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IMPLEMENTATION COMPLETION AND RESULTS REPORT
(IDA-46630, IDA-46620, IDA-H5240, IDA-46650, IDA-H7290, TF-95536, TF-95537,
TF-95538)

ON

CREDITS

FROM THE INTERNATIONAL DEVELOPMENT ASSOCIATION
IN THE AMOUNT OF SDR 3.9 MILLION (US\$6 MILLION EQUIVALENT),
SDR 9.7 MILLION (US\$15 MILLION EQUIVALENT) AND SDR 9.7 MILLION
(US\$15 MILLION EQUIVALENT), RESPECTIVELY, TO THE REPUBLIC OF CABO
VERDE, THE REPUBLIC OF SENEGAL, AND THE REPUBLIC OF SIERRA LEONE

AND

GRANTS

FROM THE INTERNATIONAL DEVELOPMENT ASSOCIATION
IN THE AMOUNT OF SDR 5.8 MILLION (US\$9 MILLION EQUIVALENT) AND
SDR 1.25 MILLION (US\$2 MILLION EQUIVALENT), RESPECTIVELY, TO THE
REPUBLIC OF LIBERIA, AND THE COMMISSION SOUS-RÉGIONALE DES
PÊCHES (CSRP)

AND

GLOBAL ENVIRONMENT FACILITY GRANTS
IN THE AMOUNT OF US\$2 MILLION, US\$3 MILLION, AND US\$5 MILLION,
RESPECTIVELY, TO THE REPUBLIC OF CABO VERDE, THE REPUBLIC OF
LIBERIA, AND THE REPUBLIC OF SIERRA LEONE

FOR A

FIRST PHASE IN SUPPORT OF THE
WEST AFRICA REGIONAL FISHERIES PROGRAM (WARFP)

May 12, 2017

Environment and Natural Resources Global Practice
Western Africa 2 Unit
Africa Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective July 31, 2009)

Currency Unit = SDR
SDR 1 = US\$1.55

(Exchange Rate Effective September 15, 2016)

Currency Unit = SDR
SDR 1 = US\$1.40

FISCAL YEAR

Cabo Verde: January 1 – December 31

Liberia: July 1 – June 30

Senegal: January 1 – December 31

Sierra Leone: January 1 – December 31

ABBREVIATIONS AND ACRONYMS

ACGF	Africa Catalytic Growth Fund
ACOPESCA	Cabo Verde Competent Authority for Fishery Products (<i>Autoridade Competente para os Produtos da Pesca</i>)
AIS	Automatic Identification System
APL	Adaptable Programmatic Loan
AU-IBAR	African Union Interafrican Bureau for Animal Resource
BEDF	Blue Economy Development Framework
BNF	Liberia Bureau of National Fisheries
CA	Competent Authority
CAS	Country Assistance Strategy
CCLME	Canary Current Large Marine Ecosystem
CLP	Local Fishers Committee (<i>Comité Local des Pêcheurs</i>)
CLPA	Local Artisanal Fishing Counsel (<i>Conseil Local de Pêche Artisanale</i>)
CMA	Community Management Association
CNIP	Cabo Verde National Corps of Fishing Inspectors (<i>Corpo Nacional de Inspectores de Pesca</i>)
COSMAR	Cabo Verde Coastal and Marine Secretariat (<i>Centro de Operações de Segurança Marítima</i>)
CPS	Country Partnership Strategy
CSRP	Sub-Regional Fisheries Commission (<i>Commission Sous Régionale des Pêches</i>)

DfID	United Kingdom Department for International Development
DGP	Cabo Verde Fisheries Department (<i>Direcção Geral das Pescas</i>)
DLI	Disbursement-Linked Indicator
DPM	Senegal Department of Fisheries (<i>Direction des Pêches Maritimes</i>)
DPF	Development Policy Financing
DPSP	Senegal Fisheries Protection and Surveillance Department (<i>Direction de la Protection et de la Surveillance des Pêches</i>)
EC	European Commission
EJF	Environmental Justice Foundation
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
EU	European Union
EVD	Ebola Virus Disease
FAO	United Nations Food and Agriculture Organization
FMC	Fisheries Monitoring Center
FY	Fiscal Year
GDRH	Sustainable Management of Fish Resources Project (<i>Projet de Gestion Durable des Ressources Halieutiques</i>)
GEF	Global Environment Facility
GEO	Global Environment Objective
GIRMaC	Integrated Management of Coastal and Marine Resources Project (<i>Projet de Gestion Intégrée des Ressources Marine et Côtières</i>)
HACCP	Hazard Analysis and Critical Control Points
ICR	Implementation Completion and Results Report
IDA	International Development Association
IEZ	Inshore Exclusion Zone
IMATT	International Military Training and Advisory Team
IMBO	Sierra Leone Institute of Marine Biology and Oceanography
INDP	Cabo Verde National Institute for Fisheries Development (<i>Instituto Nacional do Desenvolvimento das Pescas</i>)
IUU	Illegal, Unregulated and Unreported
IW	International Waters
JICA	Japan International Cooperation Agency
JMC	Sierra Leone Joint Maritime Committee
KGTF	Korea Green Growth Trust Fund
M&E	Monitoring and Evaluation
MCS	Monitoring, Control and Surveillance
MCSCC	Liberia Monitoring, Control and Surveillance Coordinating Committee
MFMR	Sierra Leone Ministry of Fisheries and Marine Resources
MFR	Management and Functional Review
MITEP	Minimum Integrated Trade Expansion Platform
MOU	Memorandum of Understanding
MPA	Marine Protected Area
MPEM	Senegal Ministry of Fisheries and Maritime Economy (<i>Ministère de la Pêche et de l'Economie Maritime</i>)
MRAG	Marine Resources Assessment Group

NDF	Nordic Development Fund
NEPAD	New Partnership for Africa's Development
PAD	Project Appraisal Document
PAF	Partnership for African Fisheries
PDO	Project Development Objective
PforR	Program-for-Results Financing
PIU	Project Implementation Unit
PPP	Public-Private Partnership
RCU	Regional Coordination Unit
RIAS	Regional Integration Assistance Strategy
RSC	Regional Steering Committee
SDG	Sustainable Development Goal
SOP	Series of Projects
TTL	Task Team Leader
TURF	Territorial Use Rights Fisheries
UNMIL	United Nations Mission in Liberia
US NOAA	United States National Oceanic and Atmospheric Administration
USAID	United States Agency for International Development
VMS	Vessel Monitoring System
WARFP	West Africa Regional Fisheries Program
ZIRA	Artificial Reef Immersion Zone (<i>Zone d'Immersion des Récifs Artificiels</i>)
ZPP	Protected Fishing Zones (<i>Zone de Pêche Protégée</i>)

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WEST AFRICA
First Phase in Support of the
West Africa Regional Fisheries Program (WARFP)

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DATA SHEET

A. Basic Information			
Country:	Republic of Cabo Verde, Republic of Liberia, Republic of Senegal, Republic of Sierra Leone	Project Name:	West Africa Regional Fisheries Program - APL A1
Project ID:	P106063, P108941	L/C/TF Number(s):	IDA-46620, IDA-46630, IDA-46650, IDA-H5240, IDA-H7290, TF-95536, TF-95537, TF-95538
ICR Date: May 12, 2017		ICR Type:	Core ICR
Lending Instrument:	APL	Borrower:	REPUBLIC OF CABO VERDE, REPUBLIC OF LIBERIA, REPUBLIC OF SENEGAL, REPUBLIC OF SIERRA LEONE
Original Total Commitment:	XDR 29.10M USD 11.30M ¹	Disbursed Amount:	XDR 22.12M USD 10.97 ²
Revised Amount:	XDR 30.35M USD 11.66M ³		
Environmental Category: B – partial assessment		Focal Area: IW	
Implementing Agencies: Ministry of Environment, Agriculture and Fisheries (<i>Ministério do Ambiente, Agricultura e Pescas</i>) of Cabo Verde Ministry of Agriculture of Liberia Ministry of Fisheries and Maritime Economy (<i>Ministère de Pêche et de l'Economie Maritime</i>) of Senegal Ministry of Fisheries and Marine Resources of Sierra Leone Sub-Regional Fisheries Commission (<i>Commission Sous Régional des Pêches</i>)			

¹ US\$10 million from the GEF and US\$1.3 million from the Borrower.

² US\$ 9.31 million from the GEF and US\$1.66 million from the Borrower.

³ US\$10 million from the GEF and US\$1.66 million from the Borrower.

Co-financiers and Other External Partners:

Co-financiers: Global Environment Facility (GEF), Africa Catalytic Growth Fund (ACGF), Governments of Cabo Verde, Liberia, Senegal and Sierra Leone

Other external partners:

African Union InterAfrican Bureau for Animal Resources (AU-IBAR)

Environmental Justice Foundation (EJF)

European Commission (EC)

European Development Fund (EDF)

Fishery Committee of the West Central Gulf of Guinea (FCWC) (*Comité des Pêches pour le Centre Ouest du Golfe de Guinée, CPCO*)

Government of Japan

Government of France

Government of the Isle of Man

International Military Training and Advisory Team (IMATT)

Japan International Cooperation Agency (JICA)

Korea Green Growth Partnership

Nordic Development Fund (NDF)

Spanish Agency for International Development Cooperation (*Agencia Española de Cooperación Internacional para el Desarrollo, AECID*)

The New Partnership for Africa's Development Planning and Coordinating Agency (NEPAD Agency)

UK ISAT

United Kingdom Department for International Development (DfID)

United Nations Food and Agricultural Organization (FAO)

United Nations Mission in Liberia (UNMIL)

United States Agency for International Development (USAID)

United States Coast Guard

United States National Oceanic and Atmospheric Agency (NOAA)

B. Key Dates**West Africa Regional Fisheries Program - P106063**

Process	Date	Process	Original Date	Revised / Actual Date(s)
Concept Review:	06/14/2007	Effectiveness:	08/23/2010	08/17/2010
Appraisal:	07/13/2009	Restructuring(s):		06/02/2011 12/10/2012 07/24/2013 12/15/2014 12/08/2015

				08/08/2016
Approval:	10/20/2009	Mid-term Review:	09/10/2012	02/03/2013
		Closing:	12/15/2014	09/15/2016

West Africa Regional Fisheries Program - P108941				
Process	Date	Process	Original Date	Revised / Actual Date(s)
Concept Review:	06/14/2007	Effectiveness:	08/23/2010	08/17/2010
Appraisal:	07/13/2009	Restructuring(s):		
Approval:	10/20/2009	Mid-term Review:	12/15/2012	02/03/2013
		Closing:	12/15/2014	09/15/2016

C. Ratings Summary

C.1 Performance Rating by ICR

Outcomes	Moderately Satisfactory
GEO Outcomes	Moderately Satisfactory
Risk to Development Outcome	Moderate
Risk to GEO Outcome	Moderate
Bank Performance	Moderately Satisfactory
Borrower Performance	Moderately Satisfactory

C.2 Detailed Ratings of Bank and Borrower Performance (by ICR)

Bank	Ratings	Borrower	Ratings
Quality at Entry	Moderately Satisfactory	Government:	Moderately Satisfactory
Quality of Supervision:	Moderately Satisfactory	Implementing Agency/Agencies:	Satisfactory
Overall Bank Performance	Moderately Satisfactory	Overall Borrower Performance	Moderately Satisfactory

C.3 Quality at Entry and Implementation Performance Indicators			
West Africa Regional Fisheries Program - P106063			
Implementation Performance	Indicators	QAG Assessments (if any)	Rating:
Potential Problem Project at any time (Yes/No):	No	Quality at Entry (QEA)	None
Problem Project at any time (Yes/No):	No	Quality of Supervision (QSA)	None
DO rating before Closing/Inactive status	Moderately Satisfactory		

West Africa Regional Fisheries Program - P108941			
Implementation Performance	Indicators	QAG Assessments (if any)	Rating:
Potential Problem Project at any time (Yes/No):	No	Quality at Entry (QEA)	None
Problem Project at any time (Yes/No):	No	Quality of Supervision (QSA)	None
GEO rating before Closing/Inactive Status	Moderately Satisfactory		

D. Sector and Theme Codes		
West Africa Regional Fisheries Program - P106063		
	Original	Actual
Sector Code (as % of total Bank financing)		
General agriculture, fishing and forestry sector	96	96
Public administration- Agriculture, fishing and forestry	4	4
Theme Code (as % of total Bank financing)		
Environmental policies and institutions	3	3
Micro, Small and Medium Enterprise support	18	18
Other environment and natural resources management	75	75
Social Safety Nets/Social Assistance & Social Care Services	2	2
Trade facilitation and market access	2	2

West Africa Regional Fisheries Program - P108941		
	Original	Actual
Sector Code (as % of total Bank financing)		
General agriculture, fishing and forestry sector	91	91
Public administration- Agriculture, fishing and forestry	9	9
Theme Code (as % of total Bank financing)		
Environmental policies and institutions	14	14
Micro, Small and Medium Enterprise support	2	2
Other environment and natural resources management	84	84

E. Bank Staff

West Africa Regional Fisheries Program - P106063		
Positions	At ICR	At Approval
Vice President:	Makhtar Diop	Obiageli K. Ezekwesili
Country Director:	Rachid Benmessaoud	Richard G. Scobey
Practice Manager/Manager:	Magda Lovei	Ashok K. Subramanian
Project Team Leader:	Berengere P. C. Prince	John Virdin
ICR Team Leader:	Nevena Ilieva	
ICR Primary Author:	Ayala Peled Ben Ari	

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Positions	At ICR	At Approval
Vice President:	Makhtar Diop	Obiageli K. Ezekwesili
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ICR Primary Author:	Ayala Peled Ben Ari	

F. Results Framework Analysis

Project Development Objectives (from Project Appraisal Document⁴)

The Project Development Objective is to strengthen the capacity of Cape Verde⁵, Liberia, Senegal and Sierra Leone to govern and manage targeted fisheries, reduce illegal fishing and increase local value added to fish products.

Revised Project Development Objectives (as approved by original approving authority)

N.A

Global Environment Objectives (from Project Appraisal Document)

Same as PDO

Revised Global Environment Objectives (as approved by original approving authority)

N.A

(a) PDO/GEO Indicator(s)

Please note:

1. The footnotes in the tabled below are the original footnotes as in the Project Appraisal Document, restructuring papers and World Bank reports, as well as ICR notes.
2. Text in [] was added for clarity.
3. All changes to indicators were made as part of Level II restructuring/additional financing approved by World Bank management.
4. Cumulative targets were added where possible on the basis of individual countries' baselines, targets and results.

Indicator	Baseline Value (2009)	Original Target Values (from approval documents) (2014)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
1. Original: Improved Governance indicator: Territorial Use Rights Fisheries (TURFs)⁶ legally established for coastal fisheries (number)				

⁴ The PDO in the PAD and the financing agreements is the same, except that "the Recipient" mentioned in the individual financing agreements is specified in the Project Appraisal Document (PAD) as "Cape Verde, Liberia, Senegal and Sierra Leone."

⁵ In 2013, Cabo Verde was adopted as the country's official name.

Indicator	Baseline Value (2009)	Original Target Values (from approval documents) (2014)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
	Cabo Verde: 0	At least 2	August 2016 revised target: 2	0
Comments: NOT ACHIEVED. Although co-management ⁷ agreements were approved by local authorities (state/island level), these agreements were not signed by the government (federal level) by project closing. Target revised to reflect expected result. Data source: Project M&E reports, review of co-management reports and meetings with Community Management Association (CMA) members.				
	Liberia: 0	At least 1	August 2016 revised target: 1	1
Comments: ACHIEVED. Target revised to reflect expected result. Data source: Project M&E reports, signed Directive, meetings with community members and field observations.				
	Senegal: 0	At least 8 ⁸	August 2016 revised target: 8	8
Comments: ACHIEVED. Target revised to reflect expected result. Data source: Project M&E reports, signed Directives, meetings with community members and field observations.				
	Sierra Leone: 0	At least 4		0
Comments: NOT ACHIEVED. While CMAs were registered with respective management areas by the minister in charge of decentralization, these associations were not legally allocated fishing rights by the ministry in charge of fisheries. Data source: Project M&E reports and discussions with government officials.				

⁶ TURFs are defined here as areas within six miles of the coast that are managed by the local communities, and where fishers would have rights to use the resources and responsibility for managing those resources sustainably. While the nature and form of the TURFs would vary in each country, they share four common characteristics: local communities and resource users to whom these rights are conferred would: (i) have the right to manage the nature and extent of the use of fish resources in TURFs, provided practices comply with national regulations; (ii) over time, assume increasing control over access to TURF resources and increasing responsibility for ensuring community compliance with regulations on fishing gear and methods; (iii) keep benefits from rights to access the TURFs; and (iv) assume responsibility for managing and monitoring the health of beach and in-shore environments, including on sanitation, waste disposal and water quality. This definition is included in the PAD.

⁷ As piloted under the project, co-management is a process whereby communities define a set of rules over specific fisheries and a defined area. Thereafter, the government delegates several management responsibilities to the communities, including the implementation of local fisheries management plans.

⁸ Local Artisanal Fishing Councils (CLPAs) given legal jurisdiction over the fisheries in an area of the sea.

Indicator	Baseline Value (2009)	Original Target Values (from approval documents) (2014)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
For WARFP SOP-A1 as a whole:	0	At least 15	11	9 ⁹
Comments: SUBSTANTIALLY ACHIEVED (82%). Target revised to reflect expected result. This original indicator measures the improved governance objective of the PDO. Data source: As above.				
2. Original: Reduction of Illegal Fishing indicator: Fishing vessels observed by aerial/surface patrol or by radar and satellite monitoring, that are committing a serious infraction (% of total number of vessels known/ observed)				
	Cabo Verde: 42% ¹⁰	20%	July 2013: Indicator reformulated August 2016: Indicator reformulated	18%
Comments: ACHIEVED. This indicator was reformulated in 2013 in order to clarify its scope. It was again reformulated in 2016 for further clarity. See below revised wording. Data source: Vessel Monitoring System (VMS) ¹¹ output reports and surveillance patrol reports of fisheries inspectors in collaboration with the coastguard.				

⁹ Nine fishing communities were officially (at federal level) provided with management rights over fishing areas and fisheries. Communities were organized into CMAs and their activities are guided by agreed objectives, byelaws and action plans consistent with national policies. Frequent consultations with government institutions have enhanced the sense of ownership and stewardship of CMA members over the coastal resources using principles of access rights.

¹⁰ Using 2000 European Union (EU) reporting data.

¹¹ A fishing VMS is a cost-effective tool for the successful monitoring, control and surveillance of fisheries activities. VMS provides a fishery management agency with accurate and timely information about the location and activity of regulated fishing vessels (Source: FAO).

Indicator	Baseline Value (2009)	Original Target Values (from approval documents) (2014)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
	Liberia (% of all known industrial vessels targeting the coastal demersal & shrimp fisheries observed fishing without a license): 83% ¹²	33%	August 2016: Indicator reformulated	30%
<p>Comments: ACHIEVED. Indicator reformulated for clarity. See below revised wording. Data source: VMS output reports and surveillance patrols reports, in addition to information received from the concerned community (Robertsport), corroborated with the VMS reports and aerial patrols conducted by the UNMIL.</p>				
	Senegal (% of all known small-scale vessels that have a permit): 30% [Equivalent to 70% of vessels committing a serious infraction (% of all known small-scale vessels that do not have a permit)]	95% [Equivalent to 5% of vessels committing a serious infraction]	December 2012 revised target: 100% [Equivalent to zero vessels committing a serious infraction] August 2016: Indicator reformulated	55% [Equivalent to 45% of vessels committing a serious infraction]
<p>Comments: PARTIALLY ACHIEVED (55%). For aggregation purposes, this indicator in Senegal needs to be reversed to allow calculation of the rate of noncompliance. This applies to the current permit only. The indicator was later reformulated for clarity - see revised wording below. The 2012 restructuring paper cited the indicator as “% of all known small-scale vessels that do not have a permit” with a 0% target. Data source: quarterly and annual reports from participatory surveillance patrols, reports from the Fisheries Protection and Surveillance Department (DPSP) and reports from the Department of Fisheries (DPM).</p>				

¹² For last data year available (2007), there were 50 licensed vessels, and close to 250 different vessels were observed fishing without a license by UNMIL flights, in the coastal zone. Total known industrial fishing vessels was thus 300, at least 250 of which were fishing without a license, for a minimum value of 83% serious infractions observed per every known industrial fishing vessel (inclusion of infraction to the Inshore Exclusion Zone (IEZ) would increase this value).

Indicator	Baseline Value (2009)	Original Target Values (from approval documents) (2014)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
	Sierra Leone (% of all licensed industrial vessels observed fishing within 6-mile IEZ): 88% ¹³	44%		24%
Comments: ACHIEVED. IEZ is Inshore Exclusion Zone. ¹⁴ Data source: VMS reports and surveillance patrols, in addition to information from coastal communities corroborated with the VMS reports.				
For WARFP SOP-A1 as a whole:	70.75% (on average)	25.5%	24.25%	29.25% ¹⁵
Comments: SUBSTANTIALLY ACHIEVED (89%). Target revised to reflect expected result. This original indicator measures the reduction of illegal fishing objective of the PDO. Data source: as above.				
3. Revised (July 2013): % of fishing vessels observed and controlled by sea patrol or by radar and satellite monitoring, that are committing a serious infraction (% of total number of vessels observed and controlled)				
	Cabo Verde: 42%	30%		18%
Comments: ACHIEVED. The only change in the indicator is the replacement of “controlled by aerial/surface patrol” by “controlled by sea patrol” as this is how the indicator was measured since the beginning. The total patrol effort did indeed not cover terrestrial spot-checks in Cabo Verde. Although the end target was revised from 20% infraction to 30% committing a serious infraction, this change was cancelled in the August 2016 revision below. This revised indicator measures the reduction of illegal fishing objective of the PDO and the considerable reduction is attributed to project interventions. Data source: VMS output reports and surveillance patrol reports of fisheries inspectors in collaboration with the coastguard.				

¹³ For last year data available (2001), there were 35 zone infractions recorded, with a total of 40 licensed industrial vessels.

¹⁴ IEZ is a six nautical miles area starting from the coast, reserved exclusively for artisanal fishers.

¹⁵ Before the project began, the countries had weak capacity (policies, legal framework and institutions) to police their waters; hence, over 200 illegal fishing vessels were frequently observed fishing indiscriminately in the waters of the countries, including in the IEZ which is prohibited for industrial trawler use. With project support, the capacity of the countries was enhanced by establishing fisheries monitoring centers and satellite-based VMS, training fisheries observers and inspectors, developing and implementing Monitoring, Control and Surveillance (MCS) strategies and funding frequent sea patrols. These measures have significantly reduced the number of fishing vessels observed fishing illegally to bare minimum.

Indicator	Baseline Value (2009)	Original Target Values (from approval documents) (2014)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
4. Revised (August 2016): Fishing vessels observed that are committing a serious infraction in targeted fisheries				
	Cabo Verde: 42%	20%		2.4%
Comments: ACHIEVED. While the previous indicator gathered nation-wide data, this reformulation allowed a focus on targeted fisheries supported by the project. The original end-of-project target was re-established. Data source: VMS output reports and surveillance patrol reports of fisheries inspectors in collaboration with the coastguard.				
	Liberia (% of all known industrial vessels targeting the coastal demersal & shrimp fisheries observed fishing without a license): 83%	33%		30%
Comments: ACHIEVED. This indicator reflects revised wording of the original Reduction of Illegal Fishing indicator for clarity. Data source: VMS output reports and surveillance patrols reports, in addition to information received from the concerned community (Robertsport), corroborated with the VMS reports and aerial patrols conducted by the UNMIL.				
	Senegal (% of all known small-scale vessels that have a permit): 30% [Equivalent to 70% of vessels committing a serious infraction (% of all known small-scale vessels that do not have a permit)]	46% [Equivalent to 54% of vessels committing a serious infraction]		55% [Equivalent to 45% of vessels committing a serious infraction]
Comments: ACHIEVED. This indicator reflects revised wording of the original Reduction of Illegal Fishing indicator for clarity. The original end-of-project indicator was reduced from 95% to 46% to reflect slower than expected progress. Licensing is an annual exercise, so the 55% value could have been measured early in the year, showing an increase toward the end of the year. Data source: quarterly and annual reports from participatory surveillance patrols, reports from DPSP and reports from DPM.				

Indicator	Baseline Value (2009)	Original Target Values (from approval documents) (2014)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
For Cabo Verde, Liberia and Senegal as a whole:	65% (on average)	35.7%		25.8%
Comments: ACHIEVED. This revised indicator measures the reduction of illegal fishing objective of the PDO. Data source: as above.				
5. New (August 2016): Vessels fishing illegally in the artisanal exclusive areas at targeted sites in Liberia and Senegal (percentage)				
	Liberia: 50%	14%		0%
Comments: ACHIEVED. This indicator was added to reflect the outcome of reduction in illegal fishing by industrial vessels fishing illegally in IEZ and the improved management of IEZ and surveillance at local level. Data source: VMS output reports and surveillance patrol reports.				
	Senegal: 37%	11%		11%
Comments: ACHIEVED. This indicator was added to reflect the outcome of reduction in illegal fishing by small-scale vessels committing infractions in co-management sites and surveillance. Data source: quarterly and annual reports from participatory surveillance patrols, reports from DPSP and reports from DPM.				
For Liberia and Senegal as a whole:	43.5% (on average)	12.7%		5.5%
Comments: ACHIEVED. This new indicator measures the reduction of illegal fishing objective of the PDO. Data source: as above.				
6. Original: Increased Local Value Added indicator: Increase or stabilization in the volume of exports from targeted fisheries (USD, % increase)				
	Cabo Verde (Coastal demersal fish = 12 tons Lobsters = 17 tons ¹⁶): 0%	15%	July 2013 revised target: 5% August 2016: Indicator dropped	Not reported
Comments: The end-of-project target was reduced in 2013 due to the need to reflect a stabilization of the catch rather than an increase in line with the overall objective of the project to rebuild marine resources. The indicator was dropped in 2016 due to an attribution gap with the understanding that the project did not support any activities directly related to export and that exports were the result of a set of factors largely outside				

¹⁶ Based on 2003 data, last year available. Exports have likely risen since this time.

Indicator	Baseline Value (2009)	Original Target Values (from approval documents) (2014)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
the control of the project. It was replaced by the indicator below.				
	Liberia (Coastal demersals = 0 tons Shrimp = 0 Tons): 0	1,000 ¹⁷	June 2011 revised target: 4,000 August 2016: Indicator dropped	Not reported
Comments: The end-of-project target was increased in 2011 to reflect increased financing from the ACGF (P124242, P124844). The indicator was then dropped in August 2016 due to an attribution gap as explained above.				
	Senegal (coastal demersals = 69,000 tons ¹⁸): 0%	0%	August 2016: Indicator dropped	Not reported
Comments: The indicator was dropped in August 2016 due to an attribution gap as explained above.				
	Sierra Leone: 0% (9,000 tons coastal demersals and 1,400 tons Shrimp)	10% (9,900 tons coastal demersals and 1,540 tons Shrimp)	June 2011 revised target: 33% for coastal demersals (12,000 tons) and 10% for Shrimp (1,540 tons, unchanged)	10% for coastal demersals and 10% for Shrimp
Comments: PARTIALLY ACHIEVED (30% achievement for coastal demersals and 100% achievement for Shrimp). The end-of-project target was increased in 2011 to reflect increased financing from the ACGF. Data source: data from Ministry of Fisheries and Marine Resources (MFMR) on export and from the Statistics Unit on transshipment. Data are from 2011 and 2012. No further data were available to the project in 2013 and 2014.				

¹⁷ Tons of total exports of coastal demersal fish and shrimp – absolute values are given instead of percentage for Liberia, since the baseline is zero.

¹⁸ Based on most recent year data available (2005) with total export volume of 83,104 tons, of which 83% estimated to originate from coastal demersal fisheries.

Indicator	Baseline Value (2009)	Original Target Values (from approval documents) (2014)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
For WARFP SOP-A1 as a whole:	0%	8.3% (excluding Liberia that used a different unit)	33% for coastal demersals and 10% for Shrimp in Sierra Leone	10% for coastal demersals and 10% for Shrimp in Sierra Leone
Comments: ACHIEVED. Target revised to reflect expected result. This original indicator measures the increased local value added objective of the PDO. Data source: as above.				
7. New (August 2016): Post-harvest handling capacity at targeted sites (tons/year)				
	Cabo Verde: 2,500	5,000		5,000
Comments: ACHIEVED. This indicator replaced the original Increased Local Value Added indicator due to an attribution gap. The target is considered achieved as the works in both auction and ice facilities were completed before closing, and the signing of a contract with a private company was not considered a condition to the fulfillment of this indicator. Data source: Project M&E reports and field observations.				
	Liberia: 0	5,039		0
Comments: NOT ACHIEVED. This indicator replaced the original Increased Local Value Added indicator due to an attribution gap. The baseline value did not increase as planned as cold rooms and an improved smoking oven were not completed before project closing due to reasons outlined in this ICR. Data source: Project M&E reports and field observations.				
	Senegal: 17,500	18,500		32,704
Comments: ACHIEVED. This indicator replaced the original Increased Local Value Added indicator due to an attribution gap. In the context of Senegal, the reached value reflects the volume of catch handled at the main artisanal landing sites supported by the project (a sorting room at Kafountine, fencing of several sites' perimeters, equipment for analysis laboratories in the fishing docks and financing of quality specialists to improve handling capacity). Data source: DPM.				
For Cabo Verde, Liberia and Senegal as a whole:	20,000	28,539		37,704 ¹⁹
Comments: ACHIEVED. This new indicator measures the increased local value added				

¹⁹ The project created an enabling environment for the selected communities (adequate hygienic space, water, electricity and ice) to better handle catch landings destined to be sold fresh, which otherwise would experience deterioration and loss. With these facilities, the selected sites were able to handle a total of 37,704 metric tons of fresh fish, most of which were chilled and transported to either local market or processing unit for export, which was hardly possible before the project intervened.

Indicator	Baseline Value (2009)	Original Target Values (from approval documents) (2014)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
objective of the PDO. Data source: as above.				

(c) Intermediate Outcome Indicator(s)

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Component 1: Good Governance and Sustainable Fisheries Management				
1. Original: Clear principles and policies are established to increase the wealth from fisheries through strengthened rights and equitable allocation of these rights which balances economic efficiency and social benefits (Yes/No)				
	Cabo Verde: 0 [No]	Policies adopted [Yes]	August 2016: Indicator revised	Yes
Comments: ACHIEVED. A Strategic Fisheries Development Plan (a policy statement for 2012-2017) was adopted by the government in 2014 as a government 'letter of sector policy' along with an implementation action plan. A Fisheries Act was developed and is under review for approval by the new government. This indicator was revised to better capture the result of project-financed legal and institutional reform interventions. See below revised wording. Data source: Project M&E reports, review of policy statement and discussions with government officials.				
	Liberia: 0 [No]	Policies adopted [Yes]	August 2016: Indicator revised	Yes
Comments: ACHIEVED. A new Fisheries and Aquaculture Policy and Strategy was approved by the Cabinet in June 2015, defining national priorities and actions for developing the sector by 2030. A draft revised Fisheries Act was finalized and endorsed by Cabinet in July 2016. This indicator was revised to better capture the results of project-financed legal and institutional reform interventions. See below revised wording. Data source: Project M&E reports, review of Policy and Strategy and Act, and discussions with government officials.				
	Senegal: 0 [No]	Policies adopted [Yes]	August 2016: Indicator revised	Yes
Comments: ACHIEVED. The 1998 Marine Fisheries Code was revised and adopted by the National Assembly in 2015, and promulgated by the President in 2016, including provisions for community-led fisheries management. A Marine Fisheries Decree was circulated for signature. This indicator was revised to better capture the results of project-financed legal and institutional reform interventions. See below revised wording. Data				

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
source: Project M&E reports, review of Code and Decree, and discussions with government officials.				
	Sierra Leone: 0 [No]	Policies adopted [Yes]		No
Comments: NOT ACHIEVED. In Sierra Leone, policy reform was supported by NEPAD. The 2010 Fisheries Policy was not revised; a Fisheries and Aquaculture Bill and a Five Year Strategic Plan were reviewed but not validated; fisheries regulation was revised but not enacted; a Management Functional Review, including financial costing, was carried out but not approved by Cabinet. Data source: Project M&E reports and discussions with government officials.				
For WARFP SOP-A1 as a whole:	No	Yes		Yes for Cabo Verde, Liberia and Senegal, and No for Sierra Leone.
2. Revised (August 2016): Legal and institutional framework for allocation of fishing rights to communities in place (Yes/No) (disaggregated by country)				
	Cabo Verde: No	Yes		Yes
Comments: ACHIEVED. This indicator was revised for clarity purposes and to better focus on one of the project main activities, i.e., revision of the legal and institutional framework. For Cabo Verde, the explanation provided in the comment of the original indicator stands. Data source: Project M&E reports, review of policy statement and discussions with government officials.				
	Liberia: No	Yes		Yes
Comments: ACHIEVED. The rationale for revising this indicator is provided in the comment above for Cabo Verde. The country level explanation provided in the comment of the original indicator stands. Data source: Project M&E reports, review of Policy and Strategy and Act, and discussions with government officials.				
	Senegal: No	Yes		Yes
Comments: ACHIEVED. The rationale for revising this indicator is provided in the comment above for Cabo Verde. The country level explanation provided in the comment of the original indicator stands. Data source: Project M&E reports, review of Code and Decree, and discussions with government officials.				

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
For Cabo Verde, Liberia and Senegal as a whole:	No	Yes		Yes ²⁰
3. Original: Small-scale fishing vessels in targeted fisheries that are registered (% of total)				
	Cabo Verde: 50%	100%		100%
Comments: ACHIEVED. Data source: M&E reports and review of registry.				
	Liberia: 0%	100%		100% ²¹
Comments: ACHIEVED. Data source: M&E reports and review of registry.				
	Senegal: 60%	100%		100%
Comments: ACHIEVED. Data source: M&E reports and review of registry.				
	Sierra Leone: 0%	100%		100%
Comments: ACHIEVED. Data source: M&E reports and review of registry.				
For WARFP SOP-A1 as a whole:	25%	100%		100% ²²
4. New (December 2012): Registered small-scale fishing vessels that are allocated and enforced with current general fishing permit (% of total)				
	Senegal: 30%	100%		55%

²⁰ The revision of legal and institutional frameworks was based on review of institutions' functioning (supported in some cases by the project) and carried out by consultants paid for by the project (except in Sierra Leone where this task was at a certain point transferred to NEPAD). The capacity of counterparts at the management level was enhanced on fisheries management, enforcement control and legal matters to guide the implementation of new policy visions. At the community level, members were trained in co-management principles, stakeholder engagement skills as well as participatory surveillance. These achievements created the required legal basis, institutions and procedures for achieving the PDO level indicator for governance. The achievement of this result provided the needed legal setting for the legal establishment of TURFs in Senegal and Liberia as shown under the governance indicator, and is expected to be the setting for the establishment of TURFs in Cabo Verde under the second phase of the project.

²¹ Registration was 100% completed in 2013. During the Ebola Virus Disease (EVD), field activities stopped, including registration, which resulted in 90% registration.

²² A total of 34,048 small-scale fishing vessels were registered (Cabo Verde: 1,734; Liberia: 2,805; Senegal: 19,009 and Sierra Leone: 10,500). To achieve this, a national frame survey (complete census) to record all fishing canoes and their gears was conducted in all four countries and the results were stored in a database that was developed by the project. Each canoe was assigned with registration number during the process. This indicator provided information for measuring other intermediate indicators such as the 'number of vessels with permit/license', and 'percentage infraction in small-scale and semi-industrial vessel' in Cabo Verde and Senegal. This indicator informs the PDO level indicators for governance and reduction of illegal fishing, as it provides information on the artisanal fishing capacity that feeds into policy decision-making on controlling the fishing effort. The 100% result reflects the achievement at the time of measurement toward the closing of country projects.

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
<p>Comments: PARTIALLY ACHIEVED (55%). This indicator was added to measure newly introduced activities under Component 1. Licensing is an annual exercise, and this value could have been measured early in the year. Currently, the government allocates fishing permits to small-scale fishers without specification of the targeted species, fishing area and fishing period. The first step towards the allocation of clear fishing rights, which the project initiated in Senegal, is to allocate the current permit to all the fishers in the fleet and then replace the permit with a specified and legally recognized fishing license. Data source: Senegal's small scale vessel registry. The "enforced" aspect was monitored through participatory surveillance reports and review of database on licensed canoes.</p>				
<p>5. New (December 2012): Registered small-scale fishing vessels that are allocated and enforced with defined and specified individual fishing/access rights (specified and legally recognized fishing license for small-scale fisheries) (% of total)</p>				
	Senegal: 0%	50%		0%
<p>Comments: NOT ACHIEVED. The categories and options of a new artisanal fishing permit were defined and shared with stakeholders, however they were not approved by the ministry in charge before closing. This indicator was added to measure newly introduced activities under Component 1. It was revised in 2016 (see below). Data source: M&E reports and discussions with government counterparts. The "enforced" aspect was monitored as above.</p>				
<p>6. Revised (August 2016): Specified individual fishing license scheme for small-scale fisheries in Senegal approved by the ministry in charge of fisheries [Yes/No]</p>				
	Senegal: No	Yes		No
<p>Comments: NOT ACHIEVED. The new permit scheme was not approved by the ministry in charge before project closing. The indicator is a downscaled version of the indicator from 2012 and is also used to replace another 2012 indicator used to measure the preparation of two fisheries management plans (see below). The wording was changed to better reflect achievements in Senegal. Data source: M&E reports and discussions with government counterparts.</p>				
<p>7. New (August 2016): Ratio of total number of fishing licenses in semi-industrial fisheries compared to total number of registered vessels in Cabo Verde (percentage)</p>				
	Cabo Verde: 26%	65%		57%
<p>Comments: SUBSTANTIALLY ACHIEVED (88%). This indicator was added to better reflect the licensing rate of registered semi-industrial vessels in Cabo Verde. The project funded various actions related to the licensing, including a decentralized and highly accessible registration system for the semi-industrial fleet. Higher licensing rate is an indication of stronger compliance with fisheries regulations and overall better governance. Data source: Department of Marine Fisheries (<i>Direccão Geral das Pescas, DGP</i>).</p>				
<p>8. New (August 2016): Ratio of total number of fishing licenses in artisanal fisheries compared to total number of registered vessels in Cabo Verde (percentage)</p>				
	Cabo Verde: 4%	55%		22%

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
<p>Comments: PARTIALLY ACHIEVED (40%). This indicator was added to better reflect the licensing rate of registered artisanal vessels in Cabo Verde. The project funded various actions related to the licensing, including a decentralized and highly accessible registration system for the artisanal fleet. Data source: Small scale fishing registry.</p>				
<p>9. Original: Communities that are allocated fishing rights (number)</p>				
	Cabo Verde: 0	4	July 2013 revised target: 2 August 2016 revised target: 4	0
<p>Comments: NOT ACHIEVED. Although approved by local authorities (state/island level), the co-management agreements were not signed by the government (federal level) by project closing. The end-of-project target was reduced in 2013 and increased to the original value in 2016. While the PDO-level indicator focuses on the number of community associations (2), this intermediate indicator counts the number of fishing villages within CMAs. Data source: Project M&E reports, review of co-management reports and meetings with CMA members.</p>				
	Liberia: 0	2	August 2016 revised target: 1	1
<p>Comments: ACHIEVED. Comprising a cluster of 15 fishing villages. The end-of-project target was reduced to reflect a longer than planned development period. Data source: Project M&E reports, signed Directive, meetings with community members and field observations.</p>				
	Senegal: 0	20	December 2012: Indicator revised August 2016 revised target: 8	8
<p>Comments: ACHIEVED. In 2012 the indicator was revised to better describe the local context in Senegal where support to co-management and allocation of fishing rights was done via Local Artisanal Fishing Counsel (CLPAs) (see below revised wording). In 2016, the end-of-project target of the original indicator was reduced to reflect a changed</p>				

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
approach to community engagement from village-level fishing rights to multiple community rights. Data source: Project M&E reports, signed Directives, meetings with community members and field observations.				
	Sierra Leone: 0	15		0
Comments: NOT ACHIEVED. CMAs were legally registered with local and central government but were not allocated fishing rights when the project closed. Data source: Project M&E reports and discussions with government officials.				
For WARFP SOP-A1 as a whole:	0	41 (including Sierra Leone)	13 (excluding Sierra Leone)	9 ²³
10. Revised (December 2012): Legally established co-management communities (CLP) which are allocated defined and legally recognized fishing rights (functioning as TURF) (including the ones managing the ZPP and ZIRA) [Number]				
	Senegal: 0	12		8
Comments: SUBSTANTIALLY ACHIEVED (67%). CLP is the equivalent Senegalese term to CMA. ZPP and ZIRA are protected fishing zones and immersed artificial reefs, respectively. This indicator reflects revised wording of the above indicator. This revised indicator was included to improve clarity. The related PDO-level indicator's target was revised from "at least 8" to "8". Data source: Project M&E reports, signed Directives, meetings with community members and field observations.				
11. New (December 2012): Fisheries Management Plans prepared for targeted fisheries and set levels of sustainable exploitation for these targeted fisheries, and create rights and allocation mechanism for those fisheries [Number]				
	Senegal: 0	2	August 2016: Indicator revised.	2
Comments: ACHIEVED. This indicator was added in 2012 to measure an uncompleted key activity from the predecessor Integrated Management of Coastal and Marine Resources Project (GIRMaC). In 2016, it was revised to better reflect actual project achievement. The revised version of the indicator was mentioned above ("Specified individual fishing license scheme for small-scale fisheries in Senegal approved by the ministry in charge of fisheries (Yes/No)"). Data source: Review of management plans.				
12. New (December 2012): Percentage of alternative livelihoods undertaken by artisanal fishers and members of crew from industrial vessel receiving micro finance access and small enterprise training from the project, sustained profitably				

²³ The project enhanced the capacity of nine fishing communities to form CMAs with defined rules and management plans, and the CMAs were legally recognized as entities responsible for sustainably managing their coastal resources and environment.

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
	Senegal: 0%	40%	August 2016 revised target: 70%	84%
<p>Comments: ACHIEVED. This indicator was added in 2012 to measure progress in uptake of alternative livelihoods, which was not included in the project results framework at appraisal. In 2016, the end-of-project target was increased to better reflect project progress. The alternative livelihoods undertaken include Poultry Farms (broilers and layers), Farms for beef fattening and stores for maritime hardware. These activities are expected to be sustained due to their profitability. Data source: verification of list of micro-projects submitted for micro-finance, verification of summary bank statements of microcredit recipients with fishers, project team and microcredit institution, interview of recipients and physical assessments.</p>				
<p>13. Original: Vessels reduced in targeted fisheries that are overexploited (number per year)</p>				
	Cabo Verde (small-scale vessels – or reduction in number of fishers equivalent to targets for vessels) ²⁴ : 0	50	July 2013: Indicator revised	Not reported
<p>Comments: The indicator was reformulated in order to put the focus on conversion of the actors outside the fishing sector rather than on the reduction of the number of vessels (see below revised wording).</p>				
	Liberia: N.A	N.A		
	Senegal (licensed industrial trawlers): 0	0	December 2012 revised target: 10	0
<p>Comments: NOT ACHIEVED. The 2012 restructuring paper indicated an end-of-project target of 10 and “no changes” to the target. Therefore, it is assumed that the original 0 target was a mistake. While not officially dropped during the August 2016 restructuring, the related activity had been cancelled shortly after the project mid-term and this intermediate indicator was not included in the proposed revised results framework of 2016. Data source: M&E and mission reports.</p>				

²⁴ Based on estimates of roughly 3 fishers per small-scale vessel, i.e., a total of 4,000 small-scale fishers and roughly 1,250 small-scale vessels for most recent data available.

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
	Sierra Leone: N.A	N.A		
For WARFP SOP-A1 as a whole:	0 (Cabo Verde and Senegal)	50 (Cabo Verde and Senegal)	10 (Senegal)	0 (Senegal)
14. Revised (July 2013): Number of artisanal fishers and fish processors undertaking alternative livelihoods outside the fisheries sector and receiving micro-finance access and small enterprise training from the project.				
	Cabo Verde: 0	40		0
Comments: NOT ACHIEVED. Although the potential beneficiaries of the micro-credit facility were identified and micro-finance projects finalized for disbursement, funds were not disbursed by project closing. This indicator reflects revised wording of the above indicator. Data source: M&E reports.				
Component 2: Reduction of Illegal Fishing				
15. Original: Total patrol days at sea per year in targeted fisheries (number of total patrol days/year)				
	Cabo Verde: 70	150	August 2016 revised target: 898	973
	Liberia: 0	100		
	Senegal (# of total patrol days/yr in coastal waters) ²⁵ : 200	400		
Comments: ACHIEVED. 196 in Cabo Verde, 9 in Liberia and 768 in Senegal. The low number of patrols in Liberia reflects the reduction in illegal fishing in the country's waters, which necessitated less surveillance efforts. The 2016 restructuring paper indicated that the target was reduced from 925 days to 898 days due to the closing of the project in Sierra Leone. No Country specific targets were indicated. Data source: monthly surveillance patrol reports.				
	Sierra Leone: 348	696		305
Comments: NOT ACHIEVED. Data source: monthly surveillance patrol reports.				
For WARFP SOP-A1 as a whole:	618	1,346 (including Sierra Leone)	898 (excluding Sierra Leone)	1,278 (including Sierra Leone) and 973 (excluding Sierra Leone) ²⁶
16. New (August 2016): Total patrol operations at the dockside per year in Liberia (days)				
	Liberia: 0	21		25
Comments: ACHIEVED. This indicator was added to better reflect improved surveillance				

²⁵ Includes surveillance of both industrial and small-scale fisheries.

²⁶ The project provided support to bolster the countries' MCS capabilities and increase the surveillance effort to keep illegal fishing vessels away from the waters.

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
capacity at the local level. Data source: monthly surveillance patrol reports.				
17. New (August 2016): National Fisheries Inspectors established and operational in Cabo Verde (Yes/No)				
	Cabo Verde: No	Yes		Yes
Comments: ACHIEVED. This indicator was added to better reflect the project's contribution to inspection capacity strengthening. For the first time, Cabo Verde trained 22 fisheries inspectors and assigned them to the islands to inspect fishing vessels both onshore and at sea in collaboration with the coastguard. This activity created a positive impact as fishing vessels began to adhere to harvesting rules. This activity is sustainable as the government has since absorbed the inspectors as employees paid by the government. Data source: M&E reports and informal interviews with the fisheries inspectors.				
18. Original: A satellite-based fishing vessel monitoring system (VMS) is in place and functioning (Yes/No)				
	Cabo Verde: No	Yes		Yes
Comments: ACHIEVED. Data source: M&E reports and field observations.				
	Liberia: No	Yes		Yes
Comments: ACHIEVED. Data source: M&E reports and field observations.				
	Senegal: Yes, but without link to AIS	Yes		Yes
Comments: ACHIEVED. AIS is Automatic Identification System. Data source: M&E reports and field observations.				
	Sierra Leone: No	Yes		Yes
Comments: ACHIEVED. Data source: M&E reports and field observations.				
For WARFP SOP-A1 as a whole:	No	Yes		Yes
19. New (August 2016): Coastal fisheries stations established and operating for participatory fisheries surveillance purposes in Cabo Verde (number)				
	Cabo Verde: 0	2		2
Comments: ACHIEVED. This indicator was added to better reflect participatory surveillance in Cabo Verde. Data source: M&E reports and field observations.				
Component 3: Increasing the Contribution of the Marine Fish Resources to the Local Economies				
20. Original: Pilot integrated fish landing site clusters established by the Program and operating (number)				

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
	Cabo Verde (Santiago Island): 0	1	July 2013: Indicator dropped	0
Comments: NOT ACHIEVED. This indicator was dropped due to the recognition that the result will not be achieved within the project timeframe. Two new indicators were introduced instead to measure revised activities (see below). Data source: M&E and mission reports.				
	Liberia (Robertsport): 0	1	June 2011 revised target: 2 August 2016 revised target: 1	0
Comments: SUBSTANTIALLY ACHIEVED (70%). The Robertsport landing site was 70% completed at closing. It is currently being completed with ACGF additional financing. The end-of-project target was increased in 2011 to reflect increased ACGF financing and an additional landing site to be financed. In 2016 the target was reduced back to 1, to cater for the financing shortfall and the EVD impact as outlined in the ICR. Data source: M&E and mission reports, field observations and engineering reports.				
	Senegal (Kafountine): 0	1	December 2012: Indicator dropped	0
Comments: PARTIALLY ACHIEVED (10%). A sorting area was constructed, however the indicator was dropped as a later priority to be measured under the second phase of the program. Data source: M&E and mission reports and field observations.				
	Sierra Leone (Konakree Dee Integrated Landing Site Cluster): 0	1	June 2011 revised target: 2	0
Comments: NOT ACHIEVED. The end-of-project target was increased in 2011 to reflect increased ACGF financing and an additional landing site to be financed. Data source: M&E and mission reports.				
For WARFP SOP-A1 as a whole:	0	4	3 (excluding Cabo Verde and Senegal)	0
21. New (July 2013): Cold storage facility established by the Program and operating (number)				
	Cabo Verde: 0	1 (ice plant in Sal Island)		0

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Comments: NOT ACHIEVED. Facility established and functional, but the facility is currently not operational. This indicator replaces the above dropped indicator on landing site clusters. Data source: M&E and mission reports, field observations.				
22. New (July 2013): Enhanced fishing port (with water/electricity supply stations and auction hall) established by the Program and operating (number)				
	Cabo Verde: 0	1 (enhanced fishing port in Praia, Santiago Island)		0
Comments: PARTLY ACHIEVED (50%). An auction hall was completed and water and electricity supply stations were established and are functional, however the enhanced port it is not yet operating due to delays caused by change in government, which intends to cause changes in the staffing of the port. This indicator replaces the above dropped indicator on landing site clusters. Data source: M&E and mission reports, field observations.				
23. New (August 2016): Community freezing facilities are in place and functional in Sal Island Cabo Verde (Yes/No)				
	Cabo Verde: No	Yes		Yes
Comments: ACHIEVED. The ice-making facility is in place and functional. The indicator was added to account for infrastructure works in Cabo Verde. Data source: M&E and mission reports, field observations.				
24. New (August 2016): Auction market at fishing port is set up and functional at island of Santiago in Cabo Verde (Yes/No)				
	Cabo Verde: No	Yes		Yes
Comments: ACHIEVED. An auction hall was completed and is functional. Note that this indicator does not include the operation of the auction hall and therefore it is considered achieved. This indicator was added to account for improvements in fish handling in Cabo Verde. Data source: M&E and mission reports, field observations.				
25. Original: A competent sanitary authority (CA) is accredited for certification of exports to the European Union, in each country (Yes/No)				
	Cabo Verde: N.A	N.A		
	Liberia: No	Yes	August 2016: Indicator revised	No
Comments: NOT ACHIEVED. This indicator was revised because the accreditation target was proven to be overambitious. Data source: M&E and mission reports.				

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
	Senegal: N.A	N.A	December 2012 revised target: Yes August 2016: Indicator dropped	Not reported
Comments: The 2012 end-of-project target change may have been made by mistake given that the indicator was marked as “continued” (unchanged) and Senegal had already been accredited at project start. In 2016 the indicator was still not applicable to Senegal. It should be noted, however that the project enhanced the capacity of the Ministry of Fisheries’ Directorate of Fisheries Processing Industries to establish a Hazard Analysis and Critical Control Points (HACCP) system, to implement a quality approach according to ISO 17020 and ISO 17025 standards, and to have in place control of the cold chain in fish processing and conservation units.				
	Sierra Leone: No	Yes		No
Comments: NOT ACHIEVED. A CA was in place but was not accredited for EU export by project closing. This activity was dropped at project mid-term as the government decided hand it to a company without support from the project. Data source: M&E and mission reports, and discussions with government counterparts.				
For WARFP SOP-A1 as a whole:	No (Liberia and Sierra Leone)	Yes (Liberia and Sierra Leone)	Yes (Sierra Leone)	No
26. Revised (August 2016): Sanitary authority for fish handling established in Liberia (Yes/No)				
	Liberia: No	Yes		No
Comments: PARTIALLY ACHIEVED (50%). The project’s intention was to operationalize the sanitary authority which had already been in place under the Ministry of Health. Draft memoranda of understanding were prepared for collaboration between the relevant institutions, and the project funded a food safety policy, HACCP regulation and best practices, regulations on specific rules for quality control and additives, and lists of needed equipment and material for the CA. The design of the facilities was also prepared and a contract was awarded for its construction by project closing. It will be built as part of the developments in Mesurado with ACGF financing. This indicator reflects revised wording of the above indicator. Data source: discussions with World Bank and project teams.				
Component 4: Coordination, Monitoring and Evaluation, and Program Management				
27. Original: Regional database and ‘dashboard’ of key environmental, economic and social fisheries statistics established at CSRP (Yes/No)				

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
	CSRP: No	Yes	June 2011: Indicator revised	Yes ²⁷
Comments: ACHIEVED. The indicator was expanded to measure scaled-up investment in national nodes for the regional database and dashboard funded by the additional IDA financing to the Sub-Regional Fisheries Commission (CSRP). Data source: Interviews of CSRP Regional Coordination Unit (RCU) staff and review of dashboard.				
28. Revised (June 2011): Regional database and ‘dashboard’ of key environmental, economic and social fisheries statistics established at CSRP, with national fish catch and effort databases established in each participating country				
	CSRP: No	Yes		Yes ²⁸
Comments: ACHIEVED. The setting of the dashboard was completed and the dashboard is operational, including installation of a server within the CSRP and training of users and administrators of the participating countries. Before project closing, each country began to put in place fish catch and effort databases with information shared with CSRP for inclusion in the dashboard. Countries received from the CSRP the needed equipment and training on data collection. This indicator reflects revised wording of the above indicator. Data source: Interviews of CSRP RCU members, review of dashboard, M&E and mission reports.				
29. Original: Annual M&E reports with all data on results indicators and M&E plan completed (Yes / No)				
	Cabo Verde: No	Yes		Yes
Comments: ACHIEVED. Data source: Interviews of CSRP RCU members and review of reports.				
	Liberia: No	Yes		Yes
Comments: ACHIEVED. Data source: Interviews of CSRP RCU members and review of reports.				
	Senegal: No	Yes		Yes
Comments: SUBSTANTIALLY ACHIEVED. Progress reports were submitted as needed, while M&E plan was in place only in 2014 when a specialist was recruited. Data source:				

²⁷ This is an online database and dashboard, operated by the CSRP. The setting of the dashboard was completed and the RCU is entering countries’ historical data (90% completed). See www.dashboard-csrp.org for the limited-access webpage (for authorized users of the WARFP countries) and www.portail-csrp.org for the public portal (under final construction) accessible to the public.

²⁸ See comment above. Before project closing, each country began to compile fish catch and effort databases and reports were shared with CSRP for inclusion in the dashboard. Countries received from the CSRP the needed equipment and training on data collection. Data collection is ongoing.

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Interviews of CSRP RCU members and review of reports.				
	Sierra Leone: No	Yes		Yes
Comments: ACHIEVED. Data source: Interviews of CSRP RCU members and review of reports.				
For WARFP SOP-A1 as a whole:	No	Yes		Yes
30. Original: Annual work programs, budgets and procurement plans completed (Yes / No)				
	Cabo Verde: No	Yes		Yes
Comments: ACHIEVED. Data source: Interviews of CSRP RCU members and mission reports.				
	Liberia: No	Yes		Yes
Comments: ACHIEVED. Data source: Interviews of CSRP RCU members and mission reports.				
	Senegal: No	Yes		Yes
Comments: ACHIEVED. Data source: Interviews of CSRP RCU members and mission reports.				
	Sierra Leone: No	Yes		Yes
Comments: ACHIEVED. Data source: Interviews of CSRP RCU members and mission reports.				
For WARFP SOP-A1 as a whole:	No	Yes		Yes
31. Original: Community monitoring of local site conditions (environmental conditions, in-shore hygiene, water quality and possible climate change assessments) underway in TURFs (Yes / No)				
	Cabo Verde: No	Yes		Yes
Comments: ACHIEVED. Community monitoring of local site conditions is considered a best practice for sustainable fisheries management highly endorsed by community members. Data source: project reports.				
	Liberia: No	Yes		Yes
Comments: ACHIEVED. Data source: project reports.				
	Senegal: No	Yes		Yes
Comments: ACHIEVED. Data source: project reports.				
	Sierra Leone: No	Yes		No
Comments: NOT ACHIEVED. A system was not put in place to monitor local site conditions. Data source: Mission reports.				

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
For WARFP SOP-A1 as a whole:	No	Yes		Yes in Cabo Verde, Liberia and Senegal, and No in Sierra Leone.

G. Ratings of Project Performance in ISRs

-						
No.	Date ISR Archived	DO	GEO	IP	Actual Disbursements (USD millions)	
					Project 1	Project 2
1	12/06/2009	S	S	S	0.00	0.00
2	05/25/2010	MS	MS	MS	0.00	0.00
3	02/05/2011	S	S	S	3.78	0.14
4	10/10/2011	MS	MS	MS	5.96	0.61
5	05/26/2012	MS	MS	MS	7.85	1.28
6	01/25/2013	MS	MS	MS	10.41	2.58
7	10/01/2013	MS	MS	MS	16.83	3.78
8	07/06/2014	MS	MS	MS	22.61	4.66
9	02/25/2015	MS	MS	MS	31.54	6.50
10	09/30/2015	MS	MS	MS	29.11	6.88
11	05/18/2016	MS	MS	MS	31.63	7.40
12	09/15/2016	MS	MS	MS	33.46	9.25

H. Restructuring (if any)

Restructuring Date(s)	Board Approved		ISR Ratings at Restructuring			Amount Disbursed at Restructuring in USD millions		Reason for Restructuring & Key Changes Made
	PDO Change	GEO Change	DO	GEO	IP	Project 1	Project 2	
06/02/2011			S		S	4.77	0.48	Additional Financing to Liberia, Sierra Leone and the CSRP under P124242/P124844
<p>Reasons for change: Allowing the countries and the CSRP to access new financing sources previously unavailable, thereby scaling up the impacts of the project in terms of increased contribution of the marine fish resources to the local economies and regional information management capacities.</p> <p>Key Changes: US\$2 million ACGF to Liberia; US\$8 million ACGF to Sierra Leone, US\$2 regional IDA grant to the CSRP. ACGF to support the development of the Kissy Harbor in Sierra Leone and the rehabilitation of the Mesurado Pier in Liberia as fish landing sites; IDA to support expansion of a regional fisheries information system by the CSRP.</p> <p>Other changes: Increased targets for indicators on local value added, expansion of intermediate results indicator for regional information system in both countries.</p>								
12/10/2012			MS		MS	10.34	2.56	Level 2 restructuring for Senegal under P106063
<p>Reasons for change: A need to catch up on progress, which slowed down in the previous year and 4 months due to project management weaknesses by refocusing on key priorities, and reducing implementation complexities.</p> <p>Key changes: Dropping of fishing landing site cluster in Kafontaine and increased focus on completion and maintenance of artisanal registry, consolidation and strengthening of community management structures established by the recently closed GIRMaC and the Sustainable Management of Fish Resources Project (GDRH) and fish resource rehabilitation measures, and securing rights for artisanal fleet. Dropping activities related to research and support for local artisanal counsels. Modification of local surveillance efforts and capacity building for local registration.</p> <p>Other changes: Revisions to intermediate results indicators, to the financing plan and to the implementation schedule to accommodate changes in design.</p>								

07/24/2013			MS		MS	13.51	4.11	Level 2 restructuring for Cabo Verde under P106063
<p>Reasons for change: A need to catch up on implementation delays by simplifying remaining activities.</p> <p>Key changes: Downscaled alternative livelihoods and landing site clusters, and refocusing of resources around strengthened governance and surveillance.</p> <p>Other changes: Reallocation of proceeds, revisions to PDO level and intermediate results level indicators, and revisions to project costs to accommodate changes in design.</p>								
12/15/2014			MS		MS	30.18	7.82	Level 2 restructuring for Cabo Verde, Liberia, Senegal and Sierra Leone under P106063
<p>Reasons for change: Slower than planned implementation progress in all countries and a need to shift funding to priority national activities.</p> <p>Key changes: First extension of closing date (twelve months) and reallocation of proceeds.</p> <p>Other changes: Suspension of a buyback program for industrial fishing vessels in Senegal, changes in disbursement schedule and change the target years of the results framework to accommodate the extension.</p>								
12/08/2015			MS		MS	30.02	8.99	Level 2 restructuring for Cabo Verde, Liberia and Senegal under P106063
<p>Reasons for change: Provide additional time to consolidate community-led fisheries management results and finalize key infrastructures in Cabo Verde and Liberia.</p> <p>Key changes: Second extension of closing date (nine months) and reallocation of proceeds.</p> <p>Other changes: Change of end-of project target dates, disbursement estimates and implementation schedule to reflect the extension; removal of legal covenant on vessel buyback in Senegal to reflect the removal of this activity in 2014, and addition of a legal covenant on a micro-credit program in Cabo Verde.</p>								

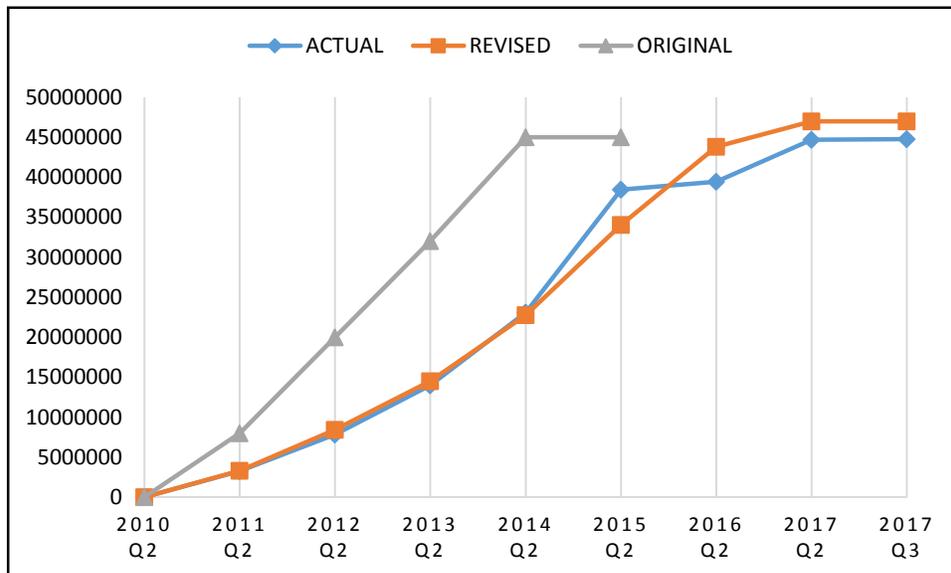
08/08/2016			MS		MS	32.75	10.39	Level 2 restructuring for Cabo Verde, Liberia and Senegal under P106063
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Reasons for change: Enhance the ability of countries to capture projects’ results and achievements by setting more relevant and measurable indicators and targets.

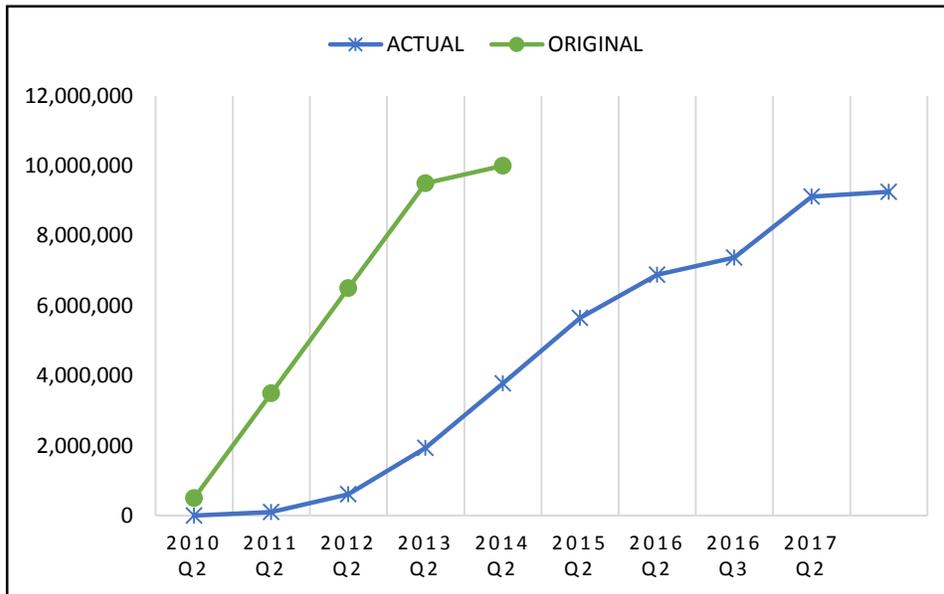
Key changes: Revision of PDO indicators and targets (change to end of project targets of two indicators, dropping of one indicator and addition of two new indicators); revision of intermediate results indicators and targets (revised phrasing of four indicators, revised end of project targets of three indicators, dropping of one indicator, and addition of eight new indicators).

I. Disbursement Profile

P106063 (IDA and GEF resources)



P108941 (GEF resources)



The West Africa Regional Fisheries Program (WARFP) was designed as a multi-phase Adaptable Programmatic Loan (APL). This Implementation Completion and Results Report (ICR) is carried out for the first phase of the series under the main project code, P106063 (APL-A1, here referred to as WARFP Series of Projects A1, or SOP-A1), which comprises International Development Association (IDA) credits, IDA grants and Global Environment Facility (GEF) grants (under P108941) to four recipient countries: Cabo Verde, Liberia, Senegal and Sierra Leone, and to the Sub-Regional Fisheries Commission (*Commission Sous Régionale des Pêches*, CSRP) as a regional implementing agency responsible for several project-funded national level and regional level activities. In 2011 and in 2016, Africa Catalytic Growth Fund (ACGF) financing (under P124242 and P159912, respectively) was added to the financing of the project in order to upscale fish landing infrastructures in Liberia and Sierra Leone. The performance of activities financed by the ACGF is described as part this ICR but will be fully evaluated separately after the closing of P159912 in June 2017.

1. Project Context, Development and Global Environment Objectives Design

1.1 Context at Appraisal

1. **Regional context.** At the time of project appraisal, all available information suggested that despite rising production levels, most of the region's commercially important fish stocks, from Mauritania to Ghana, were fully or overexploited. At the same time, World Bank analyses showed a consistent pattern of increasing fleets and costs, and often declining catch rates per vessel, with profitability in many of the fisheries also declining. Another prevalent though harder to measure phenomenon was the high levels of resources lost to illegal, unregulated and unreported (IUU) fishing – estimated to be equivalent to 18 percent of the region's total harvest. A key conclusion from upstream analyses was also that most of the value added to fish caught in West Africa's waters happened overseas such that a large portion of the economic benefits from the region's resources was not captured locally. The three key sectoral and institutional constraints were therefore identified as: (i) lack of capacity to govern and manage the resource sustainably, and prevent overexploitation; (ii) inability to prevent IUU fishing; and (iii) failure to add value locally to the fish caught in West African waters. The need for a regional program emerged from the recognition that many of the important fish stocks of West Africa were shared between multiple coastal states, as was the problem of illegal fishing. The countries were further linked through the markets of both inputs (such as labor and fishing boats) and outputs (trade with partners within and outside the region), necessitating effective coordination between countries.

2. **Regional and government strategies.** The governments of the coastal countries of West Africa recognized the important contribution of marine fish resources to their economic growth, foreign exchange earnings, public revenues, employment and food security. As such, the countries shared a common concern of ensuring the sustainability of the resources and generating greater returns from their use over the long-term, as well as increasing the portion of those returns that are captured locally. This concern was

reflected in coastal countries' macroeconomic policies and strategies. For example, in many of the Poverty Reduction Strategy Papers in the region, the fisheries sector was listed as a key driver of economic growth in terms of wealth creation, a key source of public sector revenues, or a vital contributor to national food security. National policies and strategies for the fisheries sector all placed an emphasis on sustainable management of marine fish resources, and achieving an optimal contribution of the sector to economic growth and poverty reduction. The WARFP series was designed following a common approach built around the challenges faced by the marine fisheries sector while recognizing the very different circumstances in each country, as follows: (i) build the capacity for governance of the sector; (ii) combat and reduce illegal fishing; and (iii) increase local landings and value added of fish products. The countries expressed their interest in a regional approach through their participation and commitment to the CSRP, and the adoption of the Commission's Strategic Action Plan for 2002-2010 (*Plan d'Action Stratégique 2002-2010*).²⁹

3. **CAS/CPS.** The project was well aligned with the four recipient countries' assistance and partnership strategies (CAS and CPS, respectively) for the period. *Cabo Verde's CPS for FY09-FY12* (Report No. 47750) noted the WARFP as a key investment in supporting the authorities in reassessing options in the fisheries sector under Outcome 2.2: Improved access to and quality of key economic infrastructure services, quoting an FY07 fisheries sector report which noted the limited potential of the fisheries sector in view of fully or over exploited resources. *Liberia's Joint CAS for FY09-FY11* (Report No. 47920) put emphasis on reforming and modernizing the civil service and noted the upcoming support to the fisheries sector by the WARFP under Theme 3 (facilitating pro-poor growth) Outcome 4: Improve agriculture and natural resources management in ways that generate pro-poor growth. *Senegal's CAS for FY07-FY10* (Report No. 36608) Pillar 1 on accelerated growth/wealth creation/strengthening the drivers of growth also noted the preparation of the WARFP as a key support instrument to the fisheries sector in view of declining fish stocks. Finally, *Sierra Leone's Joint CAS for FY10-FY13* (Report No. 52297) Pillar 2 on promoting inclusive growth mentioned the WARFP as the key instrument for achieving its Outcome 6 of enhancing productivity in fisheries.

4. **Rationale for Bank involvement.** The rationale and the decision of the World Bank to tackle sustainable management of fisheries in a comprehensive way was drawn from a 2006 World Bank publication titled *Where is the Wealth of Nations? Measuring capital for the 21st century*³⁰, which highlighted the capital value of countries' natural assets and provided a strong economic justification for sustainably managing renewable resources to secure long-term contributions to growth. The World Bank also had financed analytical work in the fisheries sector for a number of West African countries, including

²⁹ CSRP (2002) *Plan d'action stratégique de la CSRP (2002-2010)*. Dakar, Senegal (see document in WBDocs). The Action Plan focused on strengthening resource management and monitoring, control, and surveillance (MCS) activities to reduce illegal fishing among member West Africa countries: Cabo Verde, The Gambia, Guinea, Guinea Bissau, Mauritania, Senegal and Sierra Leone.

³⁰ World Bank (2006) *Where is the Wealth of Nations? Measuring Capital for the 21st Century*. Washington, D.C., World Bank.

Cabo Verde, Liberia, Senegal and Sierra Leone³¹, which showed there were significant gains to be made by the countries by strengthening fisheries legislations and management practices, and by eliminating illegal fishing. The World Bank also had engaged in an ongoing policy dialogue with West African governments and the CSRP on needed policy reforms in fisheries. Most importantly, the World Bank was the first development partner to offer a comprehensive approach to fisheries reforms and was one of the few development agencies with the capacity to provide coordinated investments at the regional level through its Regional Integration Unit.

5. **Higher level objectives to which the project contributed.** The project objective and design correlated to the 2002 World Summit on Sustainable Development, which recognized overfishing as a global problem; and at the regional level, to the above-mentioned 2002 – 2010 CSRP Strategic Action Plan as a key instrument for improving fisheries sector outcomes and implementation; to the World Bank Africa Action Plan's objective to promote shared economic growth, enhance regional integration around common institutional and legal frameworks and resources, and improve the use of natural resources; to the World Bank Regional Integration Assistance Strategy (RIAS, 2008) which prioritized support for coordinated interventions in regional public goods such as fisheries; and to the GEF operational program goals under the International Waters (IW) Focal Area, which looked to address sustainable development challenges faced by states sharing transboundary surface, subsurface, and marine waters.

1.2 Original Project Development Objectives (PDO) and Key Indicators (as approved)

6. The Project Development Objective (PDO), as articulated in the Project Appraisal Document (PAD) and the financing agreements³², was to strengthen the capacity of Cape Verde, Liberia, Senegal and Sierra Leone to govern and manage targeted fisheries, reduce illegal fishing and increase local value added to fish products.³³ To achieve this objective, the project was to: (i) support the reduction of illegal fishing in the participating countries; (ii) hold onto these gains by conducting widespread consultations and implementing basic tools necessary for long-term policy reforms to give users a greater stake in the health of the resources and the benefits they can provide, and in some cases supporting fishing capacity and effort reduction; and (iii) build basic infrastructure to support increased local value added to the fish caught in the countries' waters. It was also planned to build the basic capacity in each of the participating countries and the CSRP to support a gradual shift to regional coordination of governance and surveillance activities.

³¹ See for example the Marine Resources Assessment Group (MRAG) (2009) *Estimation of the Cost of Illegal Fishing in West Africa*. London, United Kingdom, and FAO (2009) *Bonne Gestion et Gouvernance Durable des Pêches au sein de la CSRP – PRAO Composante 1*. [Summary Report and seven country Annexes], Rome, Italy. More background analysis sources are described under Section 2.1.

³² The PDO in the PAD and the financing agreements is the same, except that "the Recipient" mentioned in the individual financing agreements is specified in the PAD as "Cape Verde, Liberia, Senegal and Sierra Leone".

³³ This ICR assesses the PDO of the WARFP SOP-A1 and not of the program as whole, which comprises additional countries and additional phases, some of which are ongoing and some are still planned.

7. Key Indicators linked to the PDO were:

- Improved Governance indicator: Territorial use rights fisheries (TURFs) legally established for coastal fisheries (number)
- Reduction of Illegal Fishing indicator: Fishing vessels observed by aerial/surface patrol or by radar and satellite monitoring, that are committing a serious infraction³⁴ (% of total number of vessels known/observed)
- Increased Local Value Added indicator: Increase or stabilization in the volume of exports from targeted fisheries (USD % increase)

1.3 Original Global Environment Objectives (GEO) and Key Indicators (as approved)

8. Same as above.

1.4 Revised PDO (as approved by original approving authority) and Key Indicators, and reasons/justification

9. While the PDO/GEO was not revised, several outcome indicators and intermediate outcome indicators were revised or dropped, some targets were revised upwards, downwards or the target was moved to a later date, and new indicators were added at both the outcome and intermediate outcome levels. These changes were approved by World Bank management as part of five Level II restructuring and one additional financing³⁵, including a 2016 restructuring of the project's result framework following a comprehensive analysis of relevant and measurable indicators and targets jointly with the counterparts. Please refer to Section F of the Datasheet for a full list of revised indicators and targets and reasons for the changes; and to Section H of the Datasheet for a full list of restructurings, including key changes made and their reasons.

1.5 Revised GEO (as approved by original approving authority) and Key Indicators, and reasons/justification

10. Same as above.

1.6 Main Beneficiaries

11. The PDO captured a primary target group which comprised beneficiaries at national and local levels in the four participating countries, namely: (i) fisheries-related line ministries, directorates and agencies, including surveillance agencies and existing/newly formed joint maritime committees, which were expected to benefit from increased capacity to govern and enforce sectoral policies and regulations through

³⁴ 'Serious infraction' was defined in the PAD as an unlicensed industrial fishing vessel that is fishing in a country's waters; and/or a fishing vessel that is in violation of fishing season or zone regulations.

³⁵ ACGF and IDA additional financing for Liberia, Sierra Leone and the CSR in 2011 (under P124242/P124844).

improved legislation and regulation, training, exchanges, infrastructure and equipment³⁶; and (ii) fishers, fishing communities and local processors and persons involved in fish marketing at selected locations, who were expected to benefit from increased capacity to stabilize or increase their incomes from locally landed and/or processed fish by participating in local fisheries co-management schemes, receiving legal fishing rights, training, and necessary infrastructure and equipment. In addition, it was expected that the CSRP, which currently comprises 43 staff members, would benefit from strengthened collaboration with its member countries, increased capacity to monitor regional fisheries-related data and an overall stronger voice in the region. Finally, the project acknowledged significant potential spillover benefits to neighboring countries in terms of fisheries stock recovery and reduced IUU fishing. A calculation of total direct project beneficiaries from the above two groups and the CSRP totals approximately 510,000. When adding indirect beneficiaries, i.e., people along the value chain benefitting from increased business and households, the number increases to approximately 4.2 million beneficiaries across all four countries.³⁷

12. **Project partners.** The project was to draw on technical and advisory support from several partners who were funding parallel programs and projects in the region, such as the United Nations Food and Agriculture Organization (FAO), which was implementing the GEF-financed Canary Current Large Marine Ecosystem (CCLME) Project, and the Government of France, which was funding a regional marine protected areas (MPAs) program in collaboration with the CSRP. Other partners whose expertise was utilized were the European Commission (EC), which was funding a regional fisheries surveillance project at the CSRP, and the United Kingdom Department for International Development (DfID) and the Japan International Cooperation Agency (JICA), which were funding research, training and other activities in the sector in several of the countries. Additional co-financing was to be sought during the course of implementation, and as the project progressed, ACGF financing was approved for Liberia and Sierra Leone and parallel financing was secured from various partners, i.e., Government of Korea through a Korea Green Growth Trust Fund (KGGTF), Government of the Isle of Man, Government of the UK, US embassies and United States Agency for International Development (USAID), US National Oceanic and Atmospheric Administration (NOAA), US Coast Guard, Nordic Development Fund (NDF), the New Partnership for Africa's Development (NEPAD) and others who saw an opportunity to leverage their support in the framework of an ongoing World Bank-supported project

³⁶ The key beneficiaries at the national level were the Fisheries Department (*Direccão Geral das Pescas* - DGP) under the Ministry of Environment, Rural Development and Marine Resources in Cabo Verde, the Bureau of National Fisheries (BNF) under the Ministry of Agriculture in Liberia, the Directorate for Marine Fisheries (*Direction des Pêches Maritimes* - DPM) under the Ministry of Marine Economy, Maritime Transport and Fisheries in Senegal, and the Department of Fisheries (DOF) under the Ministry of Fisheries and Marine Resources in Sierra Leone.

³⁷ The calculation of indirect beneficiaries is based on multiplication of each country's number of direct beneficiaries by the average household size, added to each country's estimated number of individuals participating in the fisheries value chain multiplied by the average household size. Countries' average household size was reduced by one to avoid double-counting given that in many cases fish mongers are the wives of the fishers.

through training, equipment, operational support and cash contributions. Please refer to Section A of the Datasheet for more information on co-financiers and other external partners.

1.7 Original Components (as approved)

13. The project was structured around three components which correlated to the three parts of the PDO, as well as a fourth coordination, monitoring and evaluation (M&E) and project management component. Under the three technical components, each country and the CSRP were to focus on a specific set of activities which was tailored to context and needs. The four components of the project were:

- i. *Good Governance and Sustainable Management of the Fisheries (US\$9.8 million IDA and US\$8.6 million GEF)*, including support to strengthen or reform state-level governance institutions (e.g., policy and legal frameworks, agency capacity to administer and monitor access), pilots in community management of coastal fisheries, and transition assistance for alternative livelihoods to fishing, where reforms were expected to reduce fishing effort.
- ii. *Reduction of Illegal Fishing (US\$17.6 million IDA and US\$0.1 million from the Government of Cabo Verde)*, including increased sea and aerial surveillance patrols, establishment of satellite-based vessel monitoring systems (VMS) and functioning fisheries monitoring centers.
- iii. *Increasing the Contribution of the Marine Fish Resources to the Local Economies (US\$11.4 million IDA and US\$0.2 million from the Government of Cabo Verde)*, through public investments in local fish landing infrastructure and competent authorities to regulate food quality of fish products for export.
- iv. *Coordination, Monitoring and Evaluation and Program Management (US\$6.2 million IDA, US\$1.4 million GEF and US\$1.0 million from the Government of Senegal)*, including national implementation of the project in the four countries and regional coordination activities to be carried out by the CSRP.

1.8 Revised Components

14. The four project component titles were not revised during implementation, however several activities were dropped, added or revised for some of the countries through the management-approved Level II restructuring and additional financing mentioned above. Changes were made to component activities to reflect additional ACGF and IDA financing to infrastructure in Liberia and in Sierra Leone in 2011, and to refocus financing on priority governance and anti-IUU fishing actions in view of experienced delays and funding limitations in Senegal (in 2012 and 2014) and in Cabo Verde (in 2013 and 2015). Please refer to Section H of the Datasheet for a full list of restructurings, and to Annex 2 for further information on added, dropped and revised activities.

1.9 Other significant changes

15. In addition to changes made to indicators and activities, World Bank management also approved:

- Additional ACGF financing for Liberia and Sierra Leone and additional IDA financing for the CSRP in 2011, to allow the two countries and the CSRP to access new financing sources previously unavailable³⁸, thereby scaling up the impacts of the project in terms of increased contribution of marine fish resources to the local economies and regional information management capacities.
- Two closing date extensions: a twelve-month extension in 2014 from December 2014 to December 2015 for Cabo Verde, Liberia and Senegal and another nine-month extension in 2015 to September 2016 for these three countries to allow more time to achieve results and make up for delays. The project in Sierra Leone was not extended due to an ongoing investigation at the time (see section 2.2: Sierra Leone), and overall weak performance.
- Several design changes in Senegal (in 2012 and 2014) and Cabo Verde (in 2013 and 2015), including increased governance and anti-IUU fishing related technical assistance to Cabo Verde and the dropping of a buy-back program of industrial trawl vessels³⁹ and landing site infrastructure in Senegal. These design changes were accompanied by respective reallocations of proceeds and changes to the project's disbursement schedule.

2. Key Factors Affecting Implementation and Outcomes

2.1 Project Preparation, Design and Quality at Entry

16. **Soundness of background analysis:** As the WARFP was one of the first fisheries programs designed by the World Bank since the 1980s⁴⁰ and the project was to

³⁸ At approval, the CSRP, as a regional organization, could not directly access IDA grant financing so it was decided to allocate five percent of the country IDA financing to the CSRP through subsidiary agreements. In 2011, when it became possible to provide IDA funding to regional organizations, the World Bank signed a US\$2 million grant directly with the CSRP. Grant No. H729-3A was signed by the World Bank on October 28, 2011 for an amount of SDR 1,250,000.

³⁹ The intention was to reduce the industrial trawl fleet through purchase of industrial trawl vessels, however the funds allocated to this activity were insufficient due to an increase in vessels' prices following the 2006 Ministerial Decree which mandated freeze on new industrial licenses.

⁴⁰ While the World Bank had had extensive experience in supporting fisheries development in preceding decades until the 1980s, it was only in 2004 that the institution formally re-engaged in supporting the sector after a long absence, with a new focus on sustainable fisheries management. It was also the first time the World Bank supported fisheries surveillance activities on such a large scale. Shifting from a development focus to a resource management focus, the World Bank had begun to support investments to reform or strengthen fisheries governance, for example in the Indonesia Coral Reef Rehabilitation and Management Program (COREMAP), the Tanzania Marine and Coastal Environmental Management Project (MACEMP), and the Senegal Integrated Management of Coastal and Marine Resources Project (GIRMaC), among others. However, the Senegal and Tanzania efforts were still underway at the time, and the Indonesia

comprise four countries and a regional coordination organization (the CSRP), going into the design phase, the team was faced with many unknowns concerning the governance, social and economic dimensions of fisheries. Therefore, a considerable number of consultations was undertaken with government stakeholders, national and international NGOs, private fishing companies, fishers associations and unions, and fishers and processors, and several background analyses were carried out to inform the design. Background analyses included: (i) country-specific analyses of fisheries management baselines and needs⁴¹; (ii) socioeconomic surveys of fishing and non-fishing coastal communities in Senegal, Sierra Leone and Liberia⁴²; (iii) country-specific studies on topics on which information was scarce, including fish marketing in Sierra Leone, fisheries infrastructure investments in Liberia and Sierra Leone, baseline legal and institutional settings for fisheries management in Liberia, and Monitoring, Control and Surveillance (MCS) systems in all four countries⁴³; (iv) economic analyses of benefits from coastal demersal fisheries in each country under project and no-project scenarios⁴⁴; (v) assessment of the costs of illegal fishing in West Africa⁴⁵; and (vi) an FAO study on fisheries governance and sustainable management with country-specific analyses.⁴⁶ The governance reforms proposed in the project were also the result of discussions between the World Bank, the governments, the CSRP and a range of stakeholders about the region and countries' gaps and priorities in the fisheries sector. As the WARFP SOP-A1 was the first World Bank project supporting fisheries surveillance activities on a large scale, the design of surveillance activities had to be backed by a guidance note approved by the World Bank legal department to make sure that funds would not be used for military, criminal investigation or other purposes unrelated to the objectives of the project and be consistent with countries' international obligations such as compliance with the United Nations Convention on the Law of the Sea (UNCLOS). Finally, the World Bank conducted/supported fiduciary assessments of the four countries and the CSRP, including an Environmental and Social Management Framework (ESMF) and a Resettlement and

program had shifted significantly in 2004 with the second phase, so there was not a wealth of experience throughout the organization in efforts to reform tropical fisheries governance at a large spatial scale.

⁴¹ Akester (2008) Concept Note for West Africa Regional Fisheries Program Investments in Liberia. FAO, Rome, Italy; Akester (2008) Concept Note for West Africa Regional Fisheries Program Investments in Sierra Leone. FAO, Rome, Italy; Ba, M. (2009) Concept Note for West Africa Regional Fisheries Program Investments in Senegal. Dakar, Senegal; Tenriero, J. (2009) Concept Note for West Africa Regional Fisheries Program Investments in Cape Verde. Dakar, Senegal.

⁴² See socio-economic questionnaires in WBDocs.

⁴³ Kaïndeneh, P (2009) *Study of Fish Marketing in Sierra Leone*. Dakar, Senegal; Sciortino, J. (2009) *Proposed Fisheries Infrastructure Investments in Liberia and Sierra Leone*. Dakar, Senegal; Vohiri, A. (2009) *The Existing Legal, Institutional and Policy Context for Fisheries Management in Liberia*. Dakar, Senegal; Sherif, S.A. (2009) *Technical Support to Design MCS System for Liberia*. Dakar, Senegal; N'diaye, M.D. (2009) *Étude, suivi, contrôle et surveillance de la pêche - Sénégal*. Dakar, Senegal; N'diaye, M.D. (2009) *Étude, suivi, contrôle et surveillance de la pêche - le Cap Vert*. Dakar, Senegal; N'diaye, M.D. (2009) *Study monitoring control surveillance of fishing – Sierra Leone*. Dakar, Senegal; N'diaye, M.D. (2009) *Study monitoring control surveillance of fishing – Liberia*. Dakar, Senegal.

⁴⁴ See a methodology summary reports in WBDocs.

⁴⁵ MRAG (2009) *Estimation of the Cost of Illegal Fishing in West Africa*. London, United Kingdom.

⁴⁶ FAO (2009) *Bonne Gestion et Gouvernance Durable des Pêches au sein de la CSRP – PRAO Composante 1*. [Summary Report and 7 country Annexes], Rome, Italy.

Process Framework, and an economic analysis based on a quantitative model developed for the region's fisheries.

17. **Reflection of lessons learned:** Lessons were drawn from global good practices summarized in the World Bank Fisheries Approach Paper *Saving Fish and Fishers* (2004), as well as experience in West Africa such as the Integrated Management of Coastal and Marine Resources Project (*Projet de Gestion Intégrée des Ressources Marine et Côtières*, GIRMaC) in Senegal, and the World Bank's analytic work on the sector in Africa. Lessons were also drawn from non-World Bank financed projects and programs, such as the fisheries co-management initiatives financed by JICA in Senegal, and the Sustainable Fisheries Livelihoods Program in West and Central Africa financed by DfID. Lessons were reflected in the structure of the project as well as in the design of country specific interventions, including: (i) the importance of prioritizing governance interventions (Component 1); (ii) the importance of providing users with secure and enforceable rights to the access or output from the resources, and engaging them in local development and co-management (Component 1); (iii) the need to create economic opportunities, including micro-financing, outside the fisheries sector in parallel to efforts to reduce the pressure on the resource (Component 1); and (iv) the recognition that, as a shared resource, a regional approach to fisheries is needed but that same resource can only be built on the foundation of strengthened national institutions (components 1 and 2).⁴⁷ Finally, in Liberia, the design reflected community consultations where battling illegal fishing was expressed as a pre-condition for their engagement in sectoral reform activities. One good practice which was highlighted by the 2004 Fisheries Approach Paper but was not implemented in the project was aquaculture (fish farming) as a means for meeting the demand for fish while reducing the pressure on capture fisheries. Aquaculture was included in the program design but was deemed by the World Bank as premature for a first phase project given the costs, technologies and skills required to ensure success.

18. **Choice of participating countries:** Discussions with the World Bank team indicate that while a selection process and technical criteria had been discussed, the decision on the first countries to join the WARFP ultimately was demand-based: countries which wanted to participate in the first phase and allocate IDA resources were able to do so, with the exception of Guinea.⁴⁸ Other criteria such as government capacity, existing policies or adequacy of implementation structures were of lesser relevance to the decision on country participation as these were to be addressed by the project. In any case, the World Bank anticipated that eventually all coastal countries would join the program.⁴⁹

⁴⁷ For example, in Liberia, the BNF was barely functional at the time of appraisal.

⁴⁸ While Guinea expressed willingness to participate, it was not included in SOP-A1 because of the 2008 *coup d'état* and consequent portfolio suspension by the World Bank.

⁴⁹ Following the approval of the WARFP SOP-A1 in 2009, four more countries joined the WARFP: Guinea Bissau joined in March 2011 under SOP-B1 (P119380/ P122182); Ghana joined in June 2011 under APL-B (P124775/P124812); and Mauritania and Guinea joined in March 2015 as SOP-C1 (P126773/P131327). Preparations for Côte d'Ivoire to join are underway.

19. **Appropriateness of the project design:** Positive design aspects included a comprehensive range of background studies and a valid gap analysis to inform the design, incorporating lessons learned and assessing local and regional priorities and constraints. The regional framework structure with four standard overarching components⁵⁰ allowed for a holistic approach and at the same time there was flexibility in selecting activities that were tailored to each country. There was an obvious trade-off in choosing a regional programmatic approach versus individual single country projects as the former comes with higher complexity. It is, however, expected to pay off in the longer run as some achievements cannot be made using a national approach. For example, the setting up of a Regional Steering Committee (RSC) was an important element as the RSC was the only authority in a position to advise on policy harmonization. On the other hand, the time and the amount of technical support required for the project to fully achieve the PDO were underestimated in view of countries' nascent experience and low capacities in the sector. Another design element which constrained the project was the development of fish landing sites in Liberia, Senegal and Sierra Leone without prior decision on sites jointly with the governments and without site-specific environmental assessments in Senegal and Liberia.⁵¹ Consequently, despite two extensions and several restructurings, by project closing, countries were able to achieve most governance and anti-IUU fishing results (components 1 and 2 respectively) while post-harvest activities (Component 3) were either cancelled mid-project or partially achieved at project closing. The World Bank also underestimated the issue of incentives in the public sector to enforce access restriction on industrial boats, which traditionally had been an important formal and informal source of revenue for the sector; the World Bank did identify weak political willingness to prosecute fisheries infractions as a high risk, however the mitigation measure proposed (transparent publication of information on infractions and prosecutions) did not prove itself a sufficient deterrent during implementation in some countries. Other design elements which underwent restructuring are discussed in Section 1.9 and described in detail in Annex 2. For further discussion of the impact of these factors on project implementation, please refer to Section 2.2.

20. **Design of country-specific interventions:** All country interventions were framed within the four project components with country-specific activities and targets based on local context as well as common regional collaboration activities. For example, alternative livelihoods and micro-grants to fishers were funded in Senegal and Cabo Verde in view of over-capacity in these countries' artisanal fleets, while in Liberia and Sierra Leone, more resources were directed at fighting IUU fishing due to the relatively small size of their artisanal fleets and pervasive illegal fishing by foreign trawlers. The implementation arrangements for country interventions relied to the extent possible on existing government entities with multi-stakeholder national steering committees, and the CSRP was to set up a Regional Coordination Unit (RCU) to support Project

⁵⁰ The subsequent projects in the program have been designed following the same component structure.

⁵¹ Discussions with the World Bank team indicate that the preparation team was not in favor of investing in post-harvest infrastructure during this first phase project due to concerns about resulting pressure increase on fisheries resources. This activity was however added due to prevailing demand from the counterparts to show physical results under the project.

Implementation Units (PIUs) and promote regional collaboration. Development partner support was to be provided to the implementing agencies in parallel to the WARFP, and later it proved to be highly effective in responding to specific situations. For example, the parallel support provided by the Government of the Isle of Man to Sierra Leone during implementation and after the project had closed (a surveillance vessel, VMS units, financing of PIU functions and equipment, and support to fishing communities) ensured interim support to activities during the preparation of additional GEF financing and a WARFP Phase 2 project.

21. Preparation of safeguards, financial management and procurement instruments: During preparation, safeguards instruments (an ESMF and an Environmental and Social Management Plan, (ESMP), a Resettlement Policy Framework and a Resettlement Process Framework) were prepared by the CSRP with information specific to each of the four countries based on a general description of physical and social interventions and consultation with a broad range of stakeholders. Similarly, the World Bank prepared financial management and procurement capacity assessments and action plans for each country and the CSRP, and the recipient governments developed draft procurement plans with procurement methods and timelines.

22. Appropriateness of financing instrument: The WARFP was approved as a series of three overlapping APLs, each APL having two phases of five years.⁵² The program was not designed as a Program-for-Results Financing (PforR) as it had been approved before PforR became available (in 2012) and even so, the institutions were not strong enough for a PforR. While the legal framework aspects could have been addressed under a Development Policy Financing (DPF), a DPF alone would not have been able to address all project challenges, such as community support and surveillance activities.⁵³ Moreover, not all participating countries were eligible for DPFs. The APL instrument was well-suited to support the long-term nature of envisioned reforms. The countries were also able to leverage regional IDA funding thus increasing the available funds. The project had a complex financing structure, including the four country IDA credits, IDA grants and GEF grants, and later - additional ACGF and IDA grant financing in addition to parallel financing from bilateral sources. An innovative setup of subsidiary agreements between the countries and the CSRP provided an opportunity for the CSRP and its constituencies to strengthen their connection, accountability and communication. The different sources of financing were essential to cover the costs of the project, and the multiplicity of sources did not put constraints on the project, however it did add to the processing efforts in subsequent restructurings.

23. Adequacy of government commitment: Government commitment to the project was strong on the basis of their endorsement of the WARFP design and objectives at the Conference of Ministers of Fisheries of the CSRP in 2007 and 2008, their adoption of the

⁵² The terminology has since changed, identifying the WARFP as a framework of multi-country, multi-phase Series of Projects (SOPs).

⁵³ Presently, the World Bank is proposing to put WARFP policy reform actions under participating countries' DPOs to the extent possible.

CSRP Strategic Action Plan for 2002-2010 (which focused in particular on strengthening resource management and increased efforts against illegal fishing), and their willingness to allocate IDA financing to the project. The World Bank also assumed that stakeholders at both central and local levels appreciated the future benefits of reduced IUU fishing and would therefore be interested in undertaking needed reform measures.

24. **Assessment of risks:** Overall project risk was assessed as high at appraisal with risk elements rated high (five of nine) or substantial (four of nine), correctly identifying implementation capacity, political will, financial sustainability of surveillance operations and the fragility of community management structures as project risks. While these risks materialized during implementation, other risks related to negative social impact of restricted access to fish, and institutional weaknesses in the CSRP presented a lower level of risk, thanks to the hiring of capable RCU staff and the effective role of the CSRP as a regional mediator. The mitigation measures proposed at appraisal were mostly appropriate (e.g., providing technical assistance to implementing agencies and country-based consultants in Liberia and Sierra Leone specifically, offering alternative livelihoods to fishing communities, and ensuring legal recognition of TURFs) however their implementation could have been more forceful, especially the amount of technical and operational assistance provided to implementing agencies by the CSRP and the World Bank. As indicated, the measure of transparent publication of information on infractions and prosecutions to mitigate insufficient political will to enforce anti-IUU fishing rules proved insufficient during implementation in some countries.

25. **Readiness for implementation:** The project took considerable time to prepare (28.6 months from concept to approval), reflecting the extensive preparation work carried out as described above. At the same time, the project had Board presentation and effectiveness conditions. For Board presentation, evidence was to be provided of the setting up of a legal framework for a Joint Maritime Committee (JMC) in Sierra Leone, and for effectiveness, each of the four countries had to adopt an operational manual, set up a PIU and a national steering committee and sign a subsidiary agreement with the CSRP for technical support and regional coordination. Before effectiveness, the projects had in place draft procurement plans to be completed with the support of the CSRP, had procurement staff hired as part of the PIUs, and a General Procurement Notice was advertised locally and in the United Nations Development Business (UNDB) Online and DgMarket. As indicated, there was general lack of preparedness for civil works as specific sites had not been identified and agreed to with the governments in several countries, and insufficient environmental and social assessment carried out during preparation which resulted in substantial delays under Component 3.

26. Note: A Quality at Entry Assessment was not carried out by the Quality Assessment Group.

2.2 Implementation

27. The project experienced some difficulties that affected implementation arising from internal and external factors which affected specific countries. The key favorable and adverse factors which affected project implementation are the following:

Favorable factors

28. **High value of co-management:** The project supported a process of co-management that aimed to establish legally-recognized partnership between governments and coastal fishing communities resulting in area-based rights to defined coastal fisheries (TURFs). Building on existing local institutions, selected fishing communities were organized into Community Management Associations (CMAs) and received considerable amounts of training, awareness raising campaigns, infrastructure, equipment and research services to enable them to take on management responsibilities. Where co-management efforts had already existed, as was the case in Senegal thanks to two predecessor projects - GIRMaC and the Sustainable Management of Fish Resources Project (*Projet de Gestion Durable des Ressources Halieutiques*, GDRH), these were to be further expanded and strengthened. Each CMA was tasked to mobilize community members and stakeholders, set rules regarding the use and management of local marine resources within a specified area or territory, and implement various activities to ensure that the rules were respected with the aim of improving the state of local fisheries and, consequently, the wellbeing of its members. While the end result of legally recognized TURFs was only partly achieved by project closing (in Liberia and in Senegal), CMAs proved to be an effective mechanism for introducing new harvesting rules by imposing no-fishing restrictions on certain fishing areas; for supporting governments' surveillance efforts through local surveillance; for enhancing fish stocks through local interventions such as putting in place artificial reefs; for collecting registration and licensing fees⁵⁴; and for monitoring local site conditions in times when government capacity or commitment was insufficient to carry out these tasks centrally. As discussed later in the report, community-management structures also proved an important instrument for enhancing cohesion within fishing communities and for providing basic social services for CMA members.

29. **Restructuring:** The project underwent two design changes in Senegal and in Cabo Verde, two closing date extensions, additional ACGF and IDA financing, and a comprehensive results framework revision in August 2016. The restructurings were useful in alleviating some of the complexities experienced by the projects, adding resources and time where needed and fine-tuning country projects' individual focuses. Although the team looked for solutions to the issue of incentives in the public sector, none were available at the time.⁵⁵

30. **ACGF funding:** In 2011 the World Bank secured a US\$10 million ACGF grant (P124242) as additional financing to Liberia (US\$2 million, TF010654) and Sierra Leone (US\$8 million, TF010655) to support a scale-up of physical investments in the two

⁵⁴ It should be noted, however, that in cases where CMAs were asked to collect fees for the administration, such as in Liberia, members' sense of ownership was negatively affected.

⁵⁵ The World Bank team, however, has been able to address this issue through the use of Disbursement-Linked Indicators (DLIs) in WARFP SOP-C1 of Guinea and Mauritania, approved in February 2015, whereby disbursement of a portion of the funding depends on the achievement of several fisheries management and transparency results. This mechanism also provides specific training programs to well performing key civil servants on topics which directly contribute to achieving project objectives. The World Bank plans to continue and use DLIs in future Phase 2 WARFP projects in all four countries.

countries under Component 3. In Sierra Leone, the funding was to scale-up the Kissy Port design, and in Liberia it was meant to scale up the design of Robertsport landing site and rehabilitate Mesurado Pier. While works in Sierra Leone had not begun due to several reasons described below, the ACGF financing to Liberia (TF010654 and TF0A3199, the latter signed in 2016 for additional US\$4.19 million) is expected to deliver the infrastructure scale-ups by June 30, 2017, therefore providing central control points for fisheries management activities, increasing local value added to fish products, and supporting small and medium enterprise development in Liberia.

31. **Assignment of country-TTLs:** In 2014, the World Bank assigned individual country-Task Team Leaders (country-TTLs) to the four country projects (in addition to the regional TTL) to ensure frequent support to the PIUs and carry out supervision as needed given the increase in the program's size, which in 2014 had included six countries after Guinea Bissau and Ghana had joined. Discussions with country counterparts indicate considerable improvement in communication with the World Bank once country-TTLs joined the team.

32. **CSRP support:** The CSRP contributed to the implementation by facilitating regional collaboration and dialogue between project counterparts through the RSC meetings, and by enhancing data transparency across the region by setting up the dashboard and providing training to counterparts. RCU staff, which were fluent in both English and French, also provided valuable support to the PIUs on a range of operational, technical and fiduciary issues and as later discussed (see sections 2.4 and 5.2) was able to temporarily contribute resources and staff at times of funding shortfall and during the TTL transition period when World Bank missions were less frequent.

Adverse factors

33. **Start-up and implementation delays:** The time from approval to effectiveness was nine months for Cabo Verde and Liberia, eleven months for Senegal and 13 months for Sierra Leone, compared to the average five months for Africa as a whole. The lag was due to delays in fulfilling effectiveness conditions, notably the signing of a subsidiary agreement in Senegal and the recruitment of a PIU coordinator in Sierra Leone, with the latter having to be repeated after an ineligible first round. Delays continued further into implementation (see paragraphs 35-39). To accommodate these implementation delays, the projects in Cabo Verde, Liberia and Senegal were extended twice for a cumulative period of 21 months. The project in Sierra Leone was not extended due to an ongoing investigation at the time and reversal in project performance (see Section 2.2 below for more detail).

34. **Appetite for reforms:** In all four countries, but especially in Senegal and Sierra Leone, the project's inability to provide additional incentives to civil servants beyond their government pay affected their motivation and willingness to implement activities and embrace legal and institutional reforms. Low salaries in the public sector and the lack of incentives also resulted at times in tensions between ministry staff and PIU consultants who were paid competitive salaries. Enforcement of access restriction and illegal fishing

by industrial boats was affected as traditionally illegal fishing had been a lucrative source of income for rent-seekers in the fisheries sector, and because industrial fishing had been an important income source to governments, despite the existing understanding that maintenance of the current fishing pressure may end up depleting the resource.

35. **EVD epidemic:** The Ebola Virus Disease (EVD) outbreak, which began in Guinea in late 2013 and then spread to Sierra Leone and Liberia, was an important factor in the project's ability to make progress in these two countries. The outbreak peaked in Sierra Leone between October and December 2014 and in Liberia between August and September 2014, resulting in restrictions on travel and public and private gatherings toward the end of the original closing date of December 15, 2014. Project-financed activities which were most affected by the EVD were those that involved public gatherings and travel, such as training and workshops, vessel registration, and international and internal travels of suppliers and contractors.

Country-specific factors:

36. **Cabo Verde:** The project was carried out satisfactorily for most of its duration thanks to strong government commitment and a capable PIU. In the first year after effectiveness was declared (2010-2011), activities experienced delays because of project execution arrangements whereby the coordination of certain activities, such as fish stock assessment and vessel registration, was outsourced to specialized agencies through Memoranda of Understanding (MOUs)⁵⁶; while outsourcing was meant to reinforce agencies' mandates, their institutional and financial⁵⁷ capacities were found to be insufficient to implement the tasks, resulting in a decision by the Ministry of Environment, Rural Development and Marine Resources (*Ministério do Ambiente, do Desenvolvimento Rural e dos Recursos Marinhos*) to have them coordinated centrally. Although increasing substantially the workload of the PIU, this decision and the restructuring that followed helped enhance the pace of implementation, and the Ministry subsequently was able to achieve, and at times exceed, several project targets by project closing, including a reduction in illegal fishing activities (reduced from 42 percent to 2.4 percent compared to a set target of 20 percent), adoption of a new Sector Policy Letter in 2014, full registration of small scale vessels, enhancement of national inspection capacity through newly recruited and trained inspectors which are now on government payroll and a functioning VMS, and a participatory surveillance system through coastal surveillance stations. A slowdown in government responsiveness around the parliamentary elections in March 2016 somewhat hindered project performance, as did the unavailability of a procurement specialist and an accountant during the last few months of implementation. Both factors delayed the allocation of fishing rights to the four established CMAs, and

⁵⁶ Six MOUs were signed: with the Cabo Verde National Institute for Fisheries Development (*Instituto Nacional do Desenvolvimento das Pesca*, INDP), the Maritime and Port Agency (*Agência Marítima e Portuária*, AMP), Coast Guard, Maritime Police, ACOPECA and the Ministry of Rural Development.

⁵⁷ Agencies received project funding according to agreed action plans and on the basis of periodical reimbursement requests only after expenditures had been incurred, which caused problems due to their limited financial capacity.

the provision of alternative livelihoods support as planned. A WARFP second phase project is presently being prepared to finalize remaining project activities, consolidate achievements and continue the reform process under the overall program framework.

37. **Liberia:** Liberia is considered a success story regionally due to its accomplishment in reducing illegal fishing in its waters, including in the IEZ⁵⁸, and given the pre-project situation where illegal fishing by mainly foreign trawlers competed with local small scale fishing vessels and badly damaged Liberia's fishing grounds. The government was also successful in updating its policy, adopting new laws and regulations for the sector, conducting fish stock assessments and finalizing a registry of its artisanal sector in 2013. The project financed the establishment of a functional CMA in Robertsport for a cluster of 15 fisher villages with legally gazetted management responsibilities granted to the communities. Liberia's strong results were attained despite some start up delays and particularly weak government capacity, and thanks to strong government commitment to the objective of the project at the highest level, commitment of the fishing communities, and close inter-agency collaboration at both central and local levels. The project was less successful in finalizing the Robertsport post-harvest cluster and the Mesurado Pier rehabilitation by project closing, and completion of the works is expected by the end of June 2017 with ACGF financing as indicated.⁵⁹ Another site where works were not completed by project closing was Omega, where new premises for the Bureau of National Fisheries (BNF) were to be built but improper contract execution resulted in a flawed structure.⁶⁰ The BNF headquarters will be housed instead in Mesurado Port once the works are completed. In January 2017, the World Bank approved an additional financing grant of US\$1 million from the GEF (P156759) as an interim support to the Ministry of Agriculture until a Phase 2 WARFP project is approved (FY18).

38. **Senegal:** After almost one year of effectiveness delays, the project began to implement its work program and was rated Satisfactory until mid-2011 when a fiduciary review conducted by the World Bank discovered ineligible expenditures incurred by the

⁵⁸ With project support and parallel support from the US Coast Guard, US NOAA and the UN Mission in Liberia (UNMIL).

⁵⁹ In Robertsport, works were not completed due to: (i) expanded design requested by the government, which necessitated additional funding and time to complete; (ii) the EVD which slowed down the works; (iii) a US\$1 million shortfall in IDA funding due to the devaluation of the SDR⁵⁹ against the US dollar; and (iv) improper contract execution and insufficient performance of the supervising company. In Mesurado, physical works were delayed due to: (i) a two-year dialogue between the Ministry of Agriculture and the Port Authority on the latter's agreement to allow the works in Mesurado; (ii) restrictions affected by the EVD; and (iii) the IDA shortfall.

⁶⁰ The site for the new BNF premises was imposed on the project by the government and the design had to be changed. A December 2016 report from the World Bank-hired port engineer noted poor workmanship and improper construction materials which were leading to rapid deterioration of the entire building, including penetration of rain water, high internal temperature due to wrong materials used and lack of cooling. The engineer's conclusion was that the structure was beyond serviceable repair and no further funds should be invested in this building. At the time of the ICR writing, the Ministry of Agriculture is in arbitration with the company responsible for building the BNF premises, and the Office for Public Works has been commissioned to evaluate the structure.

Ministry of Fisheries and Maritime Economy (*Ministère de la Pêche et de l'Economie Maritime*, MPEM) under the three projects – WARFP, GIRMaC and GDRH.⁶¹ Subsequently, the World Bank decided to not extend the GDRH⁶², and disbursements under the project were put on hold for several months while discussions about the future of the Senegal project were ongoing. In March 2012, a new government was elected and the staffing of MPEM and the PIU changed. Consequently, in December 2012, a project restructuring was approved, in which post-harvest investments (not preferred to begin with) were minimized and more resources were allocated for community management pilots that GIRMaC and GDRH had initiated. These changes, along with the 2014 and 2015 extensions, allowed the project to reach many of its targets by project closing, including registration of the artisanal fleet, a revised fisheries law, allocation of management rights to eight communities supported, support for over 400 alternative livelihood sub-project and micro grants, and a 70 percent decrease in illegal fishing in artisanal exclusive areas at targeted sites. The 2012 restructuring included a freeze on small-scale vessel registration in an attempt to address the issue of open access. Fortunately, this was never implemented as it would have likely led to social discontent. A Phase 2 WARFP project is presently being prepared by the World Bank to consolidate and finalize project achievements and continue the reform process.

39. **Sierra Leone:** Implementation in Sierra Leone began after considerable start up delays (13 months) due to an ineligible selection of a PIU coordinator which necessitated re-launching of the selection process. The first two years of implementation (2011 and 2012) were characterized by effective anti-IUU actions and successful enforcement of the country's Inshore Exclusion Zone (IEZ) and waters outside the IEZ to the extent that it was applauded regionally as a model practice. Another successful implementation aspect was the registration of all small scale fishing vessels, which was a necessary first step in the management of the artisanal fishing segment. A change in the Ministry of Fisheries and Marine Resources (MFMR) in 2013 resulted in reduced commitment to the objective of the project, especially to enforcing industrial boats' access restriction to the IEZ, almost reversing the country's achievements. The government also began to allow more industrial vessels fish in its waters in an attempt to increase revenues in the immediate term, which was contrary to the long term objective of the project. Another key factor, already discussed earlier, which strongly constrained implementation, was the lack of incentives for government staff, resulting in an overall lack of trust and weak collaboration between the MFMR and the PIU and other project-paid consultants.⁶³

⁶¹ The Aide Memoire for the March-April 2011 and May-June 2011 missions to the three projects noted allocation of transport costs to ineligible participants, lack of rigorous tracking of fuel costs, inflated costs of field missions, and systematic allocation of catering costs to communities during missions. These costs were noted as ineligible by the World Bank.

⁶² A one year extension request was not awarded by the World Bank due to unsatisfactory performance and the ineligible expenses, and the project was closed in June 2012. GIRMaC had closed as planned in May 2012.

⁶³ The importance of incentives to the success of activities was especially demonstrated in the case of surveillance where the JMC performed well as long as its staff received allowances for carrying out site surveys, and when allowances were no longer available at the closing of the project, this activity was almost completely stopped.

Finally, post-harvest activities, namely the establishment of a fishing port in Kissy Dockyards and a small-scale fishing landing site in Konakree Dee, were not carried out despite the additional US\$8 million ACGF secured in 2011 due to recurring changes in the port site⁶⁴, delays affected by the EVD and ineligibilities related to the ESIA. The ESIA procurement issues led to a World Bank investigation in 2015, which also included the procurement process of a new patrol vessel under Component 2. The investigation found, *inter alia*, that public officials had solicited kickbacks from the ESIA consulting firm in exchange for awarding it the contract, and that the vessel company fraudulently failed to disclose a commission to be paid to an agent, and that a portion of the commission was to be used, at least in part, to compensate project officials. The investigation and the overall decline in performance in 2013 and 2014 resulted in the closing of the project at its original closing date of December 15, 2014.

2.3 Monitoring and Evaluation Design, Implementation and Utilization

40. **M&E design:** Project outcome indicators were defined with country-specific baselines and targets, corresponding to the three objectives of the project: an “improved governance indicator” to measure the objective of strengthened capacity to govern and manage targeted fisheries; a “reduction of illegal fishing indicator” to measure the objective of strengthened capacity to reduce illegal fishing; and an “increased local value added indicator” to measure the objective of strengthened capacity to increase local value added to fish products. The three indicators were both generic for the project and customized to countries’ context. For example, while the generic outcome indicator for reduction of illegal fishing was defined as “Fishing vessels observed by aerial/surface patrol or by radar and satellite monitoring that are committing a serious infraction”, it was further defined for Liberia as “percentage of all known industrial vessels targeting the coastal demersal and shrimp fisheries observed fishing without a license”. Tailoring the indicators to each country’s context was logical but it made the aggregation of results at the project level, where relevant, impossible at times. Another difficulty inherent in the custom design was the use of different units of measure within single indicators. Such was the case for the increased local value added indicator, which measured an increase in volume of exports in USD % increase (which had attribution issues as price fluctuation is also a factor) in Cabo Verde, Senegal and Sierra Leone, and in metric tons of fish exported in Liberia. While the outcome indicators reflected well the three PDO parts, intermediate indicators in the original results framework were missing a number of elements needed to fully measure the progress of the components, such as alternative livelihoods activities in Cabo Verde, stocks assessments, and a number of regional activities to be carried out by the CSRPs.

⁶⁴ While the landing site was identified at Kissy Dockyard on MFMR property, after the approval of ACGF additional financing for this site in 2011 the World Bank reported significant numbers of squatters’ settlements on the property. A Resettlement Action Plan was launched, but in February 2012 MFMR informed the World Bank of the government’s decision to move the landing site to a location in Murray Town near the JMC. In 2013 the government and the World Bank confirmed that the proposed site in Murray Town was a Ramsar Wetland of International Importance and an ESIA was required.

41. M&E arrangements were adequate given counterparts' insufficient capacity (resources and coordination capabilities) to adequately report on progress according to the results framework: countries were to benefit from the support of a full-time M&E expert based in the RCU, who was to provide support to PIUs in collecting data, developing the national databases, generating reports and aggregating them to the project level. Local level M&E was to be carried out by the relevant communities which were to receive training and equipment to carry out these tasks. The project design envisaged that the CSRP would develop a regional dashboard of key environmental, economic and social fisheries statistics and help governments develop similar databases at the national level, to eventually feed information to the dashboard. All these actions were fulfilled, and the Phase 2 projects will continue to support PIUs and further populate the dashboard, rolling it out for users.

42. **Changes to M&E:** During implementation, the World Bank and counterpart teams addressed the issues of attribution, relevance, measurability and clarity of several indicator definitions through restructuring. As discussed earlier, in 2016, a final restructuring recorded a comprehensive revision to the project results framework, excluding Sierra Leone which had closed in 2014, to further align it with project progress.⁶⁵ The project team also viewed the revision process as a beneficial exercise for both the World Bank and the counterparts in shaping the design of next phase projects. The need for repeated changes in the results framework reflects a learning curve within the World Bank and implementing agencies given the lack of similar previous experience.

43. **M&E implementation:** With the support of the CSRP RCU, countries were able to submit semi-annual and annual reports, which were aggregated into consolidated project-level progress reports. The quality and timeliness of countries' reports and the reports compiled by the RCU were overall satisfactory albeit countries' inability to report on some indicators for the reasons mentioned above. The dashboard was established within the CSRP and countries received training for their respective national dashboard nodes, however both the regional and national nodes were challenged by lack of updated socioeconomic and fisheries production data as countries had not set up a systematic way to collect and process data. Systems were put in place in all countries except Sierra Leone to monitor local site conditions, and in these countries, monitoring was carried out successfully with strong endorsement of community members.

44. **M&E utilization:** Progress reports were presented at the RSC and fed into the work programs of countries. Information on progress by country was also used to compare achievements during RSC meetings, which created competition and motivated countries to work toward their targets. Evaluation of the project went beyond the results framework with the World Bank commissioning two studies⁶⁶ to evaluate project

⁶⁵ Changes were made to two of the three original outcome indicators, to five of twelve original intermediate outcome indicators, as well as to several revised indicators from previous restructurings.

⁶⁶ (1) Chu, J., Garlock, T.M., and Sayon, P. (2016) Impact Evaluation of Fisheries Development Projects. Washington, D.C: World Bank. The methodology was first piloted in Liberia to monitor the health of the

progress, discuss shortcomings and good practices and draw lessons. These studies fed into the "Theory of Change" developed for the WARFP and other fisheries projects (see Annex 8). New transparency standards introduced through the project had positive effects especially in Cabo Verde, Liberia and Sierra Leone as countries made their vessel registries available to the public. For example, in Liberia, in 2011 after publishing the vessel registry, the government discovered a list of illegal registrations made by unlicensed agents. Nowadays, country data such as vessels authorized to fish, sector revenues, offenses made in their waters and fines collected are published in the press and online, practices that were once unthinkable.

2.4 Safeguard and Fiduciary Compliance

45. **Safeguards.** The project triggered OP/BP 4.01 on Environmental Assessment with an Environmental Screening Category B due to the planned construction of fish landing sites and other infrastructure, and OP/BP 4.12 on Involuntary Resettlement due to the potential for acquisition of land for the new landing sites and other potential access restrictions to fish resources. An ESMF and an ESMP, a Resettlement Policy Framework and Resettlement Process Framework, which contained information specific for each country were prepared prior to approval based on a general description of physical and social interventions and the financing agreements contained provisions for strengthening national safeguards capacities. Since the safeguards risk related to infrastructure was considered low, and because the infrastructure works in Cabo Verde, Senegal and in Sierra Leone were scaled down, dropped or did not move forward⁶⁷, high frequency of safeguards compliance supervision was not warranted. Nonetheless, there were occasional omissions related to minor works: for example, in Senegal, alternative livelihoods and the construction of fishers' houses were carried out without screening for impacts and subsequent safeguards instruments but since the works were very small, there were no complaints or consequences. Review of mission reports and discussions with PIUs and the World Bank team do point, however, to a need of stronger and more systematic safeguards capacity enhancement in PIUs and more frequent compliance supervision despite the low risk related to infrastructure. For further discussion of safeguards implementation, please refer to Sections 5.1 and 5.2.

46. **Procurement:** Procurement performance varied between the countries, with overall stronger procurement performance in Cabo Verde, Liberia and Senegal, and weaker performance in Sierra Leone. Project-assigned specialists were based in Sierra Leone and in Washington D.C., and procurement reviews were conducted regularly. There were no violations in Cabo Verde and Liberia, but processes were delayed by the

resource. (2) Virdin, J. (2016) The West Africa Regional Fisheries Program: Experiences and Selected Lessons from the First Phase of one of the World's Largest Tropical Fisheries Governance Reform Programs. Washington, D.C: World Bank.

⁶⁷ In the 2013 restructuring of the Cabo Verde project, post-harvest activities were scaled-down to an ice factory in Sal Island and an improved auction facility in Praia. In the 2012 restructuring of the project in Senegal, a fishing landing site cluster was dropped from the project. The project in Sierra Leone closed before the beginning of the works due to the above-mentioned reasons of site changes, ESIA ineligibilities and delays caused by the EVD.

lack of qualified consultants/bidders and frequent cases where just one bidder would apply. This may further explain the weak contract supervision in the cases of the Robertsport landing site and the BNF premises. In Liberia, during a nearly two-year period of funding shortfall, procurement support was provided by a CSRP-hired consultant with cross-support from a World Bank-hired consultant. In Senegal specifically (see also Section 2.2), procurement improved after the change in the ministry and replacement of the procurement specialist albeit delays due to the PIU's obligation to follow national procurement procedures in addition to World Bank procedures.⁶⁸ The project in Sierra Leone had several procurement shortcomings during the hiring of an ESIA consulting firm and purchasing of a patrol vessel as stated by the investigation.

47. **Financial management:** Financial management compliance was overall strong in all countries albeit the ineligibilities incurred in Senegal at the beginning of the project and later in Sierra Leone. In Cabo Verde, financial management performance was overall strong until the last year of implementation, showing lack of task separation and observed inconsistencies in the financial and administrative manual; in the last year financial management improved as the PIU was able to address these shortcomings. Liberia showed consistently strong financial management performance, and in Senegal and Sierra Leone performance was evaluated as overall strong. The project was supported by World Bank financial management specialists throughout and assessments and reviews were done regularly. PIUs were adequately staffed most of the time. All four project audits and unaudited Interim Financial Reports (IFRs) were acceptable to the World Bank and timely submitted, and withdrawal applications were submitted on time. Cabo Verde and Senegal used e-disbursement, but Liberia and Sierra Leone faced connectivity issues and used mostly manual applications.

2.5 Post-completion Operation/Next Phase

48. **Transition arrangements:** The World Bank and the counterparts were diligent in evaluating progress and performance gaps toward the closing of the project through multi-stakeholder consultations, and accordingly identifying general priorities and specific actions which would be the focus of a Phase 2 project. Agreements were also reached with the governments on transition arrangements and government financing needed to sustain capacity and physical interventions in between the phases, including salaries of key PIU staff. An exception was the project in Sierra Leone which temporarily precluded such discussions: in April 2015, the World Bank agreed with WARFP partners (mainly the Isle of Man, the UK ISAT and the US Embassy) on a short-term strategy to source interim finance to retain several priority activities until the World Bank could resume its support to the sector. Partners' support retained some of the capacity built in the implementation unit and project-funded vehicles and equipment, continued some surveillance activities and further enhanced CMAs' capacities.

⁶⁸ National procedures were required by law and affected all projects.

49. **Additional financing:** In January 2017, additional GEF financing was approved by the World Bank for Liberia and for Sierra Leone as transitional financing,⁶⁹ with Liberia benefitting from a US\$1 million grant for one year and Sierra Leone provided with a US\$4 million grant for four years. A second grant from the ACGF to Liberia for a total amount of US\$4.19 million was approved in September 2016, to support the completion of works in Robertsport and Mesurado until June 2017.

50. **Second phase projects:** The PAD described the second phase of the WARFP as focusing on regional integration and promoting private sector investment. Implementation experience showed lower country capacity to independently carry out reforms, and the usefulness of CMAs in ensuring access control at the local level, resulting in a decision by the World Bank and counterparts to continue investing resources in national and local governance and efforts to fight IUU fishing, while further promoting regional integration and introducing private sector engagement. SOP-A2 (P161906) is currently under preparation, offering IDA and GEF financing to Cabo Verde, Senegal, Guinea Bissau, The Gambia and the CSRP starting in 2018. Liberia and Sierra Leone are currently implementing GEF additional financing activities and Liberia is implementing additional ACGF-funded activities, while a Phase 2 project is also under preparation. The following table summarizes the transitional and next phase instruments ongoing or planned in the four countries and the CSRP:

Table 1. Transitional and Phase 2 financing summary

SOP-A1 country	Transitional financing	Phase 2 financing
Cabo Verde		SOP-A2, PCN stage (P161906)
Liberia	<ul style="list-style-type: none"> ACGF Additional Financing, approved (P159912, US\$4.19 million) GEF Additional Financing, approved (P156759, US\$1 million) 	Phase 2 project to be proposed under IDA18
Senegal		SOP-A2, PCN stage (P161906)
Sierra Leone	<ul style="list-style-type: none"> Isle of Man, UK and US financing of PIU, surveillance and CMA activities (non-Bank) GEF Additional Financing, approved (P156759, US\$4 million) 	Phase 2 project to be proposed under IDA18
CSRP	Ongoing support through subsidiary agreements with active WARFP projects (Ghana, Guinea, Mauritania and Guinea Bissau)	GEF and IDA grants under Phase 2 projects and subsidiary agreements from countries' IDA allocations.

3. Assessment of Outcomes

3.1 Relevance of Objectives, Design and Implementation

⁶⁹ The additional financing was approved by the World Bank on January 5, 2017 under the WARFP SOP-C1 of Mauritania and Guinea. This request also included US\$5 million to WARFP Guinea. The original intention of the additional financing was to support the three EVD-affected countries as a food security measure.

51. **Relevance of objectives (Rating: High).** *At the global level,* the project’s objective is reflected in the 10th meeting of the Conference of the Parties to the Convention on Biological Diversity (2010) and the UN General Assembly Sustainable Development Goal (SDG) 14 to “conserve and sustainably use the oceans, seas and marine resources for sustainable development”. *At the regional level,* the project is aligned with and supportive of the Abidjan Convention and its regional approach to meeting transboundary marine environmental challenges, the Policy Framework and Reform Strategy for Fisheries and Aquaculture in Africa that was endorsed by the Second Conference of African Ministers of Fisheries and Aquaculture (CAMFA) in April 2014, and the AU’s June 2014 Malabo Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods. *Nationally,* Cabo Verde’s FY15-17 CPS (Report No. 92248) includes improvement of the fisheries sector’s performance as a driver of poverty reduction, and in 2013, the government adopted a new Sector Policy Letter which aligns with the objective of the project. In Liberia, the FY13-17 CPS (Report No. 74618) seeks to improve the management and productivity of fisheries, and the Fisheries and Aquaculture Policy and Strategy of 2015 is aligned with the objective of the project. Senegal’s Emerging Plan adopted by the National Assembly in 2015 and the country’s FY13-17 CPS (Report No. 73478) look to improve sustainable management of fishery resources with the WARFP highlighted by the CPS as the key program to improve governance in the sector and strengthen the entire value chain. Finally, the project is of relevance to Sierra Leone’s Joint FY10-13 CAS (Report No. 52297), which the World Bank continues to engage and operate under, and its outcome on enhanced productivity in agriculture and fisheries. It is also responsive to the draft Systematic Country Diagnostic where fisheries are described as one of the country’s environmental challenges due to overfishing and insufficient regulation in this sector. The government is currently in the process of revising its 2010 Fisheries Policy to reflect WARFP-supported priorities.

52. The project is aligned with the World Bank’s priorities for the region as articulated in the Africa Strategic Framework of creating opportunities for growth and poverty reduction by boosting agricultural productivity and commercial farming; with the World Bank’s strategic vision on fisheries (PROFISH); the updated (in 2011) RIAS on the need for management of shared natural resources⁷⁰; the Africa Climate Business Plan’s (ACBP, 2016) agenda of monitoring fisheries, incorporating climate variations into scientific evidence overmanaging fisheries management, and development of alternative livelihood streams for coastal communities; and the World Bank draft Blue Economy Development Framework (BEDF), which recognizes the significant potential

⁷⁰ The RIAS highlights the fact that fisheries are cross-border resources that require regional collaboration to ensure sustainable harvesting and prevent conflicts. As such, one of the three pillars of the RIAS is support to coordinated interventions to provide regional public goods, focusing on regional water resources, forestry and fisheries.

of marine and freshwater ecosystems' contribution to achieving the SDGs and delivering smart, sustainable and inclusive growth globally.⁷¹

53. **Relevance of design and implementation (Rating: Substantial).** The activities financed under each component were considered by the World Bank and recipient countries technically best suited to achieve the PDO and address the sector's key constraints, while also taking into consideration lessons learned, and communities' expressed needs. The PDO and components were constructed along the three elements of intervention (the components), which the World Bank and counterparts had considered essential to begin the phased reform process. A fourth national and regional coordination component was added to ensure technical support to countries' low capacities and policy harmonization, and to address the regional dimension of the fisheries resource. Important design elements, such as the use of an APL as a financing instrument to phase interventions, and the tailored activities to address unique country settings, were proven suitable for the countries and helped them put in place a basis for further reform steps. The downside of the design was its high level of ambition compared to implementation realities. This was partly due to an uncharted territory and the viewing of the project as a high risk – high reward operation with room for adaptation. The implementation of the project benefited from a high degree of flexibility where multiple restructurings were made to adapt the project to countries' constraints and level of progress, and the project's results framework underwent continuous improvement to make it clearer and relevant to the needs of the countries.

3.2 Achievement of Project Development Objectives and Global Environment Objectives

54. The overall achievement of the PDO/GEO is evaluated on the basis of the performance of each of its three parts in accordance with original and revised indicators, as well as other important results which can be attributed to the project. The project contributed significantly to the countries' capacities to govern and manage targeted fisheries and reduce illegal fishing as intended, while it had less impact on the capacity to increase local value added to fish products in terms of volume of exports as originally expected, or in terms of post-harvest handling capacity at targeted sites as defined post-restructuring.

55. **Strengthening capacity to govern and manage targeted fisheries (Rating: Substantial).** Two of the four countries were able to legally establish TURFs for coastal fisheries: one in Liberia and eight in Senegal as planned. While CMAs with proposed management areas were formed and officially established by local authorities (State/Island level) and the Ministry of Local Government and Rural Development in Cabo Verde and Sierra Leone respectively, they were not officially provided with fishing rights/areas by the ministries in charge of fisheries before project closing, and therefore could not be strictly considered as achieving their governance target. Nonetheless, the

⁷¹ The BEDF's approach is relevant to the region's island nations, including Cabo Verde. Cabo Verde adopted a Charter for the promotion of Blue Growth in November, 2015 and introduced a necessary coordination mechanism among relevant sectors, including fisheries and tourism.

outputs from these pilots were generally discussed as positive and encouraging, with communities introducing harvesting rule changes in many cases and in some cases - reported evidence of local coastal demersal fish stocks rebuilding. In Senegal, where co-management had been exercised over the longest time period⁷², project-supported communities in one of the targeted locations (Ngaparou) reported a 133 percent increase in catch efficiency, which is attributed to the support of the project in providing communities with legally recognized/gazetted co-management areas.⁷³ In Liberia, coastal fisheries more than doubled in size during the WARFP, and fish landings showed there were no juvenile fish being caught, a sign of stocks recovery.

56. Fisheries governance and management capacity increased by other measures, particularly significant changes to the rules controlling fish harvesting and the organizations administering and monitoring them: new policy statements were articulated and approved by governments in three of the four countries (Cabo Verde, Liberia and Senegal; in Sierra Leone these were supported by NEPAD), and were translated into laws and regulations in all cases. Additionally, in Senegal two fishery-specific fisheries management plans were completed and approved by the government as planned. Another important governance and transparency measure which was facilitated by the project and was well performing was countries' registration of their small-scale fishing vessels, which reached 100 percent by project closing in all four countries as planned compared to a baseline range of 0-60 percent. The registration is considered a first important step toward controlling countries' fishing effort as it provides information on fishing capacity which in turn feeds into policy decision-making. To achieve this, national surveys recorded all fishing canoes and their gears, each canoe was assigned with a registration number and the results were stored in databases that were developed with the support of the project.

57. Another governance capacity outcome is the first Sustainable Fisheries Partnership Agreement⁷⁴ between the government of Liberia and the European Union (EU), which was made possible thanks to policy measures supported by the project in Liberia, notably a surveillance center established to fight IUU fishing, a six mile IEZ instituted in 2010 and maintained since, and the Fisheries and Aquaculture Act and revised regulations. The Agreement provides access for European tuna vessels in return for €715,000 per year to Liberia for the next five years – half of which is earmarked to support fisheries management costs. The contribution of the project to the signing of this agreement was highlighted in statements made by the Liberian President during the Marrakech Climate Change Conference in November 2016. In addition, in November

⁷² In Senegal, fishers' associations had been present in the selected community sites prior to the beginning of the GIRMaC, GDRH and WARFP projects, and were considerably strengthened under the GIRMaC and GDRH through investments in human and physical capital.

⁷³ See <https://www.youtube.com/watch?v=Slwo3rqy0vg&t=2s> for a short film produced by the World Bank in 2014 on the benefits of community-based fisheries management interventions in Ngaparou Senegal, including interviews with community members.

⁷⁴ Granted in 2015, to be disbursed over 5 years. See: https://ec.europa.eu/fisheries/cfp/international/agreements/liberia_en

2016, twelve Chinese vessels negotiated licenses to fish in Liberian waters, and the government has been demanding the same fishing rules as for EU vessels.

58. Other project-funded outputs which strengthened countries' governance capacity were:

- Based on scientific recommendations emerging from the project, Cabo Verde was able to adjust the industrial fishing capacity in the lobster fisheries while an investment for a processing factory for industrial captures of mackerel (*Decapterus macarellus*) was rejected on the grounds that it would put unreasonable additional pressure on small pelagic resources. In December 2015, Senegal started consultation on an improved artisanal fishing permit defined by a set of fisheries as opposed to the current all-fisheries permit. This new permit will allow an adjustment of the fishing capacity to the availability of certain marine resources. Once officially approved, it will become a valuable tool for sustainable fisheries management.
- Although defined as an intermediate indicator for coordination (under Component 4), the CSRP made an important first step toward establishing a regionally-shared database by developing a regional dashboard for public disclosure of information on fishing licenses and public revenues. As discussed earlier, countries will be publicly disclosing registry information through the dashboard (up until now they have individually disclosed some information outside the dashboard), a measure which may have been underestimated in its contribution to the PDO. See also Section 2.3.

59. **Strengthening capacity to reduce illegal fishing (Rating: Substantial).** The ratio of infractions to vessels observed fishing dropped significantly in Cabo Verde, Liberia and Sierra Leone, where this evaluation measure was used (although measures in Sierra Leone were not available after 2013), therefore exceeding the original and revised end of project targets. In Cabo Verde, illegal fishing activities were reduced from 42 percent to 2.4 percent compared to the target of 20 percent and Liberia is considered a success story regionally due to its accomplishment in significantly reducing illegal fishing in its waters.⁷⁵ In 2011-2012, the increase in Sierra Leone's surveillance capacity dramatically reduced illegal fishing to the extent that it was applauded regionally alongside Liberia as a model practice in WARFP regional steering committee meetings and in several international conferences. In Senegal, efforts to reduce illegal fishing yielded desirable results compared to the August 2016 revised target (54 percent of vessels committing a serious infraction) but not compared to the original target (5 percent committing a serious infraction). This decline in the ratio of fishing infractions was accompanied by a number of other project-funded outputs:

- More than tripled number of sea patrol days in Cabo Verde, Liberia and Senegal thanks to project-funded training and provision of equipment and operating costs.

⁷⁵ With project support and parallel support from the US Coast Guard, US NOAA and the UNMIL.

Sometimes, the existence of a patrol boat in itself became a deterrent to illegal fishing in the countries. In Sierra Leone, a reduction in sea patrols was recorded toward the closing of the project due to a number of external factors, including the loss of a patrol vessel in 2014, the EVD which prevented travel, and overall reduced government commitment.

- Establishment and reinforcement of a satellite-based VMS for the industrial fleets operating in Cabo Verde, Liberia and Sierra Leone used to identify location and identity of ships fishing in the national waters and inform further enforcement actions. In Senegal, this system had been in place and a link to an Automatic Identification System (AIS) was added as planned. Stakeholders have indicated the usefulness of the VMS in detecting IUU fishing.
- Increased number of trained observers on industrial vessels fishing in Liberia, and increased number of inspectors conducting fisheries surveillance in Cabo Verde (together with surveillance centers in Sal and Maio islands) with the needed training provided and utilized, and the Competent Authority for Fishery Products (*Autoridade Competente para os Produtos da Pesca*, ACOPECA), to monitor and control activities related to fishing, fish and fishery product processing and quality in Cabo Verde.
- Multi-donor partnerships strengthened or catalyzed in both Liberia and Sierra Leone to support fisheries surveillance, including with the US Coast Guard, US NOAA and the EC in Liberia, and the Government of the Isle of Man, International Military Training and Advisory Team (IMATT), and the Environmental Justice Foundation (EJF) in Sierra Leone. Dialogues and networking facilitated by the World Bank team helped catalyze these partnerships and leverage them to achieve stronger results.
- In Cabo Verde, Liberia and Sierra Leone the project supported inter-agency collaboration (e.g., the JMC in Sierra Leone, which included the Coast Guard, the National Police, the Justice Department, the Army and the MFMR) to enhance fisheries surveillance, based on formal memoranda of understanding defining respective roles, responsibilities and procedures.

60. While not defined by the project as an indication for increased IUU fighting capacity, these outputs resulted in a significant increase in inspections, prosecutions and revenues from fines for fishing infractions and from licenses in some countries. Revenues from fines have a distribution skewed towards the early years of the project, such that over time detected fishing infractions, and therefore offences and fines, decreased in coastal fisheries in Cabo Verde, Liberia and Sierra Leone. In Liberia for example, the government fined 48 fishing vessels for a total of over US\$6.4 million largely in the first three years, while the indicator on the rate of illegal coastal fishing dropped from 83 percent at baseline to 33 percent in 2016. Similarly, a high volume of inspections, prosecutions and fines occurred in Sierra Leone during the first few years of the project. These efforts have been associated with increased yields for coastal communities⁷⁶, such as the fishing community of Tombo, which reported a 42 percent increase in catch.

⁷⁶ See the World Bank and CSRP joint mid-term review report of March 11-15, 2013.

61. Similarly, beginning in 2011, Liberian coastal communities experienced a change in fish availability with the sizes of all fish landed increasing and the overall volumes of fish caught more than doubling the levels in 2009, as confirmed by sampling on fish landings carried out by the project-funded Community Sciences program.⁷⁷ A recent study⁷⁸ looking at the social, economic and environmental impact of the project in Liberia in comparison to conditions in 2011, reaffirmed these findings showing that the project improved the health of Liberia's fisheries following the significant reduction of illegal trawlers in the nearshore area. Feedback from fishing communities in Robertsport and nearby communities in particular have indicated that the reduction in illegal fishing activities have also led to fewer conflicts with illegal fishers and higher revenues to communities from fishing. Finally, a project-funded bio-economic model conducted by the University of Iceland and the consulting firm MRAG⁷⁹ showed that the Liberian artisanal fishery as a whole had in 2014 a total profit of around US\$3.4 million, indicating substantial progress compared to the beginning of the project when boats were barely profitable.⁸⁰

62. **Strengthening capacity to increase local value added to fish products (Rating: Modest).** The original outcome indicator for this objective, looking at an increase or stabilization in the volume of exports from targeted fisheries in Cabo Verde, Liberia and Sierra Leone, was not used, initially because of unavailability of current data, and later with the understanding that the indicator presented an attribution gap since export is the result of several other independent factors. The revised outcome indicator (Post-harvest handling capacity at targeted sites measured by tons per year), which looked at local infrastructure and skills to process more of the fish harvest within the region, showed an increase in capacity as the target was achieved in Cabo Verde and Senegal. In Cabo Verde, despite the fact that the ice-making facility in Sal Island and the improved auction market in the port of Praia (Santiago Island) were not operational at closing, they are functional and their future operation will increase the post-harvest handling capacity from a baseline of 2,500 tons of fish/year to 5,000 tons/year⁸¹, and in Senegal, where main artisanal landing sites received support from the project (a sorting

⁷⁷ The program included two related projects: (i) a World Bank-Netherlands Partnership Program (BNPP) Sustainable Development and Climate Control: Strengthening Demand-Side Environmental Governance in Poor Coastal Communities in West Africa (TF097225) and (ii) Building Demand-Side Governance Capacity in Local Artisanal Fishing communities (TF097288). Activities included monthly monitoring activities by community volunteers trained by the BNF and supported by a project-paid coordinator.

⁷⁸ Chu, J., Garlock, T.M., and Sayon, P. (2016) Impact Evaluation of Fisheries Development Projects. Washington, D.C: World Bank. The paper used Fishery Performance Indicators to evaluate the performance of fisheries in West Point, a densely populated township of Monrovia. Fisheries Performance Indicators are an evaluation tool which was introduced in 2015 by Anderson et al. to capture most dimensions of a fisheries system in data-poor environments.

⁷⁹ University of Iceland, MRAG (2016) International University to Assist the Fisheries Management Office of the Bureau of National Fisheries (BNF), Republic of Liberia, Final Report.

⁸⁰ See <https://www.youtube.com/watch?v=6m06e6s8RZo> for a short film produced by the World Bank in 2014 on the benefits of community-based fisheries management interventions in Liberia.

⁸¹ Note that the signing of a management contract for both facilities was not considered a condition for the fulfillment of the value added increase indicator.

room, fencing of perimeters at several sites, equipment for analysis laboratories in the fishing docks and financing of quality specialists⁸²), the baseline handling capacity of 17,500 tons/year increased to 32,704 tons/year, well above the expected 18,500 target. Fish landing sites were not completed in Liberia and Sierra Leone by project closing.

63. Also measuring increased local value added were two sanitary competent authorities (CAs) accredited for certification of exports to the EU - one in Liberia and one in Sierra Leone; in Liberia the target was revised during the August 2016 restructuring to only establishing a CA because the accreditation for certification was judged to be beyond the control of the project⁸³; and in Sierra Leone, this activity was removed from the project during the mid-term review following the government's decision to independently appoint a consulting firm to carry out this work and reallocate the funding to post-harvest infrastructure instead.

64. While not captured in the results framework, project investments in Senegal and in Cabo Verde helped maintain and improve the countries' accreditation for export to the EU. In Senegal, the investments helped improve fish product quality, reduce post-harvest loss and increase accredited landing sites' potential for exports to the EU, with the quality specialists retained in the sites since the closing of the project. In Cabo Verde, an assessment carried out by the EU in 2014 commended the country's efforts to fight illegal fishing which was a condition for the country to export fish to the EU market. Nonetheless, this objective is rated Modest since the PDO indicators used were not fully achieved.

3.3 Efficiency

Rating: Substantial

65. At appraisal, the World Bank developed a basic economic model of coastal demersal fisheries in the four countries to estimate the direct quantifiable benefits of the project. These benefits were measured as net revenue at first sale after fish landing so they did not capture enhanced benefits through the entire value chain. The anticipated benefits under a reform scenario in the four countries were compared to a 'business-as-usual' (baseline) scenario. These impacts were expected to lead to increased profitability in coastal fisheries in the order of US\$39 million over the five-year period from 2010 through 2014. Adding in the returns to labor and increased value added from fish landing site infrastructure, the total net economic benefits from WARFP investments in the four countries were estimated at US\$75 million over the five-year period, for an economic internal rate of return of 16 percent. In Annex 3, the basic assumptions of the model are revisited and, taken together, the model, as parameterized at the time of project appraisal

⁸² Sanitary conditions were improved by constructing fences and walls of approved artisanal fishing wharves at Hann, Kayar, Mbour, Joal and Kafountine, constructing a sorting room at Kafountine, and purchasing equipment for analysis laboratories in the fishing docks of Ouakam, Thiaroye, Hann, Kayar, Mbour, Joal, Boudody and Kafountine.

⁸³ A CA had already existed under the Ministry of Health and the intention was to enhance its performance.

and holding the other variables constant, would generate an output that is close to, if not above, the US\$39 million benefit figure estimated in the PAD.

66. The ICR analyzes project efficiency from additional angles which could provide a better understanding of the value of the project, relying on an evaluation of five broad categories of benefits in each of the four countries and regionally, where possible quantitatively, as indication of overall project benefits. The categories are:

- i. **Public revenues generated through surveillance activities.** This set of activities resulted in public revenues through, *inter alia*, fines and other revenues associated with successful reduction of illegal fishing. Financial analysis-type exercise is performed where relevant (see below).
- ii. **Benefits due to physical recovery of fish resources (natural capital).** Quantitative and qualitative evidence is collected to indicate the project’s contribution to the recovery.
- iii. **Flow of benefits of investments in infrastructure (produced capital).** Indication of fisheries-related facilities’ benefits is documented.
- iv. **Benefits of improved processes due to enhanced practice, technology and information.** The evaluation of these benefits relies on available information on improved processes.
- v. **Benefits of strengthened capacity at regional, national and local levels (human/social capital).** While the effects of these benefits are difficult to quantify, some indication of improved fisheries management due to strengthened capacity is documented.

67. The table below briefly summarizes the extent of achieved benefits in the four countries:

Table 2. Summary of benefits by country

	Cabo Verde	Liberia	Senegal	Sierra Leone
(1) Public revenues	N.A	Financial analysis	N.A	Financial analysis
(2) Stock recovery	N.A	Fish size, catch volume	Fish size, catch efficiency, species mix	Catch volume
(3) Produced capital	Artisanal port	Robertsport, Mesurado	Artisanal landing sites for EU export	N.A
(4) Improved processes	Knowledge, vessel registration, market access	Anti-IUU actions, license, information	Surveillance, market access	Surveillance, information
(5) Strengthened capacity	National, community	National, community	National, community	National

68. At the regional level, the RCU contributed to the capacity building of client countries through: (i) a regional vessel registry for fishing vessels, and (ii) a regional dashboard for public disclosure of information on fishing licenses and public revenues, with all four countries beginning to publicly disclose this information, a measure which

had considerable impact on countries' transparency standards and data management capacity. The RCU also provided training to dashboard users and administrators in the four countries. In turn, the capacity of the CSR as a whole was also substantially strengthened through their engagement in the project.

69. As the compiled evidence in Annex 3 shows, the project supported activities which produced economic gains, and the cumulative effect of these results has generated a foundation for sustainable fisheries. Achieving the long-term outcome of sustainable fisheries requires appropriate sequencing of numerous activities in order to achieve seemingly small however important individual results. Given that the project is the beginning of a long-term process towards sustainable fisheries for the countries, full results that can be evaluated in a standard economic (or financial) analysis framework are yet to materialize. However, it is recognized that the magnitude of anticipated long-term benefits is such that it likely far exceeds project costs. Although equivalent estimates specifically for West Africa are not available, research has shown substantial potential benefits from fisheries reforms as those supported by the project. According to the World Bank report "The Sunken Billions Revisited" such gain would amount to US\$83 billion *annually* at the global level and US\$10 billion *annually* in Africa. The project cost of US\$44.35 million represents only a partial and initial investment toward this long-term goal, making it substantially efficient.

70. Project efficiency is also demonstrated in the overall efficient use of resources. For example, in Liberia, the project invested a total of US\$3.62 million in actions against IUU fishing (Component 2) which resulted in an estimated generated income of US\$8.05 million between 2011 and 2015, of which US\$6.22 million are from collected fines. In Sierra Leone, the total project disbursement on actions against IUU fishing was US\$1.46 million while the income generated through MCS activities averaged US\$489,000 between 2012 and 2014 from fines alone, and the country's public revenue base substantially increased since the beginning of the project also from license fees and royalties: in 2016, these generated US\$6.57 million in revenue to the Ministry of Fisheries and Marine Resources. The project was able to achieve many of its targets, and at times exceed them during the extended project period, during which PIUs continued to operate in full and despite the US\$1 million IDA shortfall. This was possible thanks to a number of adjustments made during implementation, notably the approval of additional ACGF and IDA resources, additional cash contribution from counterparts and reallocation of resources from several post-harvest activities to governance support. Where project efficiency was affected was in the construction of BNF premises in Liberia, which poor site selection and construction made them unusable, resulting in a loss of around US\$300,000 of IDA to the project, and the loss of around US\$600,000 IDA on the purchase of a patrol vessel for Sierra Leone, which eventually was not supplied to the government.⁸⁴

⁸⁴ This amount reflects ten percent of the vessel contract price, for which the World Bank did not request a refund. The 90 percent refund request was based on the fact that at the date of project closing (December 15, 2014), the ownership of the vessel had not been transferred to the Recipient, and therefore this activity was determined by the World Bank as an ineligible expenditure.

71. From the GEF perspective, the PAD showed that for an incremental cost of US\$10 million (GEF contribution) to Cabo Verde, Liberia and Sierra Leone, the project would generate significant global benefits, which indeed materialized, including capacity building in the recipient governments to sustainably manage fish resources and reduce over-exploitation of fish stocks, and sustainable management of fish resources underpinning fisheries development efforts in the three countries to be used as models for other countries in West Africa.

3.4 Overall Outcome Rating

Rating: Moderately Satisfactory

72. The WARFP is arguably one of the largest-scale fisheries governance reform efforts undertaken in the tropics to date, and this project is the program's first step. Carrying out reforms that control fishing efforts in a context of limited government resources and capacity, open-access traditions and poverty, even while resources are visibly declining, is a highly complex task which requires multiple actions at different levels over an extended period, accompanied by strong commitment of governments. The WARFP's objective and design's relevance to global priorities and instruments, the region and the countries participating is substantial, especially in the context of food insecurity and continued global depletion of marine resources, and the World Bank and partner governments have taken a number of steps to adapt implementation to changing local contexts. Factoring in the high relevance of objectives, substantial relevance of design and implementation of the project, the substantial achievement of two objectives and modest achievement of one objective in the PDO, and substantial efficiency, albeit with the shortcomings described herein - the overall project outcome is rated Moderately Satisfactory. Both original and revised indicators used to measure the value added outcome were not fully achieved and therefore would not have affected the split assessment. The overall outcome rating is deemed Moderately Satisfactory before and after the restructuring.

3.5 Overarching Themes, Other Outcomes and Impacts

(a) Poverty Impacts, Gender Aspects, and Social Development

73. **Poverty and social development:** The fisheries co-management model was recognized by the World Bank as a model that could accelerate good governance, and an engine for social and economic development if provided with sufficient time and support. In Senegal, where co-management had been piloted the longest, co-management fostered social cohesion and cooperation within communities, demonstrated by the voluntary use of collected member fees, taxes and donations to provide assistance to fishers in need without any repayment expected.⁸⁵ The model also enhanced stakeholders' adherence to

⁸⁵ For example, in Ngaparou, it was reported that when an artisanal boat went missing, the fishers would not wait for the official rescue patrol to go out at sea and search for the missing boat; instead, the association would charter a boat and pay for the gasoline to immediately try to locate the boat. Likewise, when a fisher's child was ill, the association would pay for the family's medical expenses.

the principles of governance⁸⁶, increased benefits to communities from concession payment and taxation, and optimized management and benefit sharing between operators, such as fishers and other actors in the value chain. Similarly, the alternative livelihoods program and stocks enhancement measures that were implemented locally in Senegal and the removal of competing illegal trawlers from the IEZs in Liberia and Sierra Leone showed important net revenues to fishing communities⁸⁷, and increased participants' ability to support their households' needs, pay for child education and religious expenses, and more.

74. **Gender:** The majority of fish processors in West Africa are women and therefore investments in value chain activities are likely to impact women significantly more than men. While not explicitly framed as such, post-harvest investments under Component 3 would eventually benefit females working in the sector, and several country-specific activities were directed specifically at women from fishing communities, namely alternative livelihood micro-credit for women-led projects, and construction of fish smoking ovens at a landing site in Liberia with training for women. At project closing, alternative livelihoods were implemented only in Senegal, with 88 percent of the micro-projects (355 micro-projects) labeled as “women entrepreneurship”, investing mostly in small businesses such as clothing, food, cosmetics, and in agriculture activities such as vegetable gardening, poultry farming and cattle farming, with few other projects in catering and transportation. With an overall repayment rate of 92 percent and profitability of almost all micro-projects (98 percent), it is likely that female beneficiaries were positively affected by the alternative livelihoods program in Senegal. Gender mainstreaming was also evident in Senegalese CMAs, where women occupied important positions and actively participated in decision making processes.⁸⁸ The project did not include gender-disaggregated indicators as it was not required at the time of approval.

(b) Institutional Change/Strengthening

75. The project used a substantial number of national and international experts and foreign companies to carry out project activities, including staffing the PIUs, due to

⁸⁶ For example, in Foundiougne, fishers respected their association's decision to temporarily stop fishing shrimp to provide a biological rest period, knowing that they would receive compensation for the foregone income during this period. Similarly, in Soumbédioune, past conflicts over poaching during the closure of certain fisheries were resolved within the association through discussions and monetary sanctions.

⁸⁷ The program in Senegal directly created 434 jobs and indirectly created 417 jobs, and the generated revenues reportedly improved the livelihoods of recipient fishing families and households concerned. The biological rest on coastal shrimp initiated by CMAs throughout the Saloum delta area resulted in an increase in the price of Shrimp to fishers from FCFA 500 per kilogram before the rest was imposed, and to FCFA 700 afterwards. The biological rest imposed by CMAs on the Thiof white grouper in Soumbédioune, Bargny, Yenne and Fimela-Ndangane resulted in an increase in the average daily catches of coastal demersal species from 15-20 kilogram per trip before the rest to 25-30 kilogram per trip at the opening of the fishery, which also led to an income increase for fishers and processors. In Ngaparou, local initiatives for sustainable fisheries management have led to an increase in yield per trip (1.5 kilogram to 3.5 kilogram), return of large species (mean weight of lobsters landed from 295 grams to 420 grams) and spawning lobsters in the coastal zone.

⁸⁸ See CSRP safeguards mission report of November 2015.

governments' weak technical and operational capacities and the narrowness of local supply of expertise. Outsourcing of activities was also the result of the World Bank's inability to pay civil servant salaries and top-ups, which limited the incentives of government staff to carry out tasks in addition to their existing work programs, especially in Senegal and Sierra Leone. This issue is common to many donor-funded projects.⁸⁹ Nonetheless, thanks to considerable training and technical and operational support funded by the project, government institutional capacities showed an increase in the areas of governance, such as registration of small scale boats (in Liberia and Sierra Leone this was done for the first time) and fighting IUU fishing through inspection, offence notification and prosecution of illegal cases and in the establishment of observer programs in Cabo Verde and Liberia. Of particular value was the technical and operational support provided by the CSRP RCU to the implementing agencies, especially in M&E, as was the mobilization of community facilitators who supported CMAs. There is need to further strengthen capacities at central and local levels, which is one of the focus areas of ongoing and planned transition and second phase WARFP financing.

(c) Other Unintended Outcomes and Impacts

76. While the linkages between a sustainable fisheries sector and food security were well articulated at appraisal, they were not measured as a project outcome probably due to the time it would take before such an impact was noticeable and the difficulty to attribute such outcomes to the project. However, this impact was clearly evident during the EVD when farmers abandoned their fields and fish became a main source of nutrition as expressed by affected communities in Sierra Leone for example.⁹⁰ A second unexpected impact was on conflicts and disputes related to fishing access: contrary to expectations reflected in the PAD, conflicts between artisanal fishers and foreign industrial trawl vessels were reduced as the latter were restricted from accessing IEZs; at the same time, conflicts emerged between fishing communities who had been provided management rights and communities which were not granted such rights. This was the case in Ngararou in Senegal where CMA members were often confronted with incursions to closed or restricted fishing zones by canoes coming from unmanaged sites. These conflicts highlighted the importance of replicating management rules to additional sites and further investing in stock enhancement measures in the short term until the overall abundance of the country's fisheries is increased as governance and anti-IUU measures materialize. Review of Phase 2 concept proposals indicates that these actions will be supported in all four countries.

3.6 Summary of Findings of Beneficiary Survey and/or Stakeholder Workshops

77. Not applicable

⁸⁹ The project tried to tackle this issue in Sierra Leone by partnering with World Bank public sector reform experts and the government to update a 2006 Management and Functional Review (MFR) of the MFMR, and propose a re-organization of the Ministry according to functions needed to deliver on policy objectives, and with performance-based increased pay. The MFR was approved by Cabinet in 2014 but it was not executed as staff did not want to compete for their jobs in the re-organization.

⁹⁰ Expressed by members of Tombo fishing community in Sierra Leone (see S. Akester's Back to Office Report of April 2015).

4. Assessment of Risk to Development Outcome and Global Environment Outcome

Rating: Moderate

78. The rating is based on the four countries' ability to sustain project-supported outcomes as well as the CSRP's ability to maintain its regional support, bearing in mind the following considerations: (i) the project was designed, and continues to be considered by the World Bank and clients, as a first in a series of projects meant to put in place building blocks for further investments; and (ii) the co-dependence of coastal countries on a successful reform process, whereby one country's success is partly dependent on its neighbors' success given the transboundary nature of the resource.

79. The strongest sustainability element of the project is governments' increased fisheries management and governance capacity thanks to the adoption of new or revised legal and regulatory instruments for the sector by Cabo Verde, Liberia and Senegal, and the preparation and adoption of fisheries management plans by the governments of Senegal and Liberia, which together form an important cornerstone of the sector's governance in the future. On the other hand, the outcomes with the highest risk are the reduction in IUU fishing, fisheries co-management and the post-harvest investments which the project financed in Liberia and Cabo Verde, all requiring high levels of financing, capacity and motivation which in most cases are insufficiently available, to ensure that they continue beyond the project's lifetime. Fisheries monitoring centers and surveillance operations require continued presence of trained staff, funding for equipment repair and maintenance (including high fuel costs) and most importantly- strong government commitment to enforce new rules. Once large scale operators are deterred from illegal practices, a new surveillance approach may be warranted, which could be more collaborative and more based on coastal and terrestrial-based activities, with different equipment and lower costs. Where TURFs have not yet been legally established, continued efforts need to be made to empower communities to manage well-defined areas and fisheries, with substantial support from the state, and even where TURFs have been established, communities require continued and long-term enhancement of their members' skills and sense of ownership. Improved vessel registries and licensing systems of fishing units' constituent will become useful management tools only if governments invest sufficient resources in updating and enforcing them, respectively. Finally, existing and planned infrastructure in Cabo Verde and Liberia can be operational in the long term if management systems are in place that guarantee operation and maintenance of the facilities (through use of revenues), as well as access to markets so they can generate tangible results to communities.

80. The positioning of a regional dashboard at the CSRP in principle could ensure the continuity of its operation, however this is conditioned by an allocation of dedicated staff independent of project-support, as well as the capacity and continued commitment of the countries to share updated information on the various data subjects, i.e., ships and licenses, fishing authorizations, monitoring of fishing and socioeconomic database.

Similarly, national data nodes would be useful only if governments continue to allocate trained staff for data collection and entry.⁹¹

81. A priority of the second phase projects, therefore, is to consolidate project-introduced reforms and investments by strengthening the capacity and incentives of the countries' administration and communities to implement them, and ensuring that adequate funding/subsidies are allocated by the governments or are independently generated to support project investments and enhanced functions. Phase 2 concept notes and mission reports demonstrate this priority in all four countries. In parallel, the CSRP in collaboration with the EU⁹² has carried out a study on sustainability of surveillance activities in CSRP-member states, and another one in Ghana and Liberia, and in the short and medium terms the CSRP will continue to be the key regional WARFP partner for supporting and maintaining the regional dialogue.

5. Assessment of Bank and Borrower Performance

5.1 Bank Performance

(a) Bank Performance in Ensuring Quality at Entry

Rating: Moderately Satisfactory

82. As the project was the first of its kind, the World Bank relied on an extensive and in-depth process of gaps analysis in the region and in each of the four participating countries as well as consultations with a wide range of stakeholders, including fishing communities. This, and the fact that preparation also focused on the WARFP framework as a whole (for all nine countries), explains the relatively high preparation cost of over US\$640,000 from World Bank Budget and a World Bank-executed TF in addition to US\$1.19 million in recipient-executed preparation funding from the GEF and the Japan Policy and Human Resources Development Fund (PHRD). While this process resulted in a longer than average processing time, it was essential for establishing a knowledge basis for design of both the program and the first phase project. The World Bank allocated an in-house team of considerable number and a wide range of specialties, including environmental, social, private sector development and operations specialists supported by technical consultants and fiduciary experts. Frequent preparation missions and meetings with the CSRP, development partners, governments and stakeholders resulted in a design which correctly addressed regional and national needs. The World Bank adequately fulfilled its fiduciary role by carrying out procurement and financial assessment of the participating countries and the CSRP, and by working with the CSRP to develop environmental and social frameworks as instruments of mitigation for future potential impacts. The weaker aspects of World Bank performance were: (i) underestimation of the

⁹¹ Cabo Verde was a leader in this regard with the DGRM having a national fisheries management information platform for which two computer scientists have been recruited and mainstreamed into the directorate's permanent workforce.

⁹² The study was prepared by the EU/SCS project, titled "Strengthening cooperation in Monitoring, Control and Surveillance (MCS) of fishing activities in the area of the Sub-Regional Commission on Fisheries (CSRP)" (*Renforcement de la coopération Suivi, Contrôle et Surveillance (SCS) des activités de pêche dans la zone de la Commission Sous Régionale des Pêches (CSRP)*).

time scale, amount of technical capacity needed and incentive structures of recipient countries to be addressed in the design; (ii) insufficient M&E knowledge during the preparation of the results framework, resulting in a complex results framework; (iii) not identifying the post-harvest investment sites in advance in several cases; and (iv) a longer than average preparation phase that still required effectiveness conditions, ending up in significant start-up delays.

(b) Quality of Supervision

Rating: Moderately Satisfactory

83. The World Bank conducted implementation support missions to the countries in a frequency of one to three per year, with the exception of Senegal which was not visited in 2012 during the temporary project freezing. Almost all missions were conducted jointly with the CSRP RCU and were reinforced with technical consultants, and at times the RCU and/or technical consultants conducted independent visits to the countries in between World Bank missions to focus on specific implementation aspects. Missions consistently comprised operational and technical meetings with a variety of national and local stakeholders, field visits, strategic consultations with technical and financial partners, and high level discussions with government officials as needed. Aide memoires contained considerable detail on progress, results, achievement of outcomes, frank evaluation of weaknesses and shortcomings, and concrete action plans. Discussions with PIUs indicate an overall satisfaction with the frequency and quality of contact with the task team, noting a slow-down in communication, including on No Objection requests, during a TTL change period in late 2012 and early 2013, followed by considerable improvement in communication once countries were assigned individual country-TTLs in 2014.

84. The World Bank invested considerable efforts in responding to changing needs and implementation hurdles; it also proactively looked for opportunities to expand the project's financial resources and the program's knowledge basis by liaising with donors and commissioning theme-specific studies. The restructurings and additional financing were overall helpful in refocusing project funds and setting more realistic targets, as in guiding internal discussions on the program log frame and discussions on pipeline WARFP projects. The World Bank also ensured adequate transition arrangements after project closing and in the case of Liberia and Sierra Leone also secured additional funding until second phase financing was approved.

85. As discussed in section 2.4, the project did not warrant high frequency of safeguards supervision. Discussions with the task team point to insufficient budgets and low availability of country office specialists⁹³ to visit the countries, which the team could at times overcome by having a DC-based Lead Ecologist join missions and provide guidance/supervise environmental compliance. Closer supervision could have been

⁹³The low availability of country-based specialists had been a World Bank-wide problem that has only begun to be adequately addressed in the past two years. The low safeguards risk of all infrastructure made it even more difficult to mobilize experts.

secured by insisting on regular compliance monitoring reports from the four country projects regardless of the low risk. Prior to 2013, the Procurement specialist was not based in the field and could not provide the expected level of support, however this was rectified in 2013 when country-based procurement specialists became more engaged and provided closer support to the projects.

(c) Justification of Rating for Overall Bank Performance

Rating: Moderately Satisfactory

86. The World Bank identified, facilitated preparation of, and appraised the operation such that it was likely to achieve planned development outcomes and was consistent with the World Bank's fiduciary role. During supervision, the World Bank proactively identified and resolved threats to the achievement of relevant development outcomes. The World Bank was diligent in ensuring transition arrangements and securing financing in between program phases.

5.2 Borrower Performance

(a) Government Performance

Rating: Moderately Satisfactory

(Cabo Verde and Liberia: Satisfactory; Senegal: Moderately Satisfactory; Sierra Leone: Unsatisfactory)

87. All four countries demonstrated commitment at entry to proposed reform measures, as was evident in their adoption of the CSRP Strategic Action Plan, articulation of sector priorities in national strategies, allocation of IDA resources and participation in project preparation. Performance slowed down after the approval of the project with all four governments taking longer than average time to meet effectiveness conditions.

88. During implementation, governments' performance was overall strong in Cabo Verde and in Liberia as evident from the adoption and implementation of governance and anti-IUU measures, which continue to receive support post-closing. In Cabo Verde government's strong performance was especially apparent in the early adoption of legal and regulatory framework changes, the reduction in illegal fishing, development and deconcentration of advanced vessel registration system, and the financial uptake of several project-funded functions (e.g., MCS functions, CMA leadership and national data node maintenance); similarly in Liberia, the government's very strong commitment at the highest level was evident in the reduction of illegal fishing, adoption of revised legislation, formal allocation of fishing rights to the communities in Robertsport as planned and quick action to transfer US\$360,000 to allow the continued construction of the Robertsport cluster when funding was insufficient. The two countries' notable efforts in the sector were validated internationally with renewed or new fishing agreements signed with the EU. Of exception to the overall strong performance was the Cabo Verdean government's slow-down during the parliamentary elections in 2016 which impacted the results of several activities, including State level approval of TURFs, and

the Liberian Port Authority's two year delay in officially authorizing the works in Mesurado, which impacted the advancement of the works.

89. The performance of the governments of Senegal and Sierra Leone was dependent to a large extent on individual ministers and directors' commitment to the objectives of the project. In Senegal, the ineligibilities incurred by MPEM in 2010-2012 resulted in a months-long impasse, while stronger performance was demonstrated during the last year and a half with the enactment of a new Fisheries Code and Fisheries Policy, the completion of the artisanal fishing registry and the approved national strategy for sustaining the database with an allocation in the national budget. Coupled with the important achievement of legally establishing eight TURFs, these improvements resulted in the achievement of many project outcomes. In Sierra Leone, government performance is rated Unsatisfactory despite the good progress made by the government in 2011-2012 in fighting IUU fishing and securing a six mile IEZ as well as the vessel registration and CMA development, as it came to a halt in 2013 when the Ministry reverted to issuing fishing licenses to trawlers to fish within the IEZ. Performance rating also reflects the delayed action of the government on proposed revisions to the existing legal and regulatory framework concerning fisheries management, the strong impact of incentives on government staff performance, and the results of the World Bank investigation on the procurement of the ESIA and patrol vessel.

90. The World Bank has decided to re-engage in the fisheries sector in Sierra Leone despite the government's poor performance under SOP-A1 as the government refunded the amounts requested by the World Bank in 2015, and due to consequent high level political and staff changes made within the ministry. As indicated, an additional GEF financing grant was approved by the Board in January 2017 as an interim support to the Ministry (with fiduciary responsibilities given to the Ministry of Finance) to reinstate some project activities and maintain others. All four governments have applied for project preparation resources to prepare Phase 2 projects and have requested World Bank assistance in processing this request, demonstrating interest to continue the reform process. Similarly, the additional GEF financing to Sierra Leone and Liberia and additional ACGF funding to Liberia were driven by the counterparts and supported by the World Bank, again reflecting positively on the countries' interest to finalize remaining project activities and carry them forward.

(b) Implementing Agency or Agencies Performance

Rating: Satisfactory

(Cabo Verde, Senegal and CSRP: Satisfactory; Liberia and Sierra Leone: Moderately Satisfactory)

91. All four PIUs prepared and submitted work plans, budgets, procurement plans and M&E reports in an overall timely and quality manner, and submitted acceptable financial reports and external audits as planned. Advice and actions agreed upon in aide memoires were mostly followed through, and procurement responsibilities were carried out at varying levels as previously described. Staffing was overall stable, and despite some staff turnover, there was continuity in project coordination and key PIU functions. On the other hand, some PIUs did not carry out all safeguards responsibilities.

92. The CSRP as the implementing agency of several national and regional activities demonstrated satisfactory performance. It housed (and is still housing as part of ongoing WARFP projects) an RCU with hired M&E, procurement, financial management and project coordination specialists who reported to the CSRP and an RSC of the directors of fisheries of each of the four countries and other countries implementing WARFP projects. The RCU provided a number of services to countries, including: (i) an independent panel of MCS experts who provided guidance to the governments; (ii) linkages to a regional fishing vessel register and dashboard; (iii) exchange visits and study tours with other WARFP countries; and (iv) fiduciary and M&E support to PIUs as planned, including during the TTL transition period as discussed. Except for some delays experienced in the design and construction of the regional dashboard⁹⁴, activities were carried out diligently and in close coordination with the World Bank. While the CSRP support was instrumental in strengthening regional collaboration and data availability, the RCU did not have sufficient manpower to fully respond to national agencies' vast operational needs.

93. **Compliance with legal covenants:** Of 18 project-level and country-specific covenants, two covenants were delayed in execution, and two were not due at project closing. The delayed covenants required the establishment of national PIUs and SCs and an RCU and RSC within the CSRP, and the not due covenants were new requirements for Cabo Verde from 2015 to have action plans and eligibility criteria for alternative livelihood sub-projects. These new covenants were not due as the alternative livelihoods program had not commenced in Cabo Verde at project closing.

(c) Justification of Rating for Overall Borrower Performance

Rating: Moderately Satisfactory

94. Overall borrower performance is rated Moderately Satisfactory based on the overall performance of each country - satisfactory performance in Liberia and Cabo Verde, moderately satisfactory performance in Senegal, and unsatisfactory performance in Sierra Leone - with the government rating prevailing as it is considered more important than the implementing agency performance for the achievement of project and program objectives.

6. Lessons Learned

95. **Reforming the fisheries sector to generate lasting benefits requires an incremental approach and commitment over time.** As experience from the project showed, carrying out sectoral reforms and affecting behavior changes to control resource use and reduce illegal actions in a context of limited government budgets and capacities requires considerable allocations of time and capacity building actions and gradual advancement of reform measures. In such cases, APL/Series of Projects is a useful

⁹⁴ The delays occurred due to the selected consultant's low capacity and the time it took to hire a new consultant.

instrument as it allows a phased and flexible order of interventions, as well as the addition of more countries as they become ready to join the process. Temporary setbacks, as experienced in Sierra Leone, are common, however maintaining dialogue and engagement is essential for long term reforms. In all cases, each program phase should consider the following principles: (i) *the design should be incremental and realistic based on a thorough assessment of countries' capacities*; (ii) *targeted fisheries and/or communities should be well defined* for better focusing of activities and as a basis for replication during subsequent phases; and (iii) *adequate resources should be allocated* to ensure strong technical assistance to counterparts undergoing policy reform and behavior change. The multiple changes to the indicators showed how complex it was to capture the correct level of results. The phased approach of the WARFP is presented in the program's Theory of Change in Annex 8.

96. **Political commitment and incentives play a key role in the success of reforms.** As discussed, the project supported necessary reforms which nonetheless infringed on certain vested interests and created tensions at the ministerial level and among staff. At the ministerial level, the temptation to accept requests from the industrial segment in order to make quick gains can have a lasting negative impact on the resources.⁹⁵ At the administrative level, low salaries and poor working conditions were compounded with a culture of prioritizing the industrial segment over the artisanal one. Beyond patience and high level of commitment on the part of the World Bank, the following actions have been progressively incorporated as mitigation into subsequent WARFP projects, including Phase 2 projects: (i) *promoting transparency* by encouraging publication of key fisheries information such as lists of licenses, infractions, and paid fees from licenses and infractions.⁹⁶ For example, publication of licenses in Liberia unraveled in 2011 a system of illegal licenses that were issued by false agents, which likely had a deterring effect on further issuance of false licenses; (ii) *strengthening the dialogue with the ministry in charge of finance*, which has an interest in receiving reliable financial information from the ministry in charge of fisheries. DPF and DLIs can be useful instruments to structure and systematize such dialogue; (iii) *cooperating with other partners with similar objectives*. An increasing number of countries and agencies are adopting anti-IUU rules, such as the EU and South Korea, and could apply additional pressure on governments to reject rent seeking and show stronger commitment to reform. NGOs such as the EJJ can also address the issue by raising awareness at the local level, therefore complementing public sector efforts and bringing this topic to public attention; (iv) *raising broader public awareness*. This can be done through training of journalists on the main challenges of fisheries in particular for the artisanal communities. Without training, journalists might not always be able to apprehend the multiple implications of Ministerial or administrative decisions; (v) *generating positive competition between country projects* by comparing progress using a joint results framework; (vi) *positioning PIUs closer to communities* which would make PIUs more informed about the artisanal segment and perhaps more invested at the community level; and (vii) *embedding incentives within the fisheries*

⁹⁵ This approach appears to be more prevalent before elections.

⁹⁶ The Fisheries Transparency Initiative (FiTI) launched in 2015 has begun defining possible international transparency standards in the fisheries sector.

administration. In the WARFP projects in Mauritania and Guinea, incentives have been approached through the use of DLIs, whereby disbursement of a portion of World Bank funding and training to key civil servant staff depend on the achievement of several results.⁹⁷

97. **Enhancing the size and efficiency of the post-harvest segment of the fishery value chain should wait until reforms are sufficiently advanced and government capacity is sufficiently strengthened.** The project's post-harvest investments added to its complexity by drawing considerable resources from state agencies charged with delivery as they had to select and allocate appropriate sites, prepare environmental and social assessments and contract and supervise the works. This lesson is also supported by observations made by the World Bank during preparation and implementation that increased profits in post-harvest operations could motivate harvesters to produce more, which, in the absence of effective rules, might lead to overexploitation. At the same time, tangible investments are often fundamental to secure the buy-in and continued sense of commitment of local stakeholders. A solution that is progressively being incorporated in WARFP projects is focusing on investment in practical and inexpensive equipment or constructions which have limited impact on the fishing effort, and do not require elaborate planning or expensive operation and maintenance costs as a first step. One increasingly accepted option is investments that reduce post-harvest losses such as those made in Senegal and Cabo Verde. Site selection has shown to be a long process requiring preparation, stakeholder consultation, and environmental or social assessments and is best left for a subsequent phase.

98. **Community-led fisheries management is an effective mechanism for reducing fishing effort in the artisanal segment that requires substantial time and know-how to succeed.** CMAs with legal access rights proved to be an effective mechanism for introducing new harvesting rules, local surveillance, stock enhancement measures (such as immersed artificial reefs) and local site monitoring, which together helped recover fish stocks in the co-managed fishing areas. Co-management structures also proved an important instrument for enhancing communities' internal cohesion, however the allocation of fishing zones to communities could result in conflicts between communities which are granted and those which are not granted with such access. In all cases, to become successful co-management should be a bottom-up process which is provided with considerable time to evolve (in Senegal, where it was piloted the longest, it took more than ten years) and considerable effort in raising awareness and building the capacities of local actors.

99. Co-management is being replicated and scaled-up in other WARFP projects with the following additional principles, which are proving useful: (i) *defining realistic targets while committing to a long-term process*. The first step is delineating a co-management

⁹⁷ The World Bank team reports the usefulness of DLIs in motivating governments to accelerate implementation in anticipation for further release of funding, such as the publishing of fishing licenses in Mauritania. The DLI mechanism is also being incorporated into the Phase 2 projects of Cabo Verde and Senegal and will later be incorporated into the Phase 2 projects in Sierra Leone and Liberia.

area (including the entire fish stock to be managed) and defining a local fisheries management plan which the community is able to implement. The second step is implementing the management plan while securing an official allocation of legal fishing and management rights; (ii) *broadening management plans* to include migratory fishers and other stakeholders which are not part of the community but whose livelihood depends on the fisheries; (iii) *aligning national regulatory frameworks with more stringent community management plans* so they can be applied and recognized by national authorities; and (iv) *accompanying the implementation of local fisheries management plan with alternative livelihoods* for fishers, fishmongers and fish processors to support economic development within the community, therefore expanding local fisheries management plans to local fisheries management *and development* plans. When introducing alternative livelihoods to communities, they have much better chances of success in an access-controlled environment than in an open access setting.

100. **Regional project results are likely to improve by partnering with relevant regional organizations provided sufficient allocation of resources.** Aside from its role as a regional coordinator that facilitates dialogue and harmonization between project counterparts and enhances data transparency across the region, the CSRP, through its RCU, provided considerable operational, technical and fiduciary support to country projects, which was highly appreciated by both the World Bank and counterparts. More so, the CSRP was able to step in at times of funding shortfalls and complement World Bank supervision efforts. From the CSRP point of view, the dialogue with its member countries was strengthened as a result of the project, making the organization more effective in carrying out its mandate.

101. **Finally, multi-country/regional projects require sufficient staff and budget to ensure adequate implementation support in each of the participating countries.** The country-TTL system was appreciated by the counterparts as it facilitated communication between them and the World Bank and allowed timely feedback to all four countries. On the other hand, safeguards supervision was restricted by shortage of specialized staff.

7. Comments on Issues Raised by Borrower/Implementing Agencies/Partners

(a) Borrower/implementing agencies

102. The World Bank received detailed completion reports from Cabo Verde, Senegal and Sierra Leone, and a completion presentation from Liberia. Overall, the reports reflected positively on the relevance of the project to their countries' and the region's development strategies, its achievements and the performance of World Bank and the respective governments. Design and implementation quality factors were overall aligned with those discussed in the ICR and sustainability concerns were highlighted by some, especially alerting on limited government ownership, limited ability of governments to independently maintain and operate project investments and lack of comprehensive and reliable data on priority fisheries.

103. Reports further emphasized country-specific elements which impacted the project positively or negatively, and some provided lessons learned and recommendations

reflecting these elements. For example, the report of Cabo Verde recommended to prioritize post-harvest interventions on increasing value addition for local markets instead of exports by building a fish market in the Port of Praia, given that most of the fish landed in Praia is destined for the internal market, and the lack of fishery products in this market. The Senegalese completion report highlighted, *inter alia*, the urgency of setting up an access restriction and monitoring mechanism for co-managed sites given the noticeable stock rebuilding results in some sites where access was managed by communities.

104. The completion report of Sierra Leone provided a comprehensive analysis of project performance as well as explanations to successful actions and project setbacks. Differing from the ICR were the explanations for delays in legal and regulatory revisions, the purchasing of the surveillance vessel and post-harvest infrastructures. Delays in finalizing revisions to the country's legal and regulatory framework were explained by the unavailability of funding from NEPAD, which had taken over the responsibility for this activity, and in travel restrictions imposed on international consultants by the EVD. The unsuccessful purchase of the patrol vessel was linked to delays in setting up a payment mechanism for the contract, aggravated by the EVD which prevented timely shipment of the vessel; and the lack of progress in post-harvest infrastructure was linked, among other factors, to "unexplained delays in obtaining WB no-objection on the technical evaluation reports for the ESIA and technical studies, and final designs and works supervision". The report also noted reduced World Bank responsiveness to project communication starting in June 2014 until closing in December 2014. It should be noted, however, that the completion report was prepared before the World Bank investigation was completed. The full completion reports/presentation are available in WBDocs.

(b) Cofinanciers

105. No specific comments on the ICR were received from GEF or ACGF. In February 2017, the WARPF team organized a "Workshop on lessons learned from Phase 1 and strategic directions for Phase 2" in Saly, Senegal, which was attended by some 160 participants from 11 East and West African coastal countries, over 20 development partners and academia, and the CSRP. The participants acknowledged the achievements under the WARFP and discussed their experience in efforts against IUU fishing, in support to fishing communities, and registration of boats, among others, as well as issues of importance to the future such as the anticipated effects of climate change on fisheries in West Africa.

(c) Other partners and stakeholders

See above.

Annex 1. Project Costs and Financing

(a) Project Cost by Component (in USD Million equivalent)

West Africa Regional Fisheries Program - P106063⁹⁸			
Components	Appraisal Estimate (USD millions)	Actual⁹⁹ (USD millions)	Percentage of Appraisal
Good Governance and Sustainable Management of the Fisheries	9.80	16.95	172.95
Reduction of Illegal Fishing	17.70	9.80	55.36
Increasing the Contribution of the Marine Fish Resources to the Local Economies	11.60	4.96	42.75
Coordination, Monitoring and Evaluation and Program Management	7.20	12.64	175.55 ¹⁰⁰
Total Baseline Cost	46.30	44.35	95.78
Physical Contingencies	0.00	0.00	
Price Contingencies	0.00	0.00	
Total Project Costs	46.30	44.35	95.78
PPF	1.35 ¹⁰¹	1.19	88.14
Front-end fee IBRD	0.00	0.00	
Total Financing Required	47.65	45.54	95.57
West Africa Regional Fisheries Program - P108941¹⁰²			
Components	Appraisal Estimate (USD millions)	Actual/Latest Estimate (USD millions)	Percentage of Appraisal
Good Governance and Sustainable Management of the Fisheries	8.60	7.28	84.65
Reduction of Illegal Fishing	0.00	0.02	
Increasing the Contribution of the Marine Fish Resources to the Local Economies	0.00	0.01	
Coordination, Monitoring and Evaluation and Program Management	1.40	2.00	142.85

⁹⁸ Inclusive of IDA, GEF and Borrower financing.

⁹⁹ The amounts exclude ACGF financing which was added to the project in 2011 as most of the funds had been cancelled and the rest is ongoing. The performance of activities financed by the ACGF are described as part this ICR but will be fully evaluated separately after the closing of P159912 in June 2017.

¹⁰⁰ The overspending of Component 4 is explained by the financing of not only PIU activities, but also the regional dashboard and the CSRP RCU activities of regional integration and support.

¹⁰¹ Inclusive of two GEF Project Preparation Grants totaling US\$0.38 million and a Japan Policy and Human Resources Development Fund (PHRD) grant of US\$0.97 million.

¹⁰² Inclusive of GEF financing only.

Total Baseline Cost	10.00	9.31	93.10
Physical Contingencies	0.00	0.00	
Price Contingencies	0.00	0.00	
Total Project Costs	10.00	9.31	93.10
PPF	0.38 ¹⁰³	0.38	100.00
Front-end fee IBRD	0.00	0.00	
Total Financing Required	10.38	9.69	93.35

(b) Financing

P106063 - West Africa Regional Fisheries Program				
Source of Funds	Type of Financing	Appraisal Estimate (USD millions)	Actual/Latest Estimate (USD millions)	Percentage of Appraisal
Borrower	In-kind, cash	1.30	1.66	127.00
International Development Association (IDA)	Grants, Credits	35.00	33.38	95.37
Global Environment Facility (GEF)	Grants	10.00	9.31	93.10
P108941 - West Africa Regional Fisheries Program				
Source of Funds	Type of Financing	Appraisal Estimate (USD millions)	Actual/Latest Estimate (USD millions)	Percentage of Appraisal
Global Environment Facility (GEF)	Grants	10.00	9.31	93.10

¹⁰³ Inclusive only of the two GEF Project Preparation Grants.

Annex 2. Outputs by Component

1. Cabo Verde

Original activities ¹⁰⁴	Modified activities and reason for changes	Outputs
Component 1. Good Governance and Sustainable Management of the Fisheries		
<p><i>1.1 Development of the Capacity, Rules, Procedures and Practices for Good Governance of the Fisheries</i></p> <ul style="list-style-type: none"> - Establishment and maintenance of a fishing vessel registry within the DGP for all industrial and small-scale fishing vessels. - Carrying out biological and economic assessments of the status of targeted fish stocks and simulation models of potential management alternatives. - Carrying out mid-term evaluation of the implementation of the Fisheries Sector Management Plan 2004 – 2014, and implementation of necessary revisions. - Carrying out a review of the existing regulatory framework governing the fisheries sector, and development and implementation of an improved regulatory and institutional framework to 	<p>Added: Carrying out a Management and Functional Review (MFR) of the ministry in charge of fisheries (changes were made as part of a Level II restructuring in 2013).</p>	<p>A fishing vessel registration system for artisanal, semi-industrial and industrial fleets was established and operational since 2012, and deconcentrated in 2016. The system includes a full database of the fleet stored in the cloud, accessible in all islands by smartphone and available to the public.</p> <p>Assessments of stocks of small pelagics, main demersal and pink lobster were carried out in 2011 by the research vessel Dr. Fridjof Nansen, in partnership with the CCLME project. Bio-economic models of these fisheries were updated in 2012 and 2014 and approved in 2015. The results led the government to propose new input control rules to freeze the registration of new small-scale vessels in March 2015.</p> <p>On-the-job training in fisheries bio-economy was given to the National Institute for Fisheries Development (<i>Instituto Nacional do Desenvolvimento das Pescas</i>, INDP) and DGRM managers. Two INDP biologists received specific training in stock assessment by the University of Rhode Island (USA) in 2011.</p>

¹⁰⁴ Original activities were extracted from the PAD and financing agreements.

<p>govern commercial fishing.</p> <ul style="list-style-type: none"> - Establishment of a system of information and analysis for fisheries management. - Preparation and implementation of revisions of existing management plans for targeted fisheries. 		<p>A ‘Strategic Fisheries Development Plan’ (a policy statement for 2012-2017) was drafted in 2012 and further revised in 2013 as a government ‘letter of sector policy’ and adopted by the government in 2014 with an implementation action plan. It established a total allowable catch (TAC) limit for small pelagic species based on the results of the stock assessments.</p> <p>Further analysis began in order to implement the policy, including revision of the legal framework and agencies for implementation (a Fisheries Act was developed by national consultants and is under review for approval by the new government).</p> <p>A national dashboard team (two computer scientists recruited by the government) was trained by the RCU on the operation and maintenance of a national information system.</p>
<p><i>1.2 Introduction of Fishing Rights</i></p> <ul style="list-style-type: none"> - Introduction of fishing rights through a system of co-management, including the establishment of MPAs that would evolve into pilot TURFs, and establishment of community co-management associations to manage the marine-protected areas. - Provision of training and ongoing support to the associations. 	<p>Added: Provision of technical assistance to further support the co-management process, and pilot TURFs implementation (changes were made as part of a Level II restructuring in 2013).</p>	<p>Four co-management sites/communities were identified on the islands of Sal and Maio (twice the number of sites initially planned) in 2011.</p> <p>Four CMAs were legally established with internal governance structures (a general assembly, a board and technical committees) in 2015 and their capacity was enhanced by four local community leaders/ facilitators who were mainstreamed into DGRM in January 2016. Each association conducted a rapid assessment of the coastal demersal fisheries, and developed new rules for state recognition.</p> <p>Four co-management action plans (targeting priority fisheries) were developed and validated at the communities with the active participation of local partners and feedback from</p>

		<p>central government, incorporating community income generating activities.</p> <p>The action plans were implemented with the support of a temporary consultant and later by permanent expert local community leaders trained for this purpose.</p> <p>Four co-management agreements were prepared for signature by the minister in charge, the presidents of the municipalities and presidents of the CMAs. The agreements were to legalize the partnership and stipulate the responsibilities of each signatory party.</p> <p>Coastal communities, local and central administrations and partners were sensitized on co-management needs and benefits.</p> <p>A handbook for fisheries co-management and a methodological guide for community leaders were prepared.</p> <p>A visit was carried out to Senegal to learn from the country's co-management experience.</p>
<p><i>1.3 Adjustment of Fishing Effort and Capacity to more Sustainable Levels, Introduction of Alternative Livelihoods where Needed</i></p> <p>- Carrying out training and technical assistance for the development of alternative livelihoods for youths in fishing communities where fisheries resources are overexploited.</p>	<p>Reduced: The 2013 Level II restructuring paper indicated that this activity was being significantly reduced and shifted to the second phase of the program due to the recognition that conversion of active</p>	<p>A socioeconomic analysis was carried out to identify needs and interest in alternative livelihoods of artisanal fishers on the two islands, as well as an inventory of the main income-generating activities in place.</p> <p>23 conversion projects were developed and presented by owners of artisanal fishing vessels.</p> <p>A micro-credit fund of US\$300 million was established with</p>

	<p>young fishers to livelihoods outside the fisheries sector required first the implementation of clear and secure fishing rights and a good management of the fishing capacity which were still ongoing.¹⁰⁵</p> <p>Added:</p> <ul style="list-style-type: none"> - Provision of grants to targeted fishing communities for specific development projects designed to increase their revenues by improving the quality of fish products, and raise living standards and wellbeing throughout the communities. - Provision of micro-credits by a micro-finance institution to fishers, fish processors, and boat builders and 	<p>NOVO BANCO in July 2016 to finance the projects, however it was not utilized by project closing as the alternative livelihoods program did not commence.</p> <p>A credit granting commission was put in place in July 2016, comprising the Ministry of Finance, the Ministry of the Maritime Economy - DGRM and NOVO BANCO.</p> <p>A vocational training program was implemented targeting identified beneficiaries.</p>
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¹⁰⁵ Note that the amendment to the IDA financing agreement (Credit No. 4665-CV, amendment dated July 30, 2013) maintained this activity in full, likely by mistake.

	fish transporters (with a particular focus on women) for specific development projects. Both activities were officially added to the financing agreement to allocate funding to these planned alternative livelihoods activities (changes were made as part of a Level II restructuring in 2015).	
Component 2. Reduction of Illegal Fishing		
<p><i>2.1 Enabling Environment for Reducing Illegal Fishing</i></p> <ul style="list-style-type: none"> - Development and adoption of a sustainable financing framework for the management of the sector, notably fisheries surveillance operations. 		A national plan to combat IUU fishing was completed in 2012.
<p><i>2.2 Monitoring, Control and Surveillance Systems</i></p> <ul style="list-style-type: none"> - Recruitment and training of fisheries inspectors and observers assigned to the DGP. - Operation of a satellite-based VMS and provision of additional goods and equipment to expand the coverage of the VMS. - Construction and rehabilitation of civilian coastal surveillance stations. 	<p>Added:</p> <ul style="list-style-type: none"> - Support to the national marine surveillance center (the Coastal and Marine Secretariat - COSMAR) to carry out civilian-led surveillance patrols for artisanal, semi-industrial and industrial fisheries. - Provision of technical 	<p>A National Corps of Fishing Inspectors (<i>Corpo Nacional de Inspectores de Pesca</i>, CNIP) was created in 2013 with 22 trained fisheries inspectors.</p> <p>The national plan was implemented annually by CNIP in collaboration with the Coast Guard and the Maritime Police.</p> <p>A new agency (an ‘authority’ - ACOPECSA) was established in 2014 with support from the US Government, and in mid-2015 it began to carry out CNIP tasks.</p>

<p>- Carrying out a surveillance plan for artisanal fisheries, including the provision of training, and the operation of civilian-led participatory coastal fisheries surveillance patrols in cooperation with targeted communities.</p>	<p>assistance to further support the improvement of the fisheries MCS system. Both activities were added to further support the capacity for fisheries surveillance (changes were made as part of a Level II restructuring in 2013).</p>	<p>The Coast Guard received support for offshore patrol operations in the years 2013-2015.</p> <p>A satellite-based VMS was put in place with acquisition and installation of 60 VMS markers on national industrial and semi-industrial fishing vessels. A fisheries inspector was assigned to COSMAR full-time to monitor fishing vessels through the VMS.</p> <p>DGP linked the registry of small-scale vessels and the satellite-based VMS of industrial vessels to fisheries inspectors' smartphones in order to enhance the efficiency of fisheries surveillance.</p> <p>Two coastal monitoring stations (Santa María in the island of Sal and Ponta Preta in the island of Maio) were constructed, equipped and operational for 10 of the 22 inspectors, including two rapid patrol vessels.</p> <p>A fisheries observer program was instituted, in order to record fish catches on industrial vessels.</p>
<p>Component 3. Increasing the Contribution of the Marine Fish Resources to the Local Economies</p>		
<p><i>3.1 Fish Landing Site Clusters</i></p> <p>- Construction of basic infrastructure for economic services in Santiago (e.g., cold storage and vessel repair facilities, etc.) and Sal, to be managed by private operators in a public-private partnership (PPP).</p> <p>- Provision of electricity and water</p>	<p>Reduced and modified: Construction of an ice plant in Sal and a feasibility study for a vessel repair facility in Santiago. The change was made due to delays in construction and a</p>	<p>An ice plant was constructed in the Port of Palmeira in Sal Island with trials of 15 tons of ice produced.</p> <p>The factory was functional and arrangements for handing over the management to a PPP was initiated but not formalized.</p> <p>The fishing port of Praia benefitted from drinking water, electricity and sanitation systems, and an auction facility.</p>

supply, goods and equipment for a fish auction hall in Praia.	decision to refocus more funding on priority actions under components 1 and 2 (changes were made as part of a Level II restructuring in 2013).	Handing over to the PPP was not formalized. Preliminary studies of architecture, civil engineering, hydraulics and environmental impact assessment of Santiago vessel repair facility were elaborated, including an RFP for construction.
Component 4. Coordination, Monitoring and Evaluation and Program Management		
<i>4.1 Technical Assistance for National Implementation</i> Preparation of annual work plans, updating of procurement plans and related budgets and project management, monitoring and evaluation.		Work plans, budgets and procurement plans were prepared, external audits were submitted, and progress and financial reports were submitted.

2. Liberia

Original activities	Modified activities and reason for changes	Outputs
Component 1. Good Governance and Sustainable Management of the Fisheries		
<i>1.1 Development of the Capacity, Rules, Procedures and Practices for Good Governance of the Fisheries</i> - Finalization and implementation of a new fisheries policy and regulatory framework. - Preparation and negotiation of international fisheries agreements. - Strengthening the capacity of the BNF to register small-scale fishing vessels, including establishment and maintenance		A new national fisheries regulation was enacted by BNF in 2010. In 2015 the Fisheries and Aquaculture Policy and Strategy were revised to incorporate results of an expert review conducted by the World Bank. The finalized document together with a revised policy brief were approved by the Cabinet in 2015, defining national priorities and actions for developing the sector by 2030. A new Fisheries and Aquaculture Act and accompanying

<p>of a fishing vessel registry.</p> <ul style="list-style-type: none"> - Strengthening the BNF’s capacity to assess the status of key fish stocks, conduct fisheries research and collect and analyze fisheries statistics. - Establishment of a system of information and analysis within the BNF for the management of fisheries, linked to the CSRP regional information platform. - Preparation and implementation/update of fisheries management plans that set levels of sustainable exploitation for targeted fisheries, and create rights and allocation mechanisms for those fisheries on the basis of assessments of the status of key fishing stocks. 		<p>regulations were drafted to implement the policy, and the Act was endorsed by Cabinet in 2016 for presentation to the Parliament for enactment. Regulations were validated in 2016 and will receive final validation upon enactment.</p> <p>All artisanal and semi-industrial vessels (4,073 in total) were registered and marked, and data was stored in the National Registry.</p> <p>A ‘stock-take’ was conducted in 2010 of the status of key commercial fisheries, and input controls for a fixed number of licenses for industrial vessels were introduced.</p> <p>The University of Iceland and the consulting firm MRAG prepared in 2013-2015 a stock assessment, and submitted its report to the PIU in 2016, describing the status of four key fish stock complexes and providing recommendations to support fisheries management decision making by the BNF and the Ministry of Agriculture.</p> <p>A new database for licenses, revenues and fishing catch and effort was established at BNF. Public disclosure of fishing licenses began in late 2011, including frequent radio discussion programs.</p>
<p><i>1.2 Introduction of Fishing Rights</i></p> <ul style="list-style-type: none"> - Establishment and operationalization of CMAs and eventually TURF. - Provision of training and equipment to CMA members, fishing communities and fishers on co-management of fisheries, business management and marketing 		<p>15 communities around Robertsport established a CMA with by-laws, a work plan and a budget as a pilot for community management rights in the coastal demersal fishery system.</p> <p>The CMA created a sub-committee of members on fisheries surveillance in 2013, to partner with the state.</p> <p>An independent review of the Robertsport CMA process was</p>

<p>strategies, and environmental health of shorelines.</p> <ul style="list-style-type: none"> - Provision of training and equipment for the BNF's head office and field staff and fisheries inspectors on co-management of the fisheries and establishment of TURFs, community facilitation, new fishing methods and business models in local communities and private fisheries micro-credit access to the communities. - Construction of community fisheries centers for CMAs and provision of equipment for the centers. - Provision of improved ovens to women processors for processing fish and training on the operation and maintenance of the ovens. - Provision of safety navigation systems for small-scale fishing vessels and training for fishers in their use. 		<p>carried out in November 2013.</p> <p>TURF legally established: The Ministry of Agriculture recognized the CMA as an autonomous entity authorized to manage coastal fisheries, and legally provided the CMA with the responsibility to manage the gazetted area.</p> <p>CMA members received training in 2016 in organizational management, financial management, book keeping and conflict management.</p> <p>A net exchange program was launched, with 50 percent of new nets sold at half price in return to illegal nets. Income was used to pay for CMA operation.</p> <p>Community fisheries centers were built and training provided (see also Component 3).</p> <p>Information on wind, tide, temperature, landings and environmental hygiene was collected by the CMA community science sub-committee.</p>
<p><i>1.4 Social Marketing, Communication and Transparency</i></p> <ul style="list-style-type: none"> - Design and implementation of communication strategies, consultations and marketing campaigns to improve public knowledge of the new fisheries policies developed. 		<p>A two-day national validation workshop of the revised fisheries regulation was held for stakeholder institutions and groups.</p> <p>Printed copies of the Fisheries Policy and Strategy were distributed to the MCS Coordinating Committee (MCSCC), Steering Committee and other local and international partners. Publicity and dissemination of revised framework was also carried out through county palaver hut discussions, radio talk shows (also involving community radio stations), press</p>

		<p>releases and sponsored articles in selected newspapers.</p> <p>Communication campaign and material were prepared for Robertsport fishing communities, including radio broadcasts and announcements on the Fisheries and Aquaculture Policy.</p>
<p>Component 2. Reduction of Illegal Fishing</p>		
<p><i>2.1 Enabling Environment for Reducing Illegal Fishing</i></p> <p>Development of a sustainable regulatory and institutional framework and plan for civilian-led monitoring of coastal fisheries resources and civilian-led surveillance and management of fishing along the coast.</p>		<p>An inter-agency, the MCSCC, was established in 2010 by MOU.</p> <p>A national MCS strategy was prepared and approved by the government as a component of the Fisheries Policy in 2015. A national MCS operational manual was prepared and endorsed by the government.</p>
<p><i>2.2 Monitoring, Control and Surveillance Systems</i></p> <ul style="list-style-type: none"> - Construction of a fisheries monitoring center and headquarters for the BNF. - Provision of communication systems, a VMS data reception platform, computer systems and office automation material and vehicles for the BNF. - Carrying-out studies and provision of training and technical assistance to the BNF in the general management of surveillance activities and operations. - Construction of up to two coastal stations along the coast and provision of communication and computer systems, office supplies, vehicles, and a replication of the VMS data reception 		<p>A functioning MCS center, the Fisheries Monitoring Center (FMC) was opened at the Coast Guard in Mesurado, with staff recruited and trained, and equipped with radio and computer communications (FMC 100 percent completed).</p> <p>A pre-fabricated building was constructed in Omega as new headquarters for the BNF in 2014 as an interim solution, however the building is not usable due to poor contract implementation (pending court procedures).</p> <p>A satellite-based VMS was introduced to the FMC. The VMS was in receipt of reports from licensed industrial vessels equipped with transponders.</p> <p>A team of fisheries observers recruited by the BNF received training from the US NOAA to record fish catch data on all licensed industrial vessels, for entry into the new database.</p>

<p>platform located at the BNF's fisheries monitoring center to each coastal station.</p> <ul style="list-style-type: none"> - Development and operation of civilian-led sea and aerial patrols of fishing activities. - Restructuring and upgrading of the fisheries observer program whereby inspectors of the BNF are placed on board of industrial fishing vessels for the purpose of monitoring the operations of these vessels to ensure they comply with fishing regulations and accurately record fish catch levels. 		<p>Training was also provided to BNF staff, fisheries observers, fisheries inspectors and FMC staff on requirements for participation in sea and aerial patrols, purpose and use of reporting forms and use of GPS cameras with telephoto lenses.</p> <p>A coastal radar station was constructed at Harper (100 percent completion) as support to the Liberian Coast Guard. The Liberian Coast Guard launched sea patrols jointly with BNF officers with support from the United States Coast Guard, as well as aerial patrols through collaboration with the UNMIL, 25 in total resulting in discovery of offences and fines.</p> <p>On-board observers were introduced to the FMC.</p>
<p>Component 3. Increasing the Contribution of the Marine Fish Resources to the Local Economies</p>		
<p><i>3.1 Fish Landing Site Clusters</i></p> <ul style="list-style-type: none"> - Construction of basic infrastructure in Robertsport, including a jetty, a water supply system, extension of solar street lighting, and repair of existing water pipe. - Construction of an integrated landing site cluster in Robertsport, including a hygiene block and septic tank, an ice plant, cold stores and common service centers, and provision of extension services such as a setup for fishery material store, net and crates repair, and training in the maintenance of cold 	<p>Added: rehabilitation and reclamation of sections of the Mesurado Pier for fish landing: construction of a jetty for industrial fishing vessels to land and offload and/or transship fish; and develop product storage and transport facilities. Changes were made as part of the Additional Financing proposal in</p>	<p>Robertsport landing site: 70 percent of the works completed (measured by costs and physical progress): an integrated landing site cluster with common service centers, a fresh fish handling building, a fish processing building, a hygiene block and septic tank, and a setup for fishery material store, net and crates repair shops, fish smoking houses, a cooling house, a day care/school and a playground (added to the original design) and training in the maintenance of the cold chains.</p> <p>Mesurado lading site: A lease agreement was signed with the Port Authority in 2013, and technical and engineering studies were completed (bathymetric, topographic and geotechnical), as well as detailed designs, specifications, cost estimates, and tender documents. In addition, 70 percent of the jetty works</p>

chains. - Preparation of a tender for the concession of such basic infrastructure. - Replication of the integrated fish landing site cluster at Robertsport at one other site.	2011.	were completed. Works have resumed under a second additional financing from ACGF in the amount of US\$4.19 million, to be implemented between September 2016 and June 2017.
<i>3.2 Fish Product Trade Infrastructure, Information and Systems – Regional Minimum Integrated Trade Expansion Platform (MITEP)</i> - Development of a quality control system consisting of a certified public laboratory and sanitary CA and relevant protocols and standards for product quality and traceability.		A fish health consultant prepared drafts of MOU for collaboration between the relevant institutions and the Ministry of Health and BNF, food safety policy, Hazard Analysis and Critical Control Points (HACCP) regulation and best practices, regulations on specific rules for quality control and additives, and lists of needed equipment and material for the CA. The design of the facilities was also prepared and a contract was awarded for its construction. It will be built as part of the developments in Mesurado.
Component 4. Coordination, Monitoring and Evaluation and Program Management		
<i>4.1 National Implementation</i> Preparation of annual work plans, updating of procurement plans and related budgets and project management, monitoring and evaluation.		Work plans, budgets and procurement plans were prepared, external audits were submitted, and progress and financial reports were submitted.

3. Senegal

Original activities	Modified activities and reason for changes	Outputs
Component 1. Good Governance and Sustainable Management of the Fisheries		
<i>1.1 Development of the Capacity, Rules, Procedures and Practices for Good Governance of the Fisheries</i>	Added: Freeze of the artisanal and industrial fishing fleets, to	Registration of all (19,009) small scale vessels (pirogues) operating in targeted fisheries.

<ul style="list-style-type: none"> - Establishment and maintenance of a national registration system for small-scale fishing vessels. - Development of a regulatory framework to limit the fishing of coastal demersal stocks. - Development and implementation of a research program by the Dakar-Thiaroye Oceanographic Research Center (<i>Centre de Recherches Océanographiques de Dakar-Thiaroye, CRODT</i>) to monitor and evaluate fish stocks by carrying out of a baseline study of existing stocks, assessing the impact of the revised regulatory framework on industrial fishing, and developing an ongoing research program to monitor and develop capacity on an annual basis. - Expansion of the Recipient’s system of information and analysis for fisheries management, linked to the CSR regional information platform. - Preparation and adoption of fisheries management plans. 	<p>officially add this PAD-described activity to the financing agreement (changes were made as part of a Level II restructuring in 2012).</p>	<p>Licensing of 55 percent of small scale vessels (note: licensing is an annual exercise, and this value could have been measured early in the year).</p> <p>A new permit system was validated by local stakeholders and experts and approved by the minister in charge of fisheries within the framework of a registration and licensing strategy.</p> <p>The 1998 Marine Fisheries Code was revised and adopted by the National Assembly in 2015, and promulgated by the President in 2016, including provisions for community-led fisheries management.</p> <p>A Marine Fisheries Decree was circulated for signature.</p> <p>Two management plans, for cymbium and for deepwater shrimp, were developed and approved by the government.</p>
<p><i>1.2 Introduction of Fishing Rights</i></p> <ul style="list-style-type: none"> - Establishment of access rights - Financing specific development projects to be carried out by Local Artisanal Fishing Counsels (<i>Conseils Locaux de Pêche Artisanale, CLPAs</i> - the Senegalese equivalent to 	<p>Added:</p> <ul style="list-style-type: none"> - Consolidation and strengthening of coastal fisheries co-management in the twelve pilot sites from GIRMaC (4) and GDRH 	<p>Support was provided to the four GIRMaC community management pilots and eight additional sites that were selected by GDRH.</p> <p>CMAAs (in Senegal called <i>Comité Local des Pêcheurs – CLP</i>, not to be confused with CLPAs) in eight sites were legally recognized by the state, and the state granted them with management rights in legally recognized/gazetted co-</p>

<p>Joint Administrative Fishermen Committees) to further develop coastal fishing co-management initiatives.</p> <ul style="list-style-type: none"> - Identification of need for scientific data collection and research in the area of each CLPA and preparation and implementation of annual research programs. - Strengthening the capacity of local offices to manage the registration of vessels and award of fishing permits for coastal small-scale fisheries, and transferring these offices to CLPAs. - Establishment of new CLPAs in coastal areas yet unserved, and providing training in management, legal, scientific and policy aspects of fisheries co-management. - Provision of support for the management of CLPAs. - Development and adoption of an appropriate policy and regulatory framework for the operation of CLPAs and allocation and management of fishing rights by the CLPAs. 	<p>(8) to contribute to improved governance objective.</p> <ul style="list-style-type: none"> - Introduction and allocation of secure fishing rights for the artisanal fleet to scale up the principles of local empowerment and reduce open access. <p>Dropped:</p> <ul style="list-style-type: none"> - Development and adoption of an appropriate policy and regulatory framework for the operation of CLPAs and the allocation and management of fishing rights by the CLPAs, as the CLPAs had not been made operational by the government as planned. - Identification of need for specific data collection and research in the area of each CLPA and preparation and implementation of annual research 	<p>management areas:</p> <p>In Saloum river delta:</p> <ul style="list-style-type: none"> (i) Betenty: coastal shrimp (ii) Foundiougne: coastal shrimp (iii) Fimela: coastal shrimp <p>In Petite-Côte:</p> <ul style="list-style-type: none"> (iv) Ngaparou: lobster and other sedentary species, notably Cymbium and octopus <p>In Cap Vert Peninsula:</p> <ul style="list-style-type: none"> (v) Yenne: lobster and other sedentary species, notably groupers (vi) Bargny: lobster and other sedentary species, notably groupers (vii) Soumbédioune: lobster and other sedentary species, notably groupers (viii) Oukam: lobster and other sedentary species, notably groupers
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	<p>programs.</p> <ul style="list-style-type: none"> - Establishment of new CLPAs in coastal areas yet unserved, and carrying out a program of training to strengthen the capacity of existing and new CLPAs in management, legal, scientific and policy aspects of fisheries co-management, and provision of support for the management of the CLPAs. These activities were dropped to refocus resources on priority governance activities and since the CLPAs had not been made operational by the government as planned (changes were made as part of a Level II restructuring in 2012). <p>Revised: Carrying out a program to strengthen the capacity of institutions (local fisheries offices) to</p>	
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	<p>manage the registration of vessels and to support fishing rights for coastal small-scale fisheries. The revision removed an activity of awarding fishing permits for coastal small-scale fisheries, and added support for fishing rights for small scale fisheries in order to scale up local empowerment and allocation of secure rights to reduce open access; it also removed an activity of transferring local fisheries offices to CLPAs as the CLPAs had not been made operational as above. (changes were made as part of a Level II restructuring in 2012)</p>	
<p><i>1.3 Adjustment of Fishing Effort and Capacity to more Sustainable Levels,</i></p>	<p>Added: Public investment in fish</p>	<p>Fishers in targeted communities received support to undertake alternative livelihoods via directed lines of commercial micro-</p>

<p><i>Introduction of Alternative Livelihoods where Needed</i>¹⁰⁶</p> <ul style="list-style-type: none"> - Reduction of the industrial trawl fleet, through purchase of industrial trawl vessels. - Developing basic and small business management skills of micro-credit beneficiaries and provide ongoing support to beneficiaries in organization, life management and conflict management skills. - Financing grants to targeted fishing communities for specific development projects designed to increase their revenues by improving the quality of fish products, and raising communities' living standards and wellbeing. 	<p>resource rehabilitation:</p> <ul style="list-style-type: none"> - Establishment of protected fishing zones (<i>Zone de Pêche Protégée</i>, ZPPs) - Establishment of artificial reef immersion zone (<i>Zone d'Immersion des Récifs Artificiels</i>, ZIRA). Both activities were added to help rebuild the resource base (changes were made as part of a Level II restructuring in 2012). <p>Dropped: Reduction of the industrial trawl fleet, through purchase of industrial trawl vessels. This activity was dropped as it had been proven impossible to carry out due to high</p>	<p>finance and block grants for public infrastructure and/or startup of enterprises by the CLPs such as chicken and beef cattle rearing.</p> <p>405 micro projects were financed by a local micro-finance institution (<i>Crédit Mutuel du Sénégal</i> - CMS), for fishers and non-fisher residents in targeted communities (355 of beneficiaries were female entrepreneurs) for a total of FCFA 259,064,704 (equivalent in total value to 104 percent of the guarantee from the project), with a repayment rate of 92 percent and 98 percent of the activities showing profitability.</p> <p>A number of the associations in the twelve sites introduced artificial reefs (in Bargny, Yenne and a Petite Côte Protected Area) while several others introduced protected areas and no-take reserves, gear restrictions (e.g., minimum mesh sizes on nets), closed seasons for fishing, or some combination of rule changes.</p>
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¹⁰⁶ Under this sub-component, two activities were outsourced to a micro-finance institution, *Credit Mutuel du Senegal*, through a Credit Agreement between the World Bank and *Credit Mutuel du Senegal* (Credit No. 4662-SN) signed on November 24, 2009. These activities are: (i) Provision of micro-credits for specific development projects designed to assist fishers affected by the planned reduction of industrial trawl fleet develop alternative income-generating activities outside the fishing sector; and (ii) Financing micro-credits to fishers, fish processors, and boat builders and fish transporters (with a particular focus on women) for specific development projects designed to assist beneficiaries develop alternative income-generating activities outside the fishing sector, and provision of training and technical support in identifying and implementing such activities.

	prices of vessels (changes were made as part of a Level II restructuring in 2014).	
<i>1.4 Social Marketing, Communication and Transparency</i> Design and implementation of communications strategies, consultations and marketing campaigns to improve public knowledge of new fisheries policies.		A strategy was designed and implemented, including design and distribution of four issues of the project's newsletter, design and dissemination of films and awareness-raising spots on fishing, design of several communication media (website, POS, pamphlets and calendars), publication of project studies and technical documents, and production of a film on the capitalization of the results and achievements of the project.
Component 2. Reduction of Illegal Fishing		
<i>2.1 Enabling Environment for Reducing Illegal Fishing</i> - Reinforcement and adoption of a sustainable regulatory and institutional framework and plan for the monitoring of coastal fishing stocks and surveillance and management of coastal fishing.		A national strategy and action plans to combat IUU fishing were developed by MPEM in 2013 and approved by the Minister. Eight participatory surveillance brigades were established (in Lompoul, Fasse Boye, Mboro, Yenne, Potou, Nianing, Missirah and Pointe Sarène).
<i>2.2 Monitoring, Control and Surveillance Systems</i> - Small rehabilitation works to upgrade existing civilian coastal surveillance stations and provision of surveillance and communication equipment and small inshore patrol vessels. - Training programs to strengthen participatory surveillance patrols by local surveillance groups, and operation of fisheries surveillance patrols.	Revised: Training programs to strengthen participatory surveillance patrols by local groups, and the operation of patrols to enforce compliance with fishing rights and management regime. The change emphasized that the participatory surveillance patrols	Coastal surveillance stations of Mbour, Joal, Djifère and Fass Boye were rehabilitated, equipped and furnished. Surveillance boats were purchased as well as navigation and surveillance equipment and inspection and control equipment for vessels and craft fishing vessels. Stakeholders were trained in participatory surveillance, control and inspection techniques and the legal aspects of control. Coastal surveillance patrols and participatory surveillance activities were carried out: 768 coastal patrols were conducted, leading to inspections of industrial vessels and

	were to be used to enforce compliance with fishing rights and management regimes to further increase local empowerment (changes were made as part of a Level II restructuring in 2012).	<p>canoes, offence notifications and sometime arrests.</p> <p>Inspections were carried out of 287 industrial vessels and 7,395 small-scale vessels, offence notification or arrests were made of 449 vessels.</p> <p>The existing VMS was linked to an AIS.</p>
Component 3. Increasing the Contribution of the Marine Fish Resources to the Local Economies		
<p><i>3.1 Fish Landing Site Clusters</i></p> <p>Establishment of an integrated fish landing site cluster at Kafoutine to operate as a special economic zone through construction of basic infrastructure, including buildings, roads, cold stores, power and water services, and adaptation of the concession of such basic infrastructure.</p>	This activity was dropped in the Level II restructuring of 2012 to refocus finance and remaining project time on governance and surveillance.	
<p><i>3.2 Fish Product Trade Infrastructure, Information and Systems – Regional Minimum Integrated Trade Expansion Platform (MITEP)</i></p> <p>Specialized business support services to assist local enterprises access relevant information to better integrate into global value chains.</p>		<p>The project financed quality specialists and maintenance works related to export to the EU at Hann, Kayar, Mbour, Joal and Kafountine, constructing a sorting room at Kafountine, and purchasing equipment for analysis laboratories in the fishing docks of Ouakam, Thiaroye, Hann, Kayar, Mbour, Joal, Boudody and Kafountine.</p> <p>The capacity of the Directorate of Fisheries Processing Industries (<i>Direction des Industries de Transformation de la Pêche</i>) was enhanced through rehabilitation of and provision of equipment to the Fishery Products Technology Watch and Promotion Unit (<i>Cellule de Veille Technologique et de</i></p>

		<p><i>Promotion des Produits Halieutiques</i>), development of an information system and a website for the directorate, training directorate agents on establishing a HACCP system, on implementing a quality approach according to ISO 17020 and ISO 17025 standards, and on the control of the cold chain in fish processing and conservation units.</p> <p>New horse mackerel and sardinella products were developed in collaboration with the Institute of Food Technology and negotiation is ongoing between the Directorate of Fisheries Processing Industries and a food company on producing some of the products.</p>
Component 4. Coordination, Monitoring and Evaluation and Program Management		
<p><i>4.1 National Implementation</i> Preparation of annual work plans, updating of procurement plans and related budgets and project management, monitoring and evaluation.</p>		<p>The project upgraded offices for the Directorate of Maritime Fisheries, within which the PIU resided.</p> <p>Work plans, budgets and procurement plans were prepared, external audits were submitted and progress and financial reports were submitted.</p>

4. Sierra Leone

Original activities	Modified activities and reason for changes	Outputs
Component 1. Good Governance and Sustainable Management of the Fisheries		
<p><i>1.1 Development of the Capacity, Rules, Procedures and Practices for Good Governance of the Fisheries</i> - Finalization implementation of a fisheries policy and regulatory framework.</p>		<p>The 1994 Fisheries Management and Development Act and 1995 Fisheries Regulations were reviewed by FAO/TCP in 2010-2011.</p> <p>A Fisheries and Aquaculture Bill was developed in 2011 and validated. It was not enacted into law due to new emerging</p>

<ul style="list-style-type: none"> - Development, implementation and maintenance of a registration system for all small-scale vessels. - Strengthening the capacity of MFMR, the Institute of Marine Biology and Oceanography (IMBO) and other research institutions to assess the status of fish stocks, conduct fisheries research to collect and analyze fisheries statistics. - Establishment of a system of information and analysis for the management of fisheries, linked to the CSRP regional information platform. - Completion and implementation of a fisheries management plan for coastal demersal and shrimp fisheries outside of the IEZ, setting TACs for sustainable exploitation of these fisheries, with allocation mechanisms involving long-term licensing and appropriate fees, for industrial vessels linked to a long-term licensing process. - Carrying out an analysis, setting a TAC for coastal shrimp fisheries and establishing an allocation mechanism involving long-term licensing and increased fees. 		<p>approaches in fisheries management which needed to be incorporated into the Bill. The responsibility for this activity was handed to the NEPAD Partnership for African Fisheries (PAF), and enactment was not completed before project closing.</p> <p>An MFR, which had been prepared in 2006, was reviewed and updated in 2012, and approved by Cabinet in 2014. The project commissioned a cost benefit analysis for the implementation of the MFR, however the study was not finalized.</p> <p>All canoes (10,700 canoes) were registered by March 2014, and a canoe registration database was developed by a recruited biostatistician. Equipment for canoe registration database management was provided to local councils.</p> <p>License plates were purchased, however not distributed by project closing.</p> <p>MFMR Statistics Unit was upgraded, software packages were updated and staff members were trained in GIS mapping and other software.</p> <p>Two operators were recruited to feed data into a national dashboard and received training from the CSRP, however the national dashboard was not established before project closing. The MFMR published updated fishing vessels license list and revenue generated from the sector in local newspapers up to the time of the EVD.</p>
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<p><i>1.2 Introduction of Fishing Rights</i> Creation of four MPAs within the IEZ, to be co-managed by the Recipient and local communities, and subsequent transformation of such areas into TURFS by: - Establishment of a co-management community center in each co-managed MPA.</p>		<p>Three MFMR outstations were rehabilitated and two were newly constructed.</p> <p>A co-management strategy was developed for the four MPAs, but the strategy was not approved by MFMR at closing.</p> <p>31 CMAs were established around the four MPAs, and all of them developed constitutions and were registered with respective local councils and the Ministry of Local</p>

<p>- Establishment and ongoing operation of a CMA in each co-managed MPA, including the provision of technical assistance to the association and communities in order to develop and ensure community-level discussion, as well as the development, dissemination and monitoring of co-managed MPA management plans.</p>		<p>Government.</p> <p>Training and equipment was provided to local councils, including for community surveillance.</p>
<p><i>1.3 Adjustment of Fishing Effort and Capacity to more Sustainable Levels, Introduction of Alternative Livelihoods where Needed</i></p> <p>Carrying out an incentives program to include:</p> <ul style="list-style-type: none"> - Provision of legal fishing nets at a discount in exchange for illegal nets, provision of small infrastructure, fish processing ovens and/or other equipment or supplies, and/or training on a demand-driven basis, upon compliance with continued use of legal fishing nets. - Training in local level waste and hygiene management and monitoring, water quality and local ecosystem monitoring. - Transparent community-based reporting and monitoring of compliance with the use of nets. 		<p>An illegal fishing net replacement program was launched, whereby legal nets were purchased (of total worth of US\$500,000) and sold at half price in exchange of illegal nets. Not all nets were sold due to fishers' request to receive them free of charge, and insufficient outreach to fishers.</p>
<p><i>1.4 Social Marketing, Communication and Transparency</i></p>		<p>Interpersonal communication (individual discussions, group discussions, community meetings and outreach program) and</p>

<p>- Design and implementation of locally accessible communications strategies, consultations and marketing campaigns to improve public knowledge of new fisheries policies.</p>		<p>mass media communication (radio, television, newspapers, internet, brochures, calendars, visual and audio visual presentations) were carried out.</p> <p>A newsletter of the project was published and distributed in 2014.</p> <p>A communication and project awareness raising campaign tour was conducted in 2014 in four MFMR outstations for CMAs and civil society groups.</p> <p>Two CSOs were supported to undertake sensitization campaigns in all four MPAs.</p> <p>A website was developed for the MFMR to be used as a platform for dissemination of fisheries management information (www.mfmr.gov.sl).</p>
<p>Component 2. Reduction of Illegal Fishing</p>		
<p><i>2.1 Enabling Environment for Reducing Illegal Fishing</i></p> <p>- Development of a sustainable regulatory and institutional framework and plan for civilian-led monitoring of coastal fisheries resources and civilian-led surveillance and management of fishing, and carrying out a training program for prosecutors to increase understanding of fisheries laws and regulations.</p>		<p>An inter-agency committee was formed via an MOU, the JMC, which included MFMR, the Maritime Wing and the President’s Office of National Security, among others.</p> <p>The Government of the United Kingdom provided hands-on training to JMC staff.</p> <p>MFMR staff members from both MFMR and IMBO benefitted from training on community surveillance and crime detection and reporting in the fight against IUU fishing.</p>
<p><i>2.2 Monitoring, Control and Surveillance Systems</i></p>		<p>The JMC building was refurbished with expanded internet access and electricity.</p>

<ul style="list-style-type: none"> - Development of a sustainable surveillance strategy and plan for the Fisheries Protection Unit, and provision of training, technical assistance and office equipment for the operations of such unit. - Construction of a fisheries monitoring center and provision of communication systems, satellite-based VMS, data reception platform, computer systems and office automation material and vehicles - Construction of coastal stations and provision for each coastal station communication and computer systems, office supplies, vehicles, and a replication of the VMS data reception platform located at the Fisheries Protection Unit. - Development and operation of civilian-led sea and aerial patrols. 		<p>A sustainable MCS strategy and surveillance system was developed for the JMC.</p> <p>In early 2012 support was provided to the JMC by the Government of the Isle of Man through a donation of a patrol vessel and subsidies to the purchase of 80 Applied Satellite Technology (AST) Blue Tracker transponders, which were installed on most licensed industrial vessels, so that a functioning, satellite-based VMS was in place for all industrial vessels, and tracked at the JMC.</p> <p>The JMC helped coordinate increased sea patrols using existing equipment, and began to record arrests (16 in total). Patrols were conducted using the donated vessel, with over 600 patrols in 2014 and over 500 days of fisheries surveillance patrols in 2013 and 2014 in collaboration with Navy patrol boats.</p>
Component 3. Increasing the Contribution of the Marine Fish Resources to the Local Economies		
<p><i>3.1 Fish Landing Site Clusters</i></p> <ul style="list-style-type: none"> - Construction of a fish landing site cluster at Konakree Dee, including water supply, electricity, refuse recycling systems, rehabilitated access roads, a fish sorting shed, a hygiene block and septic tank, an ice plant, cold storage facilities, dry-docking equipment, common service centers and extension services such as a 	<p>Added: Further development of Kissy port (changes were made as part of an additional US\$8 million ACGF financing proposal in 2011).</p>	<p>Works did not commence due to ineligibilities related to the ESIA and an unsatisfactory ESIA report produced by the second selected consulting company.</p> <p>An evaluation report of technical proposals submitted for Konakree Dee works was not accepted by the World Bank.</p>

<p>fishery material store, fuel and gas supplies, net and crates repair, and training in the maintenance of the cold chains.</p> <p>- Provision of technical assistance for preparation of a tender for the concession of the above basic infrastructure.</p>		
<p><i>3.2 Fish Product Trade Infrastructure, Information and Systems – Regional Minimum Integrated Trade Expansion Platform (MITEP)</i></p> <p>- Development of a quality control system consisting of a certified public laboratory and a sanitary CA as well as development of relevant protocols and standards for product quality and traceability.</p>	<p>Dropped: This activity was removed from the project due to the MFMR decision to hire a consulting firm to carry out this work with funding from a different source (reflected in World Bank reports).</p>	
<p>Component 4. Coordination, Monitoring and Evaluation and Program Management</p>		
<p><i>4.1 National Implementation</i></p> <p>Preparation of annual work plans, updating of procurement plans and related budgets and project management, monitoring and evaluation.</p>		<p>Work plans, budgets and procurement plans were prepared, external audits were submitted and progress and financial reports were submitted. An M&E plan was completed.</p>

5. CSRP

Original activities	Modified activities and reason for changes	Outputs
Component 1. Good Governance and Sustainable Management of the Fisheries		
<p><i>1.1 Development of the Capacity, Rules, Procedures and Practices for Good Governance of the Fisheries</i></p> <p>- Setting up a regional database and dashboard of key environmental, economic and social fisheries statistics at CSRP.</p>	<p>Added: National fish catch and effort databases established in each participating country. Changes reflected a scale up of investment in national nodes.</p> <p>Expansion of a regional fisheries information system, including a fishing vessel registry, to enhance transparency in the region's fisheries based on the principles of the Extractive Industries Transparency Initiative (EITI) (changes were made as part of the additional US\$2 million IDA financing to the CSRP in 2011).</p>	<p>A regional dashboard was developed with the following main databases:</p> <ul style="list-style-type: none"> • Database of ships and licenses • Database on fishing authorizations (licenses and permits, on fishing effort and catches) • Database on monitoring of fishing • Socioeconomic database <p>The setting of the dashboard was completed and the RCU is entering countries' historical data (90% completed). A public portal is currently being established and is expected to become available in April 2017. See www.dashboard-csrp.org for the limited-access webpage and www.portail-csrp.org for the public portal (under final construction).</p> <p>Before project closing each country began to compile fish catch and effort databases and reports were shared with CSRP for inclusion in the dashboard. Countries received from the CSRP the needed equipment and training on data collection. Data collection is ongoing.</p>
<p><i>1.4 Social Marketing, Communication and Transparency</i></p>		<p>The CSRP in collaboration with the African Union Interafrican Bureau for Animal Resource (AU-IBAR) and the</p>

<p>- Carrying out a training program to facilitate the development of an active network of local journalists within the region to cover and report on fisheries management issues and progress.</p>		<p>World Bank carried out fisheries training for journalists from Africa. This effort facilitated the setting up of a network of journalist in Africa.</p>
<p>Component 2. Reduction of Illegal Fishing</p>		
<p><i>2.1 Enabling Environment for Reducing Illegal Fishing</i> - Carrying out a program of technical assistance for the participating countries to facilitate development and implementation of sustainable financial mechanisms for surveillance operating costs.</p>		<p>A study was carried out in collaboration with the EU project “<i>Renforcement de la coopération Suivi, Contrôle et Surveillance (SCS) des activités de pêche dans la zone de la Commission Sous Régionale des Pêches (CSRP)</i>” (UE/SCS) for Member States of the CSRP. Another study was carried out by the WARFP for Ghana and Liberia.</p>
<p><i>2.3 Strengthening Regional Collaboration for MCS</i> - Carrying out a training program to assist the participating countries in their implementation of a Fish Catch Certification Scheme and preparation of bilateral cooperation agreements and performance of periodic reviews and audits by an independent group of experts, of fisheries surveillance activities financed under the project.</p>		<p>In collaboration with member countries, an operational guide was developed to facilitate the implementation of FAO’s Agreement on Port State Measures (APSM).</p> <p>Sensitization workshops were organized on the manual for government and national agencies’ representatives as well as private companies and fishing companies.</p> <p>A group of experts was established to audit countries’ surveillance operations, and countries’ surveillance activities funded by the project were audited to ensure consistency with the financing agreements (found consistent).</p> <p>The CSRP developed a Regional Vessel Registry for fishing vessels. A technical coordination committee of the CSRP approved supporting protocols for setting up of the Registry and to facilitate information exchange among the countries.</p>

		The CSRP prepared a protocol for the establishment and operation of a sub-regional fisheries observer program.
Component 3. Increasing the Contribution of the Marine Fish Resources to the Local Economies		
<p><i>3.2 Fish Product Trade Infrastructure, Information and Systems – Regional Minimum Integrated Trade Expansion Platform (MITEP)</i></p> <ul style="list-style-type: none"> - Development and implementation of a system of quality control and proactive trade information services for fish products, aimed at supporting the expansion of exports of these products from West Africa. 		<p>Not done as the CSRP was not well placed to carry out these activities, as determined by the World Bank at mid-term. These activities are normally carried out by private companies.</p>
Component 4. Coordination, Monitoring and Evaluation and Program Management		
<p><i>4.2 Regional Coordination</i></p> <ul style="list-style-type: none"> - Facilitation of harmonization of fisheries policy among participating countries. - M&E of program investments and share information and results throughout the participating countries. - Implementation of ongoing communication activities to raise awareness about the program and implementation progress. - Provision of implementation support to each of the participating countries, including the coordination of regional procurement. 		<p>Annual consolidated M&E reports were produced.</p> <p>A Regional Steering Committee was formed and remained active through annual meetings.</p> <p>Communication activities were implemented to raise awareness about the program and project.</p> <p>Exchanges were facilitated between participating countries on specific activities (e.g., co-management and database management).</p> <p>An RCU was maintained, carrying out frequent operational technical support missions, including support to management, procurement and financial management, and training to participating countries.</p>

Annex 3. Economic and Financial Analysis

Review of original economic analysis

1. At appraisal, the World Bank developed a basic economic model of coastal demersal fisheries in the four countries to estimate the direct quantifiable benefits of the project. These benefits were measured as net revenue at first sale after fish landing so they did not capture enhanced benefits through the entire value chain.¹⁰⁷ The anticipated benefits under a reform scenario in the four countries were compared to a ‘business-as-usual’ (baseline) scenario. The baseline was essentially declining or marginally profitable fisheries, with negative profitability in Cabo Verde and Senegal, profits just above zero in Liberia, and only in Sierra Leone profits were still positive (at roughly five percent of gross revenues from first sale). From this baseline, the model implemented scenarios of anticipated impacts of various project activities, including: (i) a 33 percent reduction in small-scale fishing effort in Cabo Verde; (ii) a full reduction in bottom trawling within six miles off the coast in Liberia and Sierra Leone (in the latter case - coupled with stock recovery due to a one to two-year closure of the shrimp fishery); and (iii) a 50 percent reduction in coastal trawling effort and a freeze on the small-scale fishing effort in Senegal. These impacts were expected to lead to increased profitability in coastal fisheries in the order of US\$39 million over the five-year period from 2010 through 2014. Adding in the returns to labor, the transfers to support alternative livelihoods to fishing, and increased value added from fish landing site infrastructure, the total net economic benefits from WARFP investments in phase one in these four countries were estimated at US\$75 million over the five-year period, for an economic internal rate of return of 16 percent. These estimates did not include anticipated benefits from the additional US\$10 million in ACGF financing provided for fish landing site infrastructure in Liberia and Sierra Leone, nor the additional US\$2 million IDA grant to CSRP, both approved by the World Bank in 2011.

2. *Ex post*, the major impact assumptions (scenarios) employed in the economic analysis of the PAD can be reviewed. With regards to the first assumption (a 33 percent reduction in small-scale fishing effort in Cabo Verde), overall fishing effort reduction in Cabo Verde has been achieved through reduction of illegal fishing in the industrial segment, rather than active effort reduction in the small-scale segment. It appears that the goal embedded in the second assumption (a full reduction in bottom trawling within six miles off the coast in Liberia and Sierra Leone) has been met through effective surveillance programs in the two countries. Finally, with regards to the third assumption (a 50 percent reduction in coastal trawling effort and a freeze on small-scale fishing effort in Senegal), while the coastal trawling effort has been curbed, Senegal has not been successful in limiting the increase in the fishing effort of the small-scale segment. Taken together, the model, as parameterized at the time of project appraisal and holding the other variables constant, would generate an output that is close to, if not above, the benefit figure estimated in the PAD (US\$39 million).

3. This annex analyzes project efficiency from additional angles which could provide a better understanding of the value of the project, relying on an evaluation of broad categories of

¹⁰⁷ Source: WARFP SOP-A1 PAD (2009), Report No. 48965-AFR.

benefits in each of the four countries and regionally, where possible quantitatively, as indication of overall project benefits.

Evaluation of various aspects of realized benefits

4. Project benefits can be grouped into the following five broad categories:
 - i. **Public revenues generated through surveillance activities.** One key project focus was to reduce illegal fishing through strengthened MCS activities under Component 2. This set of activities in turn resulted in public revenues through, *inter alia*: (i) fines levied for illegal fishing activities, and (ii) other revenues associated with successful reduction of illegal fishing (e.g., EU payment as part of the Sustainable Fisheries Partnership Agreement). The surveillance activities and the associated benefits were well monitored in Liberia and Sierra Leone, and a financial analysis-type exercise is performed for the two countries.
 - ii. **Benefits due to physical recovery of fish resources (natural capital).** Although stock recovery is a slow biological process that manifests with some time lag, stocks have been recovering in several project sites as a result of components 1 and 2 activities. An increase in stocks that were previously depressed clearly implies improvement in the productive asset that, if managed sustainably, can generate a flow of goods and services in the long run. Since various factors contribute to this outcome (including natural conditions), precise attribution of the outcome to project activities is impossible. Quantitative and qualitative evidence is collected to indicate the project's contribution to the observation.
 - iii. **Flow of benefits of investments in infrastructure (produced capital).** Although not a primary objective, the project involved several physical construction or rehabilitation of fisheries-related facilities, particularly at the community level under Component 1. While several of these facilities were not fully operational at project closing, some indication of their benefits has been documented.
 - iv. **Benefits of improved processes due to enhanced practice, technology and information.** Many project activities were intended to improve processes related to fisheries management, notably the process of fishing vessel monitoring (components 1 and 2) and post-harvest fish handling (Component 3). These activities will contribute to improved efficiency, productivity or profitability of relevant activities. However, as the effects of improved processes will be multifaceted and realized over the long run, their quantification is challenging. The evaluation of these benefits therefore relies on available information on improved processes.
 - v. **Benefits of strengthened capacity at regional, national and local levels (human/social capital).** Perhaps the largest benefits have resulted from investments in human and social capital and development of institutional assets that have generated and will continue to generate flows of benefits over the long run. The most prominent achievements were made in capacity building of the CSRP at the regional level, of fisheries administrations

at the national level, and of fisheries management associations at the community level. In particular, strengthened capacity in pilot communities can be transferred to other communities over time. While the effects of this improvement is difficult to quantify, some indications of improved fisheries management due to strengthened capacity have been documented.

5. For each country, available evidence is compiled to gain insights of the extent of benefits achieved. The table below gives a brief summary:

Table 1. Summary of benefits by country

	Cabo Verde	Liberia	Senegal	Sierra Leone
(1) Public revenues	N.A	Financial analysis	N.A	Financial analysis
(2) Stock recovery	N.A	Fish size, catch volume	Fish size, catch efficiency, species mix	Catch volume
(3) Produced capital	Artisanal port	Robertsport, Mesurado	Artisanal landing sites for EU export	N.A
(4) Improved processes	Knowledge, vessel registration, market access	Anti-IUU measure, license, information	Surveillance, market access	Surveillance, information
(5) Strengthened capacity	National, community	National, community	National, community	National

Cabo Verde

6. **Produced capitals.** The physical investments in the fishing port of Praia, serving 1,624 direct professional users daily (1,000 women sellers and 624 fishers according to 2016 statistics), resulted in the benefits of improved supply of drinking water, electricity and sanitation systems, and an auction facility.

7. **Improved processes.** Cabo Verde benefitted from investments in improved knowledge and vessel registration and fishing license systems. All of these contributed to improved fisheries in various ways, including export market access.

- i. **Knowledge.** Stock assessments of small pelagics, main demersals and pink lobster led the government to propose new input control rules to freeze the registration of new small-scale vessels. Bio-economic models of these fisheries were developed and approved as management tools for 2016 and subsequent years. The process of knowledge generation contributed to capacity building, while the knowledge generated allowed more effective fisheries management, in particular by aligning the licensed fishing capacity with the health of the stocks.
- ii. **Registration and license systems.** A fishing vessel registration system for artisanal, semi-industrial and industrial fleets was established and deconcentrated to the islands. The system includes a full database of the fleets stored in the cloud, accessible in all islands by smartphone and available to the public. A satellite-based VMS was installed on industrial and semi-industrial vessels and is operational. Licensing coverage of small scale and semi-industrial fishing vessels increased over the course of the project, with

licenses issued for 105 vessels in 2012, 476 vessels in 2013, 780 vessels in 2014 and 605 vessels in 2015. These systems allowed more effective management of fishing activities and monitoring of fishing vessels. As a result, the project recorded a significant increase in offence notifications and fines for fishing infractions in the coastal fisheries in the early years, and subsequently the ratio of infractions to vessels observed fishing dropped by more than 50 percent.

iii. **Market access.** A review by the EU of the country's efforts to fight IUU fishing was considered positive. This has ensured continued access of fish products to more lucrative EU markets.

8. **Strengthened capacity.** *At the national level*, surveillance capacity increased due to: (i) an increased number of inspectors conducting fisheries surveillance (together with surveillance stations in Sal and Maio), and (ii) formalized collaboration in fisheries surveillance between DGP and the agencies operating the COSMAR, allowing more sea patrols. Further, a new competent institution, ACOPECA, was established to monitor and control activities related to fishing, fish and fishery product processing and quality in Cabo Verde. *At the community level*, four CMAs were formally established and their capacity was enhanced by four DGP facilitators; and a vocational training program was implemented targeting identified beneficiaries. Although activities to maintain and further augment such capacity need to continue, the country now has the basic architecture with which to deepen community-led fisheries management, which is deemed a fundamental building block towards improved sustainable fisheries in the country.

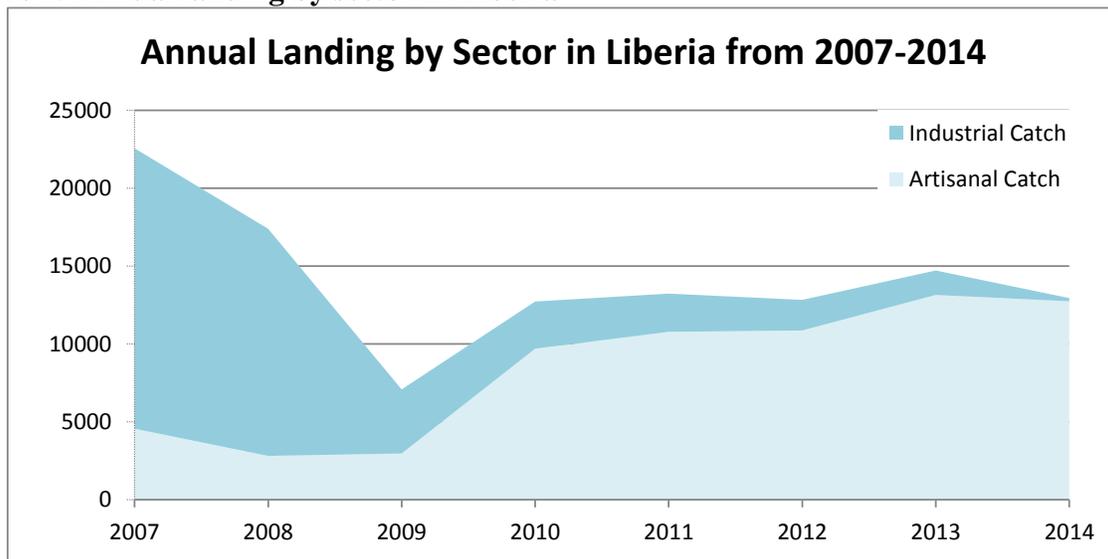
Liberia

9. **Public revenues.** A financial analysis-type exercise was conducted for surveillance operations by the MCSCC in Liberia. According to the analysis, the estimated cumulative expenditure of the MCSCC in 2011-2015, including initial capital investment (e.g., patrol boats), was US\$875,000, while the estimated income generated during the same period was US\$8.05 million. Fines collected from illegal fishing (US\$6.22 million) and the lump-sum transfer by the EU through the Sustainable Fisheries Partnership Agreement are counted as income in the analysis. The agreement offers opportunities to 28 purse seiners and six surface long-line vessels to fish for tuna and tuna-like species in the waters under the jurisdiction of Liberia, based on a reference tonnage of 6,500 tons per year. The agreement also sets fees for ship owners and advance payment rates. WARFP contributed 60 percent towards the cumulative cost. This simple analysis suggests that the cost of the initial investment has already been recovered, and the operation generates larger incomes relative to its operating costs.

10. **Stock recovery.** Beginning in 2011, Liberian coastal communities experienced a change in fish availability with the sizes of all fish landed increasing and the overall volumes of fish caught more than doubling the levels in 2009, as confirmed by sampling on fish landings carried out by the project-funded Community Sciences program. The BNF has preliminarily estimated that annual harvests landed could be in the order of 60,000 tons, significantly more than the

9,000 tons reported by Liberia to FAO in previous years.¹⁰⁸ Feedback from fishing communities in Robertsport and nearby communities in particular have also indicated that the reduction in illegal fishing activities had led to fewer conflicts with illegal fishers and higher revenues to communities from fishing. A project-funded bio-economic model showed that Liberia’s artisanal fishery as a whole had a total profit of around US\$3.4 million in 2014, showing substantial progress compared to the beginning of the project when boats were barely profitable. The total production from the artisanal fishing segment has increased from less than 3,000 tons a year to over 12,000 tons, a fourfold increase since the banning of industrial fishing in the six mile IEZ and the limited issuance of industrial fishing licenses. Figure 1 below demonstrates these trends in Liberia’s industrial and artisanal fishing:

Figure 1. Annual landing by sector in Liberia¹⁰⁹



11. **Produced capitals.** With 70 percent of the works completed (measured by costs and physical progress), Robertsport integrated landing site is to provide common service centers, a fresh fish handling building, a fish processing building, a hygiene block and septic tank, and a set-up for fishing material store, net and crates repair shops, fish smoking houses, a cooling house, a day care/school and a playground (added to the original design) and training in the maintenance of the cold chains that would directly benefit about 5,000 people from the Robertsport’s CMA, and indirectly benefit the entire Grand Cape Mount County’s population of about 150,000. With 70 percent of the jetty works completed, Mesurado landing site is expected to provide an off-loading area for bigger vessels for international trade and small vessels for both domestic and international trade; a quay to allow fishing vessels to berth and off-load; administrative offices to accommodate the BNF Monitoring Center and Laboratory responsible for inspection, testing and certification of fish and fishery products destined for human consumption to local and international markets; and fisheries processing facilities for canning, washing, blast freezing and cold storage. The landing site is expected to benefit 500 people

¹⁰⁸ Source: Aide Memoire of the Joint World Bank/CSRP Implementation Support Mission in Liberia, January 19-31, 2016.

¹⁰⁹ Source: Arnason, R. (2016) Stock Assessment Report.

directly once completed, and provide indirect benefits to the population of Monrovia (through fish purchase) of about 1.02 million. Works for both sites have resumed under a second additional financing from the ACGF in the amount of US\$4.19 million, to be completed by the end of June 2017.

12. **Improved processes.** The largest achievement in Liberia was related to reduction of illegal fishing due to a series of improved processes. The processes of licensing and information management were another major achievement. Maintenance of these achievements will require continued effort, but future fisheries improvement will build on these foundations. In particular, the first Sustainable Fisheries Partnership Agreement between the government and the EU was made possible thanks to policy measures supported by the project in Liberia, setting, as mentioned, an average annual compensation of €715,000 for the next five years – half of which is earmarked to support fisheries management costs, including reinforcement of MCS capacity. The key benefits are:

- i. **IUU fishing control.** All artisanal and semi-industrial vessels were registered and marked, and data were stored in the National Registry, while a satellite-based VMS was installed on industrial vessels and is operational. Surveillance operations were enhanced through sea and aerial patrols (25 in total). These resulted in the citation of 48 fishing vessels for a total fine of over US\$6.4 million, largely in the first three years. The indicator on the rate of illegal fishing¹¹⁰ gradually dropped from 83 percent at baseline to 30 percent in 2016.
- ii. **License system.** After assessment of the stock status of key commercial fisheries, licenses for foreign industrial vessels were issued selectively, which contributed to resource recovery.
- iii. **Information management.** Achievements include: (i) stock assessments conducted for four key fish stock complexes; (ii) a new database for licenses, revenues and fishing catch and effort established at BNF; (iii) public disclosure of fishing licenses beginning in late 2011; (iv) periodic publishing of the list of licensed fishing vessels and revenue generated on the BNF's website, together with frequent radio discussion programs; and (v) information collection of wind, tide, temperature, landings, and environmental hygiene by a community science sub-committee of the CMA. While the information supported more effective fisheries management, disclosure and sharing of information in particular facilitated the identification of illegal fishing vessels, and their consequent arrest.

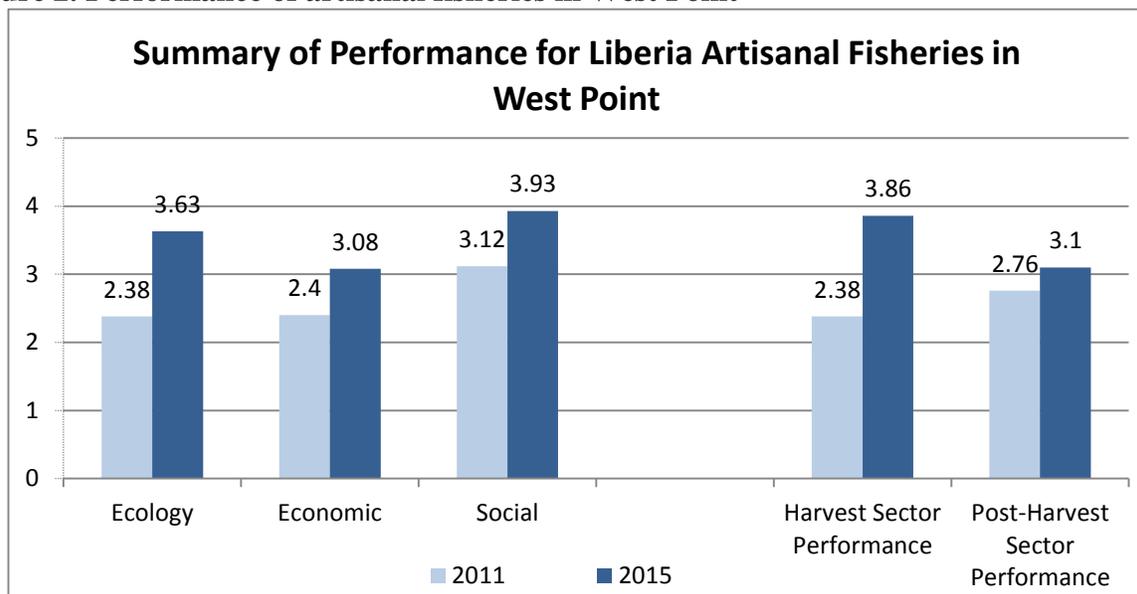
13. **Strengthened capacity.** *At the national level*, surveillance capacity increased due to: (i) a functioning FMC, opened at the Coast Guard, with staff recruited, trained and equipped with radio and computer communications; (ii) a new radar station in Harper to support the Liberian Coast Guard; (iii) increased number of trained observers on industrial fishing vessels, where NOAA is providing observers with training to record fish catch data on all licensed industrial vessels for entry into the new database; and (iv) training to BNF staff, fisheries observers,

¹¹⁰ Fishing vessels that are committing a serious infraction as a percent of total number of vessels known/observed.

fisheries inspectors and FMC staff on requirements for participation in sea and aerial patrols, purpose and use of reporting forms, and use of GPS cameras with telephoto lenses. *At the community level*, CMA members received training in organizational management, financial management and book keeping, conflict management and hygiene and sanitation. Again, this human capital is expected to generate returns over the coming years when the fisheries management reform progresses.

14. Fishery Performance Indicators-based evaluations of the triple-bottom-line of ecological, economic and social sustainability at West Point community in 2011 and 2015 showed substantial improvement at the community level. The performance of certain fish stocks, the harvest sector, and the post-harvest sector improved as well. However, a baseline evaluation had not been carried out before the project started, therefore a quantitative comparison of these dimensions is not available. Figure 2 below presents some of the results of the West Point evaluations.

Figure 2. Performance of artisanal fisheries in West Point¹¹¹



Senegal

15. **Stock recovery.** In the case of Senegal, communities’ strong engagement in improving local fisheries had direct impacts on stock recovery. Several of the associations in the twelve project sites introduced artificial reefs to help increase targeted stocks, while several others introduced protected areas and no-take reserves, gear restrictions, closed seasons for fishing, or some combination of rule changes. The following are examples of local-level observations: (i) from 2005 (when this effort began in Ngaparou) to 2010, the average weight of lobsters caught in the managed area increased by 72 percent, from 295 grams to 420 grams, with total catch

¹¹¹ Source: Chu, J., T.M. Garlock, and P. Sayon (2017) Impact Evaluation of a Fisheries Development Project (Not published).

more than doubling from 1.5 kilograms per trip in 2006 to 3.5 kilograms in 2010¹¹²; (ii) demersal fish species (and overall species diversity and abundance) were reported by fishers and government staff as gradually reappearing in the Ngaparou area, although there was no sampling or structured data collection; (iii) project-supported communities in Ngaparou reported a 133 percent increase in catch efficiency (kilogram per trip); (iv) the biological rest on coastal shrimp initiated throughout the Saloum delta area (from August 1 to August 31 each year) resulted in an increase in the average size and price of shrimp from 500 FCFA per kilogram before the rest period was imposed, to 700 FCFA afterwards, with increased income to fishmongers; and (v) the biological rest on the Thiof white grouper in Soumbédioune, Bargny, Yenne and Fimela-Ndangane resulted in an increase in the average daily catches of coastal demersal species from 15-20 kilogram per trip before the rest period to 25-30 kilogram per exit at the opening of the fishery, which also led to an income increase for fishers and processors.

16. **Produced capitals.** The project supported the improvement of sanitary conditions of local artisanal wharves that are certified to process landings destined for export to the EU market.

17. **Improved processes.** An important and concrete achievement was the development and government approval of two management plans - for cymbium and for deep water shrimp. The management plans will serve as a critical foundation for subsequent management measures for these fisheries. On the surveillance front, registration of 100 percent (19,009) of small-scale vessels operating in targeted fisheries was completed, while an existing VMS was linked to an operational AIS in the Directorate of Protection and Surveillance of Fisheries. Licensing of access for 55 percent of small-scale vessels to all fisheries was also completed. Together with increased sea patrols, these measures will continue to promote good practices among fishing operators.

18. **Strengthened capacity.** *At the national level*, surveillance capacity was strengthened through rehabilitation, equipping and furnishing of coastal surveillance stations. The capacity of the Fisheries Protection and Surveillance Branch was strengthened by establishing eight participatory surveillance brigades, financing coastal surveillance patrols and participatory surveillance, acquiring needed equipment, rehabilitating and equipping coastal monitoring stations, acquiring surveillance boats, navigation and surveillance equipment and inspection and control equipment for vessels and craft fishing vessels, and training stakeholders in participatory surveillance, control and inspection techniques and the legal aspects of control. Enhancing the capacity of the Directorate of Fisheries Processing Industries was achieved through rehabilitation and provision of equipment to the Fishery Products Technology Watch and Promotion Unit, development of an information system and a website for the directorate, training directorate agents on establishing a HACCP system, on implementing a quality approach according to ISO 17020 and ISO 17025 standards, and on the control of the cold chain in fish processing and conservation units. As a pilot for value chain development, new horse mackerel and sardinella products were developed in collaboration with the Institute of Food Technology and discussions are ongoing with a food company on producing several of the products.

¹¹² The result was observed when the WARFP was already active and other fisheries projects closed.

19. *At the community level*, twelve CMAs were formally established and their capacity was enhanced, which will facilitate further deepening of community-led fisheries management in these communities, and can be adopted in others. Community capacity was also strengthened through revenue generating activities supported by the project, in which communities received micro credits for business activities such as poultry farming, cattle farming, and fishing gear/supplies stores. Further, fishers in targeted communities received support to undertake alternative livelihoods to fishing via directed lines of commercial micro-finance and block grants for public infrastructure and/or start-up of enterprises by the associations. A total of 405 micro projects was financed by a local micro-finance institution, for fishers and non-fisher residents in targeted communities (355 of beneficiaries were female entrepreneurs) and for a total of 259,064,704 FCFA with a repayment rate of 92 percent, and 98 percent of the activities showing profitability. Most of the micro projects were investments in small businesses and agriculture, with a few projects in the areas of catering and transportation. To date, more than 600,000,000 FCFA (around US\$1,000,000) have been invested in income generating activities managed by the CMA. Across 329 projects, cumulative net revenues per project were 591,043 FCFA on average at the time of a World Bank survey in 2016.¹¹³ The microcredit and revenue generating activities directly created 434 jobs and indirectly generated 417 jobs, and the generated revenues reportedly improved the livelihoods of recipient fishing families and households concerned. The project contributed to the empowerment of 355 CMA women members who developed micro projects and were able to make profit from their loans after repayment. This human capital is expected to generate returns over the coming years when the fisheries management reform continues and the seafood value chain deepens.

Sierra Leone

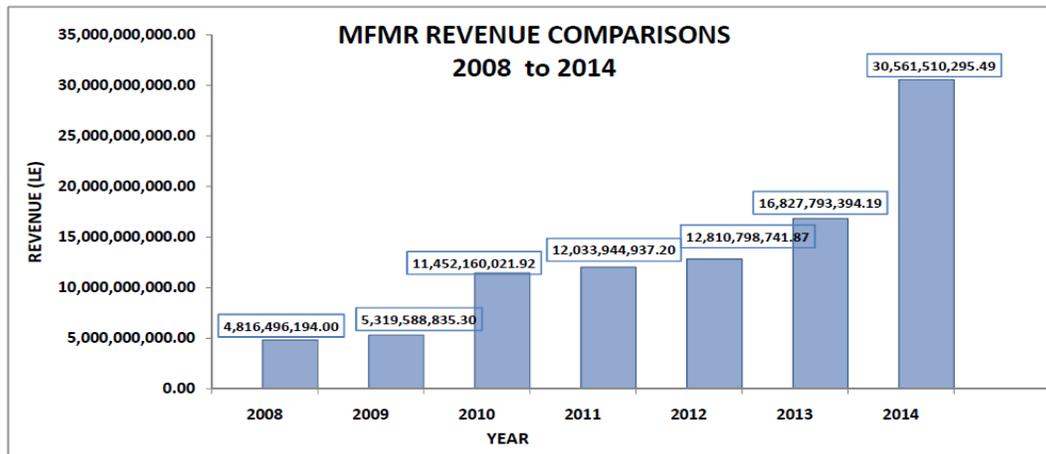
20. **Public revenues.** A financial analysis-type exercise was conducted for MCS operations by the Sierra Leone JMC. According to the analysis, the initial investment was US\$10 million, while the average annual expenditure was US\$288,000. The income generated through MCS activities in Sierra Leone is limited to fines, which paid on average US\$489,000 annually between 2012 and 2014. The analysis revealed that on average the JMC operation generates sufficient incomes (which goes to the National Revenue Authority) to cover the operating expenditure, 100 percent of which was supported by the project.

21. In addition to incomes through fines, Sierra Leone's public revenue base has substantially increased since the beginning of the project (see Figure 3). In 2016, license fees and royalties generated US\$6.57 million in revenue to the Ministry of Fisheries and Marine Resources.

Figure 3. Revenue of the Sierra Leone Ministry of Fisheries and Marine Resources¹¹⁴

¹¹³ Weill, J. and Kobayashi, M. (2016 Draft). *Experience of Community-Led Fisheries Management under the West Africa Regional Fisheries Program in Senegal and Cabo Verde*. Washington, DC: World Bank

¹¹⁴ Source: Sierra Leone Ministry of Fisheries and Marine Resources.



22. **Stock recovery.** According to a number of reports, project-funded anti-IUU fishing efforts were associated with increased yields for coastal communities; for example, large fishing communities such as Tombo reported a 42 percent increase in catch.

23. **Improved processes.** Sierra Leone benefited from activities related to monitoring and surveillance of fishing vessels as well as information generation and management as follows:

- i. **Vessel registration and patrol.** With project funding, the government completed the registration of 100 percent of the canoe fleet (10,700 canoes) and a database, while a satellite-based VMS was installed on industrial vessels and became operational. Due to active patrolling, a high volume of inspections, prosecutions and fines occurred in the first few project years. According to World Bank reports, in the second half of 2011, the JMC conducted ten patrols leading to five offence notifications for a total of US\$383,000 in fines paid to the government. Subsequently, offences and fines decreased for coastal fisheries, and the ratio of infractions to vessels observed fishing dropped by more than half.
- ii. **Information management.** The Marine Scientific Research Institute conducted a desktop scientific marine and fisheries assessment which generated important policy relevant information. The use of information was improved as the MFMR's Statistics Unit was upgraded, software packages were updated and staff members were trained on GIS mapping and other software. Further, operators were recruited to feed data into a national dashboard and received training from the CSRP. A website was developed for the MFMR to be used as a platform for dissemination of fisheries management information. Information on stock health was critical to their effort to better align licensed fishing effort with resource availability, while information sharing helped the efficiency of surveillance activities.

24. **Strengthened capacity.** *At the national level,* surveillance capacity was augmented through: (i) an inter-agency committee (the JMC) with a refurbished building, an MCS strategy and a surveillance system, and hands-on training to JMC staff, and (ii) training to government staff on community surveillance and crime detection and reporting. The capacity of information

generation and management was strengthened through: (i) fish stock assessment training to government staff, and (ii) rehabilitation/construction of five MFMR outstations. Further, three MFMR staff members were trained to MSc level in fisheries and aquaculture, fish processing and quality control, and human resource management. The three staff members were later promoted within the ministry. *At the community/local level*, community surveillance training was provided to CMAs and training and equipment was provided to local councils.

Regional

25. At the regional level, the RCU (housed at the CSRP) contributed to the capacity building of client countries through: (i) a regional vessel registry for fishing vessels, and (ii) a regional dashboard for public disclosure of information on fishing licenses and public revenues, with all four countries beginning to publicly disclose this information, a measure which had considerable impact on countries' transparency standards and data management capacity. The CSRP also provided training to dashboard users and administrators in the four countries. In turn, the capacity of the CSRP was also substantially strengthened through their engagement in the project.

Overall assessment

26. As the compiled evidence shows, each country achieved a wide range of results, and the cumulative effect of these results has generated a foundation for sustainable fisheries. Achieving the long-term outcome of sustainable fisheries requires appropriate sequencing of numerous activities in order to achieve seemingly small however important individual results. Given that the project is the beginning of a long-term process towards sustainable fisheries, full results that can be evaluated in a standard economic (or financial) analysis framework are yet to materialize. However, it is recognized that the magnitude of anticipated long-term benefits is such that it likely far exceeds project costs. Although equivalent estimates specifically for West Africa are not available, research has shown substantial potential benefits from fisheries reforms as those supported by the project. According to the World Bank report "The Sunken Billions Revisited" (2017) such gain would amount to US\$83 billion *annually* at the global level and US\$10 billion *annually* in Africa. The project cost of US\$44.35 million represents only a partial and initial investment toward the long-term goal. Such investments need to continue in order to deepen the reform.

Annex 4. Bank Lending and Implementation Support/Supervision Processes

(a) Task Team members

Names	Title	Unit	Responsibility/ Specialty
Lending			
John Virdin	Sr. Natural Resource Management Specialist	AFTEN	Task Team Leader/Fisheries
Yves Prevost	Lead Environmental Specialist	AFTEN	Environment
John Fraser Stewart	Sr. Environmental Specialist	AFTEN	Environment
Xavier Vincent	Sr. Fisheries Specialist	AFTEN	Fisheries
Carolyn Winter	Sr. Social Development Specialist	AFTCS	Social development
Pape Demba Thiam	Sr. Private Sector Development Specialist	AFTFP	Private sector
Nathalie Munzberg	Sr. Counsel	LEGAF	Legal
Patrice Talla	Counsel	LEGEN	Legal
Wolfgang Chadab	Sr. Finance Officer	LOAFC	Finance
Rajiv Sondhi	Sr. Finance Officer	LOAFC	Finance
Aissatou Diallo	Finance Officer	LOAFC	Finance
Osval Romao	Financial Management Specialist	AFTFM	Financial management
Aissata Zerbo	Procurement Analyst	AFTU2	Procurement
Victoria Gyllerup	Operations Officer	AFTRL	Operations
Cedric Boisrobert	Junior Professional Officer	AFTEN	Fisheries
Marcus Lee	Young Professional	AFTEN	Urban economics
Liba C. Strengerowski-Feldblyum	Operations Analyst	AFTEN	Operations
Virginie Vaselopulos	Language Program Assistant	AFTEN	Program support
Gayatri Kanungo	Global Environment Facility	AFTEN	GEF coordination
Anton Leis Garcia	Consultant	LEGAF	Legal
Gert van Santen	Consultant	ARD	Fisheries
Nicolas Kotschoubey	Consultant	AFTEN	Environment
Supervision/ICR			
Berengere P.C. Prince	Sr. Natural Resources Management Specialist	GEN01	Task Team Leader/ Natural resource management
John Virdin	Fishery Advisor		Task Team Leader/ Fisheries
Jingjie Chu	Sr. Environmental Economist	GEN01	Country-TTL/ Environmental economics
Asberr Natoumbi Mendy	Natural Resources Management	GEN01	Country-TTL/

	Specialist		Natural resource management
Sachiko Kondo	Natural Resources Management Specialist	GEN01	Country-TTL/Natural resource management
Ellen J. Tynan	Consultant	GEN01	Country-TTL/Environment
Radonirina Ioniari lala	Fisheries Specialist		Country-TTL/Fisheries co management
Oliver Braedt	Program Leader	LCC6C	Country-TTL/Operations
Milen Dyoulgerov	Sr. Environmental Specialist	GEN06	ACGF TTL/Environment
Mimako Kobayashi	Sr. Natural Resources Economist	GEN01	Fisheries economics
Nevena Ilieva	Operations Adviser	GEN07	ICR TTL/Operations
George Ledec	Lead Ecologist	GEN01	Environmental safeguards
Beatrix Allah-Mensah	Sr. Operations Officer	AFCW1	Social safeguards
Maxwell Bruku Dapaah	Sr. Financial Management Specialist	GGO25	Financial management
Saidu Dani Goje	Sr. Financial Management Specialist	GGO31	Financial management
Fatou Fall Samba	Sr. Financial Management Training Officer		Financial management
Bella Lelouma Diallo	Sr. Financial Management Specialist	GGO25	Financial management
Sydney Augustus Olorunfe Godwin	Financial Management Specialist	GGO31	Financial management
Joyce Olubukola Agunbiade	Financial Management Specialist		Financial management
Osva Rocha Andrade Romao	Financial Management Specialist		Financial management
Mamata Tiendrebeogo	Lead Procurement Specialist		Procurement
Sidy Diop	Sr. Procurement Specialist	GGO07	Procurement
Aissata Z. Zerbo	Sr. Procurement Specialist	GGO07	Procurement
Winter Chinamale	Sr. Procurement Specialist	GGO01	Procurement
Cheick A.T. Traore	Sr. Procurement Specialist	GGO07	Procurement
Innocent Kamugisha	Procurement Specialist	GGO01	Procurement
Viorel Velea	Sr. Procurement Specialist		Procurement
Mehdi Brito	Procurement Specialist		Procurement

Xavier F. P. Vincent	Sr. Fisheries Specialist	GEN07	Fisheries
Michael Arbuckle	Sr. Fisheries Specialist		Fisheries
John W. Fraser Stewart	Sr. Natural Resources Management Specialist		Environment
Chris Gabelle	Sr. Governance Specialist		Governance
Gloria Malia Mahama	Social Development Specialist	GSU01	Social development
Carolyn Winter	Sr. Social Development Specialist		Social development
Papa Demba Thiam	Sr. Private Sector Specialist		Private sector
Charles Annor-Frempong	Sr. Agricultural Specialist		Agriculture
Rebecca Jane Lent	Fishery Advisor		Fisheries
Jessica Sloan	Communication Specialist		Communication
Carolina Giovannelli	Operations Analyst	GEN01	Operations
Alyson Kleine	Operations Analyst		Operations
Liba C. Strengerowski-Feldblyum	Operations Analyst		Operations
Virginie A. Vaselopoulos	Sr. Program Assistant	GEN07	Program support
Boury Ndiaye	Program Assistant	AFCF1	Project support
Aurore Simbananiye	Program Assistant	GEN01	Program support
Anta Tall Diallo	Program Assistant	AFCF1	Project support
Fatu Karim-Turay	Executive Assistant	AFMSL	Project support
Yeyea Gloria Kehleay Nasser	Team Assistant	AFMLR	Project support
Adama Davida Ginorlei	Team Assistant		Project support
Aissatou Diouf	Program Assistant		Project support
Stephen Akester	Consultant		Fisheries
Joseph Sciortino	Consultant	GEN01	Ports engineering
Patrick D. Sayon	Consultant	GEN01	Fisheries co-management
Benoit Caillart	Consultant	GEN01	Fisheries economics
Cedric Boisrobert	Consultant	GEN07	Fisheries
Jean-Luc Lejeune	Consultant		Monitoring, control and surveillance
Alkassoum Maiga	Consultant	GSU01	Social safeguards
Mountaga Ndiaye	Consultant	GGO01	Procurement
Charles Taylor	Consultant	GGO01	Procurement
Abou Wele	Consultant	GGO25	Financial management
Herbert Francisco Curry Arceo	Consultant	AFRVP	ACGF coordinator
Joaquim Tenreiro de Almeida	Consultant		Fisheries
Ayala Peled Ben Ari	Consultant	GCCMI	ICR Author/ Operations

(b) Staff Time and Cost

Stage of Project Cycle	Staff Time and Cost (Bank Budget Only ¹¹⁵)	
	No. of staff weeks	USD Thousands (including travel and consultant costs)
Lending		
FY08	17.87	138.52
FY09	43.80	359.28
Total:	61.67	497.80
Supervision/ICR		
FY10	23.22	298.65
FY11	33.69	260.39
FY12	19.18	143.17
FY13	12.55	188.74
FY14	33.81	262.23
FY15	59.52	261.48
FY16	34.36	146.80
FY17	14.97	72.86 ¹¹⁶
Total:	231.30	1,634.23

¹¹⁵ Inclusive of BB, BB FAO and BB GEF

¹¹⁶ As of February 6, 2017

Annex 5. Summary of Borrower's ICR and/or Comments on Draft ICR

The World Bank received detailed completion reports from Cabo Verde, Senegal and Sierra Leone, and a completion presentation from Liberia. The full completion reports/presentations are available in the project files. Comments on the draft ICR were received from Cabo Verde, Liberia and Sierra Leone, appreciating the fair analysis of the respective country projects and offering minor corrections.

Annex 6. Comments of Cofinanciers and Other Partners/Stakeholders

The final report from the “Workshop on lessons learned from Phase 1 and strategic directions for Phase 2: Saly, Senegal – 13 and 14 February 2017” is available in WBDocs.

Annex 7. List of Supporting Documents

- Project Appraisal Document, The First Phase of APL-A in Support of the West Africa Regional Fisheries Program (WARFP), September 18, 2009, Report No. 48965 – AFR
- Akester (2008) Concept Note for West Africa Regional Fisheries Program Investments in Liberia. FAO, Rome, Italy
- Akester (2008) Concept Note for West Africa Regional Fisheries Program Investments in Liberia. FAO, Rome, Italy
- World Bank Guidance Note on IBRD/IDA Financing of Fisheries Enforcement Activities.
- Vohiri, A. (2009) *The Existing Legal, Institutional and Policy Context for Fisheries Management in Liberia*. Dakar, Senegal
- N'diaye, M.D. (2009) *Study on monitoring, control and surveillance of fishing- Senegal*. Dakar, Senegal (English and French)
- N'diaye, M.D. (2009) *Study on monitoring, control and surveillance of fishing – Cabo Verde*. Dakar, Senegal (English and French)
- N'diaye, M.D. (2009) *Study on monitoring, control and surveillance of fishing – Sierra Leone*. Dakar, Senegal (English and French)
- N'diaye, M.D. (2009) *Study monitoring control surveillance of fishing – Liberia*. Dakar, Senegal (English and French)
- Sciortino, J. (2009) *Proposed Fisheries Infrastructure Investments in Liberia and Sierra Leone - Liberia*. Dakar, Senegal
- Sciortino, J. (2009) *Proposed Fisheries Infrastructure Investments in Liberia and Sierra Leone – Sierra Leone*. Dakar, Senegal
- MRAG (2009) *Estimation of the Cost of Illegal Fishing in West Africa*. London, United Kingdom
- Macfadyen, G. (2008) *Liberia Diagnostic Trade Integration Study – Fisheries: Integrated Framework for Trade-Related Technical Assistance to the Least Developed Countries*
- FAO (2009) *Bonne Gestion et Gouvernance Durable des Pêches au sein de la CSRP – PRAO Composante 1*. [Summary Report and seven country Annexes], Rome, Italy.
- FAO (2009) *Port State Measures to Control Illegal Fishing*. Rome, Italy
- Sherif, S.A. (2009) *Technical Support to Design MCS System for Liberia*. Dakar, Senegal
- Socio-economic questionnaires for fishing and non-fishing communities
- Methodology Summary of WARFP Economic Model for Liberia, Senegal, Sierra Leone
- CSRP (2002) *Plan d'action stratégique de la CSRP (2002-2010)*. Dakar, Senegal
- Appraisal Stage ISDS, West Africa Regional Fisheries Program, July 10, 2009, Report No. AC4379
- Appraisal Stage PID, West Africa Regional Fisheries Program APL 1 Phase 1, June 12, 2009, Report No. AB4748
- ESMF, *Etude environnementale et sociale du PRAO*, June 2009, Report No. E-2197
- Resettlement Policy Framework, Resettlement Policy Framework for Fish Landing Sites/Basic Infrastructure, West Africa Regional Fisheries Program, July 1, 2009, Report No. RP-0828
- Process Framework, Process Framework, West African Regional Fisheries Program (P106063), Cape Verde, Liberia, Sierra Leone, Senegal, June 22, 2009, Report No. RP-0828 V2

- Abbreviated Resettlement Action Plan for the Robertsport Fish Landing Site Cluster, Report No. RP-0828 V3
- ESIA Briefs for Robertsport and Fanti Town (October 10, 2013), Mesurado (November 4, 2013), Harper Coastal Station (March 25, 2013), and Omega BNF site (January 24, 2014)
- Environmental Impact Assessment for the construction of Santiago vessel repair facility, full report and non-technical summary, February 2014
- IDA Financing Agreements: Credit Number 4665-CV, Grant Number H524-LR, Credit Number 4662-SN, Credit Number 4663-SL
- GEF Financing Agreements: GEF Grant Number TF095537, GEF Grant Number TF095536
- CSRP Subsidiary Agreements: Credit Number 4665-CV, Grant Number H524-LR, Credit Number 4662-SN, Credit Number 4663-SL
- Project Agreement with *Crédit Mutuel du Sénégal*, Credit Number 4662-SN
- ACGF Additional Financing Project Paper for Liberia and Sierra Leone, June 2, 2011, Report No. 61815-AFR
- ACGF Funding Request for Liberia, April 21, 2016
- Restructuring Papers and corresponding legal amendments: December 21, 2012, Report No. 74617; July 24, 2013, Report No. RES10548; December 15, 2014, Report No. RES12139; December 7, 2015, Report No. RES18240; August 8, 2016, Report No. RES23715
- Countries' Operational Manuals and Procurement Plans
- World Bank/CSRP Aide Memoires from Cabo Verde, Liberia, Senegal and Sierra Leone and CSRP mission reports from the countries
- J. Sciortino (Port Engineering Consultant) supervision reports
- ISR 1-12
- Completion reports: Cabo Verde, Senegal and Sierra Leone
- Completion presentation: Liberia
- Semi-annual and annual progress reports from the countries and CSRP
- Cabo Verde CPS for FY09-FY12, Report No. 47750, and CPS for FY15-17, Report No. 92248
- Liberia Joint CAS for FY09-FY11, Report No. 47920, and CPS for FY13-17, Report No. 74618
- Senegal CAS for FY07-FY10, Report No. 36608, and CPS for FY13-17, Report No. 73478
- Sierra Leone Joint CAS for FY10-FY13, Report No. 52297
- Chu, J., Garlock, T.M., and Sayon, P. (2016 Draft) Impact Evaluation of Fisheries Development Projects. Washington, DC: World Bank
- University of Iceland, MRAG (June 30, 2016) International University to Assist the Fisheries Management Office of the Bureau of National Fisheries (BNF), Republic of Liberia, Final Report
- Virdin, J. (2016) The West Africa Regional Fisheries Program: Experiences and Selected Lessons from the First Phase of one of the World's Largest Tropical Fisheries Governance Reform Programs. Washington, DC: World Bank
- Weill, J. and Kobayashi, M. (2016 Draft). *Experience of Community-Led Fisheries Management under the West Africa Regional Fisheries Program in Senegal and Cabo Verde*. Washington, DC: World Bank
- World Bank (2006) *Where is the wealth of nations? Measuring capital for the 21st century*. Washington, DC, World Bank.

- World Bank and FAO (2009) *The Sunken Billions. The Economic Justification for Fisheries Reform*. Washington, DC: World Bank
- World Bank (2017) *The Sunken Billions Revisited: Progress and Challenges in Global Marine Fisheries*. Washington, DC: World Bank. Environment and Sustainable Development series
- Viridin, J. (2016) Recovering West Africa's Sunken Billions for Poverty Reduction: What has the West Africa Regional Fisheries Program achieved to date, and what remains to be completed? Background note to an Implementation Completion Report (ICR) and Project Concept Note (PCN)
- GEF Additional Financing Project Paper, December 16, 2016, Report No. 108384-AFR
- SOP-A2 PID (for Cabo Verde, Senegal, Guinea Bissau, The Gambia and the CSRP), November 1, 2016, Report No: PIDISDSC20199
- WARFP Log Frame prepared by World Bank WARFP team (working document)

Annex 8. WARFP Theory of Change

1. The overall conceptual framework of WARFP operations follows the WARFP Log Frame, or “Theory of Change”. It consists of: (i) a program-level objective, (ii) a set of short-term, medium-term and long-term outcomes, and (iii) a set of “outcomes chain” diagrams that relate types of activities and outputs and the evolution of expected outcomes in the short, medium, and long terms for each of the long-term outcomes. The following provides detail on the Theory of Change and the focus of first phase and second phase projects for the achievement of each of the long-term outcomes:

2. **WARFP Program Objective:** to support countries maintain or increase priority fish stocks and the benefits that they can provide to West Africa, with a focus on benefits for poverty reduction and food security.

3. Long-Term Outcomes:

- Resources of priority fisheries in West Africa restored and maintained
- Net benefits of priority fisheries increased and sustained
- Increased proportion of net benefits retained within West Africa
- Increased household incomes from priority fisheries in West African coastal communities
- Food and nutritional security of consumers in West Africa is improved due to better access to quality seafood

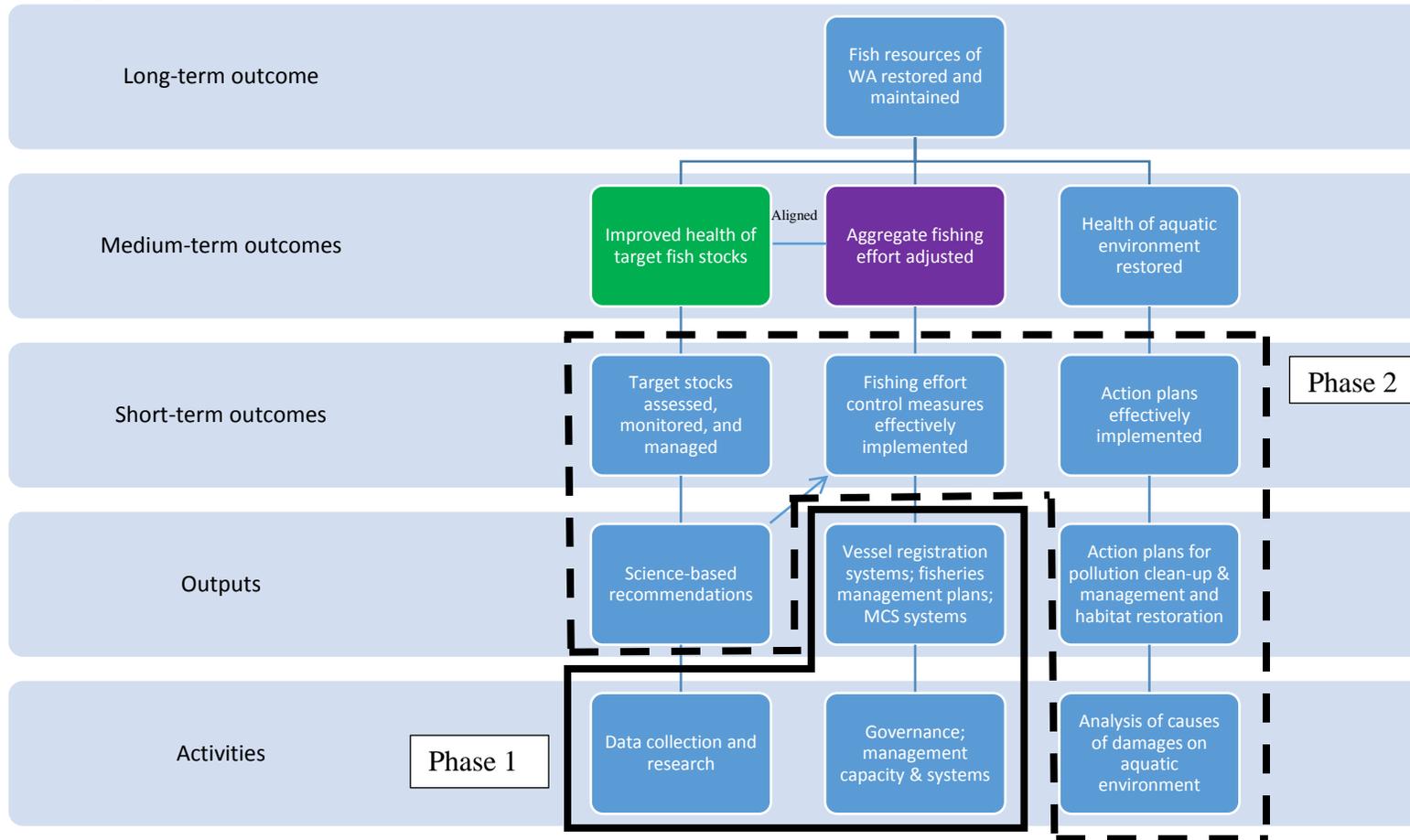
4. Medium-Term Outcomes:

- Current levels of fishing effort for coastal communities prioritized in policy and decision-making processes for priority fisheries, and traditional access secured
- Aggregate fishing effort controlled and adjusted in priority fisheries to sustain or enhance stocks and increase benefits
- Development policy coordinated between fishing and post-harvest segments of the industry
- Post-harvest losses reduced (on board/on shore) and product quality improved
- Net benefits to West African states generated from priority fisheries not declining
- Marine and coastal environment and habitats monitored

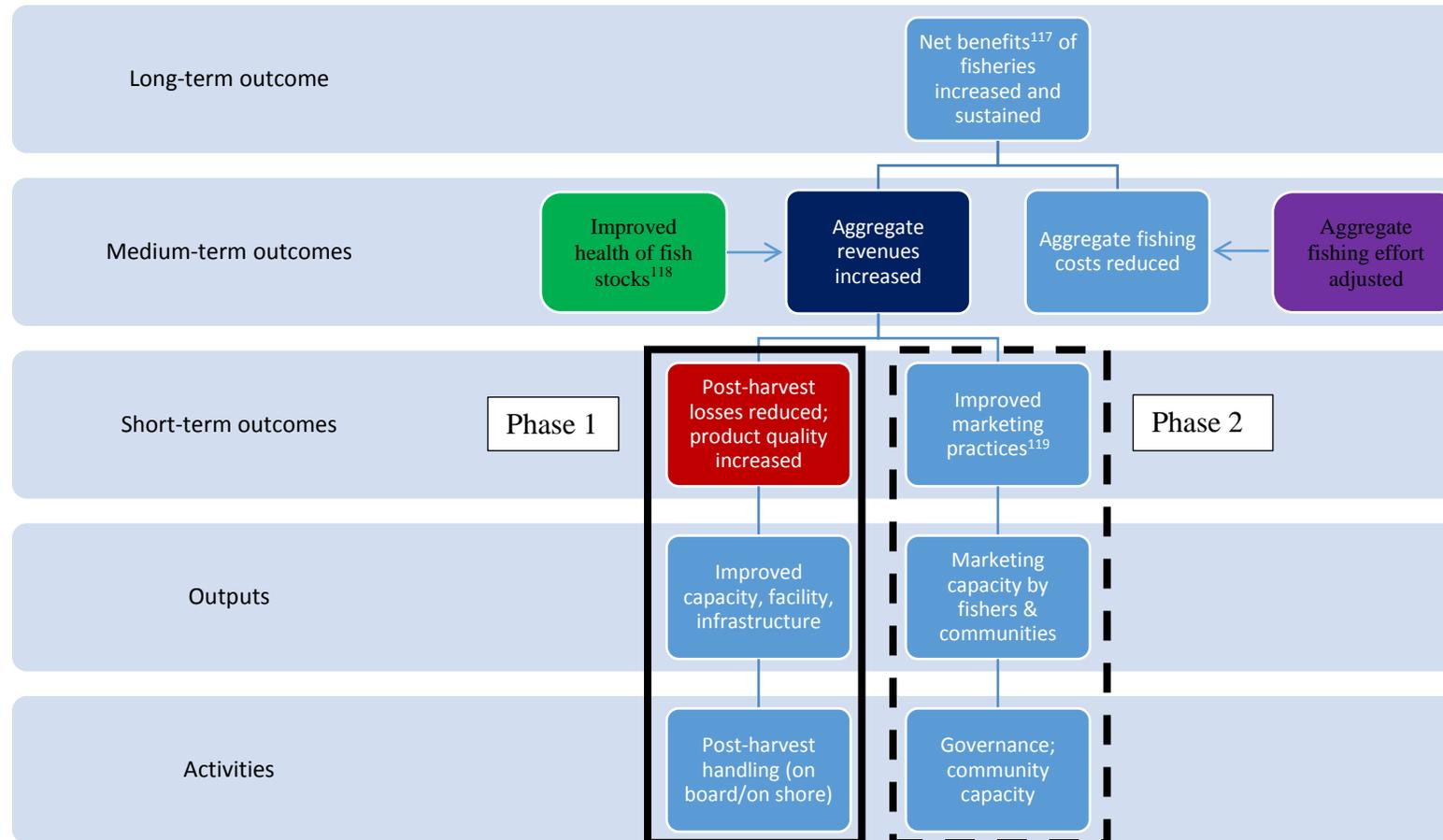
5. Short-Term Outcomes:

- Rules established to reduce or cap aggregate fishing capacity in priority fisheries, based on targets for fish size and stock size
- Small-scale fisher access secured in the rules for priority fisheries
- Illegal fishing reduced in priority fisheries
- Development strategy coordinated for consistency between fishing and post-harvest segments of the industry
- Improved conditions for reducing post-harvest losses and increasing product quality
- Essential habitats/ecosystem constraints identified in priority fisheries

Long-term Outcome 1: Resources of priority fisheries in West Africa restored or maintained (**Focus: overall ecosystem health of fishing grounds**)



Long-term Outcome 2: Net benefits of targeted fisheries increased and sustained (**Focus: the harvesting sector**)

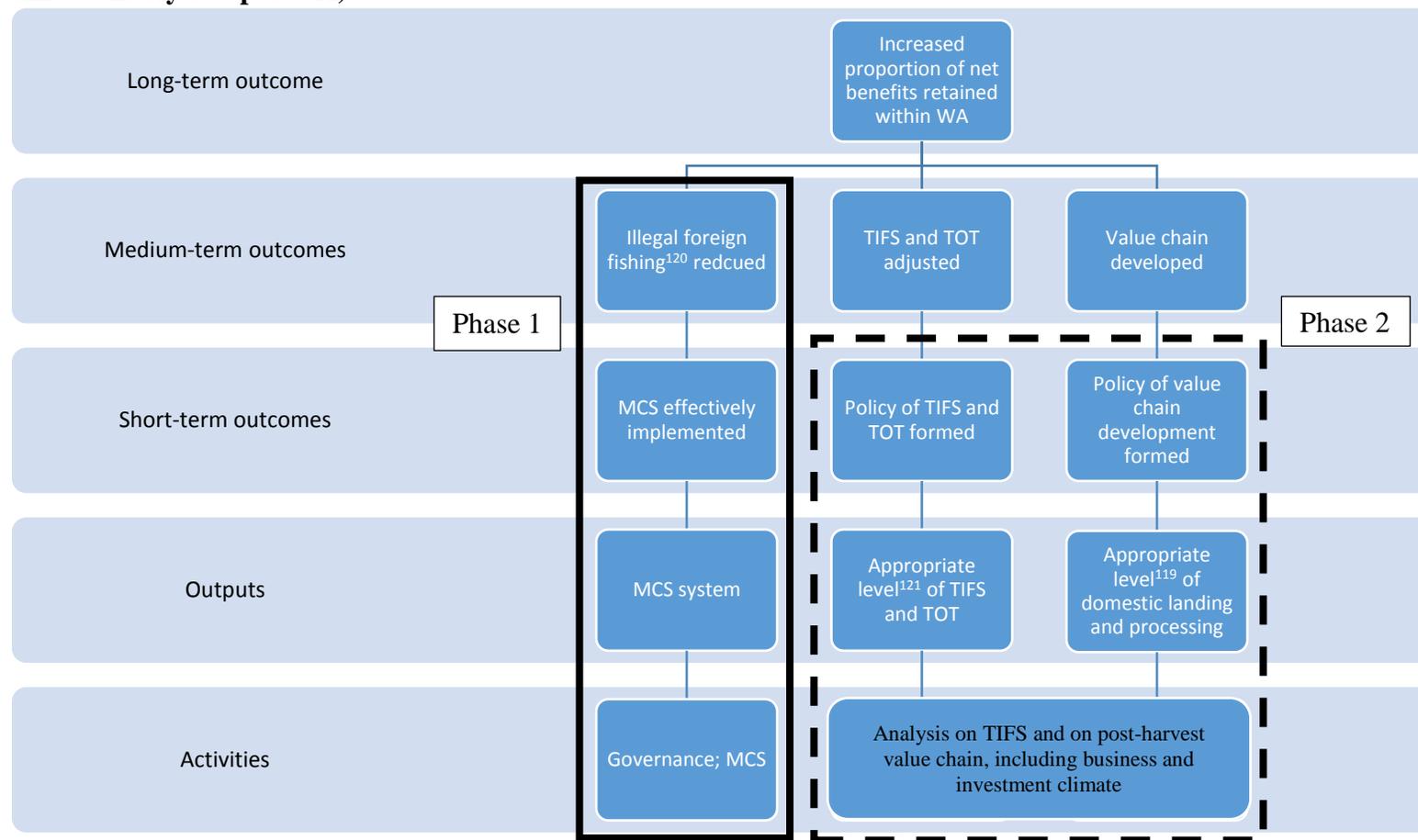


¹¹⁷ Net benefits are defined as aggregate gross revenues minus aggregate costs. See, for example, “The Sunken Billions Revisited” for the discussions of aggregate net benefits of fish resources. This is the overall size of the “pie.”

¹¹⁸ Improved fish stocks allow increased sustainable harvest, improved fishing efficiency, improved species composition in catches, and increased size of individual fish, all of which would contribute to higher revenues, all else equal.

¹¹⁹ Marketing practices may be improved and higher unit price may be achieved through stronger governance (e.g. stronger producer incentives) and stronger community capacity (e.g. collective action).

Long-term Outcome 3: Increased proportion of net benefits retained within West Africa (**Focus: portion of the “pie” that unreasonably escapes WA**)

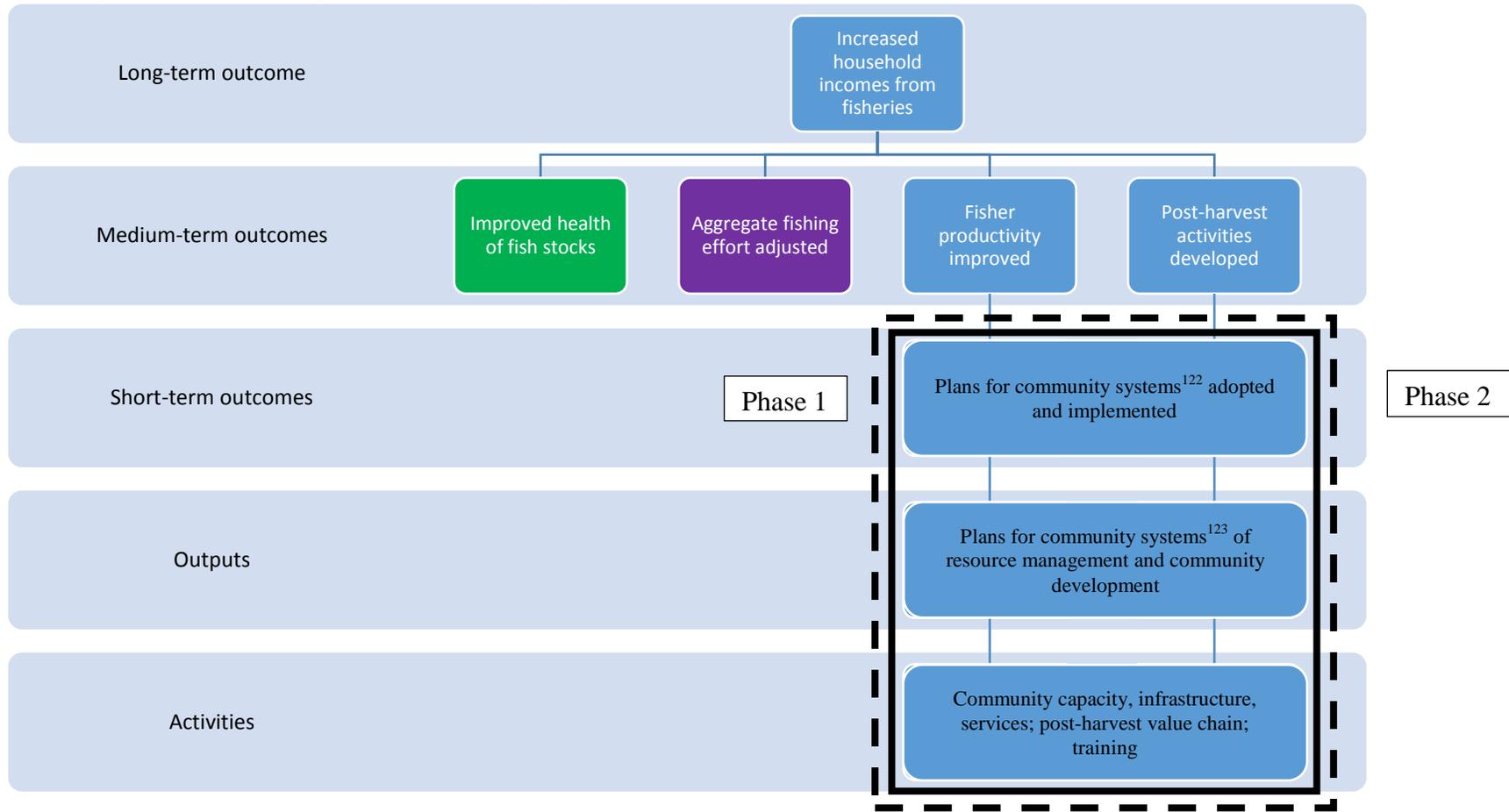


¹²⁰ Illegal fishing by foreign entities *plus* fishing by domestic entities whose catches are illegally exported out of the country.

¹²¹ Appropriate levels should be determined vis-à-vis comparative advantage of the country in fishing, landing or processing.

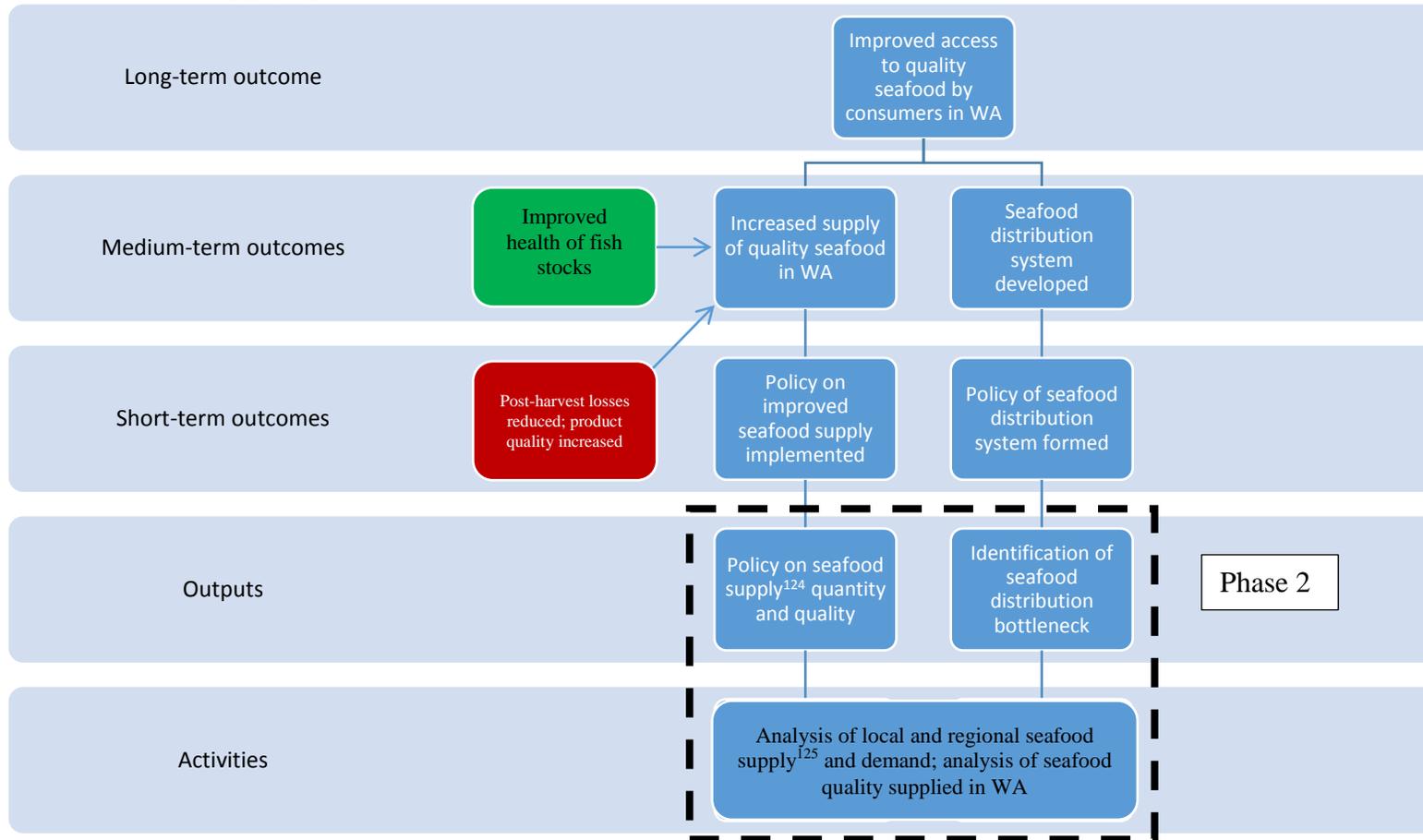
Notes: TIFS: trade in fishing services, including foreign fishing access agreements. TOT: terms of trade

Long-term Outcome 4: Increased household incomes from targeted fisheries in West African coastal communities (**Focus: activities in fishing communities targeted for actors engaged in fish-related work**)



^{122, 123} Community systems of resource management and community development may involve: TURFs, community catch and stock monitoring, participatory MCS system, marketing cooperative/association, development of alternative livelihood opportunities, etc. The design and planning of these community systems should be community driven. These community systems should be inclusive and transparent.

Long-term Outcome 5: Food and nutritional security of consumers in West Africa is improved due to better access to quality seafood
(Focus: seafood supply, quality, and distribution)



^{124, 125} Supply sources can include: local production of capture fisheries and fish farming, seafood imports from sub-region, and seafood imports from outside West Africa.

MAPS

1. WARFP SOP-A1 countries of intervention



