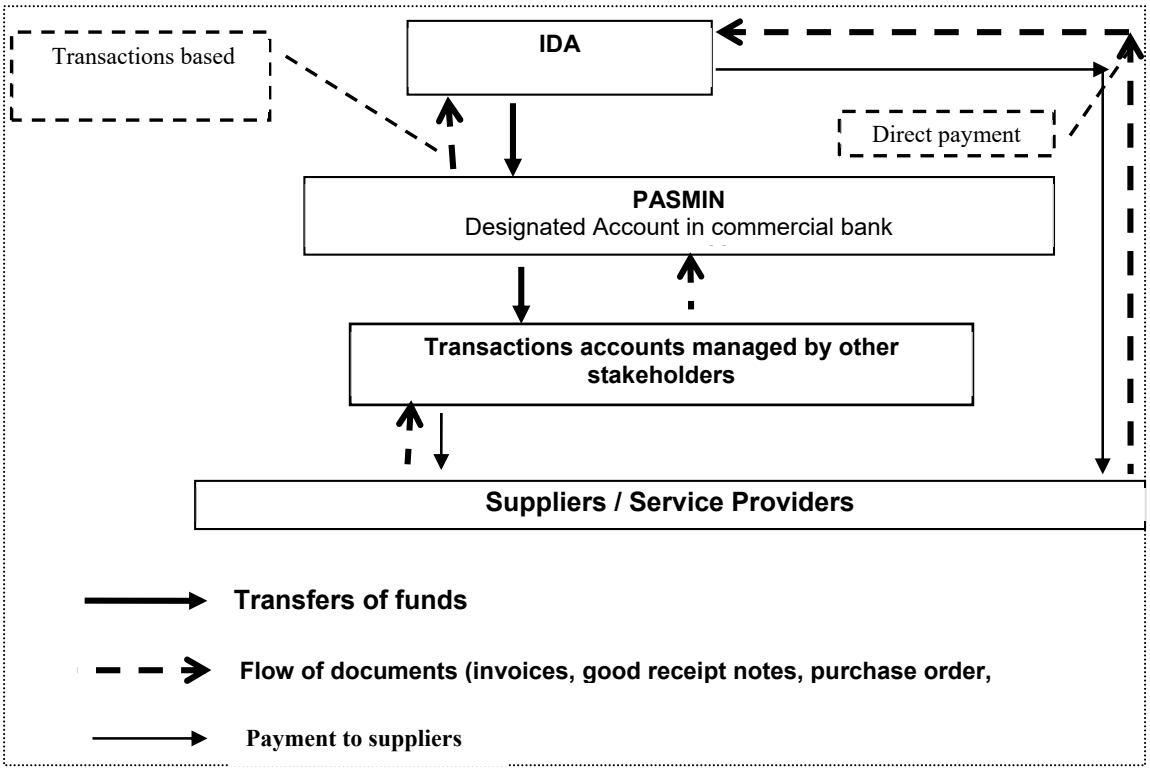
113. **External Auditing:** The project's financial statements and internal control system will be subject to external annual audit by an independent external auditor which will be recruited, on ToRs agreed with the SAI and acceptable to IDA, to carry out the audit of the project's financial statements under the supervision of the supreme audit institution. The external auditor will give an opinion on the annual financial statements in accordance with auditing standards of IFAC. In addition to audit reports, external auditor will also produce a management letter on internal control to improve the accounting controls and compliance with financial covenants under the financing

agreement. The project will be required to submit, not later than six months after the end of each fiscal year, the annual audited financial statements of the previous year. In line with the new access to information policy, the project will comply with the disclosure policy of the Bank of audit reports (for instance making available to the public without delay after receipt of all reports final financial audit, including audit reports qualified) and place the information on its official website within one month after acceptance of final report by IDA.

114. **Funds Flow and Disbursement Arrangements**: A DA will be opened in a commercial Bank acceptable to IDA and will receive project proceeds on the basis of the project cash needs. Upon credit effectiveness of the financing agreement and request from the project, the Bank will deposit the initial advance indicated in the disbursement letter into the DA. The Coordinator and the Financial Management Specialist will be joint signatories of this account. The DA will be managed according to the disbursement procedures described in the PIM and the Disbursement Letter (DL) for the project. The ceiling of the account will be specified in the DL estimated to be the equivalent of four months of project cash needs and will take into account the project's disbursement capacity. This DA will be used to finance all eligible project expenditures under the different components. Payments will be made in accordance with the provisions of the PIM (i.e. two authorized signatures will be required for any payment). PASMIN will open sub-accounts at other stakeholders to pay suppliers and consultants selected through acceptable Bank procurement procedures if need be. Replenishment of these accounts will be done at least once a month by the project upon submission of acceptable supporting documents. Payments from the sub-accounts will be subject to acceptable arrangements for the Bank. The DA will be replenished against withdrawal applications supported by Statements of Expenditures (SOE) and other documents evidencing eligible expenditures as specified in the DL. All supporting documents should be retained at the project and readily accessible for review by periodic IDA implementation support missions and external auditors.

Disbursement arrangements

115. ***Disbursement method:*** Upon Credit effectiveness, transaction-based disbursements will be used. The option of disbursing the funds through direct payments to suppliers/contractors for eligible expenditures will also be available for payments equivalent to twenty percent (20%) or more of the DA ceiling. Another acceptable method of withdrawing proceeds from the IDA credit is the special commitment method whereby IDA may pay amounts to a third party for eligible expenditures to be paid by the Recipient under an irrevocable Letter of Credit (LC). The authority to sign the withdrawal applications is vested on the Ministry of Economy and Finance. The funds' flows diagram for the DA is as follows:



116. **Disbursement of Funds to other Service Providers and Suppliers:** PASMIN will make disbursements to service providers and suppliers of goods and services in accordance with the payment modalities, as specified in the respective contracts/conventions as well as the procedures described in the PIM. In addition to these supporting documents, the Project will consider the findings of the internal audit unit while approving the payments. PASMIN, with the support of its internal audit unit, will reserve the right to verify the expenditures ex-post, and refunds might be requested for non-respect of contractual clauses. Misappropriated activities could result in the suspension of financing for a given entity.

117. ***Disbursements by category***: The table below sets out the expenditure categories to be financed out of the credit.

Category	Amount of the IDA Credit/Grant Allocated (expressed in US$)	Percentage of Expenditures to be Financed (inclusive of Taxes)
(1) Goods, non-consulting services, consultants' services, Training, and Operational Costs under Parts 1, 2.2, 2.3 (i), 3.1 (i), 3.2 (i) and (iii), 4 and 5.1 of the Project	135.29	100%
(2) Goods and works under Part 2.1 of the Project	11.71	100%
TOTAL AMOUNT	147.00	100%

118. **Implementation Support Plan:** The Bank's FM implementation support mission will be consistent with a risk-based approach, and will involve a collaborative approach with the entire Task Team. Based on the current overall residual FM risk, the project will be supervised two times a year to ensure that project FM arrangements still operate well and funds are used for the intended purposes and in an efficient way. A first implementation support mission will be performed three months after the project effectiveness. Afterwards, the missions will be scheduled by using the risk based approach model and will include the following diligences: (i) monitoring of the FM arrangements during the supervision process at intervals determined by the risk rating assigned to the overall FM Assessment at entry and subsequently during Implementation (ISR); (ii) integrated fiduciary review on key contracts, (iii) review the IFRs; (iv) review the audit reports and management letters from the external auditors and follow-up on material accountability issues by engaging with the task team leader, Client, and/or Auditors; the quality of the audit (internal and external) also is to be monitored closely to ensure that it covers all relevant aspects and provide enough confidence on the appropriate use of funds by recipients; (v) physical supervision on the ground specially; (vi) assistance to build or maintain appropriate financial management capacity; and (vii) the supervision mission will include transactions reviews of expenditures occurred.

119. **Conclusions of the FM Assessment:** The overall residual FM risk at preparation is considered **Substantial**. The proposed financial management arrangements for this project are considered adequate to meet the Bank's minimum fiduciary requirements under OP/BP10.00.

D. Procurement

120. The Borrowers will carry out procurement for the proposed project in accordance with the World Bank's "Procurement Regulations for IPF Borrowers" (Procurement Regulations) dated July 2016 under the "New Procurement Framework (NPF), and the "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants", dated October 15, 2006 and revised in January 2011 and as of July 1, 2016, and other provisions stipulated in the Financing Agreements.

121. Procurement shall be carried out by: (a) at the regional level by WAHO and RAHC; and (b) at the country level in: (i) Guinea Bissau by the "Cellule de Gestion du Programme National de Développement de la Santé (CG/PNDS)" of the Ministry of Health; (ii) Liberia by the Ministry of Health (MoH) and the Ministry of Agriculture while MoH will also take a coordinating role; (iii) Nigeria by The Nigeria Centre for Disease Control (NCDC); and (iv) Togo by the existing PIU/PASMIN (Projet d'Appui aux Services de Santé Maternelle et Infantile et de Nutrition (P143843) under the Ministry of Health.

122. All procuring entities as well as bidders, and service providers, i.e. suppliers, contractors and consultants shall observe the highest standard of ethics during the procurement and execution of contracts financed under the project in accordance with paragraph 3.32 and Annex IV of the Procurement Regulations.

123. **As part of the preparation of the project, the Borrowers (with TA from the WB) prepared their Project Procurement Strategies for Development (PPSD) which describe how procurement activities will support project operations for the achievement of project development objectives and deliver Value for Money (VfM).** The procurement strategies are linked to the project implementation strategy at regional, country, and the state levels ensuring proper sequencing of the activities. They consider institutional arrangements for procurement; roles and responsibilities; thresholds, procurement methods, and prior review, and the requirements for carrying out procurement. They also include a detailed assessment and description of state government capacity for carrying out procurement and managing contract implementation, within an acceptable governance structure and accountability framework. Other issues taken into account include the behaviours, trends and capabilities of the market (i.e. Market Analysis) to respond to the procurement plan.

124. **The project design will provide a window to enable the Borrower to carry out Advance Contracting and Retroactive Financing in accordance with Section V (5.1&5.2) of the WB Procurement Regulations for IPF Borrowers.** The retroactive financing will be allowed up to 20% of the credit covering the expenditures incurred by the project, not more than 12 months before the expected date of the signing of the Legal Agreements for the WB Credit.

125. A detailed procurement description and institutional arrangements can be found in Annex 2, Implementation Arrangements.

E. Social (including Safeguards)

126. **The net social impacts and benefits of the project are expected to be positive since it will strengthen the engagement of citizens, as well as linkages of surveillance and response processes and ensure the rapid detection and reporting to enable prevention of potential disease outbreaks within high-risk communities.** By improving management of infectious waste, it will reduce the potential public health risk in participating countries. As the majority of project activities are expected to take place in existing government owned facilities on government-owned land, the project will not involve land acquisition leading to involuntary

resettlement or restriction of access to resources or sources of livelihoods of populations. Therefore, OP 4.12 (Involuntary Resettlement) has not been triggered for this project, and the project will not finance activities that would trigger the policy.

F. Environment (including Safeguards)

127. **REDISSE I has been classified as a category B operation as per World Bank's Operational Policies due to the moderate risk of the proposed activities and their site specific nature of their impacts on both the natural and physical environment.** The project is expected to have overall positive environmental impacts through its support to surveillance, monitoring and containment of diseases and improved management of infectious specimens and waste from laboratories. The potential negative impacts of the project are related to the rehabilitation/upgrading of existing medical and other facilities, generation of infectious medical and animal waste and usage of pesticides. These risks are considered to be moderate and site-specific and can be easily managed through the implementation of an effective and organized system.

128. **The environmental safeguards policies triggered by REDISSE II are Environmental Assessment (OP/BP 4.01) and Pest Management (OP 4.09).** Each country has prepared three sets of documents: a national Healthcare Waste Management Plan (HCWMP), an Integrated Pest and Vector Management Plan (IPVMP) and an Environmental and Social Management Framework (ESMF). These documents detail the potential risks of each activity, define mitigation measure, provide a budget for implementation and describe implementation arrangements for monitoring and supervision. The documents also provide guidance for site-specific waste management plans during implementation, which will be consulted and disclosed prior to start of civil works.

129. The three documents have been consulted with stakeholders and have been disclosed in-country, at WAHO's website, and at the InfoShop (see table below).

Safeguards Instrument	Disclosure In-Country	Disclosure at InfoShop
GUINEA BISSAU		
ESMF	January 13, 2017	January 13, 2017
HCWMP	January 13, 2017	January 13, 2017
IPVMP	January 13, 2017	January 13, 2017
LIBERIA		
ESMF	April 27, 2016	April 27, 2016
HCWMP	April 27, 2016	April 27, 2016
IPVMP	April 27, 2016	April 27, 2016
NIGERIA		
ESMF	April 26, 2016	April 26, 2016
HCWMP	April 26, 2016	April 26, 2016
IPVMP	April 26, 2016	April 26, 2016

SAFEGUARDS INSTRUMENT	DISCLOSURE IN-COUNTRY	DISCLOSURE AT INFOSHOP
TOGO		
ESMF	January 12, 2017	January 12, 2017
HCWMP	January 12, 2017	January 12, 2017
IPVMP	January 12, 2017	January 12, 2017

G. Other Safeguard Policies (if applicable)

H. World Bank Grievance Redress

130. **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 Grievance Redress Service (GRS), please visit *http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service*. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

VII. RESULTS FRAMEWORK AND MONITORING

Note to Task Teams: The following sections are system generated and can only be edited online in the Portal.

Results Framework

COUNTRY : Western Africa

Regional Disease Surveillance Systems Enhancement (REDISSE) Phase II

Project Development Objectives

The PDOs are : (i) to strengthen national and regional cross-sectoral capacity for collaborative disease surveillance and epidemic preparedness in West Africa, thereby addressing systemic weaknesses within the animal and human health systems that hinder effective disease surveillance and response; and (ii) in the event of an Eligible Emergency, to provide immediate and effective response to said Eligible Emergency.

Project Development Objective Indicators

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: Laboratory testing capacity for detection of priority diseases (national capacity scores) (Number of countries that achieve a JEE score of 4 or higher)		Number	0.00	4.00	Annual	JEE (IHR and GHSA), and OIE PVS evaluation at year 3 and end of project Self-assessments by countries in intermediary years.	Participating countries, JEE and OIE PVS experts

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Description: Capacity graded on a score of 1-5 where: 1 = no capacity (National laboratory system is not capable of conducting any core tests); 2 = limited capacity (national laboratory system is capable of conducting 1-2 (of 10) core tests); 3 = developed capacity (national laboratory system is capable of conducting 3-4 (of 10) core tests); 4 = demonstrated capacity (national laboratory system is capable of conducting 5 or more (of 10) core tests); and 5 = sustainable capacity (In addition to capability of conducting 5 or more core tests, country has national system(s) for procurement and quality assurance)							
Name: Progress in establishing indicator and event-based surveillance systems (national capacity scores) (Number of countries that achieve a JEE score of 4 or higher)		Number	1.00	4.00	Annual	JEE (IHR and GHSA), and OIE PVS evaluation at year 3 and end of project Self-assessments by countries in intermediary years.	Participating countries, JEE and OIE PVS experts
Description: Capacity graded on a score of 1-5 where: 1 = no capacity (no indicator or event based surveillance system exists); 2 = limited capacity (indicator and event based surveillance system(s) planned to begin within one year); 3 = developed capacity (indicator OR event based surveillance system(s) in place to detect public health threats); 4 = (demonstrated capacity (indicator AND event based surveillance system(s) in place to detect public health threats); 5 = sustainable capacity (in addition to surveillance systems in country, using expertise to support other countries in developing surveillance systems and provide well-standardized data to WHO and OIE for the past five years without significant external support)							
Name: Availability of human resources to implement IHR core capacity requirements (national capacity scores) (Number of countries that achieve a JEE score of 3 or higher)		Number	0.00	4.00	Annual	JEE (IHR and GHSA), and OIE PVS evaluation at year 3 and end of project, Self-assessments by countries in intermediary years	Participating countries, JEE and OIE PVS experts

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Description: Capacity graded on a score of 1-5 where: 1 = no capacity (country doesn't have multidisciplinary HR capacity required for implementation of IHR core capacities); 2 = limited capacity (country has multidisciplinary HR capacity (epidemiologists, veterinarians, clinicians and laboratory specialists or technicians) at national level); 3 = developed capacity (multidisciplinary HR capacity is available at national and intermediate level); 4 = demonstrated capacity (multidisciplinary HR capacity is available as required at relevant levels of public health system (e.g. epidemiologist at national level and intermediate level and assistance epidemiologist (or short course trained epidemiologist) at local level available); 5 = sustainable capacity (country has capacity to send and receive multidisciplinary personnel within country (shifting resources) and internationally)							
Name: Multi-hazard national public health emergency preparedness and response plan is developed and implemented (national capacity scores) (Number of countries that achieve a JEE score of 4 or higher)		Number	0.00	4.00	Annual	JEE (IHR and GHSA), and OIE PVS evaluation at year 3 and end of project Self-assessments by countries in intermediary years	Participating countries, JEE and OIE PVS experts
Description: Capacity graded on a score of 1-5 where: 1 = no capacity (national public health emergency preparedness and response plan is not available to meet the IHR core capacity requirements); 2 = limited capacity (a multi-hazard national public health emergency preparedness and response plan to meet IHR core capacity requirements has been developed); 3 = developed capacity (national public health emergency response plan(s) incorporates IHR related hazards and Points of Entry AND Surge capacity to respond to public health emergencies of national and international concern is available); 4 = demonstrated capacity (procedures, plans or strategy in place to reallocate or mobilize resources from national and intermediate levels to support action at local response level (including capacity to scaling up the level of response); 5 = sustainable capacity (the national public health emergency response plan(s) is implemented/tested in actual emergency or simulation exercises and updated as needed)							
Name: Progress on cross-border collaboration and		Number	0.00	4.00	Annual	Self-assessment	Participating Countries

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
exchange of information across countries (Number of countries that achieve a score of 4 or higher)							
Description: Progress graded on a score of 1-5 where: 1 = no capacity (no formal/informal agreements related to cross border collaboration/information exchange, and no standard operating procedures in place); 2 = limited capacity (informal agreements on cross-border collaboration/ information exchange and standard operating procedures drafted); 3 = developed capacity (formal agreements on cross-border collaboration/information exchange, and standard operating procedures adopted); 4 = demonstrated capacity (formal agreements on cross border collaboration/information exchange and standard operating procedures implemented and routinely monitored); 5 = sustainable capacity (normal agreements on cross-border collaboration/information exchange and standard operating procedures) implemented, routinely monitored and financed from domestic budget.							
Name: Progress towards establishing an active, functional regional One Health platform (Number based on 5 point Likert scale)		Number	1.00	4.00	Annual	Self-evaluation	WAHO/RAHC
Description: Where 1 = no capacity; 2 = governance structure established and endorsed; 3 = an action plan for regional collaboration is developed and endorsed; 4 = action plan is budgeted and implemented; 5 = fifty percent of operational budgets for the implementation of regional action plan comes from national budgets Additional info: the multi-sectoral aspects of One Health require the establishment of a platform consisting of a governance mechanism, an operational action plan, and M&E framework to determine intersecting areas and responsibilities between human, animal, and environmental health.							
Name: LIBERIA - Laboratory testing capacity for detection of priority diseases (national capacity scores)		Number	2.00	4.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Description:							
Name: LIBERIA - Progress in establishing indicator and event-based surveillance systems (national capacity scores)		Number	4.00	4.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report
Description:							
Name: LIBERIA - Availability of human resources to implement IHR core capacity requirements (national capacity scores)		Number	1.00	4.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report
Description:							
Name: LIBERIA - Multi-hazard national public health emergency preparedness and response plan is developed and implemented (national capacity scores)		Number	1.00	4.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report
Description:							

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: LIBERIA - Progress on cross-border collaboration and exchange of information across countries		Number	1.00	4.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report
Description:							
Name: NIGERIA - Progress towards establishing an active, functional One Health Network		Number	1.00	3.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report
Description:							
Name: NIGERIA - Laboratory testing capacity for detection of priority diseases (national capacity scores)		Number	2.00	4.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report
Description:							
Name: NIGERIA - Progress in establishing indicator and event-based surveillance systems (national capacity		Number	1.00	3.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
scores)							
Description:							
Name: NIGERIA - Availability of human resources to implement IHR core capacity requirements (national capacity scores)		Number	2.00	3.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report
Description:							
Name: NIGERIA - Multi-hazard national public health emergency preparedness and response plan is developed and implemented (national capacity scores)		Number	1.00	3.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report
Description:							
Name: NIGERIA - Progress on cross-border collaboration and exchange of information across countries		Number	1.00	3.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Description:							
Name: GUINEA BISSAU - Laboratory testing capacity for detection of priority diseases (national capacity scores) (Number)		Number	2.00	4.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report
Description:							
Name: GUINEA BISSAU - Progress in establishing indicator and event-based surveillance systems (national capacity scores) (Number)		Number	2.00	4.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report
Description:							
Name: GUINEA BISSAU - Availability of human resources to implement IHR core capacity requirements (national capacity scores) (Number)		Number	2.00	4.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report
Description:							

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: GUINEA BISSAU - Multi-hazard national public health emergency preparedness and response plan is developed and implemented (national capacity scores) (Number)		Number	3.00	4.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report
Description:							
Name: GUINEA BISSAU - Progress on cross-border collaboration and exchange of information across countries (Number)		Number	3.00	4.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report
Description:							
Name: TOGO - Laboratory testing capacity for detection of priority diseases (national capacity scores)		Number	2.00	3.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report
Description:							

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: TOGO - Progress in establishing indicator and event-based surveillance systems (national capacity scores)		Number	1.00	3.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report
Description:							
Name: TOGO - Availability of human resources to implement IHR core capacity requirements (national capacity scores)		Number	1.00	3.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report
Description:							
Name: TOGO - Multi-hazard national public health emergency preparedness and response plan is developed and implemented (national capacity scores)		Number	1.00	3.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report
Description:							
Name: TOGO - Progress on cross-border collaboration		Number	1.00	3.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3	JEE and OIE PVS Experts report

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
and exchange of information across countries						and end of project	
Description:							

Intermediate Results Indicators

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: Interoperable, interconnected, electronic real-time reporting system: number of countries that achieve a JEE score of 4 or higher (Number)		Number	0.00	4.00	Annual	JEE (IHR and GHSA), and OIE PVS evaluation at year 3 and end of project Self-assessments by countries in intermediary years	Participating countries, JEE and OIE PVS experts
Description: Capacity graded on a score of 1-5 where 1 = no capacity (no interoperable, interconnected, electronic real-time reporting system exists; 2 = limited capacity (country is developing an interoperable, interconnected, electronic real-time reporting system, for either public health or veterinary surveillance systems); 3 = developed capacity (country has in place an inter-operable, interconnected, electronic reporting system, for either public health or veterinary surveillance systems. The system is not yet able to share data in real-time); 4 = demonstrated capacity (country has in place and interoperable, interconnected, electronic real-time reporting system, for public health and/or veterinary surveillance systems. The system is not yet fully sustained by the host government); and 5 = sustainable capacity (country has in place an inter-operable, interconnected, electronic real-time reporting system, including both the public health and veterinary surveillance systems which is sustained by the government and capable of sharing data with relevant stakeholders according to country policies and international obligations).							

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: Laboratory systems quality: number of countries that achieve a JEE score of 4 or higher (Number)		Number	0.00	4.00	Annual	JEE (IHR and GHSA), and OIE PVS evaluation at year 3 and end of project Self-assessments by countries in intermediary years	Participating countries, JEE and OIE PVS experts
Description: Capacity graded on a score of 1-5 where 1 = no capacity (there are no national laboratory standards); 2 = limited capacity (national quality standards have been developed but there is no system for verifying their implementation); 3 = developed capacity (a system of licensing of health laboratories that includes conformity to a national quality standard exists but it is voluntary or is not a requirement for all laboratories); 4 = demonstrated capacity (mandatory licensing of all health laboratories is in place and conformity to a national quality standard is required); and 5 = sustainable capacity (mandatory licensing of all health laboratories is in place and conformity to an international quality standard is required).							
Name: Surveillance Systems in place for priority zoonotic diseases/pathogens: number of countries that achieve a JEE score of 3 or higher (Number)		Number	0.00	4.00	Annual	JEE (IHR and GHSA), and OIE PVS evaluation at year 3 and end of project Self-assessments by countries in intermediary years	Participating countries, JEE and OIE PVS experts
Description: Capacity graded on a score of 1-5 where 1 = no capacity (no zoonotic surveillance system exists); 2 = limited capacity (country has determined zoonotic							

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
diseases of greatest national public health concern but does not have animal zoonotic surveillance systems in place); 3 = developed capacity (zoonotic surveillance systems in place for 1-4 zoonotic diseases/ pathogens of greatest public health concern); 4 = demonstrated capacity (zoonotic surveillance systems in place for five or more zoonotic diseases/ pathogens of greatest public health concern); and 5 = sustainable capacity (zoonotic surveillance systems in place for 5 or more zoonotic diseases/pathogens of greatest public health concern with systems in place for continuous improvement).							
Name: Workforce Strategy: number of countries that achieve a JEE score of 4 or higher (Number)		Number	0.00	4.00	Annual	EE (IHR and GHSA), and OIE PVS evaluation at year 3 and end of project Self-assessments by countries in intermediary years	Participating countries, JEE and OIE PVS experts
Description: Capacity graded on a score of 1-5 where 1 = no capacity (no health workforce strategy exists); 2 = limited capacity (a healthcare workforce strategy exists but does not include public health professions e.g. epidemiologists, veterinarians and laboratory technicians); 3 =developed capacity (a public health workforce strategy exists, but is not regularly reviewed, updated, or implemented consistently); 4 = demonstrated capacity (a public health workforce strategy has been drafted and implemented consistently; strategy is reviewed, tracked and reported on annually); and 5 = sustainable capacity (“demonstrated capacity” has been achieved, public health workforce retention is tracked and plans are in place to provide continuous education, retain and promote qualified workforce within the national system).							
Name: Specimen referral and transport system: number of countries that achieve a JEE score of 4 or higher (Number)		Number	0.00	4.00	Annual	JEE (IHR and GHSA), and OIE PVS evaluation at year 3 and end of project Self-assessments by countries in intermediary	Participating countries, JEE and OIE PVS experts

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
						years	
Description: Capacity graded on a score of 1-5 where 1 = no capacity (i.e. aside from ad hoc transporting, no system is in place for transporting specimens from district to national level); 2 = limited capacity (system is in place to transport specimens to national laboratories from less than 50% of intermediate level/districts in country for advanced diagnostics); 3 = developed capacity (system is in place to transport specimens to national laboratories from 50- 80% of intermediate level/districts within the country for advanced diagnostics); 4 = demonstrated capacity (system is in place to transport specimens to national laboratories from at least 80% of intermediate level/districts within the country for advanced diagnostics; and 5 = sustainable capacity (system is in place to transport specimens to national laboratories from at least 80% of districts for advanced diagnostics; capability to transport specimens to/from other labs in the region; and specimen transport is funded from domestic budget).							
Name: Applied epidemiology training program in place such as FETP: number of countries that achieve a JEE score of 4 or higher (Number)		Number	1.00	4.00	Annual	JEE (IHR and GHSA), and OIE PVS evaluation at year 3 and end of project Self-assessments by countries in intermediary years	Participating countries, JEE and OIE PVS experts
Description: Capacity graded on a score of 1-5 where 1 = no capacity (no FETP or applied epidemiology training program established or no access to such a program in another country); 2 = limited capacity (no FETP or applied epidemiology training program is established within the country, but staff participate in a program hosted in another country through an existing agreement (at Basic, Intermediate and/or Advanced level); 3= developed capacity (one level of FETP (Basic, Intermediate, or Advanced) FETP or comparable applied epidemiology training program in place in the country or in another country through an existing agreement); 4 = demonstrated capacity (two levels of FETP (Basic, Intermediate and/or Advanced) or comparable applied epidemiology training program(s) in place in the country or in another country through an existing agreement); and 5 = sustainable capacity (three levels of FETP (Basic, Intermediate and Advanced) or comparable applied epidemiology training program(s) in place in the country or in another country through an existing agreement, with sustainable national funding).							

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: Systems for efficient reporting to WHO, OIE/FAO: number of countries that achieve a JEE score of 5 (Number)		Number	0.00	4.00	Annual	JEE (IHR and GHSA), and OIE PVS evaluation at year 3 and end of project Self-assessments by countries in intermediary years	Participating countries, JEE and OIE PVS experts
Description: Capacity graded on a score of 1-5 where 1 = no capacity (no national IHR focal point, OIE Delegate and/or WAHIS National Focal Point has been identified and/or identified focal point/delegate does not have access to learning package and best practices as provided by WHO, OIE and FAO); 2 = limited capacity (country has identified National IHR Focal Point, OIE delegates and WAHIS National Focal Points; focal point is linked to learning package and best practices as provided by WHO, OIE and FAO); 3 = developed capacity (country has demonstrated ability to identify a potential PHEIC and file a report to WHO based on an exercise or real event, and similarly to the OIE for relevant zoonotic diseases); 4 = (demonstrated capacity (country has demonstrated ability to identify a potential PHEIC and file a report to WHO within 24 hours and similarly to the OIE for relevant zoonotic disease, based on an exercise or real event); and 5 = sustainable capacity (country has demonstrated ability to identify a potential PHEIC and file a report within 24 hours, and similarly to the OIE for relevant zoonotic disease, and has a multisectoral process in place for assessing potential events for reporting).							
Name: Mechanisms for responding to infectious zoonoses and potential zoonoses are established and functional: number of countries that achieve a JEE score of 4 or higher (Number)		Number	0.00	4.00	Annual	JEE (IHR and GHSA), and OIE PVS evaluation at year 3 and end of project Self-assessments by countries in intermediary years	Participating countries, JEE and OIE PVS experts

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Description: Capacity graded on a score of 1-5 where 1 = no capacity (i.e. no mechanism in place); 2 = limited capacity (national policy, strategy or plan for the response to zoonotic events is in place); 3 = developed capacity (a mechanism for coordinated response to outbreaks of zoonotic diseases by human, animal and wildlife sectors is established); 4 = demonstrated capacity (timely* and systematic information exchange between animal/wildlife surveillance units, human health surveillance units and other relevant sectors in response to potential zoonotic risks and urgent zoonotic events); and 5 = sustainable capacity (timely** response to more than 80% of zoonotic events of potential national and international concern) *timeliness is judged and determined by country ** time between detection and response as defined by regional/national standards.							
Name: Veterinary human health workforce: number of countries that achieve a JEE score of 4 or higher (Number)		Number	0.00	3.00	Annual	JEE (IHR and GHSA), and OIE PVS evaluation at year 3 and end of project Self-assessments by countries in intermediary years	Participating countries, JEE and OIE PVS experts
Description: Capacity graded on a score of 1-5 where 1 = no capacity (country has no animal health workforce capable of conducting One Health activities); 2 = limited capacity (country has animal health workforce capacity within the national public health system); 3 = developed capacity (animal health workforce capacity within the national public health system and less than half of sub-national levels); 4 = demonstrated capacity (animal health workforce capacity within the national public health system and more than half of sub-national levels); and 5 = sustainable capacity (animal health workforce capacity within the public health system and at all sub-national levels; this includes a plan for animal health workforce continuing education).							
Name: Regional surge capacity and stockpiling mechanisms established		Number	1.00	3.00	Annual	Survey	WAHO

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
(capacity based on 5 point likert scale)							
Description: Capacity graded on a score of 1 -5 where: 1 = no capacity (no regional surge capacity and stockpiling mechanisms exist); 2 = limited capacity (regional stockpiling mechanism is in place with limited surge capacity); 3 = developed capacity (regional surge capacity and stockpiling mechanism has been established); 4 = demonstrated capacity (regional surge capacity and stockpiling mechanism has been established and tested); 5 = sustainable capacity (effective regional surge capacity and stockpiling mechanism has been established with sustainable funding arrangements from country budget)							
Name: Number of policy briefings on the status of Disease Surveillance and Response in the region presented at meetings of ECOWAS Heads of State and relevant Ministers (Health, Agriculture, Finance, and Env		Number	0.00	5.00	Annual	No description provided	WAHO
Description: Target number of policy briefings = 5 per year There should be annual reporting to the ECOWAS Heads of state and relevant line ministries (health, agriculture, environment, and finance) on the status of disease detection and response capacity in the region; and bi-annual reports to the AU, WHO/AFRO and OIE							
Name: Turnaround time from date of specimen collection to date of results returned for priority diseases: number of countrieswith a turnaround		Number	0.00	4.00	Annual	Self-assessment	Countries

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
time of 3 days or less (Number)							
Description: Laboratory specimen turnaround time measured by days from collection to results returned must be within a reasonable time frame to determine appropriate responses for early warning and intervention. This depends on laboratory testing capabilities, specimen transport networks, and quality standard.							
Name: Citizens and/or communities involved in planning/implementation/evaluation of development programs (Yes/No)		Yes/No	N	Y	Annual	Survey	WAHO/Participating countries
Description: The existence/inexistence of citizens and grassroots organizations trained, engaged and incentivized to contribute to the achievement of the project's objectives.							
Name: LIBERIA - Interoperable, interconnected, electronic real-time reporting system (national capacity scores)		Number	2.00	4.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report
Description:							
Name: LIBERIA - Laboratory systems quality (national capacity scores)		Number	1.00	4.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Description:							
Name: LIBERIA - Surveillance Systems in place for priority zoonotic diseases/pathogens (national capacity scores)		Number	2.00	4.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report
Description:							
Name: LIBERIA - Workforce Strategy (national capacity scores)		Number	2.00	4.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report
Description:							
Name: LIBERIA - Specimen referral and transport system (national capacity scores)		Number	3.00	4.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report
Description:							
Name: LIBERIA - Applied		Number	3.00	4.00	Annual	JEE (IHR and GHSA) and OIE	JEE and OIE PVS

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
epidemiology training program in place such as FETP (national capacity scores)						PVS evaluation at year-3 and end of project	Experts report
Description:							
Name: LIBERIA - Systems for Efficient reporting to WHO, OIE/FAO (national capacity scores)		Number	2.00	4.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report
Description:							
Name: LIBERIA - Mechanisms for responding to infectious zoonoses and potential zoonoses are established and functional (national capacity scores)		Number	2.00	4.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report
Description:							
Name: LIBERIA - Veterinary or animal health workforce (national capacity scores)		Number	2.00	4.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Description:							
Name: LIBERIA - Turnaround time from date of specimen collection to date of results returned for priority diseases		Days	4.00	3.00	Annual	Survey	WAHO/Participating countries
Description:							
Name: LIBERIA - Citizens and/or communities involved in planning/implementation/evaluation of development programs (Yes/No)		Yes/No	N	Y	Annual	survey	WAHO and Participating Country
Description:							
Name: NIGERIA - Interoperable, interconnected, electronic real-time reporting system (national capacity scores)		Number	1.00	3.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Description:							
Name: NIGERIA - Laboratory systems quality (national capacity scores)		Number	1.00	3.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report
Description:							
Name: NIGERIA - Surveillance Systems in place for priority zoonotic diseases/pathogens (national capacity scores)		Number	2.00	3.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report
Description:							
Name: NIGERIA - Workforce Strategy (national capacity scores)		Number	1.00	3.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report
Description:							
Name: NIGERIA - Specimen referral and transport		Number	1.00	3.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3	JEE and OIE PVS

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
system (national capacity scores)						and end of project	Experts report
Description:							
Name: NIGERIA - Applied epidemiology training program in place such as FETP (national capacity scores)		Number	4.00	5.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report
Description:							
Name: NIGERIA - Systems for Efficient reporting to WHO, OIE/FAO (national capacity scores)		Number	2.00	5.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report
Description:							
Name: NIGERIA - Mechanisms for responding to infectious zoonoses and potential zoonoses are established and functional (national capacity scores)		Number	1.00	4.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Description:							
Name: NIGERIA - Veterinary human health workforce (national capacity scores)		Number	2.00	4.00	Annual	JEE (IHR and GHSA) and OIE PVS evaluation at year-3 and end of project	JEE and OIE PVS Experts report
Description:							
Name: NIGERIA - Turnaround time from date of specimen collection to date of results returned for priority diseases		Days	5.00	3.00	Annual	survey	WAHO/Participating country
Description:							
Name: NIGERIA - Citizens and/or communities involved in planning/implementation/evaluation of development programs (Yes/No)		Yes/No	N	Y	Annual	Survey	WAHO/Participating Country
Description:							

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: GUINEA BISSAU - Interoperable, interconnected, electronic real-time reporting system (national capacity scores) (Number)		Number	2.00	4.00	Annual	Project Reports	PCU
Description:							
Name: GUINEA BISSAU - Laboratory systems quality (national capacity scores) (Number)		Number	2.00	4.00	Annual	Project Reports	PCU
Description:							
Name: GUINEA BISSAU - Surveillance Systems in place for priority zoonotic diseases/pathogens (national capacity scores) (Number)		Number	2.00	4.00	Annual	Project Reports	PCU
Description:							
Name: GUINEA BISSAU - Workforce Strategy (national		Number	3.00	4.00	Annual	Project Reports	PCU

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
capacity scores)							
Description:							
Name: GUINEA BISSAU - Specimen referral and transport system (national capacity scores) (Number)		Number	2.00	4.00	Annual	Project Reports	PCU
Description:							
Name: GUINEA BISSAU - Applied epidemiology training program in place such as FETP (national capacity scores) (Number)		Number	3.00	5.00	Annual	Project Reports	PCU
Description:							
Name: GUINEA BISSAU - Systems for efficient reporting to WHO, OIE/FAO (national capacity scores) (Number)		Number	2.00	4.00	Annual	Project Reports	PCU
Description:							

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: GUINEA BISSAU - Mechanisms for responding to infectious zoonoses and potential zoonoses are established and functional (national capacity scores) (Number)		Number	2.00	4.00	Annual	Project Reports	PCU
Description:							
Name: GUINEA BISSAU - Veterinary human health workforce (national capacity scores) (Number)		Number	2.00	4.00	Annual	Project Reports	PCU
Description:							
Name: GUINEA BISSAU - Turnaround time from date of specimen collection to date of results returned for priority diseases (Days)		Days	5.00	3.00	Annual	Survey	WAHO/Participating country
Description:							
Name: GUINEA BISSAU - Citizens and/or communities		Yes/No	N	Y	Annual	Survey	WAHO/Participating country

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
involved in planning/implementation/evaluation of development programs (Yes/No)							
Description:							
Name: TOGO - Interoperable, interconnected, electronic real-time reporting system (national capacity scores)		Number	1.00	3.00	Baseline, Mid-term, End	JEE	GoT, WHO
Description:							
Name: TOGO - Laboratory systems quality (national capacity scores)		Number	1.00	3.00	Baseline, Mid-term, End	JEE	GoT
Description:							
Name: TOGO - Surveillance Systems in place for priority zoonotic diseases/pathogens (national capacity scores)		Number	1.00	3.00	Baseline, Mid-term, End	JEE	GoT, WHO

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Description:							
Name: TOGO - Workforce Strategy (national capacity scores)		Number	1.00	3.00	Baseline, Mid-term, End	JEE	GoT
Description:							
Name: TOGO - Specimen referral and transport system (national capacity scores)		Number	1.00	3.00	Baseline, Mid-term, End	JEE	GoT, WHO
Description:							
Name: TOGO - Applied epidemiology training program in place such as FETP (national capacity scores)		Number	1.00	3.00	Baseline, Mid-term, End	JEE	GoT, WHO
Description:							
Name: TOGO - Systems for Efficient reporting to WHO, OIE/FAO (national capacity		Number	1.00	3.00	Baseline, Mid-term, End	JEE	GoT, WHO

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
scores)							
Description:							
Name: TOGO - Mechanisms for responding to infectious zoonoses and potential zoonoses are established and functional (national capacity scores)		Number	1.00	3.00	Baseline, Mid-term, End	JEE	GoT, WHO
Description:							
Name: TOGO - Veterinary or animal health workforce (national capacity scores)		Number	1.00	3.00	Baseline, Mid-term, End	JEE	GoT
Description:							
Name: TOGO - Turnaround time from date of specimen collection to date of results returned for priority diseases		Days	5.00	3.00	Annual	Survey	WAHO/Participating country
Description:							

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: TOGO - Citizens and/or communities involved in planning/implementation/evaluation of development programs (Yes/No)		Yes/No	N	Y	Annual	Survey	WAHO and Participating country
Description:							

Target Values

Project Development Objective Indicators

Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	End Target
Laboratory testing capacity for detection of priority diseases (national capacity scores) (Number of countries that achieve a JEE score of 4 or higher)	0.00	0.00	1.00	2.00	3.00	3.00	4.00
Progress in establishing indicator and event-based surveillance systems (national capacity scores) (Number of countries that achieve a JEE score of 4 or higher)	1.00	1.00	2.00	2.00	3.00	3.00	4.00
Availability of human resources to implement IHR core capacity requirements (national capacity scores) (Number of countries that achieve a JEE score of 3 or higher)	0.00	0.00	1.00	2.00	3.00	4.00	4.00
Multi-hazard national public health emergency preparedness and response plan is developed and implemented (national capacity scores) (Number of countries that achieve a JEE score of 4 or higher)	0.00	0.00	1.00	2.00	3.00	3.00	4.00
Progress on cross-border collaboration and exchange of information across countries (Number of countries that	0.00	0.00	1.00	2.00	2.00	3.00	4.00

Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	End Target
achieve a score of 4 or higher)							
Progress towards establishing an active, functional regional One Health platform (Number based on 5 point Likert scale)	1.00	1.00	2.00	2.00	3.00	4.00	4.00
LIBERIA - Laboratory testing capacity for detection of priority diseases (national capacity scores)	2.00	2.00	2.00	3.00	4.00	4.00	4.00
LIBERIA - Progress in establishing indicator and event-based surveillance systems (national capacity scores)	4.00	4.00	4.00	4.00	4.00	4.00	4.00
LIBERIA - Availability of human resources to implement IHR core capacity requirements (national capacity scores)	1.00	2.00	2.00	3.00	3.00	4.00	4.00
LIBERIA - Multi-hazard national public health emergency preparedness and response plan is developed and implemented (national capacity scores)	1.00	1.00	2.00	3.00	3.00	4.00	4.00
LIBERIA - Progress on cross-border collaboration and exchange of information across countries	1.00	1.00	2.00	3.00	3.00	4.00	4.00
NIGERIA - Progress towards establishing an active, functional One Health Network	1.00	1.00	2.00	2.00	3.00	3.00	3.00
NIGERIA - Laboratory testing capacity for detection of priority diseases (national	2.00	2.00	2.00	3.00	3.00	4.00	4.00

Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	End Target
capacity scores)							
NIGERIA - Progress in establishing indicator and event-based surveillance systems (national capacity scores)	1.00	1.00	2.00	2.00	3.00	3.00	3.00
NIGERIA - Availability of human resources to implement IHR core capacity requirements (national capacity scores)	2.00	2.00	2.00	3.00	3.00	3.00	3.00
NIGERIA - Multi-hazard national public health emergency preparedness and response plan is developed and implemented (national capacity scores)	1.00	1.00	2.00	2.00	3.00	3.00	3.00
NIGERIA - Progress on cross-border collaboration and exchange of information across countries	1.00	1.00	2.00	2.00	3.00	3.00	3.00
GUINEA BISSAU - Laboratory testing capacity for detection of priority diseases (national capacity scores) (Number)	2.00	2.00	3.00	3.00	4.00	4.00	4.00
GUINEA BISSAU - Progress in establishing indicator and event-based surveillance systems (national capacity scores) (Number)	2.00	2.00	3.00	3.00	4.00	4.00	4.00
GUINEA BISSAU - Availability of human resources to implement IHR core capacity requirements (national capacity scores)	2.00	2.00	3.00	3.00	4.00	4.00	4.00

Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	End Target
(Number)							
GUINEA BISSAU - Multi-hazard national public health emergency preparedness and response plan is developed and implemented (national capacity scores) (Number)	3.00	3.00	4.00	4.00	4.00	4.00	4.00
GUINEA BISSAU - Progress on cross-border collaboration and exchange of information across countries (Number)	3.00	3.00	4.00	4.00	4.00	4.00	4.00
TOGO - Laboratory testing capacity for detection of priority diseases (national capacity scores)	2.00	2.00	2.00	3.00	3.00	3.00	3.00
TOGO - Progress in establishing indicator and event-based surveillance systems (national capacity scores)	1.00	1.00	1.00	1.00	2.00	3.00	3.00
TOGO - Availability of human resources to implement IHR core capacity requirements (national capacity scores)	1.00	1.00	2.00	2.00	3.00	3.00	3.00
TOGO - Multi-hazard national public health emergency preparedness and response plan is developed and implemented (national capacity scores)	1.00	1.00	1.00	1.00	2.00	3.00	3.00
TOGO - Progress on cross-border collaboration and exchange of	1.00	1.00	2.00	2.00	3.00	3.00	3.00

Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	End Target
information across countries							

Intermediate Results Indicators

Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	End Target
Interoperable, interconnected, electronic real-time reporting system: number of countries that achieve a JEE score of 4 or higher (Number)	0.00	0.00	0.00	2.00	2.00	3.00	4.00
Laboratory systems quality: number of countries that achieve a JEE score of 4 or higher (Number)	0.00	0.00	0.00	1.00	2.00	3.00	4.00
Surveillance Systems in place for priority zoonotic diseases/pathogens: number of countries that achieve a JEE score of 3 or higher (Number)	0.00	0.00	1.00	2.00	3.00	4.00	4.00
Workforce Strategy: number of countries that achieve a JEE score of 4 or higher (Number)	0.00	0.00	1.00	2.00	2.00	3.00	4.00
Specimen referral and transport system: number of countries that achieve a JEE score of 4 or higher (Number)	0.00	0.00	1.00	2.00	2.00	3.00	4.00
Applied epidemiology training program in place such as FETP: number of countries	1.00	1.00	2.00	2.00	3.00	3.00	4.00

Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	End Target
that achieve a JEE score of 4 or higher (Number)							
Systems for efficient reporting to WHO, OIE/FAO: number of countries that achieve a JEE score of 5 (Number)	0.00	0.00	0.00	2.00	2.00	3.00	4.00
Mechanisms for responding to infectious zoonoses and potential zoonoses are established and functional: number of countries that achieve a JEE score of 4 or higher (Number)	0.00	0.00	1.00	1.00	2.00	3.00	4.00
Veterinary human health workforce: number of countries that achieve a JEE score of 4 or higher (Number)	0.00	0.00	1.00	1.00	2.00	3.00	3.00
Regional surge capacity and stockpiling mechanisms established (capacity based on 5 point likert scale)	1.00	1.00	1.00	2.00	2.00	3.00	3.00
Number of policy briefings on the status of Disease Surveillance and Response in the region presented at meetings of ECOWAS Heads of State and relevant Ministers (Health, Agriculture, Finance, and Env	0.00	5.00	5.00	5.00	5.00	5.00	5.00
Turnaround time from date of specimen collection to date of results returned for priority diseases: number of countrieswith a turnaround time of 3 days or less	0.00	0.00	1.00	2.00	2.00	3.00	4.00

Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	End Target
(Number)							
Citizens and/or communities involved in planning/implementation/evaluation of development programs (Yes/No)	N	Y	Y	Y	Y	Y	Y
LIBERIA - Interoperable, interconnected, electronic real-time reporting system (national capacity scores)	2.00	2.00	2.00	3.00	3.00	4.00	4.00
LIBERIA - Laboratory systems quality (national capacity scores)	1.00	1.00	2.00	3.00	3.00	4.00	4.00
LIBERIA - Surveillance Systems in place for priority zoonotic diseases/pathogens (national capacity scores)	2.00	2.00	2.00	2.00	3.00	4.00	4.00
LIBERIA - Workforce Strategy (national capacity scores)	2.00	2.00	2.00	3.00	3.00	4.00	4.00
LIBERIA - Specimen referral and transport system (national capacity scores)	3.00	3.00	3.00	3.00	4.00	4.00	4.00
LIBERIA - Applied epidemiology training program in place such as FETP (national capacity scores)	3.00	3.00	4.00	4.00	4.00	4.00	4.00
LIBERIA - Systems for Efficient reporting to WHO, OIE/FAO (national capacity scores)	2.00	2.00	3.00	3.00	4.00	4.00	4.00

Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	End Target
LIBERIA - Mechanisms for responding to infectious zoonoses and potential zoonoses are established and functional (national capacity scores)	2.00	2.00	2.00	3.00	3.00	4.00	4.00
LIBERIA - Veterinary or animal health workforce (national capacity scores)	2.00	2.00	2.00	2.00	3.00	3.00	4.00
LIBERIA - Turnaround time from date of specimen collection to date of results returned for priority diseases	4.00	4.00	4.00	3.00	3.00	3.00	3.00
LIBERIA - Citizens and/or communities involved in planning/implementation/evaluation of development programs (Yes/No)	N	Y	Y	Y	Y	Y	Y
NIGERIA - Interoperable, interconnected, electronic real-time reporting system (national capacity scores)	1.00	1.00	1.00	2.00	3.00	3.00	3.00
NIGERIA - Laboratory systems quality (national capacity scores)	1.00	1.00	1.00	2.00	3.00	3.00	3.00
NIGERIA - Surveillance Systems in place for priority zoonotic diseases/pathogens (national capacity scores)	2.00	2.00	2.00	3.00	3.00	3.00	3.00
NIGERIA - Workforce Strategy (national capacity scores)	1.00	1.00	2.00	2.00	3.00	3.00	3.00

Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	End Target
NIGERIA - Specimen referral and transport system (national capacity scores)	1.00	1.00	1.00	2.00	3.00	3.00	3.00
NIGERIA - Applied epidemiology training program in place such as FETP (national capacity scores)	4.00	4.00	4.00	4.00	5.00	5.00	5.00
NIGERIA - Systems for Efficient reporting to WHO, OIE/FAO (national capacity scores)	2.00	2.00	3.00	4.00	4.00	5.00	5.00
NIGERIA - Mechanisms for responding to infectious zoonoses and potential zoonoses are established and functional (national capacity scores)	1.00	1.00	2.00	3.00	4.00	4.00	4.00
NIGERIA - Veterinary human health workforce (national capacity scores)	2.00	2.00	2.00	3.00	3.00	4.00	4.00
NIGERIA - Turnaround time from date of specimen collection to date of results returned for priority diseases	5.00	5.00	4.00	4.00	3.00	3.00	3.00
NIGERIA - Citizens and/or communities involved in planning/implementation/evaluation of development programs (Yes/No)	N	Y	Y	Y	Y	Y	Y
GUINEA BISSAU - Interoperable, interconnected, electronic real-time reporting system (national capacity	2.00	2.00	3.00	3.00	4.00	4.00	4.00

Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	End Target
scores) (Number)							
GUINEA BISSAU - Laboratory systems quality (national capacity scores) (Number)	2.00	2.00	2.00	3.00	3.00	4.00	4.00
GUINEA BISSAU - Surveillance Systems in place for priority zoonotic diseases/pathogens (national capacity scores) (Number)	2.00	2.00	3.00	3.00	4.00	4.00	4.00
GUINEA BISSAU - Workforce Strategy (national capacity scores)	3.00	3.00	3.00	4.00	4.00	4.00	4.00
GUINEA BISSAU - Specimen referral and transport system (national capacity scores) (Number)	2.00	2.00	3.00	3.00	4.00	4.00	4.00
GUINEA BISSAU - Applied epidemiology training program in place such as FETP (national capacity scores) (Number)	3.00	3.00	4.00	4.00	4.00	5.00	5.00
GUINEA BISSAU - Systems for efficient reporting to WHO, OIE/FAO (national capacity scores) (Number)	2.00	2.00	2.00	3.00	3.00	4.00	4.00
GUINEA BISSAU - Mechanisms for responding to infectious zoonoses and potential zoonoses are established and functional (national capacity scores) (Number)	2.00	2.00	2.00	3.00	3.00	4.00	4.00

Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	End Target
GUINEA BISSAU - Veterinary human health workforce (national capacity scores) (Number)	2.00	2.00	3.00	3.00	4.00	4.00	4.00
GUINEA BISSAU - Turnaround time from date of specimen collection to date of results returned for priority diseases (Days)	5.00	5.00	4.00	4.00	3.00	3.00	3.00
GUINEA BISSAU - Citizens and/or communities involved in planning/implementation/evaluation of development programs (Yes/No)	N	Y	Y	Y	Y	Y	Y
TOGO - Interoperable, interconnected, electronic real-time reporting system (national capacity scores)	1.00	1.00	1.00	2.00	2.00	3.00	3.00
TOGO - Laboratory systems quality (national capacity scores)	1.00	1.00	1.00	2.00	2.00	3.00	3.00
TOGO - Surveillance Systems in place for priority zoonotic diseases/pathogens (national capacity scores)	1.00	1.00	2.00	2.00	3.00	3.00	3.00
TOGO - Workforce Strategy (national capacity scores)	1.00	1.00	2.00	2.00	2.00	3.00	3.00
TOGO - Specimen referral and transport system (national capacity scores)	1.00	1.00	2.00	2.00	3.00	3.00	3.00

Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	End Target
TOGO - Applied epidemiology training program in place such as FETP (national capacity scores)	1.00	1.00	2.00	2.00	3.00	3.00	3.00
TOGO - Systems for Efficient reporting to WHO, OIE/FAO (national capacity scores)	1.00	1.00	1.00	2.00	2.00	3.00	3.00
TOGO - Mechanisms for responding to infectious zoonoses and potential zoonoses are established and functional (national capacity scores)	1.00	1.00	1.00	2.00	2.00	3.00	3.00
TOGO - Veterinary or animal health workforce (national capacity scores)	1.00	1.00	1.00	2.00	2.00	3.00	3.00
TOGO - Turnaround time from date of specimen collection to date of results returned for priority diseases	5.00	5.00	4.00	4.00	3.00	3.00	3.00
TOGO - Citizens and/or communities involved in planning/implementation/evaluation of development programs (Yes/No)	N	Y	Y	Y	Y	Y	Y

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ANNEX 1: DETAILED PROJECT DESCRIPTION

COUNTRY : Western Africa
Regional Disease Surveillance Systems Enhancement (REDISSE) Phase II

PROJECT COMPONENTS

1. The REDISSE program design incorporates a shift from a paradigm grounded in crisis response to one that embraces a disaster risk reduction approach and better risk management by building support for the animal health and human health systems, and the required linkages at country and regional level to manage infectious disease threats.

2. The project seeks to address 3 priority areas: (i) strengthen national capacity to detect and respond to infectious human and animal disease threats; (ii) establish national and regional platforms for collaboration and collective action; and (iii) ultimately promote a platform to increase engagement across the human health, animal health and environmental sectors to implement a One Health approach.

3. The PDOs, key results and indicators under REDISSE remain the same across the SOPs. As adopted under REDISSE I, the PDOs are: (i) to strengthen national and regional cross-sectoral capacity for collaborative disease surveillance and epidemic preparedness in West Africa, thereby addressing systemic weaknesses within the animal and human health systems that hinder effective disease surveillance and response; and (ii) in the event of an Eligible Emergency, to provide immediate and effective response to said Eligible Emergency.

4. The project will be comprised of five components: (i) Surveillance and Information Systems; (ii) Strengthening of Laboratory Capacity; (iii) Preparedness and Emergency Response; (iv) Human Resource Management for Effective Disease Surveillance and Epidemic Preparedness; and (v) Institutional Capacity Building, Project Management, Coordination and Advocacy.

5. The five (5) identified project components and thirteen (13) sub-components will serve as a menu of options for countries to select from so that the project can address specific needs of countries that are at different stages of building their respective disease surveillance, preparedness and response systems.

6. Selected interventions under each component are based on thorough consultations with the government, regional entities, and other key technical and financial partners including but not limited to the Africa Development Bank (AfDB), Bill and Melinda Gates Foundation (BMGF), Canadian International Development Agency (CIDA), Department of International Development (DFID), FAO, the Government of South Korea, Japan International Cooperation Agency (JICA), OIE, US CDC, USAID, WHO. To ensure appropriate linkages and complementarity with other ongoing efforts on disease surveillance and response in the sub-region, the project will fill financing gaps by investing in interventions that are currently under funded and/or lacking

government and donor support at both country and regional level. Donor support is aligned with the post-EVD health system development strategies in the four countries. However, recognizing the complexity of the development partner landscape in the four countries and the unpredictability of funding streams, a joint country-driven annual work plan development process will be adopted to properly reflect country priorities. Assessments will also be carried out under the project to assist countries with identifying critical gaps in financing to better rationalize the use of donor resources in the context of country priority needs.

7. The project will also complement ongoing IDA supported operations interventions including the WARDS project in the ECOWAS countries, the PRAPS and the Ebola Emergency Response Project (EERP) in Liberia. For example, under the EERP, the project will supplement and take over the EERP activities based on gap analysis and availability of funds, and will support efforts led by other partners on the project including U.S. CDC, AfDB, UNICEF, and the French Cooperation (refer to Annex 6 for full details of REDISSE project alignment with other World Bank supported and DP project by country). Within the World Bank, the country task team leaders from both health and agriculture sectors will ensure the complementarity of proposed project interventions with existing operations. Overall, support will be provided by the project to complement activities that will be implemented under the ECOWAS RCDC and the identified national collaborating centers of the RCDC.

8. During the first year of the project, the following priorities have been proposed for the four countries under REDISSE II: (i) set up or improvement of institutional mechanisms for the project. For instance, a One Health committee, joint technical working groups, project coordination office at national and, if needed, at sub-national level; (ii) preparatory activities such as disease surveillance program assessment and prioritization, disease risk mapping, feasibility studies for civil works that are deemed necessary and (iii) piloting activities such as community event based surveillance and rumor surveillance.

9. The proposed national and regional OH platforms, including the OH committees and Joint Technical Working Groups, will help identify national and regional priorities for disease surveillance, preparedness and response and facilitate the utilization of the findings from the surveillance system for guiding and evaluating the national or regional disease control programs. They will also, facilitate linkages between surveillance efforts to other national and regional initiatives (current and future) to support national disease control programs including antimicrobial resistance (AMR). Additionally, linkages between the One Health committee and other existing coordination bodies in both health and agriculture sectors will be set up to ensure a programmatic approach in the development of systems.

10. Across all project components, the project will promote partnership with the private sector to improve areas of known weaknesses in the provision of public goods across all project activities. Potential areas of private sector engagement will involve aspects where the private sector may have a comparative advantage over, or complementary to, the public sector such as in logistics and supply chain management, information communication and technology development, and improvement of specimen transportation systems. In order to take advantage of existing

professional skills and to contribute towards achieving proper geographical meshing of the animal health and human health national surveillance networks, private medical practitioners, veterinarians and veterinary paraprofessionals may be entrusted with official tasks through contractual arrangements. Under similar contractual mechanisms, the project will also explore possible partnerships, with identified centers of excellence and private laboratories with the appropriate capacity that can play a critical role in the provision of diagnostic and reporting services for diseases of national, regional and/or global importance.

Component 1: Surveillance and Information Systems. ***Total costs including contingencies US$45.33 million equivalent.***

11. This component will provide support to strengthening the human and animal disease surveillance systems of Guinea-Bissau, Liberia, Nigeria, and Togo, and the development of regional interconnected human and animal platforms to promote collective action, cross-border and cross-sectoral collaboration in surveillance. It will in particular support the (i) assessment of epidemic-surveillance systems and networks; (ii) prioritization of diseases (including zoonotic ones); (iii) development of harmonized procedures for the surveillance, reporting, diagnosis of and response to prioritized diseases within the countries of the region; (iv) development of institutional mechanisms to improve the efficiency and coordination of animal health epidemiological networks with human health networks, including protocols for rapid information sharing across sectors; (v) design and implementation of operational research (including the use of epidemic-surveillance surveys) and utilization of surveillance data for risk management (decision making on disease prevention and control across the sub-region), and risk communication; and (vi) scale-up of the use of ICT including for disease risk mapping, data analysis, forecasting and reporting purposes. Activities under this component will in particular aim at addressing main weaknesses with the implementation of the IDSR strategy such as the need for the activation and strengthening of the community-based surveillance systems, and the development of an effective and efficient mechanism to ensure interoperability of surveillance systems.

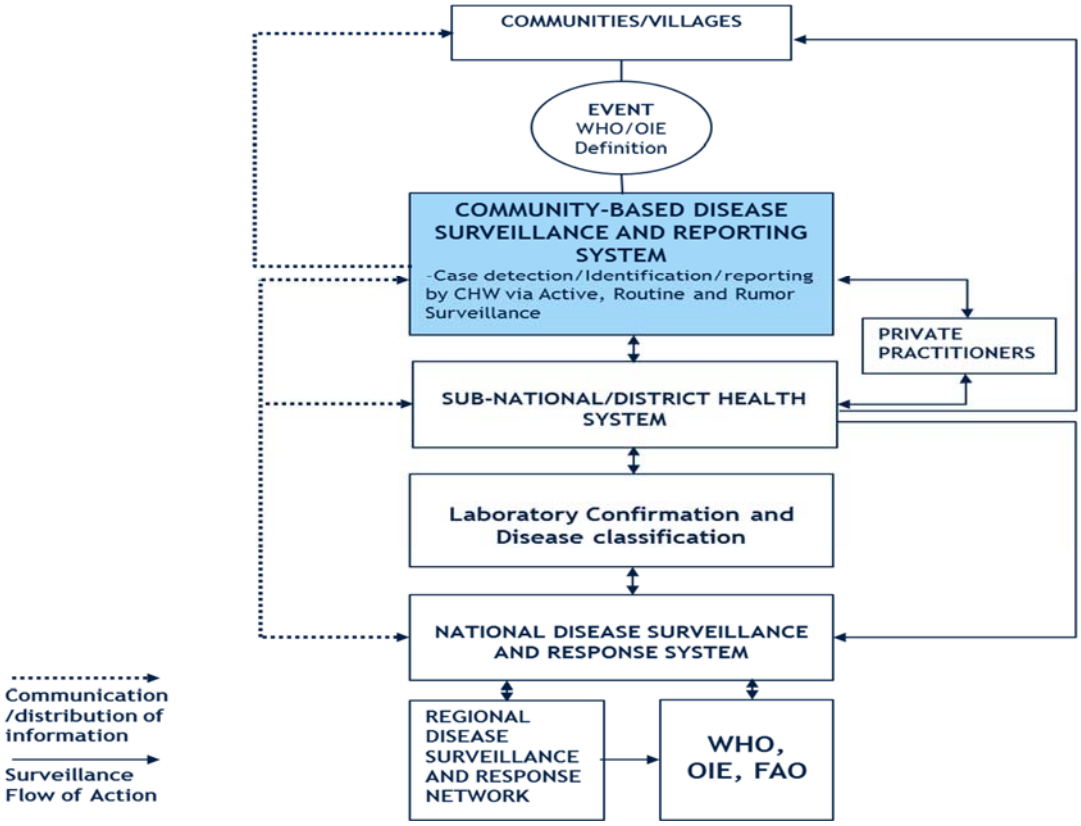
Sub-Component 1.1 Support coordinated community-level surveillance systems and processes across the animal and human health sectors. Total costs including contingencies US$22.34 million equivalent.

12. This sub-component will involve the strengthening of community-level surveillance structures and processes in countries where gaps exist for detecting events in communities (human and animal). This will entail improving community-level surveillance capacity for active, passive and rumor surveillance including in cross-border areas, and the development and implementation of a plan to ensure adequate territorial coverage for surveillance from the community to the central level.

13. Recognizing the high degree of unregulated movement of livestock and humans across the sub-region, there is a critical need to improve infectious disease surveillance systems including cross-border surveillance and cooperation in animal movement control. Project activities under this component will complement the implementation of the surveillance and reporting action

package under the US GHSA specifically with regards to improving border health surveillance at international ports of entry and strengthening capacity for community-based surveillance around land cross-border crossing; and other programs such as RESEPI recipient communities. Activation of the community-level system is expected to lead to improved capacity of countries for the early detection of cases at the source of outbreaks, and early reporting of infectious disease threats in the region including those of zoonotic origins.

Figure 1: Linkages between community action and regional surveillance and response



Sub-Component 1.2 Develop capacity for interoperable surveillance and reporting systems. Total costs including contingencies are US$12.22million equivalent.

14. The second sub-component will support the: (i) assessment of existing human and animal health surveillance systems and networks for prioritization of interventions within and across key sectors; (ii) review and update of national and regional disease priorities, and review and development of harmonized guidelines, protocols and tools to enhance surveillance and reporting processes; (iii) development of common methodologies and protocols (applicable to both public and private actors involved in disease surveillance) for efficient flow and utilization of surveillance data; (iv) development of the required ICT infrastructure to facilitate cross-sectoral interoperability of surveillance and reporting systems at the national and regional level; and (v) establishment of

the necessary linkage of surveillance and reporting systems to national incidence management systems

15. The project will address the need to reduce the fragmentation that currently exists with multiple surveillance systems, and to improve surveillance data management and reporting processes of the human health and veterinary public health systems. It will support the IDSR strategic goals to improve availability of quality information by investing in the development of the required ICT infrastructure for cross-sectoral interoperability of surveillance and reporting systems at the country and regional level. Interoperable systems will enhance information sharing practices, the integration of laboratory data following specimen collection, transportation and confirmation, and improve the quality of surveillance reports that will be utilized to address animal health and public health emergencies, and to implement other appropriate rapid response interventions in the sub-region.

16. Adopting best practices from other regions, measures will be taken to ensure the practicality of building effective and efficient interoperable surveillance systems including the identification of country and regional champions, and the formulation of evidence-based policies to support establishment of appropriate capacity for interoperable surveillance systems.

Sub-Component 1.3 Establish an early warning system for infectious disease trends prediction. Total costs including contingencies are US$10.77 million equivalent..

17. This sub-component will involve the establishment of an early warning system including the use of Geographic Information System (GIS) techniques to study infectious disease patterns and make predictions on evolution of disease outbreaks, including zoonoses and identify potential high risk areas for disease outbreaks in the region. Activities under this will support monitoring trends that occur in infectious diseases such as AMR and insecticide resistance, and the impact of climate change on infectious disease outbreaks in the region.

18. The benefits of investing in a regional disease surveillance network in West Africa is well grounded in adopting a multi-dimensional approach, via multi-sectoral, cross-border cooperation, to develop more resilient country health systems equipped with the capacity to respond promptly, and effectively to disease outbreaks, which is critical for preventing mortality risks due to emerging and re-emerging infectious disease outbreak threats, and improving overall health outcomes.

19. Identified interventions will also complement activities under the USAID EPT2, which focuses on risk-based surveillance in select countries for the implementation of appropriate mitigation measures.

20. The project will support countries to undertake activities such as:

- ✓ development of non-financial incentives-based early reporting mechanisms for both human health and animal health;

- ✓ renovation and rehabilitation of facilities, provision of equipment, logistics and materials for sample collection, preservation and shipment to the laboratory; and
- ✓ partnership with the private sector for enhanced disease surveillance and reporting.

21. The project will support regional partners to undertake activities such as:

- ✓ establishment of mechanisms such as MoU for improved regional collaboration on disease surveillance and data sharing practices across countries;
- ✓ design and provision of ICT infrastructure including improving video conference capacity for enhanced communication and regional networking; and
- ✓ periodic dissemination of information on surveillance best practices and stock taking exercises on the state of surveillance and response in the ECOWAS region.

Table 4: Funding allocation by Sub-Component, Component 1

Project activities	Guinea-Bissau	Liberia	Nigeria	Togo
COMPONENT 1				
Sub-Component 1.1 Support coordinated community-level surveillance systems and processes across the animal and human health sectors	0.39	0.56	19.5	1.89
Sub-Component 1.2 Develop capacity for interoperable surveillance and reporting systems	2.65	0.31	8.0	1.26
Sub-Component 1.3 Establish an early warning system for infectious disease trends prediction	1.61	0.61	7.5	1.05
Sub-total component 1	**4.65**	**1.48**	**35.0**	**4.2**

Component 2: Strengthening of Laboratory Capacity. ***Total costs including contingencies are US$30.89 million equivalent.***

22. The objective of this component is to strengthen existing networks of efficient, high quality, accessible public health and veterinary laboratories for the diagnosis of infectious human and animal diseases, and to establish a regional networking platform to improve collaboration for laboratory investigation. Public health and veterinary laboratories form an integral and critical part of human and animal disease surveillance systems and an underdeveloped laboratory network hinders governments' ability to confirm and respond in a coordinated manner to disease outbreaks. In designing the specific activities, the project will seek to work with existing institutions, systems and international partners and complement ongoing initiatives such as the Global Fund to Fight AIDS, TB and Malaria (GFATM), the ECOWAS Veterinary Laboratory Network for Avian Influenza and other Transboundary Animal Disease in West Africa (RESOLAB)[24]. It will also

[24] This is a network of laboratories across West Africa including Benin, Togo, Burkina Faso, Guinea, Mali, Niger and Senegal.

provide support to establish the necessary linkages of public health laboratory networks with existing private laboratory networks to improve laboratory practices across countries in the region.

23. The project will aim at addressing key gaps in laboratory networks that are needed for (i) cost-efficient and integrated disease surveillance; (ii) compliance with IHR and OIE international standards; (iii) conduct of quality and rapid diagnosis to guide control measures; and (iv) support to the implementation of operational research.

24. This project will place a strong emphasis on consolidating and bridging regional networks of national human health and veterinary laboratories for efficiency gains and achieving quality diagnostic services. It will seek to address laboratory systems weaknesses across the three countries for the proper diagnosis of priority regional communicable diseases of animal (zoonotic ones in particular) and public health importance, and to share information about those diseases to mount an effective regional prevention and control response. Identified regional centers of excellence in various technical fields will be eligible for regional financing to provide services in training, other forms of technical assistance to countries and implementation of operational research under a contractual agreement. The Project will support the development of regionally harmonized policies, strategies, protocols, aligned with internationally recognized practices, and inter-laboratory trials to ensure prompt and high quality results. This component is divided into three sub-components:

Sub-Component 2.1 Review, upgrade and support network laboratory facilities. Total costs including contingencies are US$11.71 million equivalent.

25. This sub component will include the: (i) assessment of existing human and animal health laboratory facilities and networks for prioritization of interventions; (ii) increase of laboratories services, and biosafety and biosecurity; (iii) support for improved supply chain management including the establishment of efficient inventory tracking and management systems; (iv) technical support for integrated laboratory information systems and the interoperability with disease surveillance and reporting systems; and (v) support to the strengthening of quality assurance systems for diagnostic services.

26. The project will make investments in renovating and upgrading existing facilities, in ensuring adequate supplies and in strengthening supply chain management. Networking of laboratories will be supported for (i) sharing timely information across countries; and (ii) contributing to joint investigations of disease outbreaks. Networks will ensure improved capacity to diagnose diseases, identify public health threats, and conduct surveillance. Networks will also serve as effective platforms for learning and knowledge sharing.

Sub-Component 2.2 Improve data management and specimen management systems. Total costs including contingencies are US$12.03 million equivalent.

27. Under this component, measures to improve data management will include the: (i) strengthening of the competencies of laboratory personnel to analyze and use laboratory

surveillance data; (ii) strengthening of laboratory data management systems to 'report up' and 'report down' more effectively; and (iii) achievement of interoperability between data management systems, where possible.

28. This sub-component will also support strengthening specimen management including the: (i) streamlining of the laboratory specimen referral process, including use of sub-national laboratories rather than having all specimens coming to a central laboratory, where possible; and (ii) improvement of efficiency of specimen transport and disposal systems including through the use of private sector partnerships.

Sub-Component 2.3 Enhance regional reference laboratory networking functions. Total costs including contingencies are US$7.15 million equivalent.

29. Regional level activities will seek to (i) strengthen existing and possibly identify new regional reference laboratories for specific diseases or diagnostic techniques, (ii) strengthen regional networking and information sharing between countries; and (iii) harmonize laboratory quality assurance policies across countries in the region, based on international standards.

30. The sub-component will support regional reference laboratories to serve as hubs for quality diagnosis along with acting as centers for knowledge generation and sharing. These laboratories will harmonize tools, offer training, technical support, explore innovative laboratory diagnosis, and serve as centers of excellence, documenting and sharing good practices in disease surveillance.

31. This sub-component will also provide support to improve quality assurance, and notably (i) the development of common standards, quality assurance systems, procedures and protocols; (ii) the introduction of peer review mechanisms; (iii) the application of the WHO/AFRO five-step accreditation process and technical assistance to support accreditation of laboratories; and (iv) support for inter-laboratory external quality assessments among the participating countries and recruitment of additional personnel to provide mentorship to laboratories.

32. The project will support countries to undertake activities such as:

- ✓ upgrading laboratory policies, optimization of cost-effective laboratory networks;
- ✓ provision of laboratory equipment and materials, including waste management equipment and protective gear;
- ✓ rehabilitation of existing laboratory facilities;
- ✓ convening of experts to achieve interoperability of surveillance systems with laboratory information systems platform; and
- ✓ development of private sector partnership to strengthen specimen management systems and streamline both the laboratory referral and sample transportation processes.

33. The project will support regional partners to undertake activities such as:

- ✓ strengthening the information sharing platforms of regional reference laboratories;

- ✓ development of a regional laboratory sample transportation system;
- ✓ development of regional proficiency testing between national and regional reference laboratories, and other activities to improve quality assurance processes; and
- ✓ internal renovations and upgrading capacity to manage priority infectious diseases.

Table 5: Funding allocation by Sub-Component, Component 2

Project activities	Guinea-Bissau	Liberia	Nigeria	Togo
COMPONENT 2				
Sub-Component 2.1 Review, upgrade and network laboratory facilities	0.05	1.34	9.0	1.32
Sub-Component 2.2 Improve data management and specimen management systems	5.82	0.18	5.5	0.53
Sub-Component 2.3 Enhance regional reference laboratory networking functions	0.85	1.01	4.5	0.79
Sub-total component 2	**6.72**	**2.53**	**19.0**	**2.64**

Component 3: Preparedness and Emergency Response. ***Total costs including contingencies are US$26.08 million equivalent.***

34. This component will support national and regional efforts to enhance infectious disease outbreak preparedness and response capacity by improving local, national and regional capacities to prepare for impending epidemics in humans and animals, and to respond effectively to disease outbreak threats including the resulting mortality risks posed by infectious diseases. Project interventions will provide support to improve country and regional surge capacity to ensure a rapid response during an emergency and, for what concerns the human health sector, a better performance of the healthcare system in service delivery.

35. Project activities will involve the establishment of adequate policies, legislation and detailed operational planning for early response mechanisms with due consideration to increased demand for services during epidemics and possibly other disasters, as well as the establishment of multidisciplinary rapid response teams at both national and regional level. It will seek to better educate and prepare communities for outbreaks and emergencies as part of the routine delivery of health services.[25] As part of the cross-sectoral efforts, the development of joint planning and joint implementation will be pursued. The project will also support enhancing countries' health system capacities for management of disaster recovery priorities including the capacity for the integration of community-centered emergency care into the broader healthcare system.

36. Activities under this component will support the (i) updating and/or development of cross-sectoral emergency preparedness and response plans (national and regional) for priority diseases, and ensuring their integration into the broader national all-hazards disaster risk management

[25] Evidence-based preparedness activities using the lessons learned on best approaches to involve and prepare will be used to ensure community acceptance and promote community resilience during emergencies.

framework; (ii) regular testing, assessment, and improvements of plans; (iii) expansion of the health system surge capacity including the allocation and utilization of existing pre-identified structures and resources (at the national and regional level) for emergency response, infection prevention and control (IPC); (iv) regional exchange of best practices and lessons learned in preparedness and response across countries in the region; (v) explore the establishment of national and regional financing mechanisms for animal health (including the development of compensation schemes for livestock culling) and public health emergencies; (vi) establishment of public-private partnerships to improve supply chain logistics management and planning across countries in the region; (vii) development of mechanisms for improving access to essential health services and enhancing the delivery of primary healthcare and nutrition needs of the population during and after disasters. To limit duplication of efforts, project activities will complement other ongoing preparedness and response efforts in the sub-region including the GHSA Preparedness and Response project under preparation.

37. Component 3 will be made up of three sub-components.

Sub-Component 3.1 Enhance cross-sectoral coordination and collaboration for preparedness and response. Total costs including contingencies are US$12.18 million equivalent.

38. This sub-component will support (i) partnership building (including partnership with the private sector) and effective capacity development activities for outbreak preparedness and disaster risk management at the community, district, national and regional level; (ii) improvement and harmonization of policies, legislations, and operating procedures that include representation from other relevant sectors including environment, customs/immigration, education, law enforcement; and (iii) explore the establishment of national and regional financing mechanisms to ensure swift mobilization of resources for animal health and public health emergencies.

39. This sub-component will support activities to strengthen coordination and communication in outbreak preparedness and response across countries (using a bottom-up and top-down approach) including (i) development, upgrading, testing of operational communication mechanisms, development of risk communication strategies, training of spokespersons; and (ii) the preparation and test-run of communication materials prior to an outbreak to ensure local acceptance and understanding of contents. Adopting a bottom-up and systematic approach to epidemic/pandemic preparedness ensures that the needs of the communities especially those that are most vulnerable to disease outbreaks and the aftermaths of disasters borne from pandemics are properly taken into account. In order to maximize the use of the already limited veterinary network, efforts should be placed to better involve private veterinarians and veterinary para-professionals, in particular in rural areas, in the prevention and response mechanisms, through delegation and appropriate remuneration of activities conducted in this context.

40. Support will also be provided at the regional level for coordination purpose, sharing best practices and lessons learned across the region.

Sub-Component 3.2 Strengthen Capacity for emergency response. Total costs including contingencies are US$13.9 million equivalent.

41. Weaknesses in surge capacity of the healthcare system are a major problem that hinders the roll-out of effective response interventions including efficiently responding to the high demands for other essential health services during emergencies. This sub-component will support the strengthening of EOC and surge capacity at the national and regional levels, to ensure the implementation of established control measures under national and regional emergency response plans at the community, district, national and regional level.

42. Activities under this sub-component will support (i) the establishment and management of a database of MRRTs that will be available for rapid deployment; (ii) the development and management of stockpiling mechanisms (virtual and physical) to ensure availability of supplies to countries during an emergency response; and (iii) the swift mobilization and deployment of resources in response to major infectious disease outbreaks to limit the need for reallocation of resources and the consequent burden on the health system; (iv) the development of mechanisms to ensure the provision of essential health services to meet other primary health needs and nutrition needs of the population.

Sub-Component 3.3 Contingency Emergency Response Component (CERC) US$ 0.

43. The objective of this sub-component is to improve the Government's response capacity in the event of an emergency, following the procedures governed by OP/BP 10.00 paragraph 13 (Rapid Response to Crisis and Emergencies). There is a moderate to high probability that during the life of the project one or more countries will experience an epidemic or outbreak of public health importance or other disaster which causes a major adverse economic and/or social impact (e.g. Ebola), which would result in a request from the country to the World Bank to support mitigation, response, and recovery in the region(s) affected by such an emergency. In anticipation of such an event, this CERC provides for a request from the country to the World Bank to support mitigation, response, and recovery in the district(s) affected by such an epidemic. The CERC will serve as a first line financing option during an emergency response, country IDA funding that hasn't been used will be allocated to this sub-component in the case of an emergency. However, if more financing is required, the restructuring of other projects would also be considered prior to the triggering of the PEF.

44. An immediate EROM will be prepared by each country in complement to the Project Implementation Manual (PIM) as a condition of disbursement within 3 months of project effectiveness. Countries will begin drafting the EROM immediately to ensure that the CERC is in place as soon as possible in the event that an emergency occurs early in the implementation of the Project. Triggers for the CERC will be clearly outlined in the PIM and the EROM acceptable to the World Bank. Disbursements will be made against an approved list of goods, works, and services required to support crisis mitigation, response and recovery

45. The project will support countries to undertake activities such as:

- ✓ review and implementation of existing preparedness and response plans building on the experience of the Integrated National Action Plans[26] for the animal and human health sector to better respond to infectious diseases threats;
- ✓ improvement of video conferencing and communication equipment for EOCs and RRTs.
- ✓ establishment and management of a real-time database of emergency response health workers on standby for rapid deployment;
- ✓ table-top simulation exercises and drills related to infectious disease outbreaks control at local, sub-national and national level and cross-border; and
- ✓ establishment of private sector partnerships for supply chain logistics distribution management.

46. The project will support regional partners to undertake activities such as:

- ✓ development of MoUs for the regional stockpiling platform for the effective management of essential stocks and supplies during an emergency response;
- ✓ regional exchange of best practices and lessons learned in preparedness and response across countries in the region; and
- ✓ establishment of public-private partnerships to improve supply chain logistics management and planning across countries in the region.

Table 6: Funding allocation by Sub-Component, Component 3

Project activities	Guinea-Bissau	Liberia	Nigeria	Togo
COMPONENT 3				
Sub-Component 3.1 Enhance cross-sectoral coordination and collaboration for preparedness and response	1.15	0.61	4.0	6.42
Sub-Component 3.2 Strengthen capacity for emergency response	1.18	1.94	6.5	4.28
Sub-Component 3.3 Contingency emergency response	0.0	0.0	0.0	
Sub-total component 3	**2.33**	**2.55**	**10.5**	**10.70**

Component 4: Human Resource Management for Effective Disease Surveillance and Epidemic Preparedness. ***Total costs including contingencies are US$22.64 million equivalent.***

47. Component 4 is cross-cutting given that animal and human health workers form the backbone of Disease Surveillance (Component 1), Laboratories (Component 2) and Preparedness and Response (Component 3). A strong, trained and motivated workforce is key to the

[26] INAPs are country-owned action plans developed by countries affected and threatened by Avian and Human Influenza.

implementation of surveillance activities and is essential for timely response to disease outbreaks. Effective human resource management can bring the right people with the right skills to the right place at the right time and ensure that inputs translate into actual services delivered. The project will provide support to the development of institutional capacity for planning and managing continuing workforce training, leveraging on existing training structures and programs across countries in the region.

48. This component will include two sub-components.

Sub-Component 4.1 Health workforce mapping, planning and recruitment. Total costs including contingencies are US$8.56 million equivalent.

49. The project aims to strengthen government capacity to plan, implement and monitor human resource interventions. In so doing, the project seeks to build long-term capacity for improved management of human resources. Decisions regarding human resources should be based on a solid understanding of the current state of play in each country. In this regard, stock-taking exercises will greatly aid the planning of HRH interventions and the required recruitment processes.

50. This sub-component includes: (i) assessments of current workforce in terms of quantity, geographical and gender distribution and capacity; (ii) strengthening capacity for human resource management for disease surveillance and response; (iii) supporting the capacity of governments to recruit health workers and create an incentive environment which encourages skilled individuals to join the public sector; and (iv) using private actors to deliver public sector activities through delegation of power (e.g. sanitary mandates for veterinarians).

Sub-Component 4.2 Enhance health workforce training, motivation and retention. Total costs including contingencies are US$14.08 million equivalent.

Training

51. This sub-component will include an assessment of, and provision of technical assistance to improve institutional capacity for planning and managing continuing workforce training programs (public and private actors), with the goal of achieving an efficient surveillance, preparedness and response.

52. It will also deliver a number of training activities targeted to the diversity of actors involved in surveillance, preparedness and response at various levels. Cognizant of the importance of community involvement in disease surveillance, a key lesson from the Ebola crisis, the project places emphasis on training at the community level, rather than focusing solely on higher level cadres.

53. At the community level, activities may include: (i) training of One Health community agents in community-based surveillance and response; (ii) technical support and supervision of community agents (iii) support to inter-sectoral interventions combining animal and human health

service providers within the community, such as promoting the collaboration of public health informants and livestock farmers through awareness campaigns and training in best practices.

54. At the district and national level, this includes training of health workers in core skillsets (described below). Training will depend on individual country capacity but will seek to leverage on existing programs in the region and other workforce training programs that address critical public health areas.

Motivation and Retention

55. Employment decisions are subject to many factors other than financial ones, such as job satisfaction, community recognition, and other factors that influence individual preferences. The movement of labor is driven by a complex decision-making process, which requires a better understanding of the behavioral characteristics of the health workers. To be successful, any intervention would need to be based on more detailed and accurate understanding of this decision-making process.

56. The project will seek to understand and address the incentive environment within which health workers operate. Armed with an improved understanding of this environment, the project will seek to implement activities which create incentives which not only draw those with relevant skills to the public sector, but also improve staff motivation and retention.

57. Activities under this sub-component will support (i) operational research to better understand the incentive environment; (ii) the provision of incentives-based mechanisms including technical support and supervision for community "One Health" agents engaged in community-based surveillance and response for both public health and veterinary health.

58. The project will support countries to undertake activities such as:

- ✓ exploration of viable options to ensure a centrally coordinated and efficient process for the recruitment and retention of a skilled health workforce available for routine surveillance and rapid deployment;
- ✓ recruitment of new staff according to the findings of assessments (likely to include establishment of positions for field epidemiologists and laboratory specialists at the district level) technical assistance to create systems which oblige individuals receiving specialist education to provide in-country service for a pre-defined period;
- ✓ training of community health agents in community-based surveillance and response.
- ✓ training in case management and containment of infectious patients and livestock;
- ✓ training of specialists, including, but not limited to, those with the following skill sets: IPC (infection prevention and control), epidemiologists, laboratory, data management, communications, information, risk analysis (including risk assessment, risk communication and risk management), pathologists and health economists for economic analysis of disease outbreaks/epidemics/pandemics.

- ✓ sponsorship for long-term training of highly-skilled professionals, e.g. veterinarians and entomologists;
- ✓ leveraging existing programs in the region such as the Field Epidemiology Training Program (FETP), Field Epidemiology and Laboratory Training Program (FELTPs), Veterinarian Field Epidemiology Training Program (V-FETP), and other workforce training programs that address critical public health areas. The provision of hand held devices for epidemiological event/syndromic surveillance reporting (refer to Component 1) and other incentives such as the provision of internet facilities, toll free numbers, and vehicle maintenance allowances for real time reporting, provision of other incentives-based mechanisms for all cadres including technical support and mentorship.

59. The project will support regional partners to undertake activities such as:

- ✓ identification of pools of experts in the region to support countries and regional institutions when required;
- ✓ reinforcement of the role of regional institutions including ECOWAS-WAHO and ECOWAS-RAHC to build countries' capacity to manage human resources skills including strategic staffing, as well as initial and continuing education planning and implementation, in close partnership with ECOWAS-CDC and other centers of excellence in the region, in particular ACE and training institutions such as EISMV;
- ✓ cross-country and regional twinning arrangements and staff exchange programs;
- ✓ capacity building for skilled MRRTs.

Table 7: Funding allocation by Sub-Component, Component 4

Project activities	**Guinea-Bissau**	**Liberia**	**Nigeria**	**Togo**
COMPONENT 4				
Sub-Component 4.1 Healthcare Workforce mapping, planning and recruitment.	3.62	0.08	4.5	0.36
Sub-Component 4.2 Enhance health workforce Training, Motivation and Retention	0.36	2.88	10.0	0.84
Sub-total component 4	**3.98**	**2.96**	**14.5**	**1.2**

Component 5: Institutional Capacity Building, Project Management, Coordination, and Advocacy. ***Total costs including contingencies are US$22.08 million equivalent.***

60. This component focuses on all aspects related to project management. Project management activities to be supported under this component include fiduciary aspects (financial management and procurement), M&E, knowledge generation and management, communication, and the monitoring of safeguard mitigation measures. It also provides for critical cross-cutting institutional support, meeting capacity-building and training needs identified in the four countries and at WAHO and RAHC on top of specific technical capacity-building activities undertaken within the four technical components. It will support the routine assessment of critical animal health and human health capacities of national systems using reference tools (such as OIE PVS and JEE) to identify weaknesses and monitor progress. This component will build on and complement other projects and initiatives such as the WARDS project (which has been supporting the development of the institutional capacity of WAHO), EAPHLN, GHSA and EPT2 and other discrete activities to foster the harmonization of a functional regional disease surveillance and response network in the ECOWAS region.

61. Lessons learned from the implementation of other regional projects by WAHO including the Sahel Malaria and Neglected Tropical Diseases project, the Sahel Women Economic Empowerment and Demographic Dividend project (SWEDD) and the WARDS project have been taken into account for enhancing the institutional capacity to be supported under this component.

62. Support will also be provided for the establishment of national and regional One Health coordination platforms for the purpose of developing synergies, joint planning, implementation and communication. Strategies will be adopted for generating evidence to be used to advocate for increased and sustained financing for disease surveillance and preparedness from domestic sources.

63. Component 5 will include two sub-components.

Sub-component 5.1 Project coordination, fiduciary management, monitoring and evaluation, data generation, and knowledge management. Total costs including contingencies are US$22.06 million equivalent.

64. WAHO will host the REDISSE coordination unit (R-PCU) at the regional level, while line ministries in charge or other institutions supporting REDISSE implementation in the four countries will each host a national coordination unit (N-PCU). REDISSE will (i) strengthen the capacities of national and regional institutions to efficiently perform core project management functions including operational planning, financial management, procurement arrangements, and environmental and social safeguards policies in accordance with WB guidelines and procedures; (ii) enhance monitoring and evaluation systems including routine HMIS and other data sources; (iii) manage operational research program implemented by national and regional institutions which have been identified under each of the four technical project components; (iv) promote the design

of impact evaluation studies to measure impact of project interventions; and (v) coordinate the roles of existing national and regional institutions to better support the planned project activities.

65. REDISSE will also finance the generation of data on animal and human health activities in the ECOWAS countries, which is critical to guide and calibrate investments.

Sub-component 5.2 Institutional support, capacity building, advocacy, and communication at regional level. Total costs including contingencies are US$0 million equivalent.

66. Sub-component 5.2 was financed under REDISSE for US$20 million equivalent financed by IDA and US$ 4.06 financed by the MDTF. It will provide technical and investment support to enhance provision of services by WAHO, RAHC and other cross-cutting regional and international institutions or organizations relevant to animal and human health sector development. WAHO will be primarily responsible for regional coordination, guided by the decisions of the REDISSE Regional Steering Committee under the political leadership of ECOWAS. For the regional oversight of the animal health area, WAHO would delegate operational coordination and implementation of regional animal health activities to RAHC, which would do so initially with the support of OIE. The regional activities include both OIE mandated activities as well as activities in support of the RAHC core functions. The latter are intended to be fully transferred to the RAHC as soon as feasible, when RAHC capacity will be considered to be sufficiently established. All regional animal health activities would be implemented collaboratively in order to build RAHC capacities so that the staff recruited in the RAHC would be in a good position to take over the management of the regional AH (Animal Health) activities, according to WB rules. Both WAHO and RAHC/OIE would use, as appropriate, the services of other human and animal health key technical partners, such as WHO and FAO. The project will support in particular the: (i) conduct of capacity gap analysis (including staffing, skills, equipment, systems, and other variables); (ii) identification of potential synergies and cross-fertilization possibilities among various operations pertaining to disease surveillance and response, using a progressive pathway for One Health operationalization at country level, supported by regional institutions (see Table below); and (iii) establishment or upgrading of national public health institutions. The project will also assist in supporting greater engagement and coordination of the three countries in regional decision- and policy-making processes in ECOWAS, as well as among regional public and non-public organizations.

Table 8: Possible progressive approach towards the implementation of OH at the national level

Steps	General Objectives	How	With who	By whom
1-	Understanding of respective strengths and weaknesses with regards IHR and OIE standards -Broad identification of areas for common action	Joint workshop with HH (Human Health) and AH staff from respective ministries "IHR-PVS" bridging workshop	Representative staff from relevant ministries from central up to the smaller administration level possible (e.g. min 20 persons from each sector)	-Pool of OIE PVS and WHO IHR experts -Role of regional technical bodies in developing own capacity to facilitate and coordinate these national workshops (e.g. WAHO and RAHC, with support from WHO HQ/AFRO and OIE)

2-	Development of a common strategy to address issues where joint action is required	-Formal commitment from line ministries -Establishment of an intersectoral committee tasked with the development of the strategy (N.B.: various governance mechanisms are possible) -Ad Hoc meetings held N.B.: strategy=Living document with attached process for regular revision	-Mainly heads of relevant departments from the line ministries; -Involvement of relevant stakeholders	-Self -Possible facilitation by the regional level (pool of trained experts for regular guidance along the process)
3-	Prioritization of diseases (for OH approach)	Use of disease prioritization tools adapted for One Health approach (many possibilities: e.g. Animal Health tools such as the EC tool, CaribVet tool) N.B.: lack of data on likely important issues can serve to prompt specific surveillance programs and be retrofitted into the prioritization tools N.B.: prioritization exercise can also be used individually to identify other non-OH priorities		
4-	Development of a detailed action plan for OH activities	Derives from 2 and 3 Joint working groups for each specific topic to address Core team ensuring coordination and consolidation NB: includes detailed budget, timeline, M&E		
5-	Implementation of the action plan	Development of joint protocols for surveillance and/or control activities with clearly defined roles of respective sectors; joint and complementary trainings (in-service and pre-service); development of communication tools and materials; development of multi-sector emergency plans and simulation exercises; adaptation of legislation/regulations as need be; coordination of data collection/analysis, reporting mechanisms and communication procedures; disease surveillance and		

		control cost-benefit analysis; risk analysis; etc. NB: scope can vary greatly based on respective initial capacities (human resources, infrastructure, technical and financial capacities)		

67. The project will support advocacy and communication activities that sustain the One Health approach. This will include: (i) generation and dissemination of lessons learned at the national and regional levels through OH national and regional platforms respectively; and (ii) raising awareness on strategic issues at the decision and policy levels of countries, and at the regional economic communities' level, and increasing and sustaining allocation of resources for disease surveillance, preparedness and response.

Private Sector Engagement

68. The Project will engage the private sector to develop partnerships across three broad areas:

i) **Private Health Practitioners and NGOs:** The project will collaborate with private health practitioners and NGOs working across the animal and human health sector to strengthen disease surveillance, preparedness and response as a collective responsibility of both the public and private sector. To this end, policies, strategies, and action plans (including those that address the incentives and disincentives for early reporting of suspected cases at "point-of-care" (POC) and within the community) will be developed with clearly defined roles and responsibilities of the various actors, and with the establishment of the appropriate legal frameworks and financing mechanisms. The project will support the development of effective evidence-based approaches to identify and engage with private health practitioners and local NGOs that will be a part of the long-term surveillance system, as well as expertise to be contracted mainly for outbreak preparedness and response such as the use of behavior change communication and development of other effective public health communication/awareness strategies. Capacity building activities including the adoption of communities of practices (CoP) will also be supported under the project to reinforce effective collaborations between the public and private healthcare providers.

ii) **Private Centers of Excellence, Laboratories and Manufacturers:** Partnerships with identified centers of excellence, private laboratories and manufacturers will be established for the purpose of improving rapid diagnostic tests (RDTs) capabilities and detection rates via the use of cost-efficient methods, including increasing the range of emerging and reemerging infectious disease pathogens that can be detected in each tests, and for making accurate diagnosis of disease pathogens at POC. Public-Private partnerships will also be established in specific areas of expertise for the delivery of animal health and human health laboratory services, to enhance

epidemic surveillance and laboratory confirmation of notifiable diseases, and to improve the timeliness and completeness of the system of reporting surveillance data.

iii) **Systems Development (ICT, Logistics and Supply Chain Management System):** The project will explore partnerships with the private sector in the development of efficient systems to improve surveillance data management, reporting and communication, and for preparedness planning before and during an outbreak response. This will include the enhancement and/or development of (a) information communication and technology (ICT) such as the use of mobile technology and geographic information systems (GIS) for integrated and interoperable data reporting, adoption of unique identifier codes to improve surveillance records, and the integration of surveillance data into the national health management information systems; (b) specimen transportation systems to facilitate the shipping of specimens to national, regional and/or global reference laboratories; and (c) supply chain management systems to enhance the effectiveness of supply chain distribution logistics for outbreak preparedness planning and during an emergency response.

Table 9: Funding allocation by Sub-Component, Component 5

Project activities	Guinea-Bissau	Liberia	Nigeria	Togo
COMPONENT 5				
Sub-component 5.1 Project coordination, fiduciary management, monitoring and evaluation, data generation, and knowledge management	3.32	5.48	11.0	2.26
Sub-component 5.2 Institutional support, capacity building, advocacy, and communication	0.0	0.0	0.0	0.0
Sub-total of component 5	**3.32**	**5.48**	**11.0**	**2.26**

PROJECT FINANCING

69. The lending instrument will be a Series of Projects (SOP) as part of an Investment Project Financing (IPF), financed under IDA Credits and Grants in the amount of US$147 million equivalent for the second phase (see table below). In addition, a multi-donor trust fund from the Department of Foreign Affairs, Training and Development in Canada was created in the amount of US$4.06 million and will be used to finance activities under REDISSE I, component 1. The World Bank support is planned for six years (FY2016-FY2023).

70. The proposed IDA budget breakdown per country for the REDISSE-SOP 2 is the following:

Table 10: IDA budget breakdown per country

Country / Regional Institution	Country IDA	Regional IDA	Total
ECOWAS/WAHO/			
Guinea Bissau	7.0	14.0	21.0
Liberia	5.0	10.0	15.0
Nigeria	45.0	45.0	90.0
Togo	7.0	14.0	21.0
Phase 2 total	**64.0**	**83.0**	**147.0**

SERIES OF PROJECTS OBJECTIVE AND PHASES

71. Given high country demand for participation in the project, the multiplicity and complexity of the issues involved, the large number of stakeholders and the need for an accelerated project preparation schedule, an agreement was reached to prepare REDISSE as a series of interdependent projects supporting a program involving multiple borrowers, all of which would need to participate for the program's objectives to be achievable. This approach provides a platform for high-level policy and regulatory harmonization, cooperation, and coordination between countries aiming toward achieving benefits that will go beyond each country's boundaries; they create regional public goods, generate positive externalities, or mitigate negative ones.[27]

72. The first in the series of projects (SOP) was delivered in the fourth quarter of FY16. REDISSE-I included three countries that are at a high state of readiness for investments in surveillance systems enhancement and that includes two extremely vulnerable countries and one country which has more effective surveillance systems and serves as host for important regional assets. The project financing was US$110 million in country and regional IDA. Guinea and Sierra Leone, two of the countries hit hardest by the EVD outbreak in 2014-2015, were included in REDISSE I. A significant influx of technical and financial assistance associated with the EVD crisis allowed these countries to assess their needs, identify priorities and lay plans for health systems recovery and strengthening. Senegal, which weathered the EVD crisis by quickly identifying and containing imported cases of the disease has better functioning disease surveillance systems from which good practices can be derived for the sub-region.

73. Project financing for REDISSE-II is US$147 million, for the four countries, namely, Guinea Bissau, Liberia, Nigeria, and Togo. With the exception of Togo, the REDISSSE II countries participated in regional consultations in Dakar, Senegal, in 2015. In November 2016, technical and ministerial meetings on One Health took place in Dakar, Senegal. The Communique highlighted the role of Governments in articulating intersectoral coordination [human, animal and environmental health], conducting sub-regional hazards and risk assessments, setting up national and sub-regional alert mechanisms as well as regular information sharing, carrying out joint external evaluations of IHR (2005) and in joint planning of preparedness and response

[27] Investment Project Financing-Series of Projects Guidance Note, World Bank, OPSPQ. July 1, 2014

interventions. Together, REDISSE I and II constitute a block of equatorial, coastal countries with shared borders and similar epidemiologic profiles which extends from Senegal in the west to Nigeria in the east. Pending funding availability, REDISSE III would be delivered in Q3 of FY18 and would target Benin, Burkina Faso, Cote d'Ivoire and Ghana. Other countries have expressed their interest in participation in REDISSE III.

LESSONS LEARNED AND REFLECTED IN THE PROJECT DESIGN

74. Recognizing the inherent challenges faced with designing regional projects across multiple sectors, the REDISSE Program builds on the achievements and lessons learned from several regional projects including the EAPHLN and the West Africa Regional Disease Surveillance (WARDS) project. The REDISSE project is also well-aligned with the objectives of the GHSA and adapts best practices from the GHSA country assessments and tools utilized for the implementation of the action packages under the GHSA. Best practices are also adopted from the USAID Preparedness and Response project: Emerging Pandemic Threats (EPT1), which was focused on mitigating the impact of novel "high consequence pathogens" of zoonotic origins. The main objective of the EPT2 project is to enable national governments to establish and strengthen systems, policies and practices for the prevention, detection, response, and control of emerging disease threats, with a focus on zoonotic diseases. (USAID, 2015).

75. Lessons have been learned from the recent responses to major infectious disease outbreaks, including the ongoing AIDS pandemic, SARS in 2003, the H5N1 HPAI epidemic that started in 2004, the H1N1 pandemic in 2009-10, MERS since 2012, and the Ebola outbreak in West Africa in 2014-15. Given its regional scope, global influence, cross-sectoral interventions, and duration, the Global Program for Avian Influenza Control and Human Pandemic Preparedness and Response (GPAI) that was developed to address the H5N1 HPAI epidemic and rolled out as from 2006 in 62 countries through 83 operations, offers strong lessons that can be applied to this project. Most recently, the Independent Evaluation Group (IEG) carried out an evaluation of 22 GPAI country projects, and summarizes the key evaluation findings in the 2014 IEG report: "Responding to Global Public Bads – Learning from evaluation of the World Bank experience with Avian Influenza 2006-2013".

76. The IEG report highlights a number of interesting technical lessons learned from the projects that are incorporated in the REDISSE design and implementation arrangements. Complementing these lessons are best practices adapted from a comprehensive literature review of successful models of regional networking in disease surveillance and response adopted by other regions, including the evidence of impact, value-added and sustainability considerations.

77. The most salient experiences and lessons learned are noted below, keeping in mind that the main characteristics of the REDISSE project are its focus on building and sustaining national public health and animal health surveillance systems, strengthening their inter-sectorality, and promoting regional cooperation in developing national and regional preparedness and response capacity to improve global health security.

- ✓ Analytical Studies: The project design has been informed by extensive analytical work on the post-Ebola Health Systems Strengthening Financing Framework. Best practices on the structure and function of regional disease surveillance and response networks in other regions were assessed under the third component of the ASA (Advisory Services and Analytics). The project incorporates lessons learned from comprehensive literature review of existing regional disease surveillance and response networking arrangements adopted in other regions including the: (i) Pacific Public Health Network in the Pacific Island Region; (ii) East Africa Infectious Disease Surveillance Network in the East Africa Community; (iii) Mekong Basin Disease Surveillance network in the Mekong Basin region; (iv) Middle East Consortium for Infectious Disease Surveillance network in the Middle East; and (v) the South Africa Center for Infectious Disease Surveillance network. The table below provides a summary of key findings and lessons learned from the analytical studies.

- ✓ Institutional implementation capacity and capacity building: At the regional level WAHO has built a robust management implementation unit which includes separate project coordinators for existing World Bank projects including REDISSE I, components in the West Africa Regional Disease Surveillance Capacity Strengthening Project, and the Sahel Women's Empowerment and Demographics Project. WAHO has strengthened its expertise in financial management, accounting, M&E, and communications, which is shared among its externally funded projects. In addition, additional WAHO staff has been recruited with the objective of improving World Bank non-objection requests including procurement requests. Further, ECOWAS delegations of authority requiring actions/signatures from ECOWAS to the WAHO Director General, has been significantly streamlined. More broadly, the project takes into account the need for institutional capacity building and support at both regional and national levels, in both substantive areas and program management.

- ✓ Address weaknesses in the M&E/Results Framework: The quality-at-entry issues most commonly cited in IEG reviews are: weaknesses in monitoring and evaluation systems (with indicators that focused on production of outputs that do not necessarily assess whether actual increase in surveillance and response capacity has been achieved rather than on achievement of intermediate or final outcomes); indicators that measure the completion of outputs are often not very useful, especially in the case when no outbreaks occur. Another commonly reported problem is the use of too many indicators, which overwhelm the limited capacity of project management units. This results in failure to collect data, and/or data collected solely for routine reporting purposes rather than for project management purposes. Given the REDISSE Program focuses on the prevention and preparedness for the control of infectious disease outbreak threats with uncertain probability of occurrence and unknown magnitude of impact (in the event that such outbreaks occur), some selected indicators have been chosen as PDO-level indicators that can assess the progress made in improving intermediate outcomes including improvements in institutional capacity (effectiveness of surveillance systems, etc.). The project results framework also makes use of existing

tools such as the Joint External Evaluation tools used to assess the capacity of countries to implement the IHR (2005) and the OIE PVS (Performance of Veterinary Services) tool. The REDISSE Program has also been designed in close collaboration with the US CDC to align the results framework indicators with measures utilized in the implementation of the GHSA.

- ✓ Clearly outlined project activities: The REDISSE Program addresses the importance of distinguishing between country-implemented activities to be financed under the REDISSE II for improving disease surveillance systems capacity and activities implemented by regional institutions that contribute to the global public good nature of the project.

- ✓ Improving cooperation across sectors and regions: Effective control of infectious diseases and preparedness for outbreak of animal origins requires cooperation and coordination between animal and human health sectors, both at the strategic level and in implementation. The design of the REDISSE relies heavily on the cooperation of both sectors within the World Bank, and among country government representatives, regional entities, and Development Partners. The project design highly promotes cross-sectoral interventions at the regional level to encourage inter-country cooperation, an important element reported to be lacking in the GPAI projects. The REDISSE II design also encourages systematic institutional support to encourage cross-sectoral coordination from preparation to project implementation.

- ✓ Implementation arrangements: The REDISSE II will put in place a project coordinator (PCU) responsible for the overall coordination of project activities across sectors to improve efficiency in the implementation of the interventions.

- ✓ Building better health systems: The REDISSE project design incorporates a shift from a paradigm grounded in crisis response to one that embraces a disaster risk reduction approach and better risk management by building support for the required animal health and human health systems, and the required linkages at country and regional level to manage infectious disease threats. The design thus contributes to long-term systems capacity building across the two sectors to effectively detect and respond to infectious diseases of zoonotic nature in a more integrated manner. In the longer term, the project design accounts for the need to build sectoral capacity to perform core public health and veterinary health functions in line with the international standards established by WHO and OIE. The design of REDISSE II also addresses the need for integrated surveillance systems that can tackle various kinds of disease outbreaks, and the development of interoperable systems for improving data sharing practices between the animal and human health surveillance systems for zoonoses and other common issues such as AMR.

- ✓ **Climate Change**: The REDISSE II design takes into account that extreme heat, rising sea-levels, changes in precipitation and other environmental changes can cause floods

and droughts, intense storms, shifting disease vectors and degraded air quality, all or any of which affect human health and vulnerability to infectious disease. Guinea Bissau, Liberia, and Togo have explicitly included health considerations in their (intended) Nationally Determined Contribution (NDC) to emission reductions[28] document. REDISSE II components and sub-components addressing surveillance and information systems, preparedness and emergency response, and human resource capacity, will factor in climate change considerations, gauging how to effectively integrate them into each country's efforts, as well as ensure that other climate change planning, programming and funding can complement and be coordinated with the REDISSSE program, including that provided through external partner support. In this regard, the WBG Climate Change Action Plan has a target of 20% of new Health, Nutrition, and Population (HNP) projects to ensure climate change is included in their design. Further, the WBG has recently developed health-sector specific operational guidance, and forged critical partnerships with collaborating partners and technical agencies, including additional resources, directed at improving HNP investments while launching a new era of "climate smart healthcare". REDISSE II countries will be encouraged to actively pursue these opportunities to enhance climate change adaptation strategies for improved health outcomes.

- ✓ Gender consideration: a substantial portion of the health workforce frontlines are the nurses, health assistants and community health workers, the majority of who are women. The risks of contagion are significant, by strengthening their training and having equipment available, such risks would be reduced.

- ✓ Private sector engagement: Adopting lessons learned from other regional projects, the project also promotes partnership with the private sector to improve areas of known weaknesses in the provision of public goods like supply chain logistics planning and management, biosecurity, specimen transportation systems, and development of clear communication strategies tailored to the local context, and the stronger involvement of private actors in disease surveillance and control activities (e.g. sanitary mandate for private veterinarians).

- ✓ Ensuring cost-effectiveness of interventions: The IEG report highlights that while many projects supported significant improvement in disease diagnostic capacity, there was a tendency for projects to focus too much on investing in laboratory infrastructure and equipment rather than in systems development and human capacity. Having thoroughly considered the cost-effectiveness and high maintenance cost implications (infrastructure and human capacity) required to sustain a Biosecurity Level 3 (BSL3) laboratory, the REDISSE design will focus on improving overall laboratory

[28] Attached: Health in NDC paper

performance at all levels of the health pyramid, but only consider supporting the upgrading of identified reference laboratories to BSL3 laboratory standards as a regional level activity that will promote effective laboratory networking among countries. Other cost-effective interventions have been thoroughly considered and incorporated in the REDISSE II project. For example, to reduce the time taken for diagnostic tests, the project takes into account that it is often cost-effective to develop an effective specimen transportation system rather than to finance a large and ultimately unsustainable laboratory network.

- ✓ Client ownership: Another important lesson is that along with the support from donor partners and other international agencies, individual countries are central to ensuring a coordinated regional program that successfully addresses the threats posed by infectious diseases. For example, while pandemics and AMR are global threats, programs to reduce these threats must be initiated and led by countries, based on their assessment of opportunities to meet country goals through reduction of emerging and reemerging infectious disease burdens, including endemic diseases. Country commitment to integrated programs is critical, as is coordinated donor support for such programs.

- ✓ Sustainability Plans: The REDISSE II design accounts for the need to mainstream epidemic preparedness and zoonotic diseases risk management into ongoing agendas across the health and agriculture sector to ensure sustainability. While WB performance in developing and managing the GPAI was overall successful, the failure to sustain its support to infectious disease prevention and control left countries insufficiently prepared to face recurrent or new threats. Moving away from emergency response, and working toward long-term capacity building to support health systems using cross-sectoral interventions, was identified as the proper approach, which is incorporated in the REDISSE II project design.

Table 11: Summary of findings from literature review on evidence of value and impact of regional networking in disease surveillance and response

Indicators/Measures of value-added	Case Study Network	Evidence of Impact
Epidemiologic Indicators		
Reduced time to detection	EAIDSNet	o Early detection of 4 Ebola outbreaks and points of transmission in Uganda (see Table 5.1)
Cases/Outbreaks averted	EAIDSNet	o Averted outbreaks and reduced cases of Ebola, Rift Valley Fever, Marburg, and Wild Polio Virus
Effective early warning system with the capacity for trends assessment established	PPHSN	o Establishment of PacNet has resulted in the implementation of preventive measures against the spread of emerging and reemerging infectious diseases across countries in the region including Dengue Fever, Influenza, Measles, Rubella and SARS
Reduced time to action/effective response	EAIDSNet	o Reduced time of transmission of vital information from surveillance data for effective response

Magnitude of mortality and morbidity averted	EAIDSNet	o Containment of the spread of 4 recorded outbreaks of EVD in the region
Measure of disease risk factors for the development of early prevention interventions	MBDS	o Training of workforce on disease risk communication across countries in the Mekong basin
Measure of improved IHR (2005) Core Capacities		
Increase in country technical capacity (including improved usage of ICT)	EAIDSNet; MBDS; SACIDS	o Successful pilot of a web-based One Health portal for linking animal and human health disease surveillance (EAIDSNet); o Successful partnership with the University of Mahidol to train cross-border officials on the use of Geographic Information Systems for research, outbreak investigations and communication (MBDS) o Partnership with EAIDSNet on the pilot of a mobile phone-based system for rapid cross-border communication of animal-human health surveillance information (SACIDS)
Improved surveillance and usage of surveillance data for action/implementable policy formulation	EAIDSNet; MECIDS; PPHSN	o Improved framework for cross-border surveillance within the context of IHR (2005) and IDSR o Improved reporting system used for mitigating the impact of AI (MECIDS) o Streamlining of surveillance data across member countries
Improved Preparedness and Response Capacity	EAIDSNet; MBDS; MECIDS	o Successful completion of a field simulation exercise in HPAI pandemic preparedness (EAIDSNet) including at the Kenyan-Ugandan border; o Successful Preparation for and response to H5N1, Dengue Fever Outbreaks and natural disasters in Myanmar in 2008 (MBDS); o Successful preparedness and response to the H1N1 outbreak in the middle east region (MECIDS)
Number of cross border sites established (Points of Entry)	EAIDSNet; MBDS	o Strengthened district health management teams at cross-border districts; o Expansion of cross-border sites from 4 to 24 in 3 years (MBDS)
Improved laboratory confirmation	EAIDSNet; across all regional networks	o Implementation of activities under the EAPHLN project to improve laboratory capacity in the region o Promotion of better laboratory practices and dissemination of standardized laboratory protocols
Appropriately trained and skilled Human Resources	EAIDSNet; MBDS; MECIDS	o Expansion of the HRH staffing capacity for disease surveillance and response using a One Health approach (EAIDSNet) o Improved capacity building for HRH: training of medical doctors in field epidemiology, disease surveillance and response (MBDS) o Development of common health workforce training protocols in core skillsets for member countries (MECIDS)
Health Systems Strengthening Indicators		
Efficiency of a RDSR system	MBDS, MECIDS	o Improved cross-sectoral coordination for preparedness and response activities (MBDS)

		o Serves as an effective platform for countries to monitor emerging and reemerging infectious disease trends across member countries (MECIDS)
Improved coordination of disease prevention and control activities from community to national level	EAIDSNet; SACIDS	o Establishment of Village Health Teams (VHTs) and reporting protocols to the district health information system o Serves as an effective bridge between the ministries of human health, livestock, and wildlife in the 14 SADC countries
Allocation of resources during health planning	MBDS	o Allocation of resources for expansion of cross-border surveillance response sites
Improved country capacity in the health sector	EAIDSNet; SACIDS	o Institutionalization of a formal health unit within the EAC o Serves as an effective bridge between the ministries of human health, livestock, and wildlife in the 14 SADC countries
Private Sector Engagement	PPSHN; SACIDS	Establishment of PacNet
Measures of multi-sectoral and Regional Cooperation		
Increase in cooperation among member states	MBDS; SACIDS	o Establishment of multisectoral cross-border response teams (MBRTs) made of trained officials from member countries representing the health, animal, customs and immigration sectors (MBDS) o Effective surveillance of climate-dependent vector borne disease with potential inter-species concern (SACIDS)
Joint outbreak investigations conducted	MBDS; EAIDSNet	o Joint Dengue fever investigation by multi-sectoral cross-border response teams (health, customs and immigration officials) between Lao and Thai Provincial sites; joint Typhoid investigation between Lao and Thai provincial sites; joint avian influenza investigation of cases in humans (MBDS); o Joint outbreak investigations for 4 EVD outbreaks

ANNEX 2: IMPLEMENTATION ARRANGEMENTS

COUNTRY: Western Africa
Regional Disease Surveillance Systems Enhancement (REDISSE) Phase II

Project Institutional and Implementation Arrangements

1. The REDISSE program will be implemented at a regional and national level. At the regional level, project implementation will be led by WAHO of ECOWAS, which will host the regional secretariat of the project. Under this regional coordination, the governments of the four participating countries will implement country-level tasks as per their respective country implementation arrangements. WAHO will also provide support to countries both directly and through service agreements and Memoranda of Understanding (MoUs) with technical organizations such as WHO and OIE. This proposed arrangement is fully in line with IEG's recommendations on regional projects[29].

2. Regional coordination will be managed through a Regional Steering Committee (RSC), whose secretariat will be run by WAHO. More generally, WAHO will be responsible for technical coordination at regional level. WAHO on the human health side, and RAHC on the animal health side, the latter supported by OIE[30], will also be responsible for the execution of identified regional activities and of supporting countries regarding specific issues. The RSC will include representatives of involved Ministries from all the four countries and will meet twice a year.

3. As financial flows, IDA funds will be made available to WAHO (through a direct regional grant under REDISSE 1). WAHO will allocate part of the regional grant proceeds to support the implementation of regional animal health activities and targeted technical assistance to the countries to be carried out by the Bamako Regional Animal Health Center supported by OIE. This support is envisaged until the capacity of RAHC is built to the minimum level necessary to carry out project activities.

4. In countries, it is expected that project coordination units (PCU) will be put in place and would be responsible for the overall coordination and management of project activities. The PCU will need to work across sectors to improve efficiency and alignment in the implementation of

[29] "*What has generally worked best is reliance on national institutions for execution and implementation of program interventions at the country level, and on regional institutions for supportive services that cannot be performed efficiently by national agencies, such as coordination, data gathering, technical assistance, dispute resolution, and monitoring and evaluation*." (IEG 2007).

[30] REDISSE will contribute to the operationalization of RAHC which is in its early stages of development. The World Organization for Animal Health (OIE) will assist RAHC as it moves toward assuming its responsibilities as the ECOWAS Specialized Agency for Animal Health, in conformity with the 2012 decision of ECOWAS Heads of States. The OIE would assume core functions for coordination, implementation, and oversight of the project regional animal health activities for an initial period of 2 years (with possible extension depending on RAHC capacity evaluation results after this interim period before transferring responsibilities).

project intervention. Given the multi-sectoral nature of the proposed activities, an existing national steering committee (NSC) or one to be formed will oversee the yearly planning and monitor the implementation of the project, while a project implementation unit will be set up for coordinating and managing project activities as well as transferring and monitoring the use of funds by other implementing ministries and partners. In all countries, the implementing agency will function as an "umbrella ministry", in charge of coordinating the implementation of the various components by sectoral ministries (agriculture, livestock, health, environment, etc.) and NGOs. Each technical ministry will be represented at the NSCs and the RSC.

5. Below is a description of in country institutional arrangements.

A - GUINEA BISSAU

6. The ministerial departments involved in the implementation of REDISSE II in Guinea-Bissau are:

- The Ministry of Public Health (MINSAP)[31], and within the MINSAP the National Institute of Public Health (INASA)[32] and the General Directorate of Administration of the Health System (DGASS)[33];

- The Ministry of Agriculture and Rural Development (MADR)[34], and within the MADR the General Directorate of Livestock (DGP)[35].

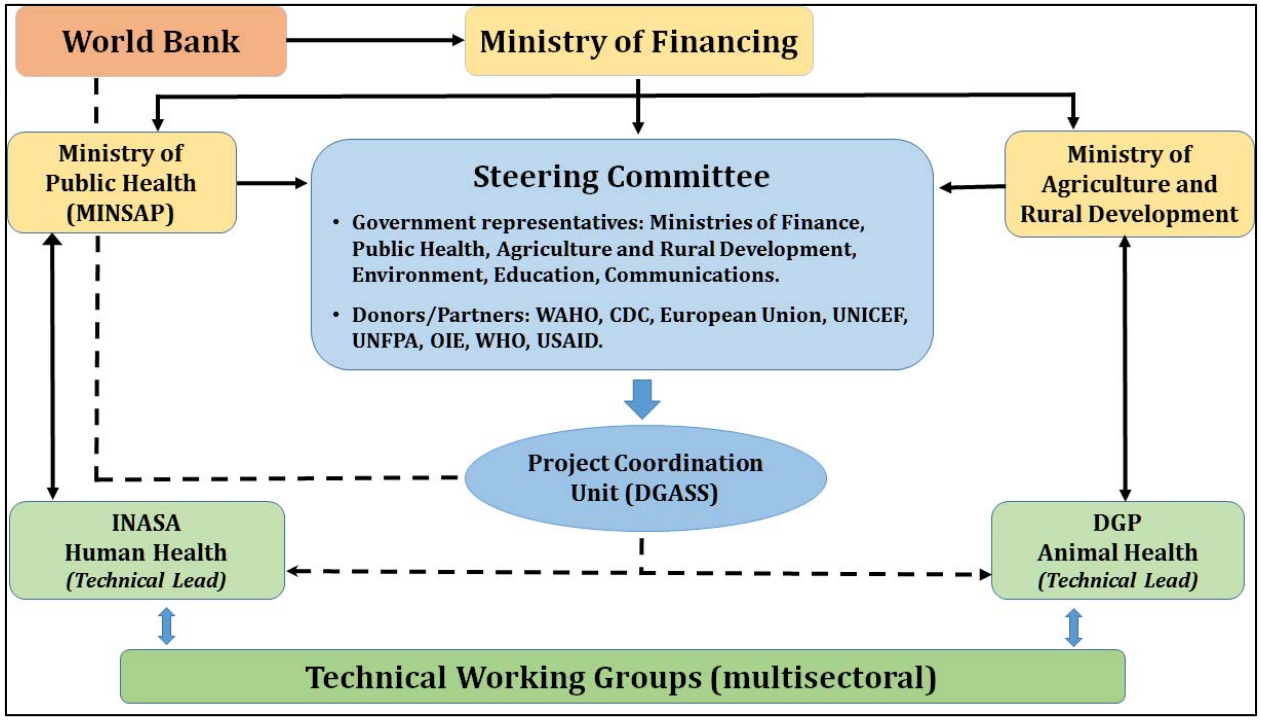
7. The MINSAP will lead the implementation of the REDISSE II in close collaboration with the MADR. The Project Coordination Unit (PCU) will be established within the office of the DGASS. The PCU will report directly to the Secretary-General of the MINSAP and will be responsible for: (i) ensuring the financial management of the project activities in all components; (ii) preparing consolidated annual work plans, budgets, monitoring and evaluation report (M&E in English), and the implementation report of the project to be submitted to the steering committee and the World Bank.

8. The technical aspects of the REDISSE II will be planned and implemented by the INASA (human health) and the DGP (animal health). At technical unit level, INASA and DGP, Project Implementation Units (PIUs) will be established to support implementation and administration of the project. At this level, the president of INASA and the general director of the DGP have the ultimate responsibility for project implementation. The PCU will work across sectors to coordinate projects activities and to transfer and monitor the use of funds by the technical units (INASA and DGP) and partners.

[31] Ministerio da Saude Publica (MINSAP).
[32] Instituto Nacional de Saude Publica (INASA)
[33] Direcao Geral da Administracao dos Servicos de Saude (DGASS)
[34] Ministerio da Agricultura e Desenvolvimento Rural (MADR)
[35] Direcao Geral da Pecuaria (DGP).

9. A Project Steering Committee (PSC) will be established. Membership of the PSC will consist of representatives from MINSAP, MADR, Ministry of Finance, Ministry of Environment, Ministry of Education, Ministry of Communications, and representatives of local, regional and global partners (WAHO, CDC, European Union, UNICEF, UNFPA, OIE, WHO, USAID, and others), and will be based on existing One Health Network in Guinea-Bissau. The PSC will provide guidance and strategic directions, and monitor the implementation of the project on an annual basis. Multisectoral technical working groups (TWG) will be established with technical staff from relevant ministries and technical experts from partners. These TWGs will be responsible for ensuring the project's annual plan is consistent with local and regional priorities identified during project preparation and to adapt the project activities when necessary.

Figure 2: Guinea-Bissau Institutional Arrangements



B - LIBERIA

10. A One Health Committee has been established in the Country. This committee serves as the policy advisory and oversight body for the national program for disease surveillance, preparedness and response, under which, REDISSE is an integral part. The Committee members comprise senior officials from MOH, NPHI, MOA, MFDP, FDA, MOCI, MIA, WHO, US CDC, USAID, FAO and World Bank. The committee will be co-chaired by Minister of Health, Minister of Agriculture or their designated vice ministers. Besides, a deputy chair will be elected to represent the development partners. Terms of Reference for the Committee could include: review of the implementation progress, resource mobilization, discussing the bottleneck issues related to

the national program for disease surveillance, preparedness and response and advising on the solutions to overcome some of the key issues identified. Regular communications between the Committee and other coordination mechanisms such as Health System Coordination Committee (HSCC), Agriculture Coordination Committee (ACC) will be established and maintained to jointly review the cross cutting issues and recommend remedial actions.

11. The current Project Implementation Unit in the Ministry of Health will be expanded to incorporate a Project Coordination Unit (PCU) with additional staff including: one Project Coordinator; a human health specialist and MOH liaison officer; an animal health specialist and MOA liaison officer; and one project assistant.[1] The PCU will be mandated to (i) coordinate annual work plan development, (ii) collate project M&E results, (iii) make sure fulfillment of social environment safeguards policies, as well as (iv) prepare reports relating to the implementation of the Project activities. The PCU will have direct access to the national technical coordination committee, relevant technical departments of different sectors and other stakeholders regarding project implementation. The existing structures such as the Project Financial Management Unit (PFMU) affiliated to the Ministry of Financing and Development Planning will be responsible for the project financial management, and the Project Implementation Unit of Ministry of Health, the Project Management Unit of Ministry of Agriculture will be responsible for procurement management for REDISSE Project. Implementation of the project shall also be carried out by the NPHI, which is currently under establishment. Disbursements to the MoA will be governed by a MoU and consistent with the Liberia PFM Law.

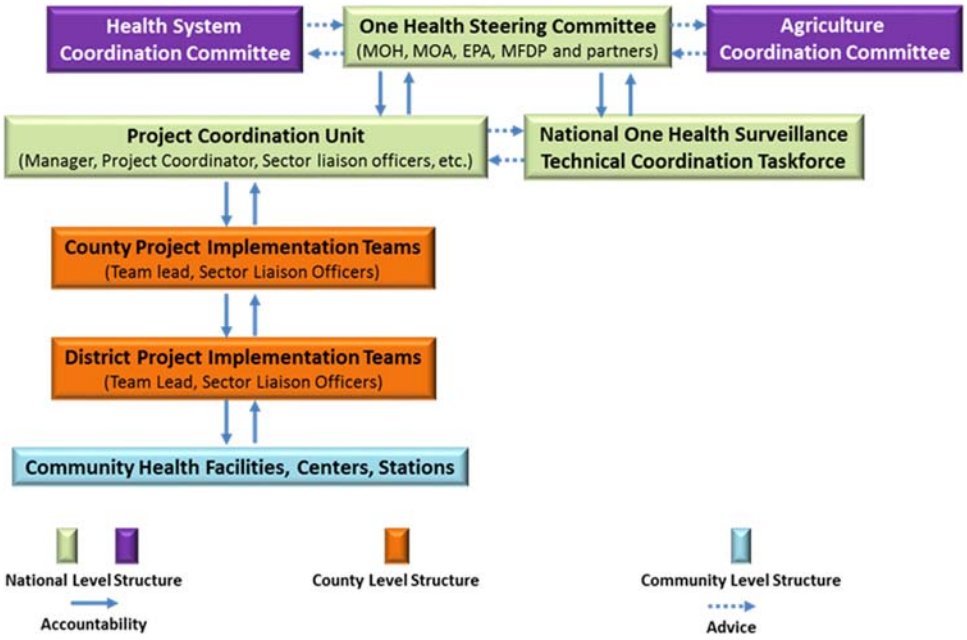
12. The national surveillance technical coordination committee, which comprises at least different technical working groups, will be further strengthened under the REDISSE Project. The technical coordination committee will be responsible for (i) development of annual work plans; (ii) planning, organizing and providing technical assistance as well as other forms of support to county and district project implementation teams so that quality of project implementation would be steadily improving; (iii) implementation of activities such as training, operational researches, etc. and (iv) provision of technical advice on any issues to the One Health Committee at its request.

13. Joint project implementation teams, consisting of professionals at least from health, the NPHI and agriculture management teams, will be set up at county and district levels. They will be responsible for project implementation at these levels and below.

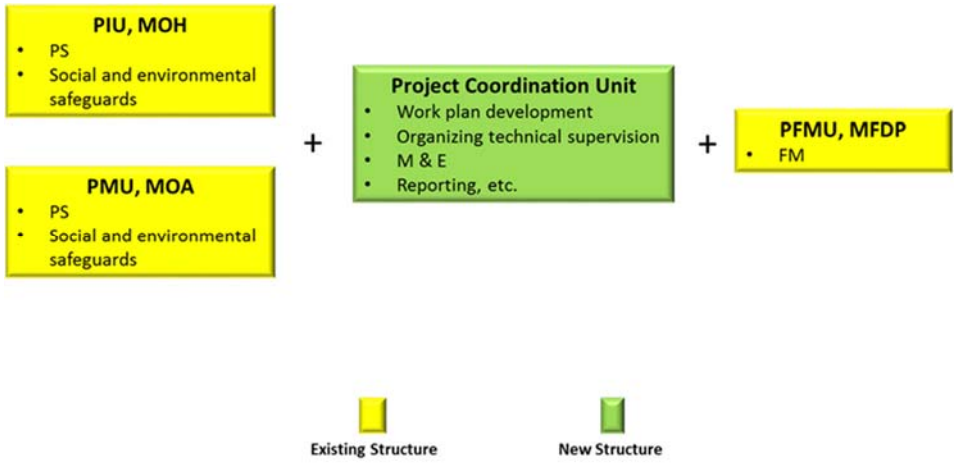
14. The Terms of References for the above mentioned structures at national, county and district levels will be developed within three months after the project effectiveness. In addition, academic groups, NGOs, UN agencies will be contracted in order to facilitate the project implementation at county, district and community levels.

15. The organogram illustrating the implementation arrangements is attached below.

Figure 3: Liberia Institutional Arrangements



16. The project management structure is also below.



C - NIGERIA

17. The project will be implemented under regular government structures, including the key technical ministries/agencies of health and agriculture. The Nigeria Centre for Disease Control (NCDC) will host the project coordination unit (PCU). The Department of Public Health in the Federal Ministry of Health and Department of Veterinary and Pest Control Services (DVPCS) in the Federal Ministry of Agriculture and Rural Development (FMARD) will have oversight responsibilities together with the NCDC CEO.

National Steering Committee

18. A National Steering committee shall be constituted for the project. The members of the steering committee shall include the Ministers of Federal Ministry of Health, Federal Ministry of Agriculture and Rural Development, Federal Ministry of Finance, Federal Ministry of Environment and Federal Ministry of Information. The Committee will also include the CEO of NCDC, the Director of Public Health, the Director of the Department of Veterinary and Pest Control Services and three Commissioners each from State Ministry of Agriculture and Rural Development (SMARD) and State Ministry of Health (SMOH) drawn from the six geopolitical zones. The Steering committee will be chaired by the Minister of Health and co-chaired by the Minister of Agriculture. The committee shall meet at least biannually and shall have the following functions:

a. Provide overall oversight role to the project including planning, management and monitoring of project activities.
b. Focus on policy issues related to the project.

National Technical Committee

19. National Technical Committees with representatives from the relevant ministries and agencies as well as development partners and academic institutions will be constituted. The committee will be chaired by the CEO of the NCDC and co-chaired by the Chief Veterinary Officer and will include three representatives each from NCDC, the Federal Ministry of Health and the Federal Ministry of Agriculture and Rural Development (the director of Public Health, Head of Epidemiology Division and Executive Director, National Veterinary Research Institute). The technical committee will have the following functions:

a. Review and approve annual work plans and budget.
b. Ensure timely implementation of the project by the PCU.
c. Review progress reports prepared by the PCU so as to ensure that agreed performance targets and timelines for activities under the different components of the projects are met. The table below summarizes the governance and oversight functions of the project.

Name of Committee	National Steering Committee	National Technical Committee
Objectives of the committee	1. Provide overall oversight role to the project 2. Focus on policy issues relating to the project 3. Ensure inter-ministerial cooperation and coordination	1. Provide technical input into the project design and proposals 2. Review and approve annual work plans and budget 3. Ensure timely implementation of the work plan by the PIU 4. Review progress reports by PCU to ensure that agreed targets and timelines under the different components are met 5. Monitor compliance with fiduciary and procedural standards of the World Bank and GON. 6. Respond to emergency developments.
Chair	Hon Minister of Health	CEO NCDC
Co-chair	Hon Minister of Agriculture	N/A
Secretariat	NCDC CEO (Alternate- Director, Veterinary and Pest Control, FMARD	PCU

Members	Federal Ministry of Environment Federal Ministry of Information Federal Ministry of Finance State Ministry of Health Representatives (2) State Ministry of Agriculture and Rural Development Representative (2) Development partners (2) Civil society (1) Representatives of private sector	3 Directorate level staff from NCDC from relevant departments 3 Directorate staff from the Federal Ministry of Agriculture and Rural Development from relevant departments. Representatives of development partners Representatives of academic institutions. The National Project Coordinator and the 2 Sector Coordinators
Minimum periodicity of meeting	Bi-annual	Quarterly

Project Coordination Unit

20. The Project Coordination Unit (PCU) comprised of qualified staff with demonstrable experience will be constituted through a process satisfactory to the Bank. The members of the PCU will work full time on the project.

21. The PCU will include a National Project Coordinator assisted by two Sector coordinators (SCs) as well as a Procurement Specialist, a Financial Management Specialist, M&E Specialist, a Communication Specialist and other key technical experts as required.

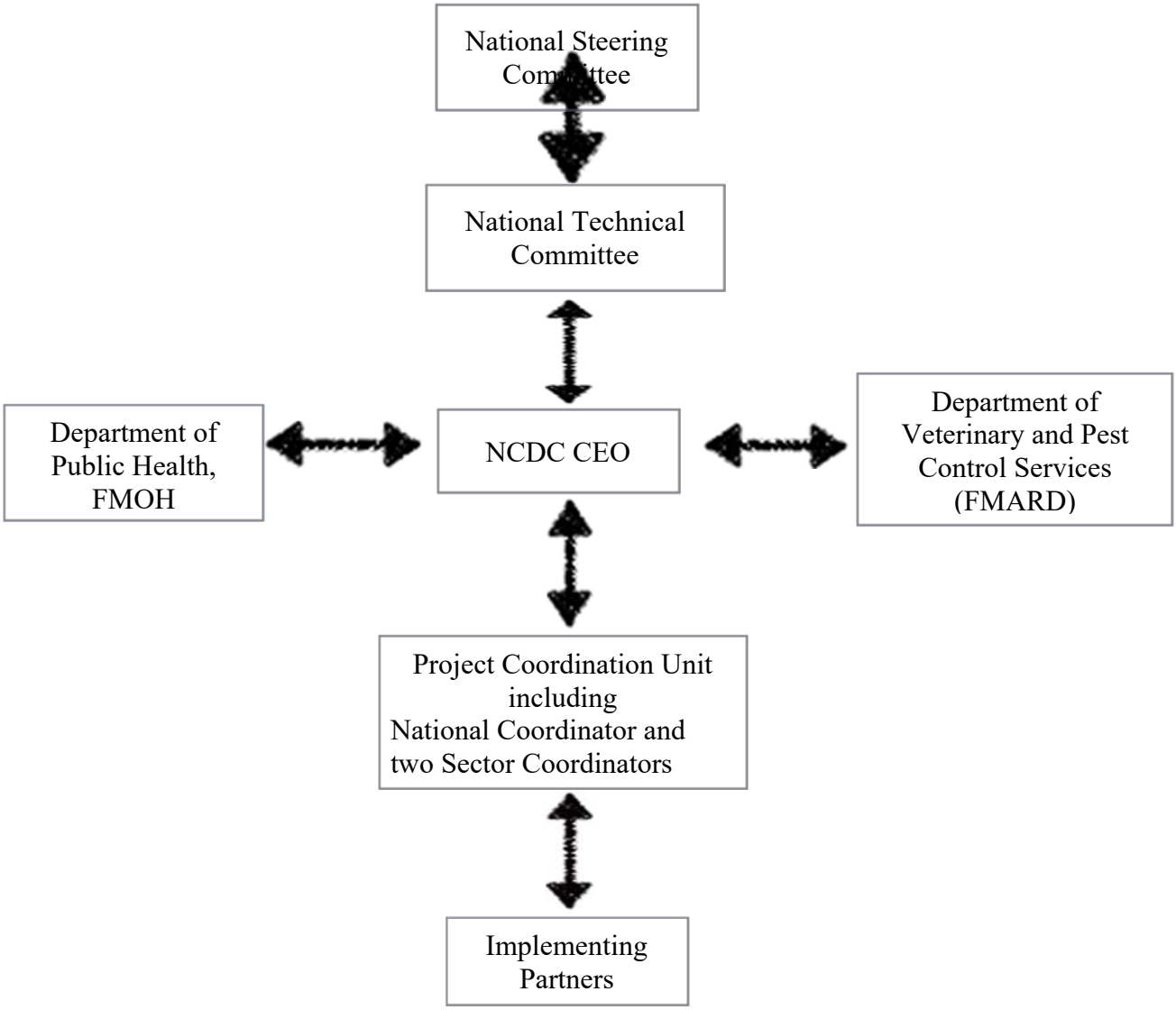
22. The PCU will: (i) work with staff and consultants, supporting the development and organization of project activities and the Monitoring and Evaluation (M&E) of these activities, (ii) prepare annual work plans and procurement plan, and (iii) develop quarterly and annual progress reports and Financial Monitoring Reports (FMRs). The SCs will take responsibilities for coordination and implementation of project activities within their respective sectors, associated institutions and other relevant government departments, to ensure effective inter-agency collaboration under the supervision of the NCDC CEO through the National Project Coordinator.

23. At the state and local government levels, implementation will be the direct responsibility of the agricultural/livestock and health ministries and departments. Existing structures at state and local government levels in both sectors (Health and Agriculture/Livestock Ministries) and agencies will be utilized where applicable or established where necessary.

24. The PCU under the guidance of NCDC CEO will work with and ensure that Memorandum of Understanding (MOU) or services contracts are signed for technical support with development partners and other implementing partners with demonstrable capacity following due process.

25. The diagram below is schematic representation of the implementation arrangement.

Figure 4: Nigeria Institutional Arrangements



D - TOGO

26. The proposed project will be led and coordinated by the MoH and implemented by the relevant MoH Programs and Divisions. A Project Monitoring Group (or *Groupe de Suivi*) will be established within the MoH to assume the oversight functions of this project. Members will include the Ministry of Finance as well as representatives of different Programs and Divisions within the MoH.

27. The coordination and the daily management of the project will be the responsibility of the existing Project Management Unit (PMU) in the Ministry of Health and Social Protection. The

MoH will appoint a national Project Coordinator who will work full time on the project and will lead this team. Other members of the team will include those responsible for FM, procurement, accounting, M&E and communications, accompanied by an administrative assistant(s) and a secretary. The PMU was established to manage the implementation of the WBG financed Maternal and Child and Nutrition Services Support Project (P143843). The PMU will be responsible for general planning, fiduciary management, internal audit, procurement and the M&E. The project will support the authorities responsible for animal and human health at the regional level and the prefect/health district for supervision and coordination of the activities at peripheral and community level including surveillance and reporting, data management, communications and community mobilization, and the provision of services in response to epidemics/epizootics. These activities will be implemented by health center and health unit staff, community health workers, the CSCV, the heads in charge of the veterinary observation, the private veterinarians and health practitioners, village auxiliaries and farmers.

28. At the level of both prefectures and health districts, existing management frameworks for multisectoral and multidisciplinary response to epidemics and disasters will allow the actors to share and exchange information as well as best practices.

29. The PMU will assume the full responsibility of the financial management aspects of the project, particularly, the management of the designated account, the preparation of requests for withdrawal and the establishment of financial reports which will be transmitted to the Bank.

30. The six sub-accounts of the regional offices opened in commercial banks will be used to finance the activities being executed at the decentralized level (regional level and districts/observation post). The disbursements under the sub-accounts will adhere to the financial management procedures of the WBG and the project. Another sub-account will be created for the Central Medical Stores (CAMEG) in order to facilitate the acquisition of Essential Drugs and Generic (EDG).

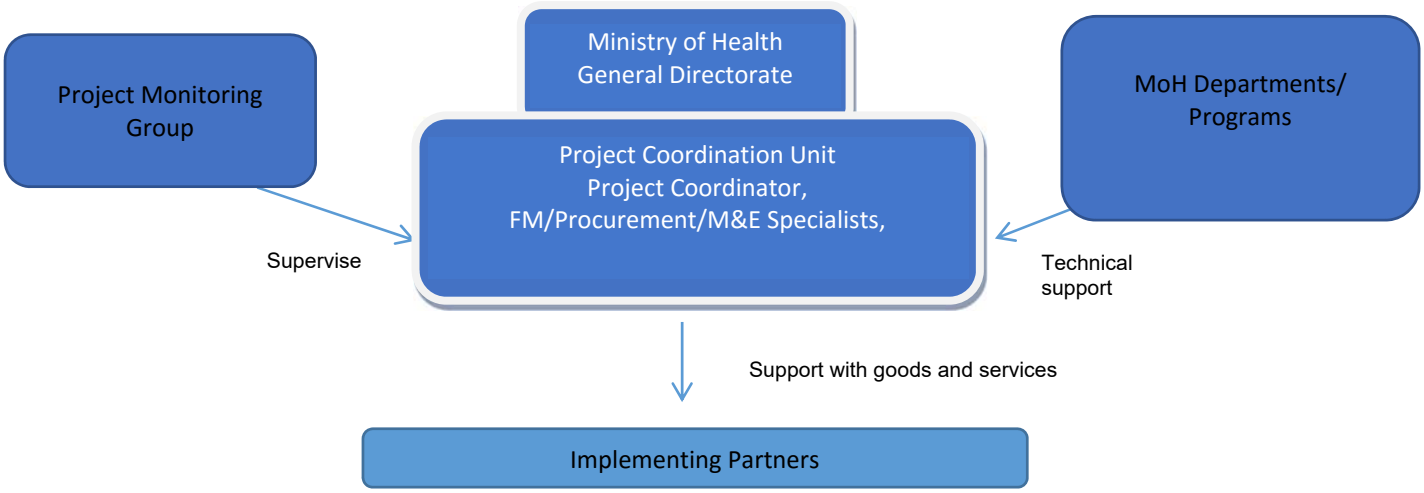
31. Disbursements within the project will be based on transactions. After the effectiveness of the project and upon receipt of a request for withdrawal, IDA will disburse an initial advance to the threshold of the designated account. The subsequent advances to the designated account will be carried out on the basis of the withdrawal requests with supporting documents (statement of expenditure or documents) indicating the authorized expenditures and paid from the designated account.

32. In addition to the provision of advances to the designated account, other methods of disbursement, such as the reimbursement, the direct payment and the special commitment, will be available within the project. The minimum value of applications for these methods is 20 percent of the threshold of the designated account. Other instructions on the disbursement and details on the submission of requests for withdrawal will be included in the letter of disbursement. The entities involved in the implementation of the REDISSE Project will sign contracts with the Project Management Unit.

Project administration mechanisms

33. Graphically, the proposed institutional arrangement of the project is as follows:

Figure 5: Proposed institutional arrangements



Financial Management

A. FINANCIAL MANAGEMENT

34. A financial management assessment of the implementing units has been conducted. The assessment was done on the coordinating implementing entities at national level that are the Nigeria Centre for Diseases Control (NCDC), and the Ministries of Health for Guinea Bissau, Liberia and Togo (using existing PCU within respective ministries).

35. The objective of the assessment was to determine: (a) whether these units have adequate financial management arrangements to ensure that project funds will be used for purposes intended in an efficient and economical way; (b) project financial reports will be prepared in an accurate, reliable and timely manner; and (c) the project's assets will be safeguarded. The financial management assessment was carried out in accordance with the Financial Management Manual for World Bank Investment Project Financing Operations that became effective on March 1, 2010 but was issued (retrofitted) on February 4, 2015. In this regard, a review of the FM arrangements (budgeting, accounting, financial reporting, funds flow and disbursements, internal controls and audit and external audit arrangements) has been conducted for the above entities.

36. The primary implementing entities in the four (4) countries in Guinea Bissau, Liberia, Nigeria and Togo will have an MOU with sub-implementing entities to implement the project. These sub-implementing entities if they receive funds from the primary implementing entities will have to ensure that a project account is opened and the signatories communicated to the primary implementing entity. In addition, they should have an accountant to account for the project funds and have adequate accounting policies and procedures documented in the Project Implementation Manual.

B. BUDGETING ARRANGEMENTS

37. The four countries will prepare annual budgets based on their annual work plans (AWP) and thereafter submit them to the World Bank at least two months before the beginning of the project's fiscal year. The specific details of each entity's FM Manual are included in the table under the accounting arrangements. Implementing entities receiving funds from the PCUs will submit their budgets to the PCUs for consolidation. The AWP will then be approved by the respective National Steering Committee of each country and National Steering Committee of Nigeria and submitted to the WB no later than December 31 of the year preceding the year the work plan should be implemented.

38. The implementing entities will monitor its execution with the projects' accounting software in accordance with the budgeting procedures specified in the manual of procedures and report on variances along with the quarterly interim financial report (IFRs). The budgeting system needs to forecast for each fiscal year the source and use of funds under the project. Only budgeted expenditures would be committed and incurred so as to ensure the resources are used within the

agreed upon allocations and for the intended purposes. The quarterly IFRs will be used to monitor the execution of the AWP.

39. With respect to Guinea Bissau, the budgeting process will need to take into account all relevant aspects of the project and be prepared at least two months before the fiscal year to which it pertains. The *Administração do Sistema de Saúde*, in close coordination with *Direção Geral de Pecuaria* and *Instituto Nacional de Saúde* (INASA), will prepare budget activities which will be captured in annual work plans. This will be under the overall leadership of the *Célula de Gestao - Plano Nacional de Desenvolvimento Sanitário* (CG-PNDS). The AWPB will first need to be approved at least by the Ministry of Economy and Finance, and may be submitted to the *Comissão Permanente*, should the National Assembly not be able to approve the overall Ministry's budget. The budget will be monitored through the TOMPRO accounting software which has already been procured and financed by another Development Partner and through the unaudited quarterly financial reports, which will measure actual performance against targets for each period. Significant differences between planned and actual expenditures will also need to be documented on the quarterly reports, which will be submitted to IDA within 45 days after the end of each calendar quarter. Principles and procedures for preparation of the consultative budget are already included in the existing implementation manual, including its respective format.

C. ACCOUNTING ARRANGEMENTS

40. Accounting Policies and Procedures: These are adequate for all the implementing entities for the four countries. All implementing entities (the PCUs in the four countries), will have to include Financial Management aspects related to the project but not covered in their existing manuals under the Project Implementation Manual.[36]

[36] With regard to Guinea Bissau, the Government of Guinea Bissau is still in the early stages of preparation with the support of development partners with regards to design and a roll out of its IFMIS, but not expected to be completed within the life the project. As such, the accounting transactions will be recorded and summarized on the TOMPRO accounting software, which will also be used for the production of quarterly and annual reports. In addition to the accounting system to be installed and the books needed to maintain an accurate and complete record of transactions, the CG-PNDS will maintain a set of additional books of registry for control purposes. These books will include at least (i) a Fixed Asset Register; (ii) contracts Register and; (iii) gasoline log books.

The provider of the TOMPRO system will be providing the training to the accountants of MINSA, but is not based in Bissau. Therefore, MINSA may need to ensure it has an adequate technical assistance contract to ensure just-in-time support and as needed that is country-based.

Although CG-PNDS has some accountants responsible for other activities, it is headed by the *Responsável de Administração e Finanças* (RAF) which has some experience in handling Bank-financed operations. However, the ministry will also need to recruit an accountant which will be solely responsible for the activities of the REDISSE, but still work under the overall responsibility of the RAF. The experience of the RAF will play a key role in the transfer of know-how and providing training to all accountants. An accountant with terms of reference agreed by the Bank will be recruited no later than three months after the effective date of the project.

The project will make use of International Public Sector Accounting Standards (IPSAS) and Cash Basis of accounting will be used, which recognizes transactions and events only when cash (including cash equivalents) are received or paid by the Ministry. The MINSA's overall accounting standards are based on the principles of the Western African

41. *Accounting Staff*. The following needs to be done to strengthen the accounting staffing arrangements in the PCUs for four countries. All accounting staff, where necessary, will be trained in World Bank FM and Disbursement guidelines as well as in the use of projects' accounting software where applicable.

- *Liberia*: A qualified project accountant, to be responsible for the accounting services, will be deployed to the project by the PFMU. The project accountant, to be supported by a finance assistant, will be supervised by the PFMU unit manager.
- *Nigeria*: The FPFMD within the OAGF needs to maintain the current accounting staff in the PCU in order to have adequate accounting staff for this project. The NPHCDA will designate adequately qualified and experienced professional accountants that will be responsible for maintaining the books of accounts and records of the REDISSE Project.
- *Togo*: A qualified project accountant, to be responsible for the accounting services, will be deployed to the project by the MOH. The project accountant, to be supported by a finance assistant, will be supervised by the Finance Officer/Manager.
- *Guinea Bissau*: A qualified project accountant, to be responsible for the accounting services, will be deployed to the project by the MOH. The project accountant, to be supported by a finance assistant, will be supervised by the Finance Officer/Manager.

42. *Accounting Information Systems.* These are adequate for the PCUs in the four countries. The FPFMD in Nigeria will need to acquire an accounting information system using the PPA, and for Guinea Bissau, see footnote 39.

43. *Accounting Standards and Basis.* All fiduciary units in Nigeria and Liberia will use International Public Sector Accounting Standards (IPSAS) to prepare the project accounts. Togo and Guinea Bissau will use the SYSCOHADA accounting system customized for African Francophone Countries.

Accounting System (SYSCOA).

Table 12: Accounting Arrangements

Institution	Accounting Staff	FM Manual	Accounting Information System
Liberia MOH Using the PFMU	The current PFMU staff that need to be retained to have adequate accounting staff for this project.	PFMU's financial management manual and the Public Finance Management Law for Liberia	Sun accounting system
Nigeria	FPFMD staff are adequate to account for the project's funds.	The project manual will be developed; the Bank will clear the FM manual.	The PCU will appropriately configure the FPFMD accounting software
Guinea Bissau:	The accounting staff once in place will be adequate to account for the project's funds.	The project manual will be developed; the Bank will clear the FM manual.	The PCU will appropriately procure the accounting software
Togo	The accounting staff once in place will be adequate to account for the project's funds.	The project manual will be developed; the Bank will clear the FM manual.	The PCU will appropriately procure the accounting software

D. INTERNAL CONTROL AND INTERNAL AUDIT ARRANGEMENTS

44. *Internal Controls.* The internal control procedures will be documented in the FM Manuals shown in the table above for each of the implementing entities and their Project Implementation Manuals that will take into consideration gaps in their existing FM Manuals/Regulations to ensure project FM arrangements are in line with the Financing Agreement. These will ensure that the project does have an effective internal control system.[37]

[37] MINSAP has not implemented a Bank-funded project in a couple of years in order for the assessment to be informed of audit findings. However, a review of the audit reports and internal systems and procedures did not reveal significant reportable issues. The ministry's somewhat lack of experience in Bank-financed operations may require some handholding and support, as well as targeted training to ensure project actions are taken adequately.

Apart from the accountants, the ministry also has a *Controlador Interno* (CI), which reports directly to the coordinator, and whose function is ensure that project transactions are occurring in accordance with agreed guidelines. The CI will also perform similar responsibilities on the funds from IDA. In addition, MINSAP has its own Internal Audit activity, the *Inspecão Geral da Atividade em Saúde,* which is responsible for conducting assurance services on the activities of the ministry and the unit should include project activities on its audit plan. The unit reports directly to the Minister for independence.

The ministry already has an overall implementation manual that has some internal control procedures, and documents some responsibilities related to the project management, but which will need to have an annex covering procedures

45. *Internal Audit.* The FPFMD in Nigeria has adequate internal audit functions while the MOH in Liberia have weak internal audit functions and will need to set up an internal audit function. Despite the ongoing reforms to strengthen internal audit in these countries, it will be essential for each of the implementing entities to ensure adequate internal audit staff are assigned to audit this project to ascertain that project implementation is going on as planned especially amongst the multiple sub-implementing entities that will receive funds from the ministry. Internal auditors in each of the implementing entities should ensure that the project's audit is included in their work plan and the audit conducted using a risk based approach.

E. GOVERNANCE AND ANTI-CORRUPTION (GAC) ARRANGEMENTS

46. As part of the GAC arrangements FM arrangements will ensure that there are internal control systems in place and audits conducted to prevent and detect fraud and corruption. Transparency and accountability is highly encouraged by putting the project's budget and audited financial statements on the implementing entity's websites. Complaint handling mechanisms should also be set up by the implementing entities such that beneficiaries who are not receiving services as planned can have a mechanism to raise their complaints such that they are followed up and addressed. This will involve putting in place a system to record all complaints received, direct them to the responsible person to be addressed and record when a response is sent to the complainant. In addition, there are the World Bank Anti-Corruption Guidelines, dated October 15, 2006 and revised in January 2011 and as of July 1, 2016 that the project will have to comply with.

F. FUNDS FLOW ARRANGEMENTS

47. ***Designated and Project Accounts.*** The MOH in Liberia and NCDC in Nigeria will have to open Designated Accounts denominated in United States Dollars while MOH in Togo will open its designated account in FCFA. For Guinea Bissau, see footnote below[38] The Implementing Agencies will open a Project Account denominated in local currency to facilitate payments in local currency. These will be maintained in either the Central Bank or a commercial bank, consistent

related to the REDISSE. The annex will be more specific to cover specific issues related to reporting (including the agreed format of quarterly reports) to IDA, preparation of withdrawal applications, detailed processes for filing, as well any other issues that may be relevant from the TOMPRO accounting software system.

[38] MINSA will open a Designated Account for the project at a commercial bank acceptable to IDA and will be denominated in CFAs as required by the Ministry of Economy and Finance. Details of the Designated Account and the Authorized Signatories Letter in the format defined on the Disbursement Letter, should be submitted to the Bank to ensure there are no delays in the first disbursement.

The ministry will submit an initial withdrawal application to the Bank based on the ceiling defined on the Disbursement Letter, but also based on agreed project work plans and budget. The arrangement is relatively simple, as shown in Figure 1 (page 96), with centralized payments at CG-PNDS, allowing for more effective control of the project funds, however, activities related to *Pecuaria* should be appropriately planned to ensure respective payments are also timely.

with national rules, and acceptable to the World Bank. The specific banking details for each of the implementing entities are shown in the table below. The signatories to these accounts should be in line with the FM Manuals of the implementing entities and they should be submitted to the WB between the signing of the project and its effectiveness. Payments for eligible expenditures can be made from either the Designated or Project Accounts.

Table 13: Designated and Project Bank Accounts

Institution	Designated Account	Project Account
Liberia	Central Bank of Liberia	Commercial Bank
Nigeria	Central Bank of Nigeria	Central Bank of Nigeria
Guinea Bissau	BAO	Commercial Bank
Togo	UTB	Commercial Bank

48. ***Project Accounts.*** Sub-implementing entities receiving funds from the Designated Accounts will have to open a Project Account denominated in local currency to receive funds in either the Central Bank or in commercial banks acceptable to the World Bank. The signatories to these accounts should be in line with the FM Manuals for the project or PIM of the sub-implementing entities and they should be submitted to the main implementing entities in the country.

Figure 6: Funds Flow Diagram

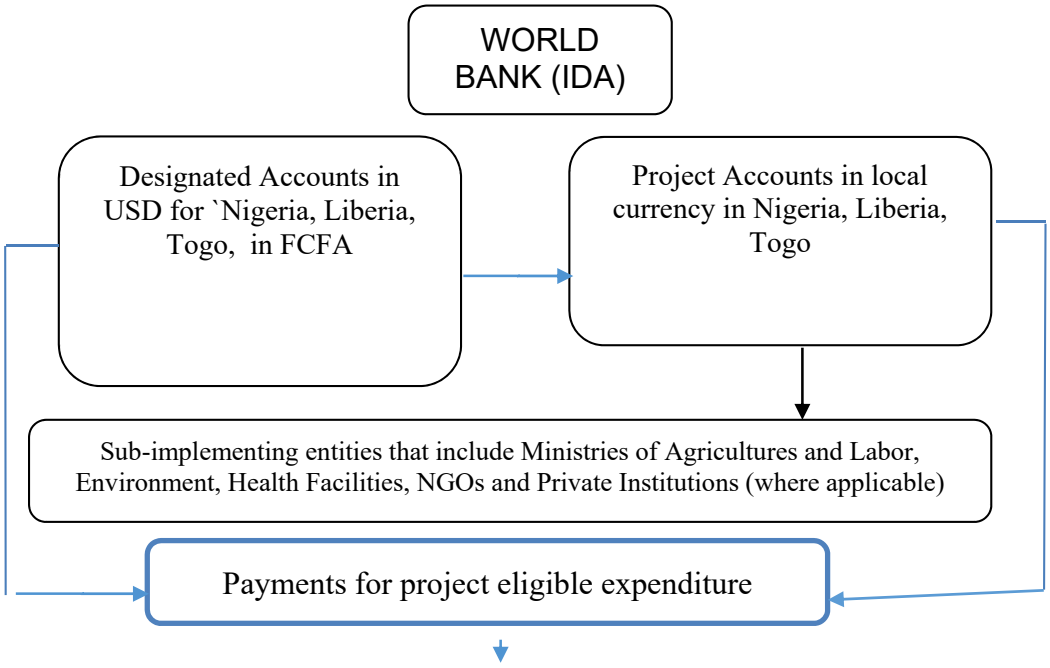
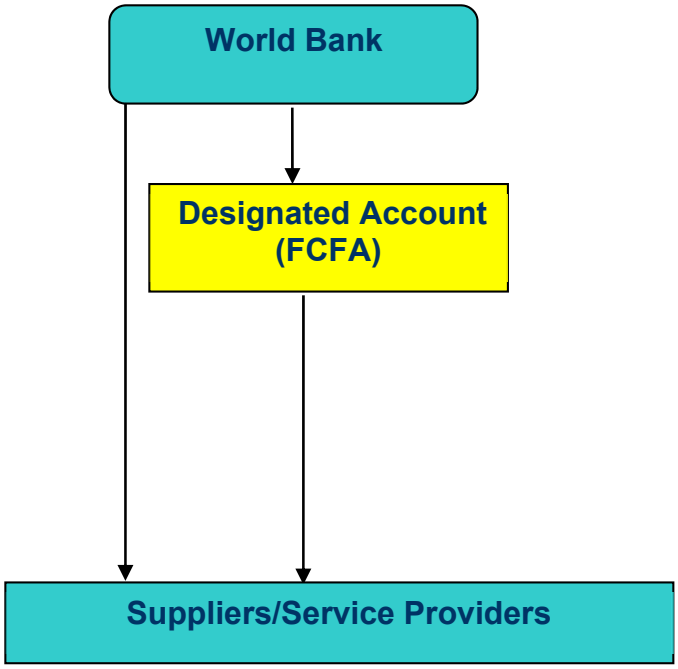


***Figure 7.** Guinea Bissau Fund Flow Arrangements*



Disbursements

49. *Disbursements.* All implementing entities in the four countries will access funding from the World Bank as advances using the transaction based method as described in the World Bank Disbursement Handbook. Other disbursement methods will include direct payments, reimbursements and special commitments. Detailed disbursement procedures will be documented in the project's Disbursement Letter. Upon credit effectiveness, PCU will be required to submit a withdrawal application for an initial deposit to the Designated Account, drawn from the IDA Credit, in an amount agreed to in the Disbursement Letter. Further deposit of funds from IDA to the Designated Account will be made upon evidence of satisfactory utilization of the advance, reflected in SOEs. Withdrawal applications would be required to be submitted regularly at least once a month.

50. For the Contingent Emergency Response Component, the existing flexibility in OP 12.00 Disbursement would be used to provide significant advances in order to provide the necessary liquidity for fast response. The level of the advance needed for the CERC would be established independently of any existing advances for the project components and recorded in the revised Disbursement Letter. The advances for the CERC would be deposited in separate Designated Accounts established for the purpose.

51. If ineligible expenditures are found to have been made from the Designated and/or Project Accounts, the borrower will be obligated to refund the same. If the Designated Account remains inactive for more than 6 months, the WB may reduce the amount advanced. The WB will have the right, as reflected in the terms of the Financing Agreement, to suspend disbursement of the funds if significant conditions, including reporting requirements, are not complied with. Additional details regarding disbursement are provided in the disbursement letters.

52. *Disbursements by category*. The table below sets out the expenditure categories to be financed out of the Credits. This table takes into account the prevailing Country Financing Parameter for all participating Countries in setting out the financing levels.

CATEGORY	GUINEA BISSAU		LIBERIA		NIGERIA		TOGO	
	Amount of the Credit Allocated (expressed in USD)	Percentage of Expenditures to be Financed (inclusive of Taxes)	Amount of the Credit Allocated (expressed in USD)	Percentage of Expenditures to be Financed (inclusive of Taxes)	Amount of the Credit Allocated (expressed in USD)	Percentage of Expenditures to be Financed (inclusive of Taxes)	Amount of the Credit Allocated (expressed in USD)	Percentage of Expenditures to be Financed (inclusive of Taxes)
1) Goods, non-consulting services, consultants' services, Training, and Operational Costs under Parts 1, 2.2, 2.3 (i), 3.1 (i), 3.2 (i) and (iii), 4 and 5.1 of the Project	20.95	100%	13.66	100%	81.0	100%	19.68	100%
(2) Goods and works under Part 2.1 of the Project	0.05	100%	1.34	100%	9.0	100%	1.32	100%
(3) Emergency Expenditures under Part 3.3 of the Project								
TOTAL AMOUNT	21.0		15.0		90.0		21.0	

53. *Financial Reporting Arrangements*. The PCUs in the four countries will prepare quarterly un-audited Interim Financial Reports (IFRs) in form and content satisfactory to the WB, which will be submitted to the WB within 45 days after the end of the quarter to which they relate. The formats and contents of the IFR were agreed on between the WB and the national implementing entities before negotiations. The contents of the IFR for all implementing entities will include the following information to account for project funds:

- Statement of Sources and Uses of Funds;
- Statement of Uses of Funds by Project Activity/Component; and
- Bank statements for both the Designated and Project Account and related bank reconciliation statements;

54. The PCUs in the four countries will also prepare the Project's annual financial statements within three months after the end of the accounting year in accordance with cash basis of International Public Sector Accounting Standards and SYSCOHADA. The financial statements will be required to be submitted to the WB within six months after the end of the fiscal year.

55. *External Audit Arrangements.* The General Auditing Commission for Liberia, the Office of Auditor General for the Federation (OAGF) for Nigeria will be conducting the external audit for their respective countries; they can also contract private audit firms acceptable to the Bank to conduct the audit on their behalf. Guinea Bissau and Togo will use private audit firms that are acceptable to the WB; the cost of hiring a private audit firm will be met by the Project. All audits should be carried out in accordance with International Standards on Auditing or International Standards for Supreme Audit Institutions issued by the International Organization for Supreme Audit Institutions. All external audit Terms of Reference for each implementing entity will be agreed to with the World Bank by signing a financial agreement. The external auditors should be appointed within six months after effectiveness. Audit reports together with management letters should be submitted to the World Bank within six months after the end of the respective government's fiscal year. Audit reports will be publically disclosed by the World Bank in accordance with the World Bank's disclosure policy.

Table 14: Financial Management Action Plan

Implementing Entity	Action	Responsibility	Due Date
All Implementing Entities	Interim Financial Report Formats were agreed on before negotiations and External Audit Terms of Reference will be agreed on before the signing of the Financing Agreement	For all four countries	Indicated in the action plan
Nigeria	Prepare a Project Financial Management Manual that is acceptable to the Bank. This will be part of the PIM.	NCDC and FPFMD	No later than 3 months after the Effective Date
All Implementing	Prepare a Project	All implementing entities	Within three

Implementing Entity	Action	Responsibility	Due Date
Entities	Implementation Manual (PIM) that is acceptable to the WB.		months of effectiveness
Nigeria	Recruit a qualified and experienced accountant with TORs acceptable to the Bank.	Nigeria NCDC	No later than 3 months after the Effective Date
Guinea Bissau, Liberia and Togo	Address functionality concerns related to the IFMIS or acquire an accounting software to account for project funds.		Within six months after effectiveness
Guinea Bissau, Liberia and Togo	Recruit/assign a qualified and experienced internal auditor to strengthen internal control systems.	Ministry of Health	Within three months after effectiveness (use of PPA recommended)
Nigeria	Configure the FPFMD's computerized accounting software to enable accounting and reporting of project transactions	Nigeria NCDC	No later than 3 months after the Effective Date
All Implementing Entities	Appoint an external auditor for the Project	All implementing entities	No later than 3 months after the Effective Date
All implementing entities	Put in place and strengthen complaint handling mechanisms to enhance service delivery.	All implementing entities	No later than 3 months after the Effective Date

56. *Implementation Support Plan*. Financial Management implementation support missions will be carried out twice a year for the four countries based on the substantial FM residual risk rating. Implementation Support will also include desk reviews such as the review of the IFRs and audit reports. In-depth reviews and forensic reviews may be done where deemed necessary. The FM implementation support will be an integrated part of the project's implementation reviews support.

57. The conclusion of the assessment is that the financial management arrangements in place meet the World Bank's minimum requirements under OP/BP10.00, and subject to the application of enhanced accountability principles (see Annex 7) and strengthening based on the FM action plan above, are therefore adequate to provide, with reasonable assurance, accurate and timely information on the status of the project required by World Bank. The overall Financial Management residual risk rating is substantial for the four countries.

Procurement

58. The Borrowers will carry out procurement under the proposed project in accordance with the World Bank's "Procurement Regulations for IPF Borrowers" (Procurement Regulations) dated July 2016 under the "New Procurement Framework (NPF), and the "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants", dated October 15, 2006 and revised in January 2011 and as of July 1, 2016, and other provisions stipulated in the Financing Agreements.

59. All procuring entities as well as bidders, and service providers, i.e. suppliers, contractors and consultants shall observe the highest standard of ethics during the procurement and execution of contracts financed under the project in accordance with paragraph 3.32 and Annex IV of the Procurement Regulations.

60. The Borrowers shall prepare and submit to the Bank a General Procurement Notice (GPN) and the Bank will arrange for publication of GPN in United Nations Development Business (UNDB) online and on the Bank's external website. The Borrowers may also publish it in at least one national newspaper.

61. The Borrowers shall publish the Specific Procurement Notices (SPN) for all goods, works, non-consulting services, and the Requests for Expressions of Interest (REOIs) on their free-access websites, if available, and in at least one newspaper of national circulation in the Borrower's country, and in the official gazette. For open international procurement selection of consultants using an international shortlist, the Borrower shall also publish the SPN in UNDB online and, if possible, in an international newspaper of wide circulation; and the Bank arranges for the simultaneous publication of the SPN on its external website.

62. The project design will provide a window to enable the Borrower to carry out Advance Contracting and Retroactive Financing in accordance with Section V (5.1 & 5.2) of the Procurement Regulations for IPF Borrowers. The retroactive financing will be allowed up to 20% of the credit covering the expenditures incurred by the project, not more than 12 months before the date of the signing of the Financing Agreements.

63. REDISSE II is part of series of projects and follows REDISSE I in which Guinea, Sierra Leone, and Senegal participate and at the Regional ECOWAS participates.

Institutional Arrangements for Procurement:

64. At the regional level the institutional arrangements remain the same as in REDISSE I and are as follows:

65. WAHO – the West African Health Organization (WAHO), a health specialized agency of the Economic Community of West African States (ECOWAS). WAHO has the full mandate to coordinate all public health activities within ECOWAS member states. WAHO consists of 4

departments among which a Financial Direction including a Procurement Unit which is responsible for all regional procurement activities up to 250,000 UC (≈ $ 250,000) for WAHO.

66. RAHC – The Regional Animal Health Center (RAHC) for West and Central Africa based in Bamako (Republic of Mali) was the first Center established in April 2006 by OIE, FAO, and AU-IBAR and inaugurated on October 20, 2007, to support, among others, the states of West and Central Africa in their efforts of prevention and control of highly pathogenic avian influenza and other transboundary animal diseases and zoonoses. In 2012, ECOWAS member countries recognized the RAHC as the ECOWAS specialized technical center for animal health. The governance rules, administration, management and financing of the Agency, the Agency's relationships in agriculture and livestock, criteria and forms of intervention, the processing of funding applications, the recruitment of the Agency's staff comply with the legislation in force in ECOWAS. According to the organizational chart of RAHC, it must have an executive director to whom are attached an executive secretary and a technical pool secretary, one unit of Animal Health, one-unit Veterinary Governance and an Administration and Finance unit. This Administration and Finance unit has in principle 3 staff: the program officer in administration and finance (the unit chief), an administrative assistant and an accountant. The administrative assistant is responsible for the procurement. To date, no one has been recruited. The center is not operational because it did not receive the required operating funds from ECOWAS. A program officer and an accountant, all within the AU have been seconded to Bamako to lay the foundation; but no independent capacity of RAHC has been developed.

67. WAHO will support RAHC to build their capacity by engaging OIE and will carry out the necessary procurement for RAHC.

68. OIE –In the initial period The World Organization for Animal Health will provide technical support in implementing the activities by RAHC. OIE will also help RAHC to build its capacity and take over the implementing role when RAHC is ready. OIE is an intergovernmental organization subject to the authority and control of a Committee composed of National Delegates from its 180 Member Countries. In the context of programs funded by Donors, management of procurement is placed under the responsibility of the following senior staff members at the OIE Headquarters: The Director General, the Director of Finance, the Head of the World Animal Health and Welfare Fund Unit, and a Head of the Budget Unit, in addition, the Head of Legal Affairs and Human Resources Unit and the Head of the Performance Management Cell are involved (internal audit and procedural matters). There is no dedicated staff assigned to carry out procurement since this depends on the nature of goods and services to be procured.

69. Procurement at the national level shall be carried out by:

Guinea-Bissau – The Ministry of Public Health will be the main implementing agency for the project. The “Cellule de Gestion du Programme National de Développement de la Santé (CG/PNDS)” of the Ministry which has fiduciary responsibility of projects financed by Donors will carry out procurement activities for this project. The cellule has a long experience with the Global Fund and has already implemented projects financed by the World Bank.

70. **Liberia** – the Ministry of Health (MoH) and the Ministry of Agriculture (MoA). The MoH will assume the project coordination function and shall provide overall procurement oversight and supervise the procurement activities for both MoH and MoA, and ensure compliance with the provisions of the Financing Agreement. MoH and MoA shall make use of the existing procurement structures (i.e. Procurement Committees and Procurement Units) within their respective Ministries as defined under the Public Procurement and Concession Commission (PPCC) Act 2005 as amended and restated in September 2010, so as to ensure that REDISSE project procurement is done in line with the World Bank Guidelines. MoH and MoA have jointly finalized a project Procurement Manual for use under this project, which will be part of the REDISSE Project Implementation Manual. It is currently under review by the Bank.

71. The MoH has a Procurement Unit, which is headed by an experienced and qualified Procurement Director. He is supported by a qualified assistant Procurement Director and other 7 Procurement officers, and the Project Implementation Unit (PIU) for the implementation of donor supported interventions, which includes Bank-funded ongoing support for Ebola Emergency Response and Health Systems Improvement. The PIU has two procurement staff who have experience in donor funded projects and an additional Procurement Officer is being recruited.

72. The MoA has a Procurement Unit and a Project Management Unit (PMU) for the implementation of donor supported interventions operating in parallel to the mainstream procurement function, which includes Bank-funded ongoing support for Smallholder Tree Crop Revitalization and West Africa Agriculture Productivity Program. The MoA Procurement Unit is headed by a qualified Procurement Director leading a team of four other Procurement staff all of whom have limited experience with Bank financed procurement.

73. **Nigeria** – The Nigeria Centre for Disease Control (NCDC) will host and have the oversight for the REDISSE project. The NCDC has a procurement unit headed by an Assistant Director and supported by more than two procurement personnel. NCDC as a procuring entity has a history of implementing World Bank Assisted and related donor projects through its mother ministry (i.e Federal Ministry of Health). However, the capacity of the Center has to be enhanced in order to effectively carry out the additional responsibility brought in by the REDISSE program. NCDC will be responsible for coordination of procurement management across the sectors in Nigeria. The NCDC will focus on quality and process oversight, centralized procurement, reporting, contract management, and ensuring that the procurement functions assigned to the relevant line departments are done in accordance with the Procurement Regulations of the World Bank and within procedures of the Federal Governments as defined in the PPSD.

74. **Togo** – The country level activities will be led and coordinated by the Ministry of Health (MoH) while implementation will be carried out by the existing PIU/PASMIN (Projet d'Appui aux Services de Santé Maternelle et Infantile et de Nutrition, P143843) under the Ministry of Health, staffed with a procurement specialist.

75. According to the procurement code, the MoH has established the procurement commission (Commission de Passation des Marchés Publics), the procurement control commission

(Commission de Contrôle des Marchés Publics) and the person in charge of procurement (Personne Responsable des Marchés Publics) has been nominated.

76. Based on the PIU/PASMIN experiences with the Togo's CAMEG (Centrale d' Achats de Médicaments Essentiels et Génériques), the procurement of drugs and medical supplies will be delegated to CAMEG who could use its own standard bidding documents which were reviewed by the World Bank. For the remaining procurement using open national approach, the National SBD as agreed with the WB will be used or, if not available, shall be developed and agreed with the WB.

Procurement approval process

77. The following procurement approval procedures will be followed by each entity:

78. WAHO – There is no clear mechanism for decision making in the project manual used for the ongoing projects. It is recommended that, the existing manual be revised to describe responsibilities and approval thresholds+ for procurement contract.

79. RAHC – In the initial period OIE will carry out procurement for RAHC. There is a clear responsible decision making mechanism for procurement. Any purchase or acquisition estimated to be equal or greater than EUR 2500 must be duly authorized by the Director General. For some exceptions, delegation of signature authority is given to the Head of Administration.

80. **Guinea-Bissau** – According to the existing Manual, the Coordinator the CG/PNDS is responsible for decision making during the procurement process. The Responsible for Financial Management receives the request, checks that budget is available and approves the request before it moves to the procurement specialist. The Coordinator approves all contracts regardless the contract value.

81. **Liberia** – procurement steps are carried out by the PIU and PMU of the MoH and MoA, accordingly. Each Ministry has established a Procurement Committee consisting of five members and chaired by the Minister. The Head of the Procurement Unit serves as a secretary to the Committee. The documents and decisions as required by the Public Procurement and Concessions Act are submitted to the Procurement Committee through its Secretary. The Act requires the Committee to meet as and when required to review a bid or perform a related function but in any event to meet at least once every quarter. To ensure the most efficient contracting the PIU should plan its activities to submit the documents in batches, if feasible and reasonable, and the Procurement Committee to meet at the earliest possible time to approve.

82. **Nigeria** – The NCDC is a procuring entity, which is in line with the provisions of the Public Procurement Act, 2007. The Procurement Unit is headed by an Assistant Director, who is supported by more than two certified Principal Procurement Officers. The procurement approval process stemmed from the constitution of both the Procurement Planning Committee (PPC) and Parastatal Tenders Board (PTB) headed by the CEO NCDC, and with all the Directors of the

Agency as members. The Procurement Planning Committee (PPC) considers and approve the Needs Assessment of User Departments, while the Parastatal Tenders Board), ensures that due process is followed and is the approving authority for all procurement processes within the agency's thresholds. However, in cases where the threshold is above the Agency's approval limit, the Ministerial Tenders Board of the Federal Ministry of Health (FMOH) or the Federal Ministry of Agriculture and Rural Development (FMOA) is involved as appropriate.

83. **Togo** – Procurement is carried out by the PCU/PASMIN of the MoH accordingly. The MoH has established a Procurement Commission consisting of four members and chaired by the nominated Person in charge of Procurement. The Person in charge of Procurement has his Secretary which serves as a secretary to the Commission. The documents (BD, RfP, BER) conjointly elaborated by the procurement commission and the PCU are submitted for decisions of the procurement control commission of the MoH consisting also of four members or to the decisions of the National Procurement Control Directorate (Direction Nationale de Controle des Marchés Publics) under the Ministry of Finance depending of the competency of the procurement control threshold.

84. *Filing and record keeping*: The Procurement Procedures Manual will set out the detailed procedures for maintaining and providing readily available access to project procurement records, in compliance with the Loan Agreement. The Implementing Agencies will assign one person responsible for maintaining the records. The logbook of the contracts with unique numbering system shall be maintained.

85. The signed contracts as in the logbook shall be reflected in the commitment control system of the Borrower's accounting system or books of accounts as commitments whose payments should be updated with reference made to the payment voucher. This will put in place a complete record system whereby the contracts and related payments can be corroborated.

86. *Project Procurement Strategy for Development*: As part of the preparation of the project, the Borrowers (with support from the World Bank) prepared their Project Procurement Strategies for Development (PPSD) which describes how fit-for-purpose procurement activities will support project operations for the achievement of project development objectives and deliver Value for Money (VfM). The procurement strategies are linked to the project implementation strategy at the regional, the country and the state level ensuring proper sequencing of the activities. They consider institutional arrangements for procurement; roles and responsibilities; thresholds, procurement methods, and prior review, and the requirements for carrying out procurement. They also include a detailed assessment and description of state government capacity for carrying out procurement and managing contract implementation, within an acceptable governance structure and accountability framework. Other issues taken into account include the behaviors, trends and capabilities of the market (i.e. Market Analysis) to inform the procurement plan. The activities also require strong technical capability to prepare proper technical specifications in order to avert lack of, or inadequate, market response. This capability – or a plan to enhance is considered in the strategies. Also, special arrangements like direct contracting, use of SOEs, UN Agencies, third party monitors, local NGOs, Force Account, or civil servants needs, results based arrangements,

need for prequalification, if any, are addressed. The strategies include a summary on: Procurement Risk, Mitigation Action Plan, Procurement Implementation Support and Supervision plan. Procurement Risk Rating.

87. *Guinea-Bissau:* While the Implementing Agency has experience in implementing donor financed projects, due to the nature of the project and the requirements of the Bank, the Implementing Agency will need to develop additional capacity and expertise in international procurement. The scope of procurement includes specialized goods and significant renovation and construction. The market in the country is limited and is not likely to sufficiently provide the needed goods for which international approach shall be used.

88. *Nigeria*: The Project will support more traditional laboratory technology (i.e., microscopes), one or two container laboratories (to be placed at the central level) to augment the capacity to provide timely results in determining the proposed regimen, as well as its efficacy. Financing will also support advanced technology for case finding, as well as analysis of treatment effectiveness. The Implementing Agency NCDC has moderate capability to provide reasonable assurance that the credit proceeds will be used for intended purposes. Mitigation measures for the identified risks including weak internal controls, delays, governance weaknesses, poor stock control have been agreed. Nigeria is the commercial hub of the West African sub-region. It has a thriving local market and attracts many key global suppliers of health goods and services. International companies not only participate but also have their subsidiaries in the country. For small works that may not attract foreign bidders there is sufficiently developed local contracting market. Nigeria has also a pool of experienced consulting firms and individuals with specialization in tropical disease surveillance and appropriate responses.

89. *Liberia*: The political context in Liberia is fragile. The 2005 PPCA establishes the Public Procurement and Concessions Commission (PPCC) as the regulatory body with mandate to ensure compliance by the public service with the law. The outbreak of the Ebola Virus Disease (EVD) ignited the need to support one-health program in Liberia. There is limited procurement capacity at the MoH and MoA, respectively, for the implementation of REDISSE II. Mitigation measures for the identified risks including weak internal controls, weak procurement management performance, weak control of stock management and distribution of health commodities, governance weaknesses, have been agreed. There are limited number of medical suppliers in Liberia; all medical equipment and supplies are imported. For renovation and rehabilitation works there are sufficient number of local contractors with satisfactory capacity to undertake such activities. Building materials are also readily available locally.

90. *Togo:* The Project will finance procurement of vaccines and drugs, as well as medical equipment and communication and IT equipment. The market study identified risks for procurement and designed procurement approaches and actions to mitigate these risks.

91. UN agencies may be hired by the Governments on sole-source basis for contracts for which they offer their unique roles and qualifications in responding to the emergency situations. Standard forms of agreement for UN agencies as acceptable to the Bank will be adopted. For those UN

agencies, if such forms have not been agreed with the Bank, Bank team will provide acceptable sample forms for use by the countries. For the UN agencies hired by the Government, certain quick-disbursing arrangements may be agreed upon to finance a positive list of imported or locally produced goods that are required for the project, further subject to the Bank's prior agreement on the conditions for the release of the financial tranches and the required documentation and certifications, such as customs and tax certificates or invoices.

92. The recruitment of civil servants as individual consultants or as part of the team of consulting firms will abide by the provisions of paragraph 3.23 (d) of the Procurement Regulations.

93. Special Considerations: Guinea Bissau, Liberia, and Togo are on the harmonized list of Fragile and Conflict affected Situations (FCS) countries and therefore the Project will trigger paragraph 12 of OP 10.00 Investment Project Financing in order to apply flexibilities and simplification to facilitate procurement implementation. These procurement arrangements therefore draw on the Bank Guidance on Procurement Procedures in Situations of Urgent need of Assistance or Capacity Constraints issued on July 1, 2016.

94. *Procurement Plan*: The Borrowers and their Implementing Agencies prepare detailed 18-month procurement plans which have been agreed by the Government and the Bank during the loan negotiations. The Procurement Plans will be updated in agreement with the Bank Team annually or as required to reflect the actual project implementation needs and improvements in institutional capacity.

95. The Implementing Agencies will carry out procurement for their needs to implement the Project and for the Ministries as explained below based on the Procurement Plan prepared for the first 18 months of the Project implementation. They may also procure goods, works, or services for other institutions and agencies of the health system in their countries for the purpose of the project as included in the Procurement Plan and agreed with the Bank. The scope of procurement includes specialized goods and significant renovation and construction.

96. **Liberia** – Works to be procured under the project include contracts for renovation or are likely to include adding new infrastructures to meet minimum hospital infection control or bio-security standards recommended by either WHO or OIE. There are no known Non-Consulting Services to be financed by IDA under this project. Goods to be procured under this project are likely to include contracts for: testing kits and consumables, laboratory equipment, office and ICT equipment, vehicles and off the shelf lab information management system. Other equipment may include generators, incinerators, disinfectants, PPE, as well as other items to make sure functioning emergency response. The consulting services under this project are likely to include: Consulting Services to develop basic system to support one health surveillance, consulting services to establish phytosanitary standards, consulting services to develop contingency funds and mechanism for payments during an outbreak response, hiring of additional staff: Data Analyst, Epidemiologist, Bio Technician, Procurement Specialist.

97. **Nigeria –** Major procurement activities include rehabilitation and upgrading of Surveillance and Information Systems for Early Detection of disease outbreaks and Analysis of field results. The major civil works are: Rehabilitation of state epidemiology/surveillance offices; Renovation of 6 NCDC laboratory facilities and Upgrading of IPC Structures. Other major activities include: printing of technical guidelines magazines and training manuals; procurement and Installation of equipment, reagents and other consumable for reference Laboratories; Procurement and Installation of ELISA, automated PCR with high throughout, glove box etc. and rapid test devices for 5 laboratories annually; Provision of computerized tools; Procurement of mobile devices for real time reporting during outbreaks; Procurement of reagents and other consumable for diagnoses of diseases of public health importance; Provision of lab consumables the VTHs Lab with lab consumables (reagents, diluents, rapid kit test for TB, Brucella, Rabies, etc); Provision of basic lab consumables state veterinary clinic lab to run preliminary test; Procurement of laboratory sample materials; Procurement of cold chain box for sample preservation and shipment; procurement of molecular biology PCR; Procurement of deep freezer; procurement of 1000kva generators; Purchase of PPEs; Provision of basic veterinary stockpiles for emergency situations; Provision of quarantine facilities at the major international borders; Procurement of project vehicles for disease control and surveillance activities; Procurement of computers etc. (In summary procurement of ICT including the establishment of information's systems; reporting tools, GIS, etc.; PPEs, medicines and IPC/medical supplies; RDTs, Lab. Reagents; Recruitment of Local and International case management experts/ Staffing for surveillance, contact tracing, and laboratories; Capacity Building/Training of health workers; and Logistics (e.g., ambulance, vehicles; motor cycles, bicycles; Currier services). Mobile laboratories and Training on social mobilization. Other activities will include Research and Development (R&D). Printing of IECs materials, and minor renovation civil works activities. Pharmaceuticals and vaccines; Medical and veterinary supplies and equipment; Communication equipment, supplies, and public awareness campaigns; Food containers and water containers; Protective clothing and gear. Renovations and minor civil works.

98. **Togo** – Works to be procured under the project include contracts for renovation or rehabilitation or minor works,

99. Goods and non-consulting services to be procured under this project will include contracts for: testing kits and consumables, laboratory equipment, pharmaceuticals and vaccines; office and ICT equipment including the establishment of information's systems; reporting tools, etc.; PPEs, medicines and IPC/medical supplies; RDTs, Lab. Reagents; Logistics (e.g., ambulance, vehicles), mobile laboratories, printing of IECs materials, Medical and veterinary supplies and equipment; Communication equipment, supplies, Renovations and minor civil works equipment may include generators, incinerators, disinfectants, PPE, as well as other items that would be required in the event of a public health emergency. Laboratory equipment maintenance contracts will be signed, inter connection of data.

100. The consulting services under this project are likely to include: Consulting Services to develop basic system to support one health surveillance, consulting services to establish phytosanitary standards, consulting services to develop contingency funds and mechanism for

payments during an outbreak response, hiring of additional staff: Procurement Specialist Assistant, etc.

101. Training, Workshops, Study Tours, and Conferences: Workshops, Seminars and Conferences. Training activities would comprise workshops and training, based on individual needs, as well as group requirements, on-the-job training, and hiring consultants for developing training materials and conducting training. Selection of consultants for training services follows the requirements for selection of consultants above. All training and workshop activities (other than consulting services) would be carried out on the basis of approved Annual Work Plans / Training Plans that would identify the general framework of training activities for the year, including: (i) the type of training or workshop; (ii) the personnel to be trained; (iii) the institutions which would conduct the training and reason for selection of this particular institution; (iv) the justification for the training, how it would lead to effective performance and implementation of the project and or sector; (v) the duration of the proposed training; and (vi) the cost estimate of the training. Report by the trainee(s), including completion certificate/diploma upon completion of training, shall be provided to the Project Coordinator and will be kept as parts of the records, and will be shared with the Bank if required.

102. A detailed training and workshops' plan giving nature of training/workshop, number of trainees/participants, duration, staff months, timing and estimated cost will be submitted to IDA for review and approval prior to initiating the process. The selection methods will derive from the activity requirement, schedule and circumstance. After the training, the beneficiaries will be requested to submit a brief report indicating what skill have been acquired and how these skills will contribute to enhance their performance and contribute to the attainment of the project objective.

103. Operational Costs: Operational costs financed by the Project would be incremental expenses, including office supplies, vehicles operation and maintenance cost, maintenance of equipment, communication costs, rental expenses, utilities expenses, consumables, transport and accommodation, per diem, supervision costs, and salaries of locally contracted support staff. Such services' needs will be procured using the procurement procedures specified in the Project Implementation Manual (PIM) accepted and approved by the Bank.

104. Procurement Manual: Procurement arrangements, roles and responsibilities, methods and requirements for carrying out procurement shall be elaborated in detail in the Procurement Manual which may be a section of the Project Implementation Manual (PIM). The PIM shall be prepared by the Borrowers and agreed with the Bank not later than within three months from the Project effectiveness.

105. The procurement arrangements applicable under the Sub-Component 3.3 "Component for emergency response" shall be described in the Emergency Operation Manual which shall be prepared by the Borrower and agreed with the Bank in due time to ensure that it is in place before occurrence of any potential emergency situation that would require using this sub-component.

106. Procurement methods: The Borrowers will use the procurement methods and market approach in accordance with the Procurement Regulations.

107. Open National Market Approach is a competitive bidding procedure normally used for public procurement in the country of the Borrower and may be used to procure goods, works, or non-consultant services provided it meets the requirements of paragraphs 5.3 to 5.6 of the Procurement Regulations.

108. The thresholds for particular market approaches and procurement methods are indicated in the below table. The thresholds for the Bank's prior review requirements are also provided in the table below:

Table 15: Thresholds*, Procurement Methods, and Prior Review

Note: The thresholds are for all countries unless indicated otherwise for specific items.

No	Expenditure Category	Contract (C) Value Threshold* [eq. USD]	Procurement Method	Contracts Subject to Prior Review /[eq. US$]
1	Works	Guinea-Bissau C ≥ 3,000,000 Liberia and Togo: C ≥ 5,000,000 Nigeria: C ≥ 20,000,000	Open Competition International Market Approach and Direct Contracting	≥ 10,000,000
		Guinea-Bissau 200,000 < C < 3,000,000 Liberia and Togo: 200,000 < C < 5,000,000 Nigeria: 200,000 < C < 20,000,000	Open Competition National Market Approach	None For Nigeria: All contracts at or above USD 10 million are subject to international advertising and the use of the bidding documents agreed with the Bank.
		C ≤ 200,000	RfQ	None
2	Goods, IT and non-consulting services	Guinea-Bissau: C ≥ 300,000 Liberia and Togo: C ≥ 500,000 Nigeria: C ≥ 5,000,000	Open Competition International Market Approach and Direct Contracting	≥ 2,000,000
		Guinea-Bissau: 100,000 < C < 300,000 Liberia and Togo: 100,000 < C < 500,000 Nigeria: 100,000 < C < 5,000,000	Open Competition National Market Approach	None For Nigeria: All contracts at or above USD 10 million are subject to international advertising and the use of the bidding documents agreed with the Bank.
		C ≤ 100,000	RfQ	None
3	National shortlist for selection of consultant firms	Guinea-Bissau: C < 200,000 Liberia and Togo: C < 100,000 Nigeria: C < 300,000	for Consulting Services	None
		Guinea-Bissau and Liberia: C ≤ 200,000 Togo: C ≤ 200,000 Nigeria: C ≤ 500,000	for Engineering and Construction Supervision	None
4	International shortlist for selection of consultant firms	Guinea-Bissau: C ≥ 200,000 Liberia and Togo: C ≥ 100,000 Nigeria:	for Consulting Services	≥ 1,000,000

No	Expenditure Category	Contract (C) Value Threshold* [eq. USD]	Procurement Method	Contracts Subject to Prior Review /[eq. US$]
		C ≥ 300,000		
		Guinea-Bissau and Liberia: C > 200,000 Togo: C > 200,000 Nigeria: C > 500,000	for Engineering and Construction Supervision	≥ 1,000,000
5	Selection of Individual consultants	All Values	All Approaches	≥ 300,000
6	Direct contracting	All Values		As agreed in the Procurement Plan
7	Training, Workshops, Study Tours	All Values	Based on approved Annual Work Plan & Budgets (AWPB)	

*These thresholds are for the purposes of the initial procurement plan for the first 18 months. The thresholds will be revised periodically based on re-assessment of risks. All contracts not subject to prior review will be post-reviewed.

109. **Procurement Risk Rating:** The project procurement risk prior to the mitigation measures is "Substantial". The risk can be reduced to a residual rating of "Moderate" upon consideration of successful implementation of the mitigation measures.

110. The risks and mitigation measures are provided in the table below.

Table 16: Procurement Risk Assessment and Mitigation Action Plan

Nigeria		**Substantial/Moderate**
Federal Ministry of Health, Nigeria Center for Diseases Control (NCDC)		
Weak capacity of NCDC procurement staff on the World Bank Procurement procedures. The procurement unit will need to build more capacity in order to be able to absorb the additional responsibility brought in by REDISSE.	Recruitment of a procurement consultant experienced in World Bank procurement to provide technical support and transfer of skills to government procurement staff during the first 18 months of project implementation. The capacity of the procurement unit of the agency will be enhanced through training and a mentoring mechanism.	FMOH (NCDC) No later than three (3) months after the Effective Date
Weak capacity of the procurement staff in the Health sector on Procurement of Health sector Goods and Commodities	1. The FMoH (NCDC) could contract UN Agencies. 2. Special capacity building will be provided by the Bank on procurement of health sector goods and commodities.	FMoH /WB Immediately and or By after Project effectivenessNegotiations/ and to continue during implementation.
Political interference/Fraud and Corruption	Adherence to the implementation arrangements as pro-vided for in the project Legal Agreement and Project Implementation Manual (PIM) will be enforced. Project launch will be organized before effectiveness to brief all stakeholders on their roles and responsibilities as provided for in the PIM. All supervision missions will monitor and report on adherence to above arrangement. Civil Society capacity will be strengthened to demand for accountability. Annual procurement audit will be carried out.	FMoH /WB Continued during Project implementation.
Security concerns particularly in the North East and the Niger Delta regions	UN Agencies and Locally based NGOs will be hired to provide required support in the affected locations	NCDC Continued during Project implementation.

Procurement Risk	Mitigation measure	Responsibility and Deadline	Risk level Initial/residual
Guinea-Bissau			**Substantial/Moderate**
Lack of leadership on the management of procurement and supply chain for drugs	1. recruitment of a Specialized Manager for the drugs supply chain (GAS) 2. recruitment of a procurement specialist 3. the technical assistance from the UNDP	1 MoH 2 MoH No later than three (3) months after the Effective Date	
lack of strategy for quantification, estimation and planning of procurement and distribution of drugs in the country			
the CG/PNDS has no experienced staff dedicated to procurement	Amend the Manual in order to: 1. introduce more options for bids evaluation; 2. provide methods for consultant selection, 3. agree on complaint resolution mechanism and reflect it in the Manual; and 4. set out the detailed procedures for maintaining and providing readily available access to project procurement records.	MoH No later than three (3) months after the Effective Date	
the bid evaluation of bids for works and goods is based on a scoring system disregard the complexity of the contract			
the methods for the consultant selection are not clearly described in the existing manual			
there is not complaints resolution mechanism			
No external audit is conducted on procurement operations			
Liberia			**Substantial/Moderate**
Ministry of Health, Project Implementation Unit			
Insufficient procurement capacity	PIU of MoH is in the process of recruiting an additional Procurement Officer with adequate qualifications and experience.	MoHSW No later than three (3) months after the Effective Date	
	The International Procurement Specialist currently working under the PIU EERP should also facilitate the procurement under the project	MoHSW During the project implementation	
	The PIU/PMU will apply wherever possible and appropriate the Regional Guidance including simplified template documents in Making Procurement and Financial Management Work for Fragile and Small States in the Pacific,	MoHSW and MoA During the project implementation	

	issued in January 2013 (Modified July 2014).		
The Procurement Procedures Manual has been finalized.	Agree with the Bank on the Finalized Procurement Procedures Manual.	MoHSW No later than three (3) months after the Effective Date	
	The MoH PIU and MoA PMU will also develop a contract management system to ensure that all contracts under the Project are effectively and efficiently managed. This will include the tracking of key contract milestones and performance indicators as well as capturing all procurement and contract records.	MoHSW and MoA During the project implementation	
Ministry of Agriculture, Project Management Unit			
Insufficient procurement capacity	PMU of MoA will recruit a Procurement Specialist with adequate qualifications and experience.	MoA No later than three (3) months after the Effective Date	
	MoA staff involved with project procurement will undertake basic training in the Bank financed procurement in GIMPA, Accra, Ghana.	MoA Within the first 18 months of the Project	
The Procurement Procedures Manual has been finalized.	Agree with the Bank on the Procurement Procedures Manual.	MoA No later than three (3) months after the Effective Date	
Togo			**Substantial/Moderate**
Ministry of Health and Prevention			
Insufficient procurement capacity	1. Recruit a procurement assistant under the procurement specialist who will be devoted to REDISSE	MoH No later than three (3) months after the Effective Date	
The procurement procedures of the current project will be reflected in the existing manual	2. Amend the existing manual in order to introduce procurement arrangement planned for this project	MoH No later than three (3) months after the Effective Date	
Weak capacity of the procurement specialist, the procurement commission, the procurement control commission, the National procurement control directorate in NPF procedures	3. Capacity building will be provided by the Bank on NPF procurement.	MoH and WB During project implementation	
Insufficient stock management	CAMEG will work on improving its supply chain system	CAMEG During project implementation	

Insufficient capacity in preparing technical specifications and TOR	Obtain short term Technical Assistance for drafting of technical specifications when required	MoH and CAMEG During project implementation	

Environmental and Social (including safeguards)

111. The net social impacts and benefits of the project are expected to be positive since it will support the creation of environmentally and socially sound laboratory technologies, surveillance systems and safe and secure mechanisms for disposal of medical all of which will reduce the potential of public health risk.

112. The potential negative impacts of the project relate to the rehabilitation/upgrading of medical and other facilities (waste management and occupational health and safety issues), use of pesticides (indiscriminate and inaccurate usage and poor disposal practices) and medical and animal waste management (haphazard disposal resulting in risk to public health and to the environment). These risks are considered to be moderate and site-specific and can be easily managed through the implementation of an effective and organized system. Therefore, REDISSE II has been classified as a category B operation as per World Bank's Operational Policies. The following policies have been triggered for this project: Environmental Assessment (OP/BP 4.01) and Pest Management (OP 4.09). Each country has prepared and consulted upon a national Healthcare Waste Management Plan (HCWMP), an Integrated Pest and Vector Management Plan (IPVMP), and an Environmental and Social Management Framework (ESMF). The documents detail the potential risks of each activity, define mitigation measure, provide a budget for implementation, define institutional arrangements, outlining the roles and responsibilities for the various stakeholder groups and describe implementation arrangements for monitoring and supervision.

113. Site-specific Environmental and Social Management Plans (ESMPs) and/or Waste Management Plans will examine the existing and potential environmental and social risks and impacts associated with the proposed project activities, including animal waste management. These will be prepared, consulted and disclosed prior to start of civil works. Likewise, the HCWMPs provide specific guidelines as to how to properly handle medical waste, from collection, transportation, storage and disposal.

114. The environmental safeguards instruments will greatly build on the previous instruments developed for the ongoing WB funded operations in the participating countries, as well as on the lessons learned and missed opportunities from experience in implementing the instruments.

115. The three documents have been consulted with key stakeholders and have been disclosed in-country, at WAHO's website, and at the InfoShop. Site-specific plans for waste management will be prepared.

116. The project activities will be undertaken within existing government owned facilities on government-owned land. Therefore, it is not expected that the project will involve land acquisition leading to involuntary resettlement or restriction of access to resources or sources of livelihoods of populations. Therefore, OP 4.12 (Involuntary Resettlement) was not triggered for this project, and the project will not finance activities that would trigger the policy.

PUBLIC CONSULTATION AND PARTICIPATION AND CITIZEN ENGAGEMENT

117. Design and preparation of REDISSE II have been grounded in an inclusive public consultation and participation style. A series of meetings has been held in Dakar (December, 2015 and March 2016) and in each individual country (January 2016) that offered a platform for open discussions and experience gathering to better frame the design and preparation of REDISSE program. Reliance on ECOWAS as the regional entity to coordinate the program, especially through one of its branches (WAHO), adds a plausible weight in the consultative and inclusive coordination approach REDISSE I is built on.

118. The preparation of the safeguards instruments was done in a consultative and participatory manner which were disclosed in-country to ensure broad public engagement (considerate of women, youth, elderly, disabled and vulnerable groups) through ownership and social accountability mechanism that altogether are foreseen to foster a sustainable development path. Since consultation and participation is an iterative process, the same trend will be maintained throughout the lifecycle of REDISSE.

IMPLEMENTATION ARRANGEMENT FOR SOCIAL AND ENVIRONMENTAL (INCLUDING SAFEGUARDS)

119. To ensure adequate and timely implementation of safeguards measures in the related safeguards instruments and project appraisal documents, including legal ones, A safeguards unit within the regional implementing Agency (ECOWAS-WAHO) will be created with experienced Social and Environmental Focal Points (SESFPs). The Social Safeguards Specialist will be responsible for social assessment and development – including gender, youth, and vulnerable groups aspects of the project; the Environmental Safeguards Specialist will be responsible for environmental safeguards and natural resources management—including climate change aspects of the project. Likewise, the same set up will be formed in each recipient country to implement the Safeguards documents, monitor and report on environmental and social activities in their respective national projects. The WAHO and National SESFPs will work in close tandem with the World Bank Safeguards Specialists, to ensure building of technical capacity and satisfactory implementation of environmental and social requirements as defined in the Safeguards documents. Likewise, WAHO-SESFPs will work with national- SESFPs to prepare and share with World Bank safeguards specialists' periodic reports (to be clarified in the project implementation manual) on the status of safeguards implementation and monitoring. Together, the team will agree on core recommendations to be implemented after each supervision/implementation support mission to ensure compliance with legal documents.

120. The respective Borrowers have individually and collectively benefited from other (past and ongoing) IDA projects which provided/are providing relatively sufficient capacity for understanding and applying safeguard policies. In addition, borrowing countries have adequate institutional and legal frameworks that are expected to ensure satisfactory compliance with World Bank operational safeguard policies. The same is true for ECOWAS/WAHO the regional implementing agency that has also gained sufficient experience in handling WB financed operation in the past, and is therefore sufficiently prepared to handle this new operation. Moreover, the WB's involvement in the health sector has been significant and the clients have over time shown relatively sufficient capacity and goodwill in implementing World Bank funded projects. Nonetheless, in aiming at complying with the legal framework and boosting the program's overall performance on safeguards and gender aspects, additional technical capacity building will be required for WAHO and each individual participating country institutions, including the respective national environmental (and social) agencies.

Monitoring and Evaluation

121. A set of indicators to be monitored and documented to assess performance and progress toward meeting the project objectives are described in the Results Framework (RF) in Section VII. There is an overall RF to measure regional progress and country-specific RFs with customized annual targets. Results will be reported annually in the Implementation Status Reports (ISRs). WAHO M&E specialists will lead the monitoring and evaluation of the project implementation. As noted in Section VII, most indicators rely on existing international tools for evaluating IHR and OIE compliance and progress (the JEE tool and OIE PVS evaluation tool respectively) to minimize the burden of data collection on countries. Data sources also may vary by country, and WAHO will establish a mechanism for ensuring the quality of the data.

122. The project will support the strengthening of national health information systems to collect and report quality data. Monitoring and Evaluation will be undertaken at the national level by the four participating countries and aggregated at the regional level by WAHO. The countries will be responsible for conducting annual self-assessments using the JEE and OIE PVS tools, and the JEE will be carried out by external experts biennially to validate the quality of the data and findings from the national self-assessments. In principle, OIE PVS external evaluations would be carried out shortly prior to the JEE to streamline findings into the JEE. WAHO will coordinate the M&E function for the project as a whole, based on an M&E manual detailing the requirements for all countries and at the regional level. This will be harmonized with the project implementation manuals (PIM) for all implementing agencies which are expected to be ready within three months of project effectiveness. WAHO will also implement data collection for specific indicators of regional level activities, and will ensure that all participating countries provide data and information of the required quality on time. WAHO will also provide technical backstopping in M&E to participating countries and encourage cross-country learning. At the national level, the PCUs of the four participating countries would be responsible for collecting and compiling all national level data, with the assistance of external partners through external evaluations, including the US CDC and WHO for the human health sector, and OIE for the animal health sector.

123. M&E in REDISSE II has been developed as: (i) a tool for results-based management, to ensure that data and information on the project's progress—or lack of progress—toward the outcomes under the PDO feed into management and that corrective measures can be taken in time if necessary; (ii) a framework for accountability for progress toward national and regional development objectives attributable to interventions and actions of the regional institution WAHO (alongside with RAHC) and national governments implementing REDISSE II; (iii) an approach to monitor performance of participating countries in REDISSE II to ensure a certain level of regional performance and more or less even contributions from the four countries to regional objectives; and (iv) a platform for communicating the project's results. M&E is also designed to meet the World Bank's routine reporting requirements (specifically, the six-monthly progress report, Implementation Status and Results (ISR) report, which is developed for each country and publicly disclosed), and data and information requirements for the mid-term review.

124. Context and Capacity. Government capacity in the four countries to plan, execute, monitor, and evaluate projects can often be weak. Signs of weak capacity include (but are not limited to) incomplete datasets, field-level data that are not validated, missing information, inconsistent reporting, and the delivery of data and information that are never subsequently reported or used in making decisions or formulating policy.

125. Design of Results Framework. The cross-sectoral aspects and weak capacity have been taken into account in designing the M&E framework for REDISSE I, especially with regard to the number and selection of indicators, the data sources, and the methodologies used to collect data. The main instrument for M&E in the REDISSE II is the Results Framework (SECTION II), which is common to all of the REDISSE II countries and will be reported in the ISRs. It consists of the PDO statement and 6 (six) PDO indicators and 9 (nine) intermediate indicators. Core indicators of the World Bank are included too, such as the core indicator on direct project beneficiaries and healthcare worker trainings.

126. Some indicators are disaggregated by national and regional level and by sex (to calculate percentage of female) for the core indicator on direct project beneficiaries. Where possible, indicators have baselines and targets listed, as well as the frequency for data collection, the data sources, the methodology for calculating baseline and progress values, and responsibilities for data collection. Baselines are proposed as REDISSE II activities with progressive targets being established after determining these baseline values. Sources of data can vary by country, and data quality assurance mechanism will be put in place with WAHO. For some countries, baselines for indicators will be derived as part of project activities to be verified during the first year of data collection. Section VII of the PAD "Results Framework and Monitoring" presents details on the aspects of the indicators discussed here.

127. Recognizing that REDISSE program directly complements other existing global disease surveillance and response initiatives such as GHSA in West Africa, efforts have been made to harmonize with existing indicators. This would reduce the data collection burden on participating countries as well as enable comparable data to monitor baselines and progress towards achieving common objectives. In February 2016, WHO released the IHR Joint External Evaluation Tool

(JEE)[39] that was developed with input from the GHSA. This tool is intended to measure progress towards fulfilling IHR obligations through transparent assessments by a team of national experts and an external team. As REDISSE I will help countries fulfill the IHR (2005), REDISSE program indicators were developed to coordinate with these other initiatives to the extent possible. Similarly, as the interventions in the animal health sector aim at improving the quality of Veterinary Services towards compliance with OIE international standards, and were designed in accordance with recommendations of PVS Pathway missions, measurement of progress would be done through the use of the OIE PVS qualitative evaluation tool.[40]

128. Monitoring & Evaluation Arrangements. Monitoring and Evaluation will be undertaken at two levels for REDISSE II: (i) at the regional level by WAHO (and RAHC) and (ii) by the four participating countries in conjunction with external partners such as WHO, CDC, and OIE. WAHO has overall responsibility for coordinating the M&E function of REDISSE II and will ensure that data and information from all countries are produced on time and are of sufficient quality. The Results Framework indicates whether the designated M&E units in the four countries have the delegated responsibility to collect data on REDISSE II indicators or whether that responsibility rests with WAHO. WAHO will provide overall coordination for the M&E function based on one M&E manual describing the requirements for all countries and the regional level. WAHO will design and implement data collection efforts that are best done at the regional level, and it will provide technical backstopping on M&E to the participating countries, put a data quality assurance mechanism in place, collect data on its own, and encourage cross-country learning. Annex 1 presents an overview of the various data collection activities and data sources, including responsibilities for data collection and coordination.

129. Monitoring and Evaluation Activities. Monitoring and Evaluation activities for REDISSE II will: (i) generate information on the project's progress; (ii) analyze and aggregate data generated at the regional, national, and local levels; and (iii) document and disseminate key lessons to users and stakeholders across ECOWAS countries together with the communication function of REDISSE II. REDISSE II will receive evaluation and progress reports from all of the countries and will be able to share results and best practices across ECOWAS. The project-level M&E will draw on and strengthen national and regional systems to monitor results and needs across beneficiary countries, consistent with the ECOWAS mandate. The project will put special emphasis on mapping project interventions and results through geocoding of activities and overlay with key development indicators. This information will be accessible through platforms along the lines of the Mapping for Results initiative.

130. Planning for Monitoring & Evaluation Use. The implementation of the M&E framework will be tracked during implementation, and will be a central part of project supervision. The opportunity of the mid-term review will be used to also assess some fundamental M&E design

[39] http://apps.who.int/iris/handle/10665/204368
[40] All beneficiary countries of REDISSE having undergone at least one evaluation, such evaluation could serve as baseline, or be refreshed at the onset of the project to provide a better accuracy if some significant changes occurred; an external OIE evaluation would be realized also at the closing of the project and intermediate self-evaluation could be carried out at mid-term.

issues, and make adjustments accordingly. There will be a strong results-orientation during supervision, with adequate attention devoted to progress with data collection, data quality and the actual use of data in tracking project implementation.

131. Annual review meetings, organized under the auspices of WAHO would provide a forum for sharing implementation experiences, proposing recommendations on programmatic changes, and generating additional demands for information and analysis. The opportunity of the Mid Term Review will be used proactively to: (i) assess progress to date and continued relevance/realism of the targets; (ii) review the experience with definition of indicators, data collection systems, analysis, and other methodological aspects.

Role of Partners

132. In the area of animal health, two international (OIE and FAO) and one regional (AU-IBAR) organizations would be expected to provide support at regional (RAHC) and national levels (ECOWAS participating countries).

133. These institutions have their specific role, mandate and comparative advantages and have established collaborative arrangements, in particular since the last HPAI crises.

(i) The OIE is the World Organization for Animal Health (its historic acronym has been maintained). The organization was created in 1924 (before the UN). It is ruled by an International Agreement to which 180 member countries have subscribed. Representatives from member countries are designated by their government and they are in general those responsible for the national Veterinary Services in charge of preparing and implementing national policies and legislation for the control of animal diseases, including those transmissible to humans. The main mandates of the OIE are (i) to ensure transparency in the global animal disease situation; (ii) to collect, analyze and disseminate veterinary scientific information; (iii) to encourage international solidarity in the control of animal diseases; (iv) to safeguard world trade by publishing health standards for international trade in animals and animal products; (v) to improve the legal framework and resources of national Veterinary Services; and (vi) to provide a better guarantee of food of animal origin and to promote animal welfare through a science-based approach. OIE standards are recognized as reference on animal diseases and zoonoses by the WTO/SPS agreement. The OIE manages five permanent regional representations and eight sub-regional offices. The OIE has established official collaborations with the World Bank (see below), WHO (GLEWS together with FAO), FAO (GF-TADs; OFFLU; GLEWS), and many other public and private organizations.

(ii) The Animal Health Service of the Food and Agriculture Organization (FAO-AGAH). Animal health (AH) issues (highly contagious trans-boundary animal diseases, veterinary public health, emerging vector-borne diseases and Veterinary Services organization) are the responsibilities of the AH Service (AGAH) of the Animal Production and Health Division (AGA). AGAH is managed by the Chief Veterinary

Officer (CVO) of the FAO and regroups a multi-disciplinary team of specialists (epidemiology, microbiology, laboratory activities, parasitology, and ecology of tick-borne and insect-borne diseases). Using the complementarities of other services of AGA, AGAH addresses the problems of AH with a holistic approach (socio-economic, livestock policy and institutions, interaction between farming systems and the environment, and AH). The EMPRES (Emergency and Prevention Systems) program focuses on the early detection of TADs. Information systems and disease intelligence are key activities for surveillance, risk assessments, forecast, and preparation of strategic control programs. ECTAD (the Emergency Center for TADs) is a centralized structure, designed to insure a central chain of command with regards to strategies for the prevention and control of TADs. ECTAD is under the leadership of the FAO CVO, and regroups the various experts working on animal health, animal production, livestock policy, modeling, GIS, and communication, as well as administrative and financial matters.

(iii) The African-Union InterAfrican Bureau for Animal Resources (AU-IBAR) mission is to provide leadership in the development of animal resources for Africa through supporting and empowering AU Member States and Regional Economic Communities. Its mandate is to support and coordinate the utilization of animals (livestock, fisheries and wildlife) as a resource for human wellbeing in the Member States of the African Union and to contribute to economic development. The specific areas of the mandate are to: improve public and animal health through the control and possible eradication of transboundary animal diseases and zoonoses; improve the management of animal resources and the natural resource bases on which they depend; explore investment options and enhance competitiveness of African animal products; contribute to the development of relevant standards and regulations and enhance compliance by Member States; strengthen institutional capacity and support policy development and harmonization; disseminate information and knowledge on animal resources to Member States, Regional Economic Communities and other relevant institutions; and provide essential support to Member States with special needs or in emergency situations.

(iv) The Regional Animal Health Centre (RAHC) for West and Central Africa was set up in Bamako in 2006 as an informal platform under the OIE coordination, as a joint initiative of the FAO and the OIE, later joined by AU-IBAR, originally to meet the need for coordination of avian influenza control. In accordance with its new status, the RAHC is under the authority of ECOWAS. It will be a legal entity in its own right and enjoy functional autonomy based on an annual budget provided by the REC (covering at least its “sovereign” expenses), while its staff will be governed by the staff regulations of ECOWAS.

134. Development partner engagement is extensive in the sub-region and in each of the four project countries, reflecting the widening recognition that disease surveillance, preparation, detection, and response is a critical element of the development challenge and one which touches

upon nearly all of the seventeen Sustainable Development Goals. Beyond good health, disease prevention and containment affects SDG targets in reducing poverty, hunger, inequality, among others. Given the breadth of the potential participants which provide technical know-how and funding with respect to human and zoonotic diseases, and to eco-system mediation, the responsibility for coordinating and efficiently guiding the many participants must be done by the countries themselves and WAHO. As was done in developing this project and will be the case in going forward with its implementation, the World Bank will be active in contributing to the common effort in each country, and with WAHO for the sub-region.

135. That said, at global level and in the formation of normative policies, the World Health Organization, the World Organization for Animal Health, as well as the Food and Agriculture Organization will each provide the normative guidance and frameworks for action in their respective areas of concentration, engaging various UN agencies, multilateral and bilateral technical providers, academic and research universities and institutions, NGOs, and the private sector, in terms of coordination and in forming coalitions. Major contributing bilateral and non-governmental partners for technical support and financing include the U.S. Centers for Disease Control, the China Centers for Disease Control, Canadian Government support from its Department of Foreign Affairs, the Bill and Melinda Gates Foundation, as well as national country members of the Global Health Security Agenda (GHSA) of which USAID's Emerging Pandemic Threats 2 Program is a part.

136. At sub-regional and country level, each has its own various coordinating and collaborating partners which will be drawn on as the program evolves, and brought together by the national steering committees. The intention is for transparency of effort and dissemination of results on a regular basis in order to assure that the relevant entities are aware of and assess progress in carrying out project objectives.

137. During the past few years, OIE and FAO in particular, have reinforced their collaboration through a MoU based on their complementarities and have: (i) developed a global framework for transboundary diseases (GF-TADs), (ii) co-organized a number of international and regional events, (iii) co- published several articles, (iv) issued common resolutions and recommendations, as well as (v) conducted joint technical and scientific field missions. It is important to note that their collaboration went well beyond the emergency response to the HPAI crisis, but paved the way for a future strengthened animal health system needed for the prevention and control of emerging and re-emerging global diseases of animal origin. In addition, the OIE and FAO have reinforced their collaboration with WHO to form the “Tripartite” to better address threats at the animal-human-ecosystem interface. The RAHC, which was set up in Bamako in 2006, is now under ECOWAS and collaborates with the three AH institutions. The strengthening of the RAHC should reinforce the collaboration of the OIE, FAO and AU-IBAR in support to the ECOWAS countries.

138. At National level,

- OIE activities include: AH Standards and Guidelines development and implementation (trainings of Delegates and focal points) ; Trade Issues/SPS; National Official Data Collection and Dissemination; Certification; OIE AH Information system; Performance of Veterinary Services assessment and PVS Gap Analysis; veterinary legislation upgrading; Laboratory network optimization; twinning between diagnostic laboratories and Veterinary education establishments);

- AGAH activities include: Surveillance and Epidemiological Analysis; Contingency Planning, Strategy Development and Emergency Preparedness; Good Emergency Management Practices; Comprehensive Livestock Sector Development: production, health and policy; Improvement of National AH Services and Delivery; and Laboratories (support, targeted research and epidemiological surveys, technology transfer);

- Both OIE and AGAH are involved in: Capacity Building; Global Early Warning System; and Coordinated Response to Emergencies.

139. While countries participating in the project will ultimately decide when and how to engage with those three organizations in support to their respective national project activities, the OIE will play a critical role at regional level in supporting the strengthening of the RAHC as well as the implementation of the regional project animal health activities.

140. At Regional level, these activities could include:

(i) Coordination

a. M&E of national animal health activities;
b. Use and extension of the coordination/consultation mechanism established by PRAPS;
c. Harmonization of national animal health surveillance strategies and mechanisms;
d. Shared information among national Veterinary Services regarding country animal health status;
e. Strategic thinking on transversal themes of regional interest (legislation; regional control bodies; borders control; database; etc.).

(ii) Technical Support

a. Technical assistance to participating countries upon their request on designing and/or revising national surveillance and emergency plans;
b. Facilitate collaborative process to establish bridges between IHR and PVS;
c. Develop national and regional epidemiological database and facilitate sharing of information among participating countries, linked with the World Animal Health Information System (WAHIS) of OIE;

d. Develop manuals and technical guides on good practices in epidemic surveillance;
e. Support to the management (previously funded by the FAO/ECTAD project) of the epidemiological surveillance network (RESEPI) and diagnostic laboratories network (RESOLAB), whose activities in West Africa are now associated with the RAHC.

(iii) Training

a. Design and conduct a program of continuous and specific training located at RAHC/CRSA especially designed for Veterinary services and Laboratories staff (epidemic surveillance; early detection; diagnostic methods, etc.);
b. Conduct a specific training program for the OIE Delegates and national focal points directly concerned by the Project (reporting; laboratories; wildlife; communication);
c. Support national training program (design and/or revision of national training program; design of training curricula; manuals; etc.).

ANNEX 3: IMPLEMENTATION SUPPORT PLAN

COUNTRY: Western Africa
Regional Disease Surveillance Systems Enhancement (REDISSE) Phase II

Strategy and Approach for Implementation Support

1. The implementation support plan (ISP) for the project has been developed based on the specific nature of the project activities, lessons learned from past operations in the region, countries and sectors, and the project's risk profile as described in this PAD. The ISP will be reviewed regularly and revised as and when required.

2. The implementation support plan includes regular, thorough reviews of implementation performance and progress to be carried out by a team of WB specialists with the project implementing agencies (three participating countries) and with the key supporting agency (WAHO). In addition to these formal implementation support missions and field visits, which will be carried out at least semi-annually given project urgency and complexity, special workshops will be held at key decision points in the project. Midway during the project, the WB team will hold a Mid-term review mission to take stock of project implementation and to take any corrective actions, as necessary. The MTR is expected to take place in March 2020. In advance of the mission the implementing agencies, under the coordination of WAHO and the Regional Steering Committee, will prepare and send to the WB a report summarizing project progress, highlighting any particular issues that require special attention. At the end of the project, the WB team will prepare an Implementation Completion Report (ICR) which will summarize achievements made under the project. This report will also include an assessment of the project by the project implementing agencies. This process will also be guided and coordinated by WAHO.

Implementation Support Plan and Resource Requirements

3. The WB team will monitor progress on several fronts including: (i) key performance indicators as identified in the Results Framework; (ii) project components; (iii) compliance with key legal conditions and covenants; (iv) progress made against the project implementation plan and the procurement plan; (v) whether estimated project costs are sufficient to cover planned activities and whether reallocations of the Credit funds are required; (vi) compliance with the WB's financial management and disbursement provisions; and (vii) compliance with environmental and social safeguards. In addition, the World Bank will also review the findings and results of third party assessments, community-based monitoring, and social audits which will be undertaken during the course of project implementation. The WB team will also closely monitor the completion of the baseline, mid-term and end-term quantitative surveys that will be used to evaluate the impact of key activities supported by the project, including user-satisfaction assessments.

4. In addition to monitoring project progress, the WB team will work closely with all implementing agencies and with WAHO to provide technical support as needed. The implementation support team will include public health specialists (including disease surveillance, and laboratory specialists), animal health specialists, commodity procurement and management specialists, specialists on social mobilization/advocacy, specialists with experience in implementation of training programs, M&E specialists, and operations staff that will provide necessary just-in-time advice and support. The WB procurement specialist will carry out annual ex-post review of procurement that falls below the prior review thresholds and will have separate focused missions depending on the procurement needs that arise. The WB financial management specialist will review all financial management reports and audits and take necessary follow-up actions as per WB procedures. The Bank team members will also help identify capacity building needs to ensure successful project implementation.

5. Given the complexity of the project (4 countries and multisectoral interventions), the Bank team will have a meeting every two months with the WB colleagues based in the field and those working in education and social protection (as well as gender and governance if needed).

6. The specific support in implementation during the project period is outlined below:

		Skills Needed	Total Staff weeks	Number of trips
	Overall coordination	Task Team Leaders (TTLs)	36	
Year 1				
	Project launch	**Task team: total** TTL – health specialists Animal health specialists Commodity specialists Social/mobilization specialists Training programs specialists Monitoring and Evaluation specialists Operations Officers FM specialists Procurement specialists	9	1 for each specialist listed
	Regular implementation support mission	**Task team: total** TTL – health specialists Animal health specialists Commodity specialists Social/mobilization specialists Training programs specialists Monitoring and Evaluation specialists Operations Officers FM specialists Procurement specialists Consultants on specialized issues	12	1 for each specialist listed

	Regular implementation support mission	**Task team: total** TTL – health specialists Animal health specialists Commodity specialists Social/mobilization specialists Training programs specialists Monitoring and Evaluation specialists Operations Officers FM specialists Procurement specialists Consultants on specialized issues	12	1 for each specialist listed
Years 2-5				
	Bi-annual implementation support missions (technical and fiduciary reviews)	**Task team: total** TTL – health specialists Animal health specialists Commodity specialists Social/mobilization specialists Training programs specialists Monitoring and Evaluation specialists Operations Officers FM specialists Procurement specialists Consultants on specialized issues	8*12=96	1 for each specialist listed
	Special workshops (as required)	Specialists (as required)		1 for each specialist
	Mid-Term Review March 2020	**Task team: total** TTL – health specialists Animal health specialists Commodity specialists Social/mobilization specialists Training programs specialists Monitoring and Evaluation specialists Operations Officers FM specialists Procurement specialists Consultants on specialized issues	18	1 for each specialist listed
	Implementation Completion Review Mission June 2023 ICR preparation	**Task team: total** TTL – health specialists Animal health specialists Monitoring and Evaluation Specialists Operations Officers ICR Authors	18	1 for each specialist listed

ANNEX 4A: Economic and Financial Analysis

COUNTRY: Western Africa
Regional Disease Surveillance Systems Enhancement (REDISSE) Phase II

1. **There is a strong economic case for investing in integrated disease surveillance and response systems.** Preventing and controlling zoonotic disease outbreaks yields large economic benefits by reducing the threats of epidemics and pandemics. Such benefits of disease surveillance and prompt effective control go well beyond the health benefits of reducing the number of infections, reducing mortality and morbidity, and avoiding increases in health care costs. Disease outbreaks affect economic activity by decreasing demand (in response to reduced consumer and business confidence, which can substantially and abruptly reduce spending; exports may fall due to disruptions in logistics) and reducing supply (labor absenteeism and disruptions of supply chains will reduce production in agriculture and other sectors; some businesses will close altogether). The impacts of contagion will be to reduce productivity of both labor and capital, which are the major components of growth (UNDP, 2014). The estimated forgone output due to the latest Ebola epidemics in Guinea, Liberia and Sierra Leone was staggering -- over 12 percent of the countries' combined output. The vast majority of these costs were not directly due to illness and death of workers or to increased healthcare costs; the negative impact was in all economic sectors. The regional loss of output due to slower growth rate was estimated to be US$7.35 billion in 2014 (World Bank, 2014). Globally, the economic impacts of a severe pandemic have been estimated at 4.8 percent of the global gross domestic product (GDP), which is now equivalent to nearly $4 trillion (using 2013 GDP) (Jonas, 2014). Considering that the estimates of the required investments to build a well-functioning global disease surveillance system and response are relatively modest, the expected returns on investment of avoiding such large losses are very high – as high as 123 percent annually (World Bank, 2012). This is far above the expected rates of return on nearly all other public and private investments.

2. **By strengthening cross-sectoral and inter-country capacity for integrated disease surveillance and response, the REDISSE project will enhance the ECOWAS member states' capacity to rapidly detect and respond to public health threats of national and international concern.** Ultimately, the project will contribute towards significantly reducing the burden of diseases, particularly among poor and vulnerable populations, mitigating the public health and economic risks posed by infectious diseases in humans and animals, and decreasing the threats of future disease outbreaks. These impacts will improve economic security in ECOWAS member states, resulting in stronger growth and development prospects. In addition, the project will enable a contribution by the ECOWAS member states to a global public good of increased global health security. On a global scale, the creation of a regional network in West Africa will serve to harness the power of other regional networks to improve regional and global cooperation of the ECOWAS member countries for the attainment of better population health outcomes and to promote global health security.

RATIONALE FOR PUBLIC SECTOR PROVISION/FINANCING, IF APPLICABLE

3. **There are three primary rationales for a publicly-provided regional approach to disease surveillance and response network in West Africa.** The first is simply the overwhelming economic burden that infectious diseases, individually and collectively, place on the region, constraining regional and national economic development. Communicable diseases decrease productivity, undermine the human resource base and deter foreign investment in Africa. For example, tuberculosis (TB) causes approximately US$12 billion in annual losses to the global economy. TB patients lose an average of 3-4 months of work time annually with lost earnings amounting to between 20-30 percent of household income (Fonkwo, 2008). It has been shown that malaria inhibits economic growth by 1.3 percent per year in malaria-endemic countries (Gallup and Sachs, 2000). The impact of AIDS on the economic growth is estimated to be 1.5 percent per year; which means that over 25 years their economies would be 31 percent smaller than otherwise expected. Infectious diseases, particularly those that cause epidemics, continue to make costly disruptions to trade and commerce in every region of the world. Under conservative assumptions, the expected annual economic losses due to pandemics are high, at least, US$60 billion (GHRF, 2016). The economic impact associated with outbreaks of HPAI H5N1 between 2003 and 2006 resulted in nearly 2 percent loss of the regional East Asia GDP (IOM, 2009). In an interconnected world, a pathogen from a remote village can reach major cities in any continent in 36 hours (Jonas, 2013). On the animal health side, the OIE estimates that around 10 percent of animal production is lost through diseases in countries with poor performing Veterinary Services; most of these diseases could be prevented and/or controlled in a highly cost-efficient manner.

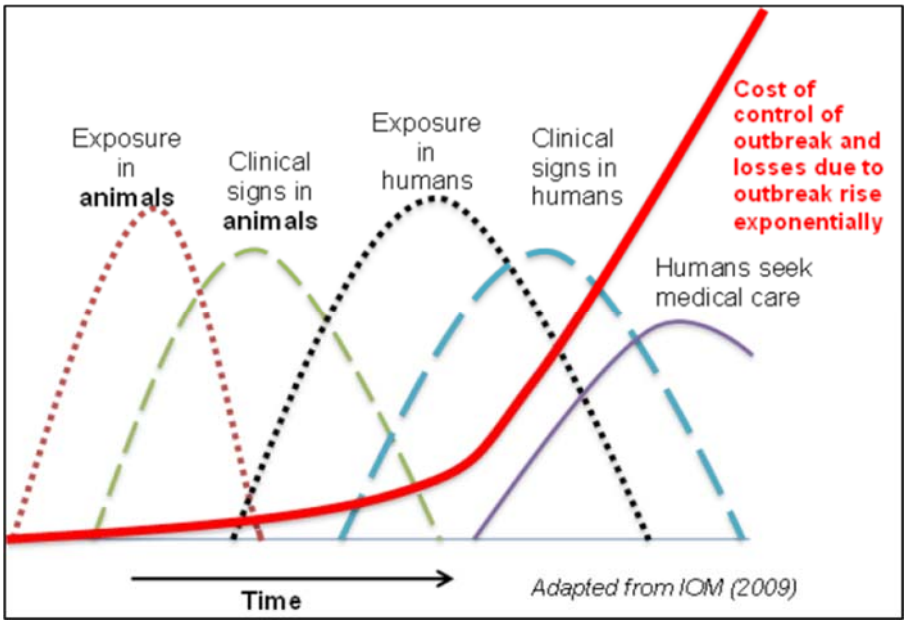
4. **The second rationale rests on the status of a disease surveillance system as a global public good, which is both non-rival and non-exclusive.** The benefit from preventing the spread of infectious disease is spread across individuals and countries, but there is no practical way to restrict the benefits to those who pay for maintaining it (non-excludable). Additionally, the consumption by one person does not reduce the availability to others, within or across nations (non-rivalrous) (Jonas, 2013; WHO, 2005). The benefits of a surveillance and response system go beyond national borders since an undetected, or uncontrolled outbreak is more likely to spread to other countries (WHO, 2005). These benefits accrue to all countries and thus describe a 'pure' global public good. A defining characteristic of a global public good is that there is no practical way to make those who benefit from it to pay ('free-rider' problem). For that reason, surveillance and response to infectious diseases have to be funded collectively, by agreement among some or all of the beneficiaries. In particular, they have to be funded by governments rather than by individuals (WHO, 2005). Finally, there are also externalities that justify the public financing of disease surveillance and response system. For instance, the risk of disease outbreaks discourages foreign investment not only because the country's economic prospects are reduced by disease threats but also because investors have to bear the additional costs of protecting their workforce; for instance, they need to plan for evacuations of expatriates and their families. Unmitigated risks of zoonotic diseases will tend to limit countries' capacity to trade livestock internationally. Reducing this risk will not only promote trade but also result in poverty alleviation, for two reasons: Firstly, the burden of infectious diseases affects the poor disproportionally; secondly, livestock is often the most important asset of poor households in West Africa and other regions.

Because the poor depend on livestock for a relatively large share of household income, animal diseases inexorably reduce their welfare and increase their vulnerability (Jonas, 2013).

5. **The third rationale is based on the sharing of resources to enhance efficiency.** Examples of resurgent polio, meningitis, cholera and yellow fever in West African countries that were thought to have eliminated or controlled them demonstrate the need for a coordinated regional response. Pooled procurement and management of other commodities or services, such as long-lasting insecticidal bed nets or TB treatments, could result in financial savings due to economies of scale. Costly high-level resources, such as level 3 reference laboratories, specialized research institutions, and advanced training facilities may efficiently serve the needs of more than one country. It would be wasteful and duplicative to establish these resources in every country, particularly when the critical mass of highly trained personnel and the volume of services are considered. There are also cost savings realizable through the implementation of the One Health approach. The World Bank estimates that the total cost savings are 10 percent to 15 percent of the system's total cost, depending on the prevalence of diseases (World Bank, 2012).

6. **Delays between the onset of the epidemic and the implementation of control measures are costly.** Too often detection, diagnosis, and control of disease outbreaks are attempted only with delay and after many humans are infected. When contagion grows exponentially, the cost of controlling the epidemic outbreaks rise in tandem. Whereas the recent EVD outbreak could have been controlled for less than US$200 million in April 2014, according to UN estimates, by Fall 2014, this cost had already risen to US$4 billion. When public veterinary authorities are not prepared and equipped to control outbreaks, or to detect them in the first place, delays in control and eradication are likely. Furthermore, when outbreak control fails, prevention of an epidemic becomes more challenging and costlier as contagion spreads, and eventually becomes impossible. Mitigation of the epidemic then remains the only policy option. Delays in detection and control are ultimately very costly because contagion and mitigation costs grow exponentially (Figure 8).

Figure 8: Early Control of zoonotic diseases is cost-effective and prevents human diseases



Source: Jonas, 2013; p.5.

COST-BENEFIT ANALYSIS

7. **The economic analysis will determine whether the expected benefits of the project justify the expected costs.** The main challenge in economic evaluations of multi-intervention projects is to combine all possible outcomes into a single, composite, measure of effectiveness (or benefits). To overcome this challenge, cost-benefit analysis (CBA) is used. In CBA costs and outcomes are valued in a commensurate unit, often money. It allows a direct comparison of costs and benefits of the project, the costs and benefits of alternatives use of the project resources (economic costs) and compares costs and benefits of interventions beyond the health sector.

8. **The REDISSE program aims to address systemic weaknesses within the animal and human health sector that hinder effective disease surveillance and response.** This objective will be achieved by: (i) strengthening the capacity of selected ECOWAS member countries to fulfill their obligations under the WHO IHR (2005) and the OIE Terrestrial Animal Health Code; (ii) reinforcing sustainable and effective regional collaboration and collective action to detect and respond promptly to priority infectious diseases threats in West Africa including zoonotic diseases; and (iii) establishing an efficient linkage of country health systems to a regional disease surveillance and response network. The project will contribute to reducing the burden of diseases particularly among the poor and vulnerable populations, mitigate the public health and economic risks posed by infectious diseases in humans and animals, and diminish the threats of future disease outbreaks and, consequently, promote global health security.

9. **The economic analysis of the REDISSE program examines the economic rationale for investing in disease surveillance and response in West Africa.** The analysis identifies potential benefits of the project's components and activities, quantifies them into monetary units and compares with project costs through a CBA. The analysis also includes an appraisal of the potential to leverage financial contributions from national governments and the international community to sustain the project's interventions in the long run.

10. **Assessments of disease surveillance and response systems have mostly focused on the economic returns of avoiding pandemics** (World Bank, 2012; IOM, 2009). These assessments focus on the general impacts of a pandemic on economic activity, labor, and productivity. While these certainly are the main mechanism by which pandemics affect the economy, models tend to generalize by using a high level of aggregation that makes it difficult to address more specific questions (Rich et al., 2005). The modeling approach depends on the balance between data availability and model sophistication. This analysis adopts a comprehensive perspective by modeling the health and economic impacts of reducing the likelihood of disease outbreaks (and pandemics) in West Africa due to the implementation of the REDISSE project. The benefit-cost ratio is given by:

$$CBA = \frac{B_{REDISSE}}{C_{REDISSE}} = \frac{\sum(B_h + B_e)}{C_{REDISSE}} \quad (1)$$

11. Where, B_h is the total health-related benefits of the project (associated costs of avoided mortality and morbidity) and B_e represents the total economic losses avoided for preventing pandemics. Health benefits are associated with fifteen diseases of epidemic potential identified, and economic benefits are measured by the impact on the different economic sectors. Therefore:

$$B_{h_{i,j}} = \sum(B_{hmort_{i,i}} + B_{hmorb_{i,j}}) \quad (2)$$

12. Where $B_{h_{i,j}}$ is the health related benefits resulting from preventing disease *i* in country *j*. As defined above, this can result from reduced mortality and morbidity. The economic benefits are given by:

$$B_e = \sum(B_{e_{t,j}}) \quad (3)$$

13. Where $B_{e_{t,j}}$ is the economic benefits resulting from preventing a pandemic in the economic sector *t* in country *j*. The economic sectors are agriculture, transport, manufacturing, and services (including tourism).

Human Diseases of Epidemic Potential

14. **The first step is to estimate the risks of disease outbreaks in West Africa.** A previous analysis reviewed global databases such as the WHO's *Disease Outbreak News,* ProMED-mail, HealthMap, and the Global Public Health Intelligence Network to compile a list of validated disease outbreaks (Chan et al. 2010; Bogich et al. 2012). Among the fifteen West African countries

included in the REDISSE program, thirteen diseases caused at least one outbreak from 1996 to 2009 (Annex 1), totaling 73 recorded events. Three additional well-publicized meningitis outbreaks which were not part of the original dataset were included in this analysis. If an outbreak occurred in multiple countries, it is listed in the country in which the outbreak began. The list was then complemented by the Zaire ebolavirus and HIV-2. Zaire ebolavirus, one of five species of ebolavirus, was the species responsible for the 2014 West African outbreak.[41] HIV-2 has spilled over into humans, at least, eight times in West Africa in the last hundred years, twice resulting in sustained human-human transmission (Sharp and Hahn, 2011), although it has largely stayed confined to West Africa and is currently declining relative to HIV-1.[42] However, it is representative of other viruses not captured by the Bogich et al. dataset which still pose epidemic potential in West Africa. This compilation resulted in a list of fifteen diseases of human epidemic potential in West Africa the REDISSE program will help mitigate. These diseases are distinct from diseases which are endemic or seasonal in West Africa, such as malaria. It should be noted, however, that the capacity built by the REDISSE program will serve to improve prevention and control of diseases more broadly, i.e., also other diseases than the 15 included in the calculations below. The co-benefits from such impacts are therefore not included in the analysis below and imply that REDISSE benefits are estimated conservatively.

15. **These fifteen diseases were stratified according to two criteria:** 1) untreated mortality rate (high > 20%, moderate 5-20%, low < 5%); and 2) spread potential (typical outbreak having more or less than 1,000 cases). These two criteria were determined from a review of the 76 reported events described above. There were thus six categories of diseases (described in Table 20). The stratification yielded groups of diseases that also have similar elements of response and control. This stratification was necessary for two reasons: firstly, it simplified the resulting cost-benefit model; and, secondly, it yielded a more well-behaved distribution of probabilities as there are fewer cases with zero or one event in the fourteen-year time frame considered (1996 – 2009). The annual probability of each disease outbreak happening in the region was calculated by dividing the number of outbreak events from 1996 to 2009 by fourteen years. For the high-mortality/high-spread disease group, which included Zaire ebolavirus and avian flu only, a different method to estimate probability was used. Zaire ebolavirus had not previously occurred in West Africa, so there is limited data to estimate its annual outbreak potential. However, it clearly can be transmitted there and likely continues to circulate in animal populations, increasing the chance of future spillover. Avian flu does not yet have the ability to transmit easily from person to person, but it is hypothesized that only a few mutations or re-assortments could permit this (Trombetta et al., 2015). Therefore, the annual probability of a pandemic disease with high mortality and high spread potential was estimated to be 0.03 (World Bank, 2012). A seventh disease category was taken into account the probability of a catastrophic event, similar to the 1918 flu pandemic, which is estimated in 0.01 (World Bank, 2012).[43]

[41] The other four species of ebolavirus are Sudan ebolavirus (native to Central and East Africa), Reston ebolavirus (Philippines), Tai Forest ebolavirus (Cote d'Ivoire), and Bundibugyo ebolavirus (Uganda).
[42] While HIV-1 is the version of HIV responsible for the global HIV pandemic and derives from SIVcpz (of chimpanzees) in Cameroon, HIV-2 derives from SIVsm (sooty mangabees, a species of monkey).
[43] A "once in a hundred years' event" (World Bank, 2012).

Table 17: Annual probabilities of outbreak of each category of disease

		Spread Potential	
		High (> 1000 cases)	**Low (< 1000 cases)**
Mortality	**High (> 20 %)**	*Ebola* *Avian Flu (potential)** Typical Size** = 20,000 cases Annual Prob = .03 Range = .01-.05	*Crimean-Congo Hemorrhagic Fever* *Lassa Fever* *Anthrax* *HIV-2* Typical Size = 25 cases Annual Prob = .29 Range = .14-.5
	Moderate (5-20%)	*Cholera* *Meningococcal meningitis* *Dysentery* Typical Size = 10,000 cases Annual Prob = .79 Range = .6-1.00	*Shigella* *Yellow Fever* Typical Size = 800 cases Annual Prob = .79 Range = .6-1.00
	Low (< 5%)	*Dengue* *Measles* Typical Size = 5,000 cases Annual Prob = 0.14 Range = .05-.25	*Rift Valley Fever* *Polio* Typical Size = 500 cases Annual Prob = 0.21 Range = 0.1 - .3

Note: *"Catastrophic Outbreak", Annual Prob. = .01, number of cases = millions.
** Typical outbreak size estimated from reviewed Disease Outbreak News reports.

Endemic Human Diseases

16. **In addition to diseases of epidemic potential, West Africa also has a high burden of endemic diseases, such as HIV, malaria, tuberculosis or typhoid.** While the disease surveillance system would likely enable some reduction in the burden of such diseases, it is difficult to estimate how much, as its main purpose is to detect disease outbreaks in the early stages and existing efforts such as the Global Fund already support some diagnostic capacity for these diseases. Therefore, this analysis does not include the expected co-benefits from improved control of endemic diseases.

Health Impacts (Benefits)

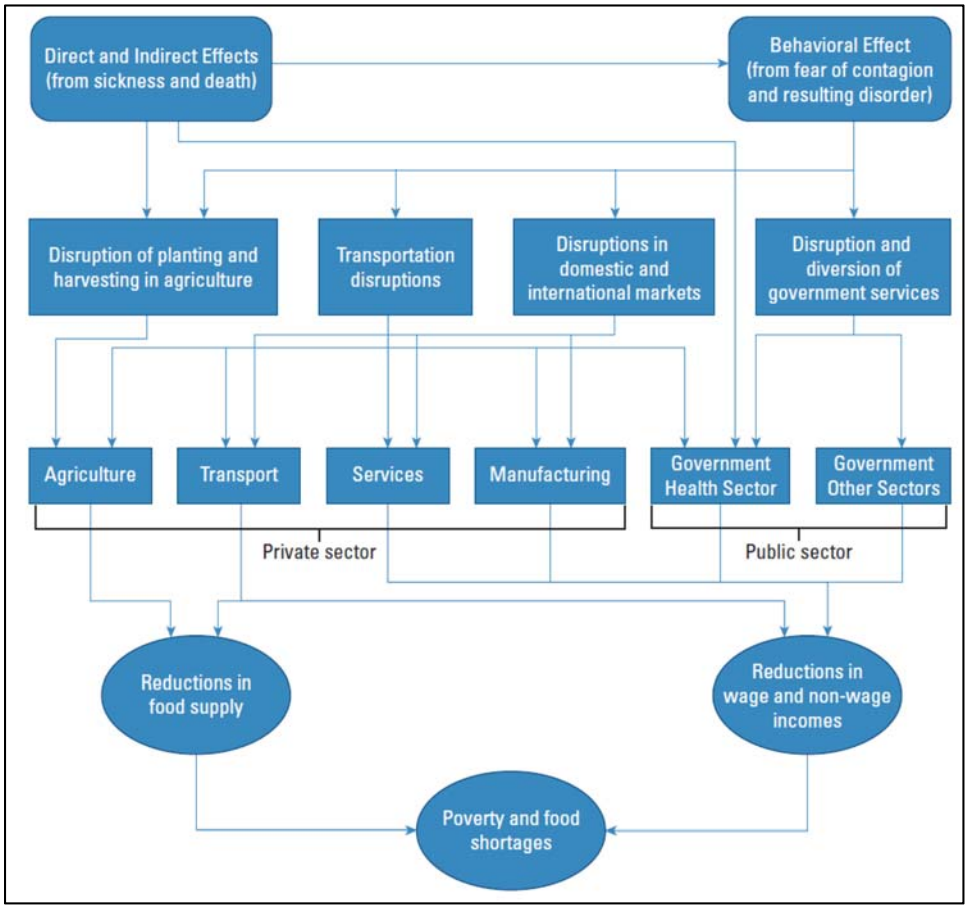
17. **The benefits of strengthening a regional disease surveillance and response system include the direct benefits of limiting cases, deaths, and disabilities from the disease.** Potential health benefits include (i) benefits derived from averting cases; (ii) benefits derived from averting deaths; (iii) social and psychological benefits stemming from less apprehension and greater peace of mind when large outbreaks of serious infectious diseases are rare or non-existent. The number of cases and deaths averted can be estimated using epidemiological models and historical data from previous outbreaks. Benefits are expressed in terms of economic consequences of the burden of diseases avoided by early detection and rapid response. Estimating these benefits involves assessments of current costs of treat diseases and the expected costs of future outbreaks.

18. **Valuing gains from reduced mortality is a long-standing debate in the research literature.** Major issues are the ethical and equity debate around the task of how to value a life saved. One possibility for such task is to apply the resource costs of alternative means of saving a life. Alderman et al. (2004) estimated the savings for saving an infant's life through a measles campaign as US$1,250. An alternative approach is to measure the impacts, and the monetary benefits, regarding productive life years gained due to reduced mortality. This is done by calculating the number of years gained as a result of project interventions and calculating the economic benefit of these years. The approach adopted in this analysis considers the economic impacts globally, which means specific health impacts are considered within the different scenarios of economic output lost.

Economic Impacts (Benefits)

19. **Disease outbreaks affect the economy in two different ways.** Firstly, by the direct effects of morbidity and mortality on the use of health-care resources and the reduction in the labor force participation (temporarily or permanently through workers being ill, dying, or caring for the sick). Secondly, behavioral effects result from the fear of contagion; for novel diseases, these effects have been large or extremely large, with substantial economic impacts, in all documented epidemics and pandemics. The consequences include absenteeism (workers staying at home for fear of exposure), disrupted transportation, government decisions to restrict entry of citizens from afflicted countries, closing of markets, and closing of borders. Businesses may decide to reduce or suspend operations, leading to disruption in trade, travel, and commerce (Figure 9) (World Bank, 2014).

Figure 9: Broad Channels of Short-Term Economic Impact



Source: World Bank, 2014; p.7.

20. **Behavioral changes have large impacts on the economic activities as people seek to avoid infection.** Individuals are likely to change their behavior by (i) reducing air travel; (ii) avoiding travel to infected destinations; and (iii) reducing consumption of services such as restaurant dining, tourism, mass transport, and nonessential retail shopping (Jonas, 2013). The SARS outbreak in 2003, for example, infected "only" 8,000 people and resulted in fewer than 800 deaths. However, air travel to Hong Kong SAR, China declined by 75 percent during the epidemic and by 50-60 percent, on average, during the four-month period the outbreak was active. Retail sales declined by 15 percent at the peak, and by about 9 percent over the four-month period (Jonas, 2013; Siu and Wong, 2004).

Estimating the Costs of Disease Surveillance System

21. **After the completion of the REDISSE program additional resources from governments, regional and international partners will be necessary to maintain the investments.** This section focuses on estimating the fixed and operational costs associated with the functionality and maintenance of a disease surveillance and response network, and exploring

sustainable sources for the long-term financing of activities under the REDISSE program. Estimating the costs to establish and maintain a disease surveillance and response network is necessary to determine the funding gaps and to calculate the return on investments for such interventions (World Bank, 2012).

22. **Nearly ten years ago, the costs of a permanent global disease surveillance system, up to OIE and WHO standards, were estimated at US$1.3 billion per year for 139 low-and-middle-income countries (LMIC) (FAO et al., 2008).[44] For 49 low-income countries (LIC), the estimated costs are US$852 million per year. The same report estimates that more than 50 percent of these costs would be operating costs, and the remaining would be investments in hardware (laboratories, equipment) and human skills (training, etc.). However, this estimate was based on the early detection and response to HPAI H5N1 and excluded the cost of fully controlling epidemic outbreaks (World Bank, 2012).**

23. **In a more recent exercise, the World Bank estimated that, depending on the disease risk, the costs of bringing the surveillance and response systems up to OIE and WHO standards range from US$1.9 to US$3.4 billion per year** (World Bank, 2012). This was the cost for 139 low- and middle-income countries. For the 60 low-income countries studied, if the disease risk prevalence is low, the total estimated costs are approximate US$900 million per year (or US$1.10 per Veterinary Livestock Units per year). And, with high prevalence risk, it rises to US$1.4 billion per year (or US$1.75 per Veterinary Livestock Units per year). The study found that 45 percent of the total budget would be allocated to animal health, 41 percent to human health and 14 percent to joint planning and communication activities. Also, 55 percent should be allocated to recurrent costs and 45 percent of investment costs (World Bank, 2012).

24. **The Commission on the Global Health Risk Framework for the Future estimates at US$4.5 billion per year the total costs of implementing disease surveillance and response system** (GHRF Commission, 2016). This figure includes expenditures for strengthening national veterinary and human public health systems of $3.4 billion annually (based on the high end of the range noted above (World Bank (2012)) as well as funding research and development; and financing global coordination and contingency efforts (GHRF Commission, 2016). The US$4.5 billion is the price of national and global health security. It is equivalent to 65 cents per person per year. Katz and colleagues developed a framework to estimate fixed and operating costs associated with developing and sustaining the International Health Regulation (IHR) core capacities across an entirely public health system (Katz et al., 2012). These parameters are used to estimate the costs to bring the surveillance and response systems up to OIE and WHO standards in West Africa. Table 3 displays the cost requirements disaggregated by core IHR capacity and fixed and operating costs.[45]

[44] These costs were calculated for a 4- period (2008-2012) that corresponded to the then-ongoing international response to H5N1 avian flu. Actual global expenditures on these functions were estimated about $500 million per year, equivalent to just over one third of the requirement. Clearly, these functions were grossly underfinanced even during an emergency response to a major pandemic threat.

[45] Based on West Africa population in 2013 = 334,028,922. (World Bank Development Indicators, 2016).

Table 18: Estimated costs to bring the surveillance and response systems up to OIE/WHO standards - West Africa countries (US$)

Core Capacity	Fixed Cost (US$)	Operating Cost (US$)	Total	%
National Legislation, Policy and Financing	92,393	-	92,393	0.03%
Coordination and National Focal Points Communication	1,013,986	191,064	1,205,050	0.41%
Surveillance	6,482,012	32,301,849	38,783,861	21%
Response	25,229,894	3,128,681	28,358,576	10%
Preparedness	3,559,188	69,857,973	73,417,161	41.54%
Risk Communications	5,406	1,373,276	1,378,683	0.78%
Human Resources	5,406	346,304	351,711	0.19%
Laboratories	61,126,613	11,416,106	72,542,719	26%
Points of Entry	188,558	800,082	988,641	0.50%
Total	**97,703,459**	**119,415,339**	**217,118,799**	**100%**

Source: based on parameters from GHRF Commission, 2016; and Katz et al., 2012.

25. **Given the volatility of donors' funding, innovative financing tools and mechanisms need to be explored to provide new ways to create long-term, predictable funding streams.** The boom-and-bust pattern of external assistance to core public health functions like surveillance is inefficient and ultimately not effective (Brahmbhatt and Jonas, 2015). Alternative financing options are identified, medium and long term financing scenarios will be estimated – linked to current and expected trends in the total health expenditures, development assistance to health and other macroeconomic indicators (external trade, economic growth, etc.). Based on the initial review of the literature, possible options are (IOM, 2009): (i) long-term twinning arrangements between human and animal health institutes of high-income and resource-poor countries, funded by specific budget lines in those high-income countries; (ii) long-term commitments of governments to fund WHO/IHR 2005 and FAO/OIE in supporting global disease surveillance systems; (iii) establishment of special endowments through nonconventional donors; (iv) imposition of a levy on internationally traded meat; and (v) public-private partnerships. Incentivizing multilateral institutions to ensure that core public health functions are given priority is another option (Glassman et al., 2015). Both adequacy and stability of financing are required for proper functioning of public health systems. The amounts required are small relative to the enormous expected health and economic benefits and modest relative to other health sector costs. The estimated costs of the disease surveillance and response represent .5 percent of total health expenditures in the sub-region and approximately 5 percent of the development assistance to health allocated to West Africa annually. Over time, the vulnerability of populations and their livestock to infectious disease outbreaks has resulted not only in poverty and worse health outcomes, but also in higher health care costs and in health care needs that remain unmet. Both higher health costs and unmet needs will be reduced in the future with the modest investments under REDISSE.

Modeling the Potential Disease Outbreak Impacts

26. **Measuring the impacts of disease outbreaks is challenging given these are sporadic events, with limited data points to estimate probabilities.** To overcome the uncertainties around the likelihood of a value of key parameters (probability of outbreaks and the associated economic damage), this analysis used a simulation model. The likely impacts of the proposed intervention are treated as random variables with hypothesized distributions. More specifically, 1,000 simulations for the next 50 years (2016-2065) using an annual probability of an outbreak in West Africa within a range 0.01 to 0.03, which covers the possibility of a mild, moderate and severe outbreak (World Bank, 2012; Jonas, 2013).[46] The analysis also assumes the total economic impact in a given year will impact the GDP within a range between -0.07 and -4.8 percent, which also covers the estimated impact of mild, moderate and severe pandemics (GHRF Commission, 2016; McKibben and Sidorenko, 2006).[47]

27. **The cumulative sum of the economic and health impacts of simulated events for each of these seven disease categories are calculated under three scenarios:** status quo (no disease surveillance) and intervention, i.e. the REDISSE program. The impacts of the REDISSE program are then modeled as reducing health and economic costs due to animal and human disease outbreaks, the possible values for this reduction will be 50 percent or 100 percent as proposed by previous World Bank study (World Bank, 2012). This allows calculating the potential costs and benefits associated with the implementation of the project interventions.

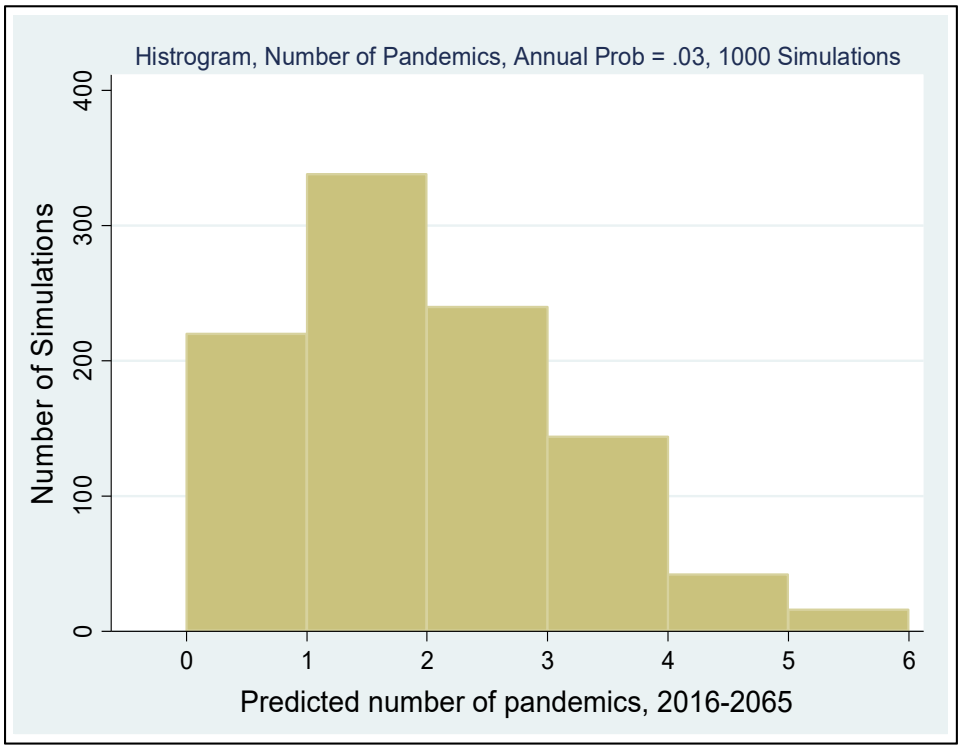
RESULTS (ECONOMIC BENEFITS)

28. **Results from Markov Chain Monte Carlo (MCMC) simulations are presented in Figures 10 and 11.** As discussed above, the key parameters and model assumptions are:

- Annual probability of outbreaks in West Africa equal to 0.03 (World Bank, 2012; Jonas, 2013);
- The probability of an outbreak event to occur in any year is independent of other events to occur in other years within 50 years' time frame;
- West Africa GDP equal to US$742.1 billion (2013 USD);
- Assuming a 4 percent annual real GDP growth rate in the time frame of 50 years, and a loss of output associated with an outbreak event equal to 4.8 percent of the regional GDP;
- The model does not consider global GDP losses, only GDP losses in West Africa.

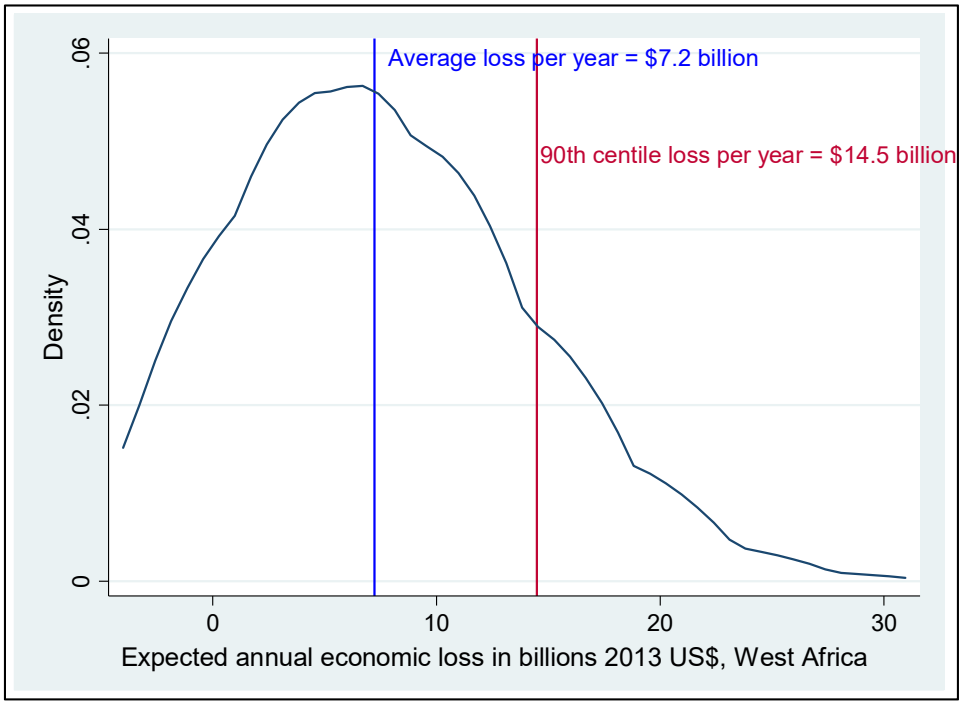
[46] An alternative to be tested is to calculate impacts by using each of the seven categories of disease – the six categories from table 2 plus a seventh branch for a catastrophic pandemic originating in West Africa.
[47] Previous work has estimated the economic loss that occurred as a result of each of the 20th-century pandemics as 0.7–4.8 percent of global GDP (GHRF Commission, 2016; McKibben and Sidorenko, 2006).

Figure 10: Distribution of Expected Number of Outbreaks in 50 years, West Africa



29. **The total annual benefit of controlling an outbreak in West Africa is, on average, equal to US$7.2 billion.** The distribution of expected economic losses presented exhibits a relatively long right tail, which means there is a nontrivial chance of seeing extreme losses (however, the tail is shorter than similar exercises at the global level). It is assumed that this estimate includes the health related benefits (avoided mortality and morbidity) and the economic benefits as described in equation (1). Applying the distribution of costs proposed by the World Bank (World Bank, 2008), the estimated losses resulting from mortality are equal to US$864 million (12 percent), the estimated productivity losses due to morbidity and absenteeism sum US$2 billion (28 percent), and the expected losses resulting from behavior changes to avoid infection are equal to US$4.32 billion (60 percent). The analysis is likely to underestimate the benefits of disease surveillance and response system; the reasons are: (i) does not calculate the expected impact on endemic diseases; (ii) it takes into account only the impacts in West Africa; and (iii) it assumes the risk of pandemic events this century will be the same within the time frame considered (50 years).

Figure 11: Distribution of Expected Economic Losses Due to Outbreaks in 50 Years, West Africa



30. **The net present value of the project costs, assuming a constant rate of disbursement, is estimated at US$313 million.** By applying the estimated average annual impact constant for the five first years of the project, it is possible to calculate a benefit-cost ratio equal to US$108.73, i.e. for each US$1 invested through the project, there will be an expected return of US$108.73.48. Although extremely high, this result is based on parameters subject to high variability. Additionally, this is based on the expected economic impacts estimated through simulations over a 50 years' period, for a more accurate measure of the project's five years of implementation a different simulation is necessary (5 years' time frame). The sensitivity analysis below examines alternatives to this scenario.

Sensitivity Analysis

31. **Given the uncertainties around key parameters of the model, a sensitivity analysis (SA) was conducted to estimate changes in the results given plausible variations on the value of key parameters.** Additional simulations were tested based on the following parameters:

- Annual probability of an outbreak: 0.01 - 0.03;
- Economic costs of outbreak: 0.7 - 4.8 percent reduction in output during a year with an outbreak (which covers the scenarios of a mild, moderate and severe outbreak);

[48] US$34.06 billion/US$313.2 million = US$108.73. The US$313.2 is the net-present value of the project total costs (US$332 million) applying a 3 percent annual discount rate.

- Effectiveness of surveillance and response system (reduces economic impact of outbreaks): 50 and 100 percent;
- Time horizon: 5 years and 50 years;
- 3 percent annual discount rate.

32. **Table 22 contains the different scenarios resulting from a combination of different probabilities of pandemic and severity of an outbreak.** Economic annual impacts vary from US$0.19 billion (mild pandemic with a 0.005 probability) to a US$7.22 billion (severe outbreak with a probability equal to 0.03).

Table 19: Expected Economic Impacts
West Africa, 50 years, 100 percent preventive effort, billion US$ saved annually

100% reduction		Annual Probability of Outbreak				
50 years		***0.5%***	***0.75%***	***1%***	***2%***	***3%***
Cost of Pandemic (GDP losses)	***-0.70%***	$0.19	$0.26	$0.38	$0.70	$1.09
	-2.75%	$0.73	$1.02	$1.49	$2.71	$4.20
	-4.80%	$1.26	$1.76	$2.59	$4.69	**$7.22**

33. **Table 23 shows the annual benefit-cost ratio of the scenarios in Table 22.** The values in Table 3 represent the amount of annual economic losses per year over a 50 year period, which are then truncated to the five-year time frame of the project and discounted to net present value. Therefore, the data in Tables 3 and 4 are not cumulative, but rather represent the additional GDP the region would have per year given 100 percent outbreak prevention. Another way to measure the return on investment includes cumulative GDP gains, as wealth saved each year from outbreak prevention yields additional economic returns in all subsequent years. Cumulative returns on investment are shown in Annexes 5C and 5D. Because cumulative returns on investment mean that savings in one year pay dividends in subsequent years and represent real wealth not lost, these estimates show an even more positive economic effect of outbreak prevention than the annual benefit-cost ratio.

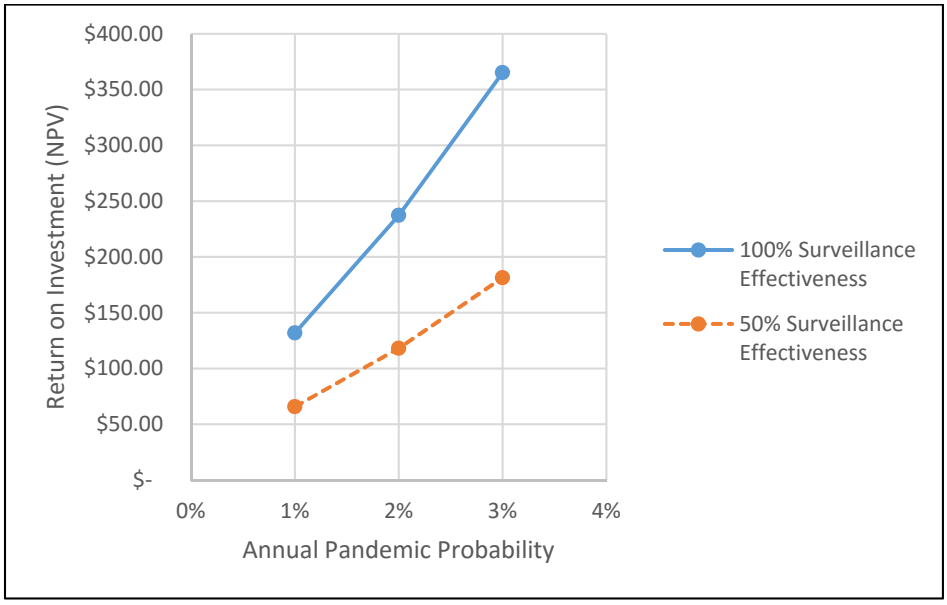
Table 20: Annual Benefit-Cost Ratio, not cumulative
West Africa, 5 years, 100% preventive effort, Annual US$

100% reduction		Annual Probability of Outbreak				
50 years		***0.5%***	***0.75%***	***1%***	***2%***	***3%***
Cost of Pandemic (GDP losses)	***-0.70%***	$2.86	$3.92	$5.72	$10.54	$16.42
	-2.75%	$10.99	$15.36	$22.44	$40.81	$63.25
	-4.80%	$18.98	$26.51	$39.01	$70.63	**$108.73**

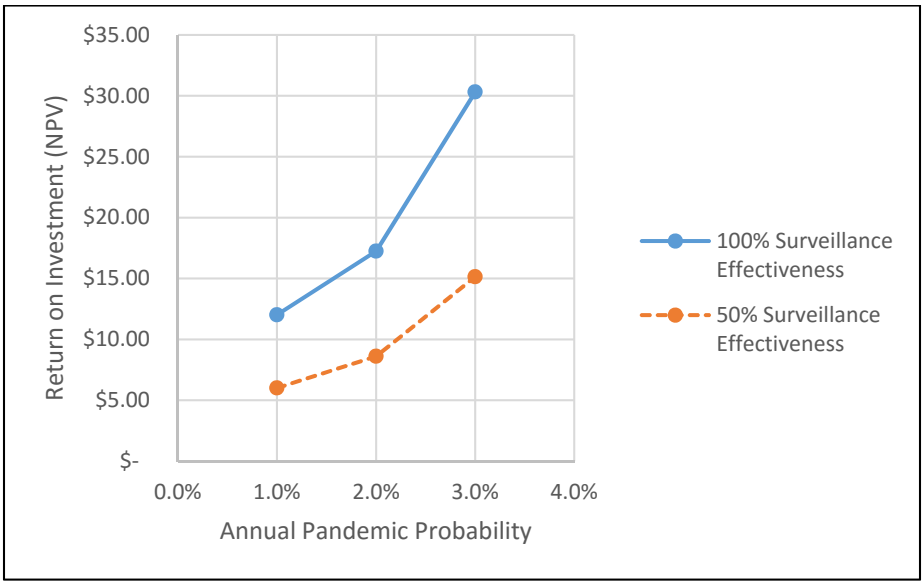
34. **The cumulative return on investment is calculated for the alternative, more conservative, scenario with a 2 percent annual probability of a pandemic with moderate economic consequences (decline in output of 2.75 percent of GDP).** The benefit-cost ratio was calculated for the periods of 5 years and 50 years. For five years, the benefit-cost ratio is US$17.25, i.e. for every dollar invested in prevention, there will be an expected return of US$17.25. For 50 years, for every dollar spent on disease surveillance, there will be an average return equal to US$237.37. Applying the same parameters used to estimated the US$108.73 above, te cumulative return amounts to US$631.02 (annual probability equal to .03 and GDP losses equal to 4.8 percent). These benefit-cost ratio estimates under various scenarios are presented in Annex 5D and Tables A1 and A2.

Figure 12: Return on Investment for REDISSE

a) Pandemic reduces output by 2.75 percent***, 50 years' period, cumulative benefits (3*** percent ***discount rate)***



b) Pandemic reduces output by 2.75 percent***, 5 years' period, cumulative benefits (3*** percent ***discount rate)***



Livestock Diseases

35. **Livestock disease is vastly underreported in sub-Saharan Africa (ILRI, 2012).** Of the estimated 253 million livestock units (LSUs)[49], it is estimated that 10 percent are lost annually due to diseases (death, slaughter or destruction)[50] and only half of these losses are from diseases reportable to the World Organization for Animal Health (OIE) (ILRI, 2012). To measure the potential economic benefits regarding LSU losses avoided as a result of the REDISSE program, three scenarios were considered: 20 percent, 50 percent, and 100 percent of loss reduction.[51] It has been estimated that livestock accounts for 44 percent of agricultural GDP in West Africa, including animal products such as manure and animal labor and LSUs in West Africa have been estimated in 65.5 million (FAO, 2007).[52] Based on these parameters, it is possible to calculate the economic benefits of reducing LSU losses from animal disease (Table 5). Based on these calculations, the economic benefits of an animal disease surveillance system would be largely realized by an absolute reduction in LSU losses.

[49] 1 LSU is equivalent to 250 kg of animal.
[50] Slaughter is distinguished from destruction in that some of the animal meat can be recovered from a slaughtered LSU, but not from a destroyed LSU, and is thus considered a fraction of an LSU).
[51] Scenarios adopted by the World Bank (World Bank, 2012).
[52] Agriculture employs 60 percent of the active labor force and accounts for 35percent of GDP (U.S. Government's global hunger and food security initiative, 2016).

Table 21: Estimated Impacts in terms of LSU losses avoided, West Africa

Scenario	Status Quo	50% improvement	100% improvement
Annual LSU Losses from OIE notifiable diseases	3.28 million*	1.64 million	--
Economic Impacts (losses, billion) **	US$5.71	US$2.85	--

* Estimate from FAO, 2007.
** Assuming agriculture GDP accounts for 44 percent of West Africa GDP.

ANNEX 4B: Economic and Financial Analysis

COUNTRY: Western Africa
Regional Disease Surveillance Systems Enhancement (REDISSE) Phase II

Berhman, J., Alderman, H., and J. Hoddinott (2004). "Hunger and malnutrition". Copenhagen Consensus Challenge Paper.

Bogich, T.L., R. Chunara, D. Scales et al. (2012). "Preventing pandemics via international development: A systems approach". PLOS Medicine 9(12): e1001354.

Brahmbhatt, M. and Jonas, O. (2015). "International Cooperative Responses to Pandemic Threats: A Critical Analysis." The Brown Journal of World Affairs. Volume xxi, Issue ii

Chan, E.H., T.F. Brewer et al. (2010). "Global capacity for emerging infectious disease detection". PNAS 2010; 107(50):21701-6.

FAO-OIE-WHO-WBG (2008). "Contributing to One World, One Health: A Strategic Framework for Reducing Risks of Infectious Diseases at the Animal-Human-Ecosystems Interface".

Fonkwo, PN (2008). EMBO reports, Vol. 9 (Special Issue). doi:10.1038/embor.2008.110

Gallup, J.L., and J.D. Sachs (2000). "The Economic Burden of Malaria". Center for International Development at Harvard University, Working Paper No 52

GHRF Commission (2016). "Global Health Risk Framework for the Future. The neglected dimension of global security: A framework to counter infectious disease crises".

Glassman Amanda et al (2016). "Will IDA18 Usher In Banking against the Superbugs?" Center for Global Development blog, June 28, 2016.

Katz,R., V. Hate et al. (2012). "Costing Framework for International Health Regulations (2005)". Emerging Infectious Diseases, CDC, Vol. 18(7): 1121-1127

International Livestock Research Institute (2012). "Mapping of poverty and likely zoonoses hotspots"; Zoonoses Project 4. Report to Department for International Development, UK. Nairobi, Kenya.

IOM (2009). *Sustaining global surveillance and response to emerging zoonotic diseases.* Washington, DC: The National Academies Press.

Jonas, Olga B. 2013. "Pandemic Risk." Background Paper, World Development Report. World Bank, Washington DC.

Jonas, Olga B. 2014. "Pandemic Risk." Finance & Development. IMF, December 2014, Vol. 51, No. 4. http://www.imf.org/external/pubs/ft/fandd/2014/12/jonas.htm.

The National Academies Press. Mckibben, W.J., and A. Sidorenko (2006). "Global macroeconomic consequences of pandemic influenza". Center for Applied Macroeconomic Analysis.

Rich, K.M., A. Winter-Nelson, and G.Y. Miller (2005). "Enhancing Economic Models for the Analysis of Animal Disease". Rev. Sci. Tech. Off.Int.Epiz, 24(3), 847-856.

Sharp, P.M., and B.H. Hahn (2011). "Origins of HIV and the AIDS pandemic". Cold Spring Harb Perspect Med, Sep 1(1): a006841.

Siu, A., and Y.C. R. Wong (2004). "Economic Impact of SARS: The Case of Hong Kong." Hong Kong Institute of Economics and Business Strategy, Working Paper 1084. April.

Smith et al. (1996). "Dairy development in West Africa: Current status and issues concerning further development". In Livestock Development Policies in the Humid and Sub-humid Zones of Sub-Saharan Africa. Proceedings of a seminar held on 5-9 Feb 1996 in Abidjan, Cote d'Ivoire. CTA Publication 67-93.

Taubenberger, J.K., and D.M. Morens (2006). "1918 Influenza: The mother of all pandemics". Rev Biomed 2006; 17:69-79.

Trombetta, C., S. Piccirella, D. Perini, et al. (2015). "Emerging Influenza Strains in the Last Two Decades: A Threat of a New Pandemic?" Vaccines 2015; 3(1):172-85.

UNDP (2014). "Assessing the Socio-Economic Impacts of Ebola Virus Disease in Guinea, Liberia, and Sierra Leone: The Road to Recovery".

Wint, W. and T. Robinson (2007). "Gridded livestock of the world". Food and Agriculture Organization (2007);
World Bank (2012). "The Economics of One Health". Economic and Sector Work. People, Pathogens, and our Planet, volume 2.

World Bank (2011). "Animal Health Disease Atlas."

World Bank (2014). "The Economic Impact of the 2014 Ebola Epidemic: Short- and Medium-Term Estimates for West Africa."

World Health Organization (2005). "Evaluating the Costs and Benefits of National Surveillance and Response Systems: Methodologies and Options". WHO/CDS/EPR/LYO/2005.25

Annex 4C: Human outbreaks by disease and country in West Africa (Data from Bogich et al 2012.)

Disease

Country	Anthrax	Avian Flu	CCHF	Cholera	Dengue	Dysentery	Lassa	Measles	Meningitis	Polio	Rift Valley	Shigella	Yellow Fever	Total
Benin	0	0	0	1	0	0	0	0	0	0	0	0	1	**2**
Burkina Faso	0	0	0	1	0	0	0	0	1	0	0	0	6	**8**
Cote d'Ivoire	0	0	0	3	0	0	0	0	0	0	0	0	4	**7**
Gambia	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Ghana	1	0	0	0	0	0	0	0	0	0	0	0	1	**2**
Guinea	0	0	0	1	0	0	0	0	0	0	0	1	8	**10**
Guinea-Bissau	0	0	0	1	0	0	0	0	1	0	0	0	0	**2**
Liberia	0	0	0	4	0	0	0	0	0	0	0	1	4	**9**
Mali	0	0	0	1	0	0	0	0	0	0	0	0	1	**2**
Mauritania	0	0	1	0	0	0	0	0	0	0	1	0	0	**2**
Niger	0	0	0	5	0	0	0	0	0	0	0	0	0	**5**
Nigeria	0	1	0	4	0	0	0	1	2	1	0	0	1	**10**
Senegal	0	0	0	3	0	0	0	0	0	0	0	0	3	**6**
Sierra Leone	0	0	0	3	0	1	2	0	0	0	0	0	2	**8**
Togo	0	0	0	0	0	0	0	0	0	1	0	0	1	**2**
Total	**1**	**1**	**1**	**27**	**1***	**1**	**2**	**1**	**4**	**2**	**1**	**2**	**32**	**76**

Annex 4D: Expected Rate of Return on Investments in Prevention

Table A1: Scenario – 100 percent Surveillance Effectiveness

		Annual Probability of Pandemic		
		1%	***2%***	***3%***
Cost of Pandemic (5 years)	***-0.70%***	$3.06	$4.39	$7.73
	-2.75%	$12.02	$17.25	$30.32
	-4.80%	$20.99	$30.09	$52.88
		Annual Probability of Pandemic		
		1%	***2%***	***3%***
Cost of Pandemic (50 years)	***-0.70%***	$33.70	$60.80	$93.94
	-2.75%	$131.93	$237.37	$365.25
	-4.80%	$229.50	$411.76	$631.02

Table A2: Scenario – 50 percent Surveillance Effectiveness

		Annual Probability of Pandemic		
		1%	***2%***	***3%***
Cost of Pandemic (5 years)	***-0.35%***	$1.53	$2.20	$3.86
	-1.38%	$6.01	$8.62	$15.15
	-2.40%	$10.49	$15.04	$26.41
		Annual Probability of Pandemic		
		1%	***2%***	***3%***
Cost of Pandemic (50 years)	***-0.35%***	$16.84	$30.37	$46.89
	-1.38%	$65.81	$118.19	$181.36
	-2.40%	$114.26	$204.39	$311.69

ANNEX 5: Systematic Operations Risk-Rating Tool (Sort)

COUNTRY: Western Africa
Regional Disease Surveillance Systems Enhancement (REDISSE) Phase II

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

I. Political and Governance - SUBSTANTIAL

1. A review of country reports and forecasts published by the Economist Intelligence Unit indicates that political and governance risks are heterogeneous across the ECOWAS region. Of the four countries proposed for this project, Liberia, Nigeria and Guinea Bissau are at substantial risk and Togo is at low risk of political instability.

II. Macroeconomic - SUBSTANTIAL

2. The risk of emerging external and/or domestic imbalances is substantial and macroeconomic effects could affect the achievement of the PDO. Prices are moderately stable and key operational inputs (including imports) are generally available. The macroeconomic environment has limited effects on individual operations. The implementing partners of the project will maintain attention to economic developments that could jeopardize the quality, objectivity, and regional nature of the Program. However, the EVD epidemic has demonstrated how vulnerable the countries of West Africa are to external shocks.

III. Technical Design of Project or Program – SUBSTANTIAL

3. There is substantial likelihood that factors related to the technical design of the project may adversely impact the achievement of the PDO. This is due to the complexity of the project and the implementation environment. The project has four technical components, each with a large number of potential interventions. Strategic prioritization of interventions within each component is the core technical design challenge. To address this, the team: (i) engaged in substantial analytical work to assess and identify key components of and best practices from successful disease surveillance operations and networks[53]; (ii) consulted with key technical partners including the WAHO, WHO, US CDC, USAID, BMGF, OIE, FAO, the Merieux Foundation and the University of Oslo, among others; (iii) held regional and country specific consultations to identify core unmet needs in the context of ongoing and planned support from other partners. It is incumbent on the Task Team to ensure that the project does not become unfocussed in an attempt to address the multiple priorities identified by clients and stakeholders whilst avoiding the opposite outcome of a project that is overly focused and non-flexible.

IV. Institutional Capacity for Implementation and Sustainability – HIGH

4. There is a high likelihood that weak institutional capacity for implementing and sustaining operational engagement may adversely impact the PDO. There may be an issue of absorptive capacity that will need to be addressed by strengthening the programs and/or scaling-up interventions in a phased manner. In addition, although several of the programs have experience facilitating cross-border collaboration as a result of the Ebola epidemic, there is limited experience implementing and sustaining regional programs. The need for effective collaboration within governments and with non-governmental partners contributes to the risk. The project will require active engagement and collaboration between Ministries of Health, Agriculture, Education and Technology/Communications and the local government. The High rating is also due to the perceived weak institutional capacity of Ministries in some countries and the need to clearly articulate the role of local government and non-governmental organizations. Furthermore, there is uncertainty regarding the clients' capacity to sustain the outcomes of the operation beyond the WB's support. The project will address this concern by strengthening institutional capacity.

V. Fiduciary – SUBSTANTIAL

5. The overall fiduciary environment has substantial weakness in the integrity of the procurement system. Difference in procurement, fiscal management and project management capacities among the four countries could result in delays in the acquisition of key project commodities and lead to uneven progress in the implementation of activities and achievement of project targets. To provide a more granular evaluation of the fiduciary environment in each country, financial management and procurement assessments were conducted during project

[53] MOVING BEYOND ZERO: Post-Ebola Health Systems Strengthening and Fiscal Space Assessment for Guinea, Liberia, and Sierra Leone, World Bank. (IN DRAFT) MAY 2016, pp 63-76.

preparation. Extensive technical assistance will also be included in the project to build the capacity at all levels, including financial management, procurement, and monitoring and evaluation.

VI. Stakeholders – SUBSTANTIAL

6. The project is both regional and multi-sectoral and there are a large number of stakeholders with diverse and sometimes non-compatible agendas providing technical, financial and commodity support to countries in the sub-region, especially the three countries most affected by the 2014/2015 EVD Epidemic. In this sort of environment, there is the risk of inefficiency, duplication of effort and overburdening the client with reporting and other requirements from multiple donor partners. In order to mitigate these risks, close and continuous collaboration among partners is required and the World Bank's convening power will be highly instrumental to forging a coalition of national, regional, and global technical and financial institutions to support the disease surveillance and response agenda in West Africa. The WB has already demonstrated that it is well placed to mobilize substantial financing for this multi-sector initiative and to convene premier technical and financial partners engaged in the field of disease surveillance including the U.S. Center for Disease Control (CDC), the World Health Organization (WHO), the World Organization for Animal Health (OIE), the African Development Bank, bilateral development partners and private foundations, including the Merieux Foundation and the Bill and Melinda Gates Foundation.

ANNEX 6: Alignment with Other World Bank-Supported and Other Partners Projects

COUNTRY: Western Africa
Regional Disease Surveillance Systems Enhancement (REDISSE) Phase II

REDISSE II is being developed to ensure alignment and complementarity with other WB project in the four targeted countries as well as ensure a harmonization platform among partners engaged in those countries. The tables below represent what is being done in these countries.

TOGO

Areas	PASMIN Maternal, child health and nutrition project	REDISSE II	Other major partners
Surveillance and Information Systems	Data collection on point of care diagnosis of malaria cases in the community	Incorporates community based data into the health information system	WHO CDC USAID
Strengthening of Laboratory Capacity	Introduction of point of care diagnosis for malaria.	Lessons learned from PASMIN will be applied when introducing other point of care diagnostics.	WHO CDC USAID
Preparedness and Emergency Response	N/A	X	WHO CDC USAID UNICEF
Human Resource Management for Effective Disease Surveillance and Epidemic Preparedness	Training, supervision, motivation and mobilization of community health workers (CHW)	Will coordinate activities involving CHWs with PASMIN and other partners	WHO CDC USAID UNICEF
Institutional Capacity Building, Project Management,	Establishment and support for a functional project	Will further strengthen the PCU established under PASMIN	

Coordination and Advocacy	coordination unit (PCU) to coordinate project implementation		

GUINEA BISSAU

Areas	Project 1	Project 2	REDISSE II	Other major partners
Surveillance and Information Systems	**N/A**	**N/A**		WARDS (implementation of surveillance centers); UNICEF (implementation of community event based surveillance); OIM (community event based surveillance); CDC/GHS (community surveillance); Global Fund (Surveillance for HIV, TB and Malaria)
Strengthening of Laboratory Capacity	**N/A**	**N/A**		Portuguese Cooperation (implementation of mobile laboratory for rapid tests); CDC (provision of lab inputs/reagents)
Preparedness and Emergency Response	**N/A**	**N/A**		Portuguese Cooperation (training rapid response teams) WHO (support the development and implementation National Preparedness and Response Plan**)**
Human Resource Management for Effective Disease Surveillance and Epidemic Preparedness	**N/A**	**N/A**		CDC (capacity building, FETP training to MOPH staff); Global Fund (support training for data collection training)
Institutional Capacity Building, Project Management,	**N/A**	**N/A**		WHO CEDEAO (through ECOWAS) CDC

Coordination and Advocacy				IANPHI (support insitutional (technical and financial) to INASA) UNICEF (communication, community mobilization)
Other Areas (Area 1)				
Other Areas (Area 2)				
Other Areas (Area 3)				

LIBERIA

Areas	EERP + HSSP	REDISSE II	Other major partners
Surveillance and Information Systems (Comp 1)	CHA program with community event-based surveillance (8 counties) Operational support for IDSR implementation in 91 Health Districts (US$630,000) Strengthening of early warning systems (US$275,500) Improved Epidemiological Surveillance Intelligence including nation-wide eDEWS (US$625,000)	Support coordinated community-level surveillance systems and processes across the animal and human health sectors Develop capacity for interoperable surveillance and reporting systems Strengthening of an early warning system for infectious disease trends prediction (taking over from EERP support)	USAID and GFATM and potential GIZ support to CHA program, with community event-based surveillance (counties geographically coordinated); AU-IBAR

Areas	EERP + HSSP	REDISSE II	Other major partners
	IDSR and EPR Monitoring and evaluation (US$200,000) Assessment of Animal-Human surveillance methodology to develop an integrated surveillance strategy (US$800,000)		
Strengthening of Laboratory Capacity (Comp 2)	Stop gap support to National Public Health Laboratories (US$110,000)	Review, upgrade and network laboratory facilities Improve data management and specimen management Enhance regional reference laboratory networking functions	USAID through FAO supported EPT-2, ACCEL support as well
Preparedness and Emergency Response (Comp 3)	IPC Compliance and people-centered care (training, monitoring and coaching) (US$1,292,000); IPC training by JSI (US$1 million) Timely response to Public Health Emergencies (US$525,000)	Strengthen Capacity for emergency response (taking over from EERP support) Enhance cross-sectoral coordination and collaboration for preparedness and response Contingency emergency response	USAID support through Collaborative Support for Health (CSH) – linked to trainings and adherence to standards

Areas	EERP + HSSP	REDISSE II	Other major partners
Human Resource Management for Effective Disease Surveillance and Epidemic Preparedness (Comp 4)		Public Health Workforce mapping, planning and recruitment. Enhance Public Health Workforce Capacity, Motivation and Retention	USAID – EPT-2 Project through PREDICT-2 and FAO
Institutional Capacity Building, Project Management, Coordination and Advocacy (Comp 5)	Support to National EOC (HR and Logistics support) (US$756,000) Establishment of National Public Health Institute (US$425,000)	Project coordination, fiduciary management, monitoring and evaluation, data generation, and knowledge management Institutional support, capacity building, advocacy, and communication	

LEGEND: Area of focus under project

NIGERIA

Areas	Polio Financing	SOML PforR	NSHIP	HPDP2*	WARDS	REDISSE II	Other major partners
Surveillance and Information Systems	Financing logistics and operational cost of polio surveillance and reporting from the community up to the federal level	Rewards states and federal government with financial resources based on improved data management and data utilization.	LGA PHC departments receive performance bonuses for producing quarterly HMIS reports and improving completion rate.	Procurement of necessary ICT infrastructure for routine reporting of HIV/AIDS data and eventually all data from health facilities on DHIS2. Capacity building at Federal, State, LGA and health facility staff on routine health data collection, reporting and utilization.	Training of diseases surveillance and notification officers (DSNO) in 18 out of the 774 LGAs on surveillance and information systems.	Will build on lessons learned and best practices extending improvements to HMIS and promoting interoperability through increase use of DHIS2 and other compatible platforms. REDISSE will also Support coordinated community-level surveillance systems and processes across the animal and human health sector.	FAO: Procurement of equipment to enhance animal disease surveillance. US-CDC: Training of workers on surveillance, disease reporting and animal quarantine for avian influenza control.
Strengthening of Laboratory Capacity	**X**	Rewards States for improvement in the quality	Monetary incentives are being provided to	Procurement of laboratory equipment and supplies	Training of laboratory scientists and technicians	Will incorporate best practices and lessons learned and will scale up	JICA: Provides technical support for

		of care including laboratory capacity as measured objectively through the annual health facility survey (HFS)	health facilities for improvement in quality of laboratory services.	specifically for HIV management. Capacity building and training of health workers to provide standardized laboratory services.	from 18 out of 774 LGAs on laboratory diagnosis.	training, upgrade and network laboratory facilities. REDISSE will also improve data management and specimen management while also enhancing regional reference laboratory networking functions.	strengthening laboratory capacity. FAO: Procurement of laboratory equipment for veterinary research institute.
Preparedness and Emergency Response	Operational cost support for the polio emergency operations center	X	**X**	**X**	**X**	Seek to engage polio community volunteers in broader scale surveillance activities as part of Polio Legacy. REDISSE will also **s**trengthen capacity for emergency response and **e**nhance cross-sectoral coordination for preparedness and	WHO and UNFPA support MPDSR which strengthens community surveillance and maternal health using existing DSNO structure

						response.	
Human Resource Management for Effective Disease Surveillance and Epidemic Preparedness	**X**	**X**	Rewards LGAs for maintaining appropriate mix and quantity of health workers at primary health facilities.	**X**	**X**	Will support planning and recruitment of human resources and enhance health workforce training, motivation and retention	US-CDC: Supports FELTP training program.
Institutional Capacity Building, Project Management, Coordination and Advocacy	**X**	**X**	**X**	**X**	**X**	All WB projects promote institutional Capacity Building, Project Management, Coordination and Advocacy, the REDISSE project will focus on achieving this in Nigeria Centre for Diseases Control.	ECOWAS is providing partial funding for establishing RCDC structure within the NCDC

HPDP2*: Second HIV/AIDS Program Development Project (Project closes on February 28, 2017)
NSHIP: Nigerian State Health Investment Project
WARDS: West African Regional Diseases Surveillance
MPDSR: Maternal and Perinatal Death Surveillance and Response

ANNEX 7: Enhanced Project Accountability Framework

COUNTRY: Western Africa
Regional Disease Surveillance Systems Enhancement (REDISSE) Phase II

1. Following from the findings of the detailed FM review that was conducted primarily on the soft expenditures of workshops, training, travel and operating expenses in a number of projects, an enhanced accountability framework has been put in place for this project to provide increased assurance that funds are used for the intended purposes with economy and efficiency and attain value for money.

2. The objectives of a strengthened accountability framework include:

- Development and implementation of a robust improvement in accountability for the use of project funds that will assist in attaining expected outcomes for the various programs being financed;
- Provision of guidelines on minimum requirements to be complied with regarding workshops, training, and related activities.

Specific accountability framework for training, workshops, study tours, etc.

3. An enhanced accountability framework is put in place over expenditures in the areas of training, workshops, study tours, etc. as follows:

- At the beginning of each fiscal year, a separate training summary plan shall be developed and shared with the TTL for review as part of the annual work plan.
- All training, i.e. local and international, would require prior clearance from the WB's TTL before they are undertaken. The request for clearance should, at a minimum, include the following:

    - A demonstrated linkage between the rationale for the workshop/training/etc. and the Development Objective of the project shall be established;
    - Annual Work Program (AWP) to which the activity falls shall be identified;
    - The number of trainees, their function and mode of selection will be defined. This should also include the number of times during the past 18 months that listed trainees had benefitted from training;
    - Number of years before retirement from service of each of the proposed trainees;
    - The process used for selection of training provider, and if foreign training, rationale for not proposing local training, to be provided;
    - Training prospectus and reference to the beneficial outcome of the training to be provided;
    - Provision of the detailed cost of the event: if local training/workshop/sensitization, the following additional information would need to be provided: i) venue for the event, ii)

how venue was or is proposed to be selected, iii) venue rental, refreshments/lunches, per diem, transport cost (air or land travel cost per trainee);
- No residential local training program will be allowed where the venue of the training is in the locality of the trainees; the preferred choice of locality should be the location of the majority of officials to be trained.

4. Only on the basis of these above submissions and TTLs' prior clearance will expenses be committed and become eligible for financing under the project.

- Each PIU will ensure a formal process of accountability is instituted on training expenditures which will include:

  - Submission of training report by the trainee;
  - Certificate of attendance from the training institution;
  - Relevant travel certifications such as air tickets, boarding passes for air travel, hotel bills etc.;
  - Consistent with the Government's cashless policy, air tickets shall be procured directly from the airline through electronic payment or check (no cash payments shall be allowed); and
  - Similar practice shall also be applied in the payment to vendors and tuition fee to training providers.

- Reduced amount of DSA (Daily Subsistence Allowance) will be paid where training/workshop organizers provide meals and accommodation. Cash advance granted to Project staff must be retired by concerned staff within the timeline specified in the PIM before new advance is granted. Where retirement of an advance is past due, an automatic payroll deduction of the unretired amount should be affected. To keep track of cash advances disbursed, an Advances Register shall be maintained as a control measure.
  The Project Internal Auditor shall include in their work program periodic random audits of travel advances and withdrawal thereof, as well as a review of the training/workshop conducted. A report of this review shall be provided to the PC as well as the WB TTL.