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Report No: PAD1201

INTERNATIONAL DEVELOPMENT ASSOCIATION
PROJECT APPRAISAL DOCUMENT
ON A
PROPOSED GRANT
IN THE AMOUNT OF SDR 5.60 MILLION
(US\$7.75 MILLION EQUIVALENT)
TO THE
ISLAMIC REPUBLIC OF MAURITANIA
FOR A
NOUADHIBOU ECO-SEAFOOD CLUSTER PROJECT

March 03, 2016

*Trade and Competitiveness Global Practice
Environment and Natural Resources Global Practice
Africa Region*

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CURRENCY EQUIVALENTS

(Exchange Rate Effective as of December 31, 2015)

Currency Unit	=	SDR
SDR 0.7216413	=	US\$1
US\$1.385730	=	SDR 1

FISCAL YEAR

January 1 – December 31

ABBREVIATIONS AND ACRONYMS

ADM	Accountability and Decision Making
AECID	Spanish Agency for International Development Cooperation (<i>Agencia Española de Cooperación Internacional para el Desarrollo</i>)
AFD	French Development Agency (<i>Agence Française de Développement</i>)
AfDB	African Development Bank
ANZF	Nouadhibou Free Zone Authority (<i>Autorité de Nouadhibou Zone Franche</i>)
ASECNA	Air Navigation Safety Agency (<i>Agence pour la Sécurité de la Navigation Aérienne</i>)
AU	African Union
CAS	Country Assistance Strategy
CPUE	Catch Per Unit Effort
CQS	Selection Based on Consultants' Qualifications
CRZF	Nouadhibou Free Zone Regulation Center (<i>Centre de Régulation de la Zone Franche de Nouadhibou</i>)
DA	Designated Account
DGD	Directorate General for Development (<i>Direction Générale du Développement</i>)
DGEAI	Directorate General for Research and Infrastructure Development (<i>Direction Générale des Études et de l'Aménagement des Infrastructures</i>)
DGPPI	General Directorate for Investment Projects and Programs (<i>Direction Générale des Projets et Programmes d'Investissements</i>)
DGPSP	Directorate General for Private Sector Promotion (<i>Direction Générale pour la Promotion du Secteur Privé</i>)
DP	Direct Payments
DPC	Directorate of Planning and Cooperation (<i>Direction de la Programmation et de la Coopération</i>)
EEZ	Exclusive Economic Zone
EIB	European Investment Bank
EPBR	<i>Baie du Repos</i> Port Facility (<i>Établissement Portuaire de la Baie du Repos</i>)
ERR	Economic Rate of Return
ESIA	Environmental and Social Impact Assessment

EU	European Union
FBS	Selection under a Fixed Budget
FDI	Foreign Direct Investment
FiTI	Fisheries Transparency Initiative
FM	Financial Management
FNPM	National Fisheries Federation of Mauritania (<i>Fédération Nationale des Pêches de Mauritanie</i>)
FX	Foreign Exchange
GDP	Gross Domestic Product
GEF	Global Environment Facility
GIZ	German Corporation for International Cooperation (<i>Gesellschaft für Internationale Zusammenarbeit</i>)
GNI	Gross National Income
GRS	Grievance Redress Service
IBAR	Inter-African Bureau for Animal Resources
IBRD	International Bank for Reconstruction and Development
IC	Individual Consultant
ICB	International Competitive Bidding
IDA	International Development Association
IDB	Islamic Development Bank
IFR	Interim Financial Report
IGG	Inclusive Green Growth
IMROP	Mauritanian Institute of Oceanographic Research and Fisheries (<i>Institut Mauritanien de Recherches Océanographiques et de Pêches</i>)
IPF	Investment Project Financing
IRR	Internal Rate of Return
IUU	Illegal, Unreported, and Unregulated
JICA	Japan International Cooperation Agency
LCS	Least-Cost Selection
LIB	Limited International Bidding
M&E	Monitoring and Evaluation
MACEMP	Marine and Coastal Environment Management Project
MDG	Millennium Development Goal
MEF	Ministry of Economy and Finance (<i>Ministère de l'Économie et des Finances</i>)
MPEM	Ministry of Fisheries and Maritime Economy (<i>Ministère des Pêches et de l'Économie Maritime</i>)
MRO	Mauritanian Ouguiya
MSME	Micro, Small, and Medium Enterprise
NCB	National Competitive Bidding
NEPAD	New Partnership for Africa's Development
NESC	Nouadhibou Eco-Seafood Cluster
NPV	Net Present Value
ONISPA	National Office of Sanitary Inspections of Fisheries Products (<i>Office National d'Inspection Sanitaire des Produits de la Pêche et de l'Aquaculture</i>)
PAN	Autonomous Port of Nouadhibou (<i>Port Autonome de Nouadhibou</i>)

PCU	Project Coordination Unit
PDO	Project Development Objective
POM	Project Operational Manual
PPA	Project Preparation Advance
PPD	Public-Private Dialogue
PPIAF	Public-Private Infrastructure Advisory Facility
PPP	Public-Private Partnership
PSD	Private Sector Development
QBS	Quality-Based Selection
QCBS	Quality- and Cost-Based Selection
RFP	Request for Proposal
SAM	Mauritania Airports Corporation (<i>Société des Aéroports de Mauritanie</i>)
SBD	Standard Bidding Document
SDR	Special Drawing Rights
SEZ	Special Economic Zone
SOP	Series of Projects
SORT	Systematic Operations Risk-Rating Tool
SPN	Specific Procurement Notice
SSA	Sub-Saharan Africa
TA	Technical Assistance
TAC	Total Allowable Catch
UNDB	United Nations Development Business
UNPM	National Employers' Association of Mauritania (<i>Union Nationale du Patronat Mauritanien</i>)
US	United States
WARFP	West Africa Regional Fisheries Program
WBG	World Bank Group

Regional Vice President:	Makhtar Diop
Country Director:	Louise J. Cord
Senior Global Practice Director:	Anabel Gonzalez, Paula Caballero
Practice Manager:	Jean Michel Marchat, Magda Lovei
Task Team Leader:	Alexandre H. Laure, Mimako Kobayashi, Peter Kristensen

MAURITANIA

Nouadhibou Eco-Seafood Cluster Project (P151058)

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PAD DATA SHEET

Mauritania

Nouadhibou Eco-Seafood Cluster Project (P151058)

PROJECT APPRAISAL DOCUMENT

AFRICA

Report No.: PAD1201

Basic Information			
Project ID P151058	EA Category B - Partial Assessment	Team Leader(s) Alexandre Hugo Laure, Mimako Kobayashi, Peter Kristensen	
Lending Instrument Investment Project Financing	Fragile and/or Capacity Constraints []		
	Financial Intermediaries []		
	Series of Projects [X]		
Project Implementation Start Date 24-Mar-2016	Project Implementation End Date 30-Jun-2020		
Expected Effectiveness Date 01-Jul-2016	Expected Closing Date 01-Nov-2020		
Joint IFC Yes	Joint Level Complementary or Interdependent project requiring active coordination		
Practice Manager/Manager Jean Michel Marchat, Magda Lovei	Senior Global Practice Director Anabel Gonzalez, Paula Caballero	Country Director Louise J. Cord	Regional Vice President Makhtar Diop
Borrower: Ministry of Economy and Finance			
Responsible Agency: Nouadhibou Free Zone Authority			
Contact: Telephone No.:	Sidahmed Bouh 00222-2631-4121	Title: Email:	Director General for Development sc.bouh@ndbfreezone.mr
Responsible Agency: NESC - Project Coordination Unit			
Contact: Telephone No.:	Mohamed Lemine Hamady 0022245745011	Title: Email:	Coordinateur mlhamadi@pazf.mr
Project Financing Data(in USD Million)			
<input type="checkbox"/> Loan	<input checked="" type="checkbox"/> IDA Grant	<input type="checkbox"/> Guarantee	
<input type="checkbox"/> Credit	<input type="checkbox"/> Grant	<input type="checkbox"/> Other	
Total Project Cost:	9.25	Total Bank Financing:	7.75

Financing Gap:	0.00				
Financing Source					
					Amount
BORROWER/RECIPIENT					1.50
IDA Grant					7.75
Total					9.25
Expected Disbursements (in USD Million)					
Fiscal Year	2016	2017	2018	2019	2020
Annual	250000	900000	2200000	3235000	2200000
Cumulative	250,000.00	115,000.00	2,315,000.00	5,550,000.00	7,750,000.00
Institutional Data					
Practice Area (Lead)					
Trade & Competitiveness					
Contributing Practice Areas					
Environment & Natural Resources					
Cross Cutting Topics					
[X] Climate Change					
[] Fragile, Conflict & Violence					
[] Gender					
[] Jobs					
[X] Public Private Partnership					
Sectors / Climate Change					
Sector (Maximum 5 and total % must equal 100)					
Major Sector	Sector	%	Adaptation Co-benefits %	Mitigation Co-benefits %	
Agriculture, fishing, and forestry	General agriculture, fishing and forestry sector	25			
Public Administration, Law, and Justice	Public administration- Industry and trade	15			
Transportation	Ports, waterways and shipping	15			
Industry and trade	Agro-industry, marketing, and trade	30			
Industry and trade	Other domestic and international trade	15			
Total		100			

I certify that there is no Adaptation and Mitigation Climate Change Co-benefits information applicable to this project.

Themes		
Theme (Maximum 5 and total % must equal 100)		
Major theme	Theme	%
Rule of law	Judicial and other dispute resolution mechanisms	5
Financial and private sector development	Infrastructure services for private sector development	35
Financial and private sector development	Micro, Small and Medium Enterprise support	10
Trade and integration	Export development and competitiveness	25
Trade and integration	Trade facilitation and market access	25
Total		100

Proposed Development Objective(s)

The objective of the proposed project is to support the development of a seafood cluster in Nouadhibou that promotes sustainable management of fisheries and generates value for the communities.

Components	
Component Name	Cost (USD Millions)
Developing a sustainable seafood cluster in Nouadhibou	5.97
Increasing the value of seafood products produced and marketed in the seafood cluster with the participation of local actors	3.28

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

Compliance			
Policy			
Does the project depart from the CAS in content or in other significant respects?		Yes []	No [X]
Does the project require any waivers of Bank policies?		Yes []	No [X]
Have these been approved by Bank management?		Yes []	No []
Is approval for any policy waiver sought from the Board?		Yes []	No [X]
Does the project meet the Regional criteria for readiness for implementation?		Yes [X]	No []
Safeguard Policies Triggered by the Project		Yes	No
Environmental Assessment OP/BP 4.01		X	
Natural Habitats OP/BP 4.04			X
Forests OP/BP 4.36			X
Pest Management OP 4.09			X
Physical Cultural Resources OP/BP 4.11		X	
Indigenous Peoples OP/BP 4.10			X
Involuntary Resettlement OP/BP 4.12			X
Safety of Dams OP/BP 4.37			X
Projects on International Waterways OP/BP 7.50			X
Projects in Disputed Areas OP/BP 7.60			X
Legal Covenants			
Name	Recurrent	Due Date	Frequency
Steering Committee		01-Oct-2016	
Description of Covenant			
The Recipient shall, within three (3) months of the Effective Date establish and at all times during Project implementation maintain a steering committee with a mandate, composition, and resources acceptable to the Association for the purpose of providing strategic guidance and oversight of the Project (Steering Committee).			
Name	Recurrent	Due Date	Frequency
Auditor		01-Nov-2016	
Description of Covenant			
The Recipient shall, not later than four (4) months after the Effective Date, recruit and at all times during Project implementation retain an internal auditor for the purposes of carrying out internal audits of the Project.			

Name	Recurrent	Due Date	Frequency	
Counterpart Funds and Project Account		01-Sep-2016		
Description of Covenant				
The Recipient shall, not later than two (2) months after the Effective Date, open a separate treasury account or Bank account (Project Account) and shall maintain the Project Account open for a period of not less than eight (8) months after the implementation of the project, for the exclusive purpose of depositing funds provided by the Recipient for the financing of the Project (“Counterpart Fundi				
Name	Recurrent	Due Date	Frequency	
Counterpart Funds	X		Yearly	
Description of Covenant				
The Recipient shall thereafter, not later than April 1 in each of the remaining three years of Project implementation, deposit the sum of three hundred thousand United States Dollars (US\$300,000) equivalent in the Project Account.				
Conditions				
Source Of Fund	Name	Type		
IDAT	Project Coordination Unit	Effectiveness		
Description of Condition				
The recipient shall have established the PCU with a mandate, staffing, and resources acceptable to the Association in accordance with Section I.A.3 of Schedule 2 to the Grant Agreement.				
Source Of Fund	Name	Type		
IDAT	Project Operational Manual (POM)	Effectiveness		
Description of Condition				
The recipient shall have adopted the POM in form and substance acceptable to the Association in accordance with Section I.B of Schedule 2 to the Grant Agreement.				
Team Composition				
Bank Staff				
Name	Role	Title	Specialization	Unit
Alexandre Hugo Laure	Team Leader (ADM Responsible)	Private Sector Development Specialist	Private sector development	GTC07
Berengere P. C. Prince	Team Member	Sr. Natural Resources Mgmt. Spec.	Fisheries Management	GEN01
Peter Kristensen	Team Leader	Lead Environmental Specialist	Environment and Natural Resources	GEN07
Moustapha Ould El Bechir	Procurement Specialist (ADM Responsible)	Sr. Procurement Specialist	Procurement	GGO07
Fatou Fall Samba	Financial	Financial	Financial	GGO25

	Management Specialist	Management Specialist	management	
Aissatou Diallo	Team Member	Sr. Finance Officer	Disbursement	WFALA
Anne Cecile Sophie Souhaid	Team Member	Consultant	Infrastructure	GTCDR
Chantal Andriamilamina	Team Member	Principal Investment Officer	Private Sector Investment	CMGAF
El Hadramy Oubeid	Team Member	Public Sector Specialist	Public Investment management	GGO25
Emiliano Duch Navarro	Peer Reviewer	Lead Finance and Private Sector Dev Specialist	Seafood Cluster	GTCCS
Etienne Raffi Kechichian	Peer Reviewer	Sr. Private Sector Development Specialist	Green Cluster	GTCCS
Gianluca Mele	Team Member	Sr. Economist	Economist	GMF09
Gilles Marie Veuillot	Team Member	Consultant	Public Private Partnerships (legal)	GWADR
Gilles Philippe Dominique Pascal Cols	Team Member	Consultant	SME Support	GTC01
Ibou Diouf	Team Member	Sr. Transport. Spec.	Transportation Infrastructure	GTI05
Irene Marguerite Nnomo Ayinda-Mah	Team Member	Program Assistant		GTC07
Julien Emmanuel Galant	Team Member	Consultant	Regulation, Public Private Partnerships	GTC07
Laurent Olivier Corthay	Team Member	Sr. Private Sector Development Specialist	Investment Climate	GTC07
Lina Sawaqed	Team Member	Consultant	Investment promotion	GTCDR
Martin Maxwell Norman	Team Member	Sr. Private Sector Development Specialist	Economic Free Zone	GTC07
Matthieu Jean Simon Gilquin	Team Member	Consultant	Strategy	GTC07
Melissa C. Landesz	Safeguards Specialist	Natural Resources Mgmt. Spec.	Environment Safeguards	GEN07
Michel De Marigny	Team Member	Finance Analyst	Disbursement	WFALA
Mimako Kobayashi	Team Leader	Sr. Natural Resources Econ.	Fisheries Economics	GENGE
Olivier Hartmann	Team Member	Sr. Trade	Trade Facilitation	GTCTC

		Facilitation Specialist			
Ramatou Magagi	Team Member	Sr. Investment Officer	Public Private Partnerships	CASPA	
Salamata Bal	Safeguards Specialist	Senior Social Development Specialist	Social Safeguards	GSU01	
Siobhan McInerney-Lankford	Counsel	Sr. Counsel	Legal	LEGAM	
Steve Denis Jean Utterwulge	Team Member	Senior Private Sector Development Specialist	Public Private Dialogue	GTCCS	
Xavier F. P. Vincent	Peer Reviewer	Sr. Fisheries Spec.	Fisheries Management	GEN07	
Extended Team					
Name	Title	Office Phone	Location		
Arnaud Appriou	Fisheries Attaché	+222 45299870	Nouakchott		
Pierre Caruana	Logistics Expert	+212-661076387	Casablanca		
Thomas Moreau	Logistics Expert	+33 667334144	Paris		
Locations					
Country	First Administrative Division	Location	Planned	Actual	Comments
Mauritania	Dakhlet Nouadhibou	Nouadhibou	X	X	
Consultants (Will be disclosed in the Monthly Operational Summary)					
Consultants Required? Consultants will be required					

I. STRATEGIC CONTEXT

A. Country Context

1. **Mauritania is a large, sparsely populated country bridging the Arab Maghreb and the Western sub-Saharan.** It has become a lower-middle-income country, with a per capita Gross National Income (GNI) of US\$1,270, driven by a thriving extractive sector and high international commodity prices. However, the recent decline in mineral export prices and lower international demand has highlighted the contribution of exceptionally favorable external factors to Mauritania's strong growth performance over the last few years. Annual real Gross Domestic Product (GDP) growth is projected to decelerate markedly to 3.2 percent in 2015 from 6.4 percent in 2014. Over the medium term, real GDP growth is expected to return to trend rates observed prior to the commodity price boom (2011–2014), slowing to 4.5 percent in 2016 and 2017.

2. **Growth performance has been highly dependent on the external sector, and in the aftermath of the commodity-price shock, macroeconomic and fiscal stabilization have become more fragile.** The commodity-price boom increased Mauritania's iron ore exports six fold in US dollar terms between the early 2000s and 2011. Growth was largely supported by very strong terms of trade that allowed a significant increase in revenues that, in turn facilitated expenditure and policy management. However, present conditions are characterized by less solid growth and more volatility than in the past. Remarkable fiscal reforms—especially since 2011—have not been sufficient to prevent a rise in the country's risk of debt distress in February 2015 from Moderate to High.

3. **However, a comfortable fiscal position and increased public spending in recent years have not translated into significant progress in social development outcomes.** Total public spending doubled between 2009 and 2014 in nominal terms, or by 57 percent in real terms. Yet, the most recent poverty data (2015) show a modest decrease in absolute poverty between 2008 and 2014, while many other development indicators trail significantly behind. Infant and child mortality remains high, at 122/1,000 versus a national Millennium Development Goal (MDG) target of 45/1,000. Maternal mortality is at 560/100,000 live births as against an MDG target of 232. Access to electricity is only 20 percent compared with the 32 percent Sub-Saharan Africa (SSA) average, and only 50 percent of the population have access to improved water sources versus a 64 percent average for the SSA region. Food security remains an issue, particularly in rural areas. Net primary school enrollment remains low, at 55 percent. As regards ecological sustainability, significant intergenerational equity risks exist with respect to the utilization of the country's natural capital. For instance, the waters of Mauritania's Exclusive Economic Zone (EEZ¹) are rich in wild fish resources, but all cephalopod species are fully exploited, and among them, octopus, a key commercial species, is overexploited. More generally, empirical analysis² shows that if gross national savings are adjusted for the depletion of natural capital, Mauritania's wealth was drawn down by 15 percent a year over the 2008–2010

¹ An EEZ is the area upon which a coastal state assumes jurisdiction over the exploration and exploitation of marine resources in its adjacent section of its territorial waters. Legally speaking, an EEZ extends from 12 nautical miles (nm) from the baseline or seashore (that is, the limit of the territorial waters) up to 200 nm. However, it is generally understood as a band extending 200 nm from the shore.

² Cf. *Mauritania: Counting on Natural Wealth for a Sustainable Future*. World Bank, 2014

period, and this trend of negative adjusted net savings has continued.

4. **Mauritania is a relatively open country compared with countries with similar economy's size and development level.** In 2014, the sum of exports and imports of goods and services was equivalent to 118 percent of the country's GDP. However, Mauritania's export structure remains heavily concentrated in extractive industry outputs, with no significant export of manufactured products. Although other products appeared in the country's export portfolio in the second half of the 2000s, those are essentially crude oil (roughly US\$190 million in 2014), other mineral products (for example, gold and copper), and some re-exports. Mauritania's economy is likely to remain dominated by its extractive industries given the wealth of its mineral and hydrocarbon resources and the small size of its population. However, it will be important to diversify the economy in order to create jobs, especially for the poor, and reduce vulnerability to the inevitable terms of trade shocks linked to extractive industries.

5. **The key constraint on diversification is the poor quality of the business and investment environment.** A limited number of economic players are in control of large businesses involved in trade and commerce as well as in the banking sector and enjoy import monopolies. New independent firms have difficulty competing with these large groups or obtaining credit from banks, while lucrative import monopolies discourage efforts to develop local suppliers. Although the country's rich natural subsoil and fish resources attract investors, even there, these difficulties apply. Beyond these two sectors, it is even more of a challenge to do business in Mauritania, especially for newcomers. In addition, the country's private sector remains underdeveloped due to the lack of critical physical and institutional infrastructure.

6. **Overall, Mauritania's economy is not sufficiently competitive to reap its full growth potential or improve private sector productivity.** While Mauritania is among the top 10 reformers in the Doing Business Report 2016, it still ranked 168th out of 189 economies (versus 176th in the 2015 report), and in the Global Competitiveness Report 2014–2015, it ranked 141st out of 144 countries.

7. **The Special Economic Zone (SEZ) known as the Nouadhibou Free Zone, which was established in Nouadhibou in 2013, represents an opportunity for Mauritania to demonstrate how appropriate policies, institutional arrangements, and physical infrastructure can promote inclusive and sustainable growth.** Mauritania's updated investment code states that the purpose of SEZs is to encourage entrepreneurship and job creation, promote greater business activity in the interior of the country, and facilitate technology transfers, innovation, and competitiveness. Because the Nouadhibou Free Zone is in its formative stages, it provides a unique opportunity to address the poor business and investment climate and other issues observed in other SEZs.

8. **The Nouadhibou Free Zone is suitably situated for the development of a well-functioning seafood cluster because of the rich fish resources in and around Nouadhibou, its proximity to potential export markets for its products, and the benefit of a single administrative entity acting on behalf of the Government.** The Eco-Seafood Cluster is an institutional initiative within the Nouadhibou Free Zone that helps the Nouadhibou Free Zone Authority (*Autorité de Nouadhibou Zone Franche*, ANZF) engage the private sector and civil society in designing and operating an economic cluster that is environmentally, economically,

and socially sustainable. The overall vision of the Eco-Seafood Cluster is to integrate the objective of sustainable management of fish resources in the development of a competitive post-harvest seafood industry. To achieve this goal and to overcome potential sociopolitical difficulties, the cluster must engage with and elicit collaboration from all stakeholders, each with clear rights, roles, and responsibilities. The project is designed to support the process of establishing and operating the sustainable Eco-Seafood Cluster.

9. **Mauritania's EEZ is ranked among the most productive fishing waters in the world.** Nouadhibou is the country's main fisheries center, accounting for 80 percent of the value of all fish caught nationwide. In addition to its natural deep seaport that facilitates landing for fishing boats, the city is ideally located for external trade. The North–South highway corridor from Morocco that passes through the PK55 border post just north of Nouadhibou offers potential for increasing exports of fresh seafood products from Nouadhibou to southern European markets. It also has the potential to grow into an attractive export route for other Mauritanian products to neighboring countries such as Senegal and Mali.

B. Sectoral and Institutional Context

10. **Mauritania is not traditionally a fishing nation, which may help explain the relatively limited pressure on its fish stocks compared to those of neighboring countries such as Senegal.** However, the national fleet is expanding and the country's riches have attracted foreign fishing fleets from near (Senegal) and far (Europe and Asia), putting increasing pressure on stocks. Octopus is the main demersal species commercially exploited in Mauritania, and the catch is currently 17 percent above the biologically sustainable level. While the exploitation of other key commercial fish species (including hake and shrimp) is within this sustainable level, most of the small pelagic stocks shared between different coastal states of the region (Morocco, Mauritania, Senegal, The Gambia, and Guinea-Bissau) are biologically overexploited. The project proposed for Mauritania is within the West Africa Regional Fisheries Program (WARFP), which was approved by the Board in March 2015 and aims to assist Mauritania in improving the governance and management of the fisheries sector with the aim of restoring depressed fish stocks and generating greater value in the fisheries sector, with emphasis on engaging the poor and the most vulnerable members of fishing communities in the process (see Annex 6).

11. **In Mauritania, the fisheries sector has substantial macroeconomic importance.** It accounts for about three to five percent of the country's GDP. In 2011, the estimated value of primary production was US\$179 million in marine artisanal fishing and US\$563 million in marine industrial fishing (or US\$742 million in total). Mauritania's fisheries sector is almost entirely export oriented, with 90 percent of production exported. Fish exports are therefore an important factor for foreign exchange (FX) earnings, having accounted for 20–27 percent of total exports in value (excluding oil) during 2008–2011. The fisheries sector accounts for 25 percent of Government revenues, 40 percent of all foreign currency revenues earned through both export of high-value products (in particular octopus) and foreign access agreements with the European Union (EU) and various countries.³ The sector employs 53,000 people,⁴ of which 60 percent are

³ For example, its 2012, fishing agreements generated estimated annual revenues of €67 million for the Government, much higher than the €13 million expected from the last EU-Senegal agreement.

⁴ 2010 IMROP Working Group. IMROP is the Mauritanian Institute of Oceanographic Research and Fisheries.

related to the artisanal fishing segment and 26 percent are indirectly employed, while approximately 30 percent of all jobs are occupied by women.

12. **Globally, if effective fisheries reforms were to be implemented around the world, annual net revenues from marine fisheries could be improved from the current US\$3 billion to an estimated maximum of US\$86 billion sustainably.** In Africa, comprehensive fisheries reform will increase marine fisheries net revenues from US\$0.2 billion in 2012 to US\$10.6 billion per year sustainably.⁵

13. **The introduction of fisheries reform in Mauritania, promoted through the recently approved West Africa Regional Fisheries Program (WARFP), is designed to help the country realize the potential of its fish resources.** As in many other countries, the fisheries sector in Mauritania is characterized by excessive fishing activity, thereby degrading the biological base of fish stocks over time⁶ and eroding the profit base as a result of excessive fishing costs. The root cause of this excess fishing effort is the weak governance of the fisheries sector, which essentially encourages individual fishers to fish as much and as fast as possible before others do. Thus, the introduction of institutional arrangements that align individual fisher incentives with limiting the aggregate fishing effort to an optimal level is a prerequisite for achieving the potential benefits that this rich natural asset offers the country.

14. **Mauritania's octopus fishery alone could generate US\$300 million in additional annual net revenue sustainably.** According to the bio-economic model used in the economic analysis (see Annex 5), this will require that the aggregate fishing effort be reduced by 54 percent and that stocks recover to their optimal sustainable level.

15. **Revenues from fisheries resources can also be increased by improving post-harvest handling.** While effectively implementing reforms designed to coordinate individual fishing activities and reduce aggregate fishing costs is the utmost priority, the sector could further benefit from investing in activities aiming to address the revenue side. Most importantly, the post-harvest handling of catches can be improved in order to reduce spoilage. Although data are not available specifically for Mauritania, globally, about 30 percent of fish production is spoiled in the value chain due to improper handling. In addition, diversification of seafood products could be pursued. While Nouadhibou's main fish product is frozen, whole octopus exported to Europe and Japan, the export of fresh octopus and fresh filleted fin fish to southern Europe likely will command a higher value if conditions are met, including stability in the supply of raw material, sanitary conditions and other quality-related aspects of the products, and transportation and other infrastructure.

16. **Supporting fisheries and seafood value chains can significantly improve the livelihoods of the actors involved in terms of both revenues and inclusion,** particularly small-scale actors such as fishers, handlers, and traders, who represent the vast majority of Mauritanian

⁵ World Bank Report: *The Sunken Billions Revisited: Progress and Challenges in Global Marine Fisheries* (forthcoming).

⁶ Assessments indicate that the overexploitation of fish stocks in the Mauritanian EEZ rose from nine percent in 1993 to 67 percent in 2011. This depletion of resources is a direct consequence of the enhanced efficiency of both the industrial and the growing artisanal fleets, in the latter of which the number of canoes increased from 4,000 to 7,000 (or over 75 percent) during 2007–2013.

fishing communities. Moreover, in terms of poverty reduction, building the capacity of community stakeholders can directly increase the incomes of those engaged in the post-harvest handling of fish (where women dominate) by reducing product losses and raising productivity. Finally, in terms of shared prosperity, improved operation of the port used by the artisanal and coastal fishing segments (the *Baie du Repos* Port Facility – EPBR) can provide smaller-scale fishers stronger links to supply chains for the export of higher-value products (either fresh, frozen or processed).

17. The development of the post-harvest sector must be pursued in tandem with reforms in the fishing sector. Without an appropriate management regime for coordinating individual fishing activities and regulating the aggregate fishing effort, investments aimed at facilitating the development of the post-harvest sector may lead to further increases in fishing activity and hence to further degradation of the resource. If this occurs, the post-harvest sector will not be able to secure a stable, long-term supply of raw material. Moreover, the governance of the post-harvest sector needs to be adequately strong in order to prevent businesses from exploiting the fishing resources in the short run and then relocating when resources are depleted. That is, the sustainability of the post-harvest sector depends on the sustainability of the fish resources themselves, while the sustainability of the resources depends on a responsible⁷ post-harvest sector.

18. The Eco-Seafood Cluster in the Nouadhibou Free Zone aims to develop a sustainable fisheries value chain by leveraging synergies between the fishing and post-harvest sectors. However, the process of identifying, defining, and describing a cluster is not standardized.⁸ The Project’s seafood cluster consists of a geographic concentration in Nouadhibou (Mauritania) made up of interconnected businesses, suppliers, and associated public and private institutions involved in the fisheries industry. Clusters are also important aspects of strategic management and a focus of the Mauritanian Government whereby a critical mass of resources and competencies can provide a decisive and sustainable competitive advantage over other producers in order to compete nationally and globally. The Nouadhibou Seafood Cluster is defined by its geographic location, its sectoral focus, and its intended vertical integration (for value chain development). Even though fisheries are currently not eligible for preferential tax rates or tax exemptions in the Free Zone, it is expected that enterprises will tend to consider other benefits such as the availability of shared infrastructure and simplified procedures as more important determining factors for participating in the Zone (see Discussion of Lessons Learned, Paragraph 50). The existing WARFP project in Mauritania (see Annex 6 for details) supports the transition from a fisheries management system based on short-term licenses to one based on long-term fishing rights (for example, fishing quotas for the industrial segment in the octopus sector) that help align fisher incentives and prevent biological and economic overfishing (that is, the degradation of the resource and profit bases, respectively). This project, which is also implemented as a part of the WARFP project, supports the onshore development of the seafood cluster, which uses the raw material supplied by the fish-harvesting sector. Therefore, close

⁷ Responsible actors are, for example, those who contribute to the implementation of a fisheries management plan and only use fish from fisheries that are sustainably managed. This includes compliance with the notion of Total Allowable Catch (TAC).

⁸ See Porter, M. E. 1998, Clusters and the new economics of competition, *Harvard Business Review*, Vol. 76, Issue 6, p. 77; Porter, M. E. (1990), *The Competitive Advantage of Nations*. New York: The Free Press; Porter, M. E. (1998), *On Competition*. Boston, MA: Harvard Business School Press, p. 225.

coordination between the two WARFP projects in Mauritania will create synergies in terms of the program objective of supporting countries in maintaining (or increasing) targeted fish stocks and of the benefits these can provide to West Africa, with priority given to poverty reduction and food security. In particular, responsible post-harvest businesses promoted through the Eco-Seafood Cluster may introduce mechanisms for aligning business objectives with the sustainable sourcing of raw material through, for example, contractual arrangements with fishers. Engagement of responsible private sector actors is the only way to scale up the promotion of good fisheries management practices.

19. **The development of a sustainable fishing sector and a competitive post-harvest sector is consistent with the new fisheries policy strategy for 2015–2019 adopted by the Mauritanian Government in February 2015.** The new strategy emphasizes the sustainability of the fishing sector while stressing the Government’s vision of generating greater revenues and creating jobs in the post-harvest sector. However, the strategy does not explicitly recognize the critical interactions between the fishing and post-harvest sectors or point out the potential for leveraging synergies between the two sectors for seafood cluster development. Through the proposed project, together with the broader WARFP, the World Bank Group (WBG) is in a position to effectively and meaningfully inform the Government and support the successful implementation of the strategy in the entire fisheries and seafood value chain.

C. Higher Level Objectives to Which the Project Contributes

20. **A healthy ocean and a sustainable fisheries sector are fundamental to achieving the Bank’s strategic goals of alleviating poverty and promoting shared prosperity in a sustainable manner in coastal client countries such as Mauritania.** To preserve the productivity of this resource for future generations, the Bank’s Board of Directors approved in 2009 an interdependent Series of Projects (SOP) involving multiple borrowers. The overarching development objective of the WARFP is to support countries in maintaining (or increasing) targeted fish stocks and the benefits these can provide to West Africa, with priority given to poverty reduction and food security.⁹ The SOP (A, B, C, ...) will cover up to nine (9) countries and is to be implemented in three phases (1, 2, and 3), with each phase widening the scope of activities and deepening the outcomes pursued according to progress made. In Mauritania, a Series C country (that is, the third series to be implemented, with SOP C designation, see more details on SOP sequencing in Annex 6), the WARFP will pursue two projects (Phases One and Two) concurrently. The Phase One project, SOP C1 undertaken jointly with Guinea, has been effective since June 2015 and cooperates with the Mauritanian Ministry of Fisheries and Maritime Economy in strengthening the management and governance of fisheries. The proposed project is designated as SOP C2.

21. **Alignment with the Bank’s strategic goals.** The proposed project is designed to contribute to the Bank’s corporate goals of ending extreme poverty and promoting shared prosperity in a sustainable manner. It recognizes the importance of fisheries as a key contributor to wealth and job creation for coastal and fishing communities in Mauritania. Promoting a

⁹ This is a new formulation of the program’s objective and is currently under review. The stated overarching development objective of WARFP has been “to sustainably increase the overall wealth generated by the extraction of the marine fisheries resources of West Africa and the proportion of that wealth captured by West African countries.”

sustainable harvest of fish resources, linking small-scale operators to extended value chains, and better harnessing the sector's contribution to national economies will ensure that its socioeconomic benefits are better captured and their distributional outcome is improved. It will also contribute to boosting shared prosperity in Mauritania. The project recognizes that "business as usual" is not an option. Instead, a transition to better resources management and better industrial practices is needed to gradually enhance fisheries' productivity over time and to enable their contribution to growth, shared prosperity, and poverty reduction while at the same time preserving the country's natural capital for future generations.

22. **Alignment with Africa's future and the Bank's support for it.** The Bank's Africa Strategy focuses on support to countries in the areas of: (a) competitiveness and employment, and (b) vulnerability and resilience, with emphasis on governance and public sector capacity. This investment aims to sustainably increase the competitiveness of the Mauritanian seafood sector by strengthening the enabling environment for private investment, developing infrastructure services for private sector development, and facilitating both backward and forward linkages. In terms of the fisheries and oceans agenda, the Bank's approach to sustainable fisheries is clearly aligned with the Policy Framework and Reform Strategy for Fisheries and Aquaculture in Africa of the AU-IBAR/NEPAD of June 2014. In addition, the Bank's Africa Climate Business Plan, presented at COP21 in December 2015, explicitly includes resilient fisheries and coastal livelihoods in climate-smart ocean economies agendas.

23. **Alignment with the Bank's Mauritanian Country Partnership Strategy** (Report No: 75030-MR, discussed at the Bank's Board of Executive Directors on October 01, 2013) **and Green Growth Strategy.** The proposed project falls under the Mauritanian Country Partnership Strategy for FY14–16 Pillar One (Growth and Diversification) as it will specifically address constraints on the competitiveness of the country's economy. Transitioning toward Inclusive Green Growth (IGG) also highlights the fisheries sector as one of the key sectors capable of driving sustainable economic growth in Mauritania.

24. **Relevance to IDA commitments to climate change and gender mainstreaming.** As articulated in the recent Bank report entitled "Shock Waves: Managing the Impacts of Climate Change on Poverty," sound development projects that address poverty also address resilience to the effects of climate change. Rises in sea level, ocean acidification, and changes in ocean temperatures and currents will affect local marine ecosystems and thereby the fish resources and the services provided by the natural coastal environment. Managing and rebuilding the natural capital in the form of biologically resilient fish stocks and a coastal environment that provides a habitat for aquatic life and natural protection to coastal communities will help make coastal communities more resilient to physical shocks caused by climate change. In addition, improving sustainable fisheries will lead to increased household incomes, which will allow these to diversify their asset portfolio and hence improve their ability to cope with shocks caused by climate change. While fishing is conducted mostly by men, women represent a large part of the labor force involved in the processing of landed catches, whether in an artisanal or an industrial setting. The project will therefore focus on securing sustainable fish supplies by local fisheries to ensure employment opportunities for women in post-harvest fish processing and other activities.

25. **Relationship of the project with the United Nations' Sustainable Development Goals.** The project will contribute to the achievement of five of the seventeen (17) Sustainable

Development Goals, namely: (a) *Goal 8: Promoting inclusive and sustainable economic growth, employment, and decent work for all.* In addition to sustaining per capita economic growth, the project will improve global resource efficiency in consumption as well as production and in endeavors to pursue economic growth while minimizing environmental degradation; (b) *Goal 9: Building resilient infrastructure, promote sustainable industrialization, and foster innovation.* The project will help the development (including the construction of a freight-handling facility) of quality, reliable, sustainable, and resilient infrastructure to support economic development; (c) *Goal 10: Reducing inequality within and between countries.* By better integrating disadvantaged groups in seafood value chains (for example, women and small-scale fishers), the project will help ensure equal opportunities and reduce inequalities of outcome by (among other measures) eliminating discriminatory practices. With a first component aiming a catalyzing investment, it will also encourage official development assistance and financial flows, including foreign direct investment (FDI); (d) *Goal 12: Ensuring sustainable consumption and production patterns.* The project will foster the sustainable management and efficient use of natural resources, help reduce seafood losses and improve product quality along supply chains, and support Mauritania in strengthening its scientific and technological capacity as it moves toward more sustainable patterns of consumption and production; and (e) *Goal 14: Conserving and sustainably using the oceans, seas, and marine resources.* The project will indirectly help sustainably manage and protect marine and coastal ecosystems and avoid significant adverse impacts by strengthening their resilience and will act toward the restoration of these systems in order to achieve healthy and productive oceans.

II. PROJECT DEVELOPMENT OBJECTIVES

A. Specific Project Development Objective (PDO)

26. **The objective of the proposed project is to support the development of a seafood cluster in Nouadhibou that promotes the sustainable management of fisheries and generates value for the communities.** As stated in Paragraph 8, the cluster will integrate the objective of the sustainable management of fish resources in the development of a competitive seafood value chain that originates in Nouadhibou in order to ensure explicit consideration of the biological sustainability of fish resources. Specifically, landed fish in Nouadhibou should originate from sustainably managed fisheries such that total catches do not exceed what can be harvested without compromising stock regeneration. To this end, ANZF must collaborate with the fisheries administration to monitor fish landings in Nouadhibou and to assist with the full implementation of fisheries management plans, starting with the Octopus Management Plan that has already been developed and adopted by decree. Sustainability also pertains to post-harvest processing, whereby the choice of processing technology minimizes pollution, in particular that of air and water. The cluster will cover the following segments: harvesting, landing, processing, and wholesale distribution. Target fisheries value chains will be identified through careful examination of the viability of the entire value chain, including the state of fish stocks, their economic viability in the harvesting sector, and investment readiness and market opportunities in the post-harvesting sector. The value the proposed project aims to generate is both monetary and non-monetary. It entails, among other things, an increase in net revenues for the local population and the benefits flowing from an improved socioeconomic status for the poor and the most vulnerable as well as the benefits of a healthy aquatic environment. Achieving the project's objective will enable the fishing and seafood sector to sustainably contribute to a reduction in

extreme poverty and the promotion of shared prosperity in Mauritania, where the sector has substantial potential.

27. **The proposed Project will be implemented under the multi-phase WARFP, specifically as WARFP SOP C2. The overarching development objective of WARFP is to support countries in maintaining (or increasing) targeted fish stocks and the benefits these can provide to West Africa, with priority given to poverty reduction and food security.** The SOP A, B, C, each implemented in two or three phases, aims to achieve this objective. The first phase focuses on: (a) strengthening the governance and management of fisheries, and (b) reducing illegal, unreported, and unregulated (IUU) fishing, while the second phase aims at increasing the net value generated by fish resources and the proportion of that value captured by the country in question (For more on the SOP approach, see Annex 6).

B. Project Beneficiaries

28. **The project will directly benefit those involved with or dependent upon the fishing and seafood industry in Nouadhibou.**¹⁰ These include the following:

- (a) Actors on the ground such as artisanal, coastal, and industrial fishers, processing plant workers, and those who sell fish and fish products. Among these groups, the project will benefit in particular: (i) 17,000¹¹ fishers operating the 2,800-strong fleet¹² based in Nouadhibou, most of whom are artisanal fishers; (ii) 560¹³ fish traders also operating in Nouadhibou; (iii) 2,000 small-scale fish processors based in Mauritania, whose activities remain largely informal; and (iv) 2,500 individuals working in the seafood sector on shore. In particular, women will be major beneficiaries as 30 percent of jobs in the fisheries sector in Mauritania are occupied by women, mainly among processing plant workers and fish products sellers.
- (b) MSMEs that are part of seafood value chains as well as potential MSMEs not yet

¹⁰ Specific stakeholder groups include: (a) fishers in the artisanal, coastal, and industrial sectors; (b) small, medium, and large enterprises and investors (micro, small, and medium enterprises [MSME], FDI, and so on), including informal fish processors and traders; (c) private sector associations such as the National Employers' Association of Mauritania (UNPM) and the National Fisheries Federation Of Mauritania (FNPM), economic interest groups, and fishing communities; (d) public entities such as ANZF's Nouadhibou Free Zone Regulation Center (CRZF), the Ministry of Economy and Finance (MEF), Customs Administration (Ministry of Economy and Finance), the Ministry of Justice, the Ministry of Fisheries and Maritime Economy, and the Ministry of Trade, Industry, and Tourism; (e) ANZF entities such as the Autonomous Port of Nouadhibou (PAN) and its extension zone, and the *Baie du Repos* Port Facility (EPBR) and its extension zone; (f) public companies and institutions relevant to the fisheries sector such as the Mauritanian Corporation for the Commercialization of Fish, the National Office of Sanitary Inspections of Fishery Products (ONISPA), the Mauritanian Coast Guard (surveillance), IMROP, the Naval Academy, and the Investment and Development of the Free Zone of Nouadhibou Corporation (*Société pour l'Investissement et le Développement de la Zone Franche de Nouadhibou*); (g) civil society organizations and persons living in Nouadhibou; and (h) regional bodies such as the Sub-Regional Fisheries Commission (*Commission Sous-Régionale des Pêches*).

¹¹ *Schéma Directeur de Développement des Infrastructures de Pêche de Mauritanie – Horizon 25 ans*, October 2014, MPEM.

¹² Made of industrial and coastal vessels, and pirogues

¹³ *Étude pour la Mise en Place d'un Système de Valorisation des Produits de la Pêche Artisanale dans le Cadre de la Lutte contre la Pauvreté*, June 2015, Ministry of Finance.

established. These include, among others, the 45 processing plants (mainly for frozen octopus) approved for exportation to the EU as well as those engaged in transportation, wholesale and retail, input supplies, and equipment repairs.

- (c) Persons working in the administration of relevant public and private institutions, such as producer associations, ANZF, and relevant ministries.

C. PDO-Level Results Indicators

29. **Project development objective (PDO) level indicators are:** (a) investments generated from responsible investors; (b) increased in the volume of fresh fish export; and (c) number of direct project beneficiaries and proportion of female beneficiaries. Whereas the implications of investments generated from responsible investors complying with the provision of the fisheries management plan for the sustainable management of fisheries are obvious, the volume of fresh fish exports is considered a proxy for value created given that the landing and handling of fresh fish will increase business and job opportunities for local community members, including women. Pragmatic approaches to assessing value generated for the local community beyond that PDO indicator will be explored during project implementation.

III. PROJECT DESCRIPTION

A. Project Components

30. The project will contribute to the Government's competitiveness agenda (fisheries, the Free Zone, and national private sector development strategies and investment frameworks) and will address four binding constraints that inhibit the competitiveness of the seafood industry in Nouadhibou: (a) excess fishing efforts that threaten the sustainability of raw material supplies and the profitability of the fishing industry; (b) insufficient coordination among actors and insufficient product diversification; (c) inadequate fish landing infrastructure as well as lack of private initiative in developing and managing shared facilities (including storage) and handling services; and (d) limited linkage effects with the rest of the economy. Without an appropriate management regime for controlling access to fish resources, investments aimed at facilitating fish landing or processing can lead to further increases in the fishing effort and the overexploitation of fish resources. In response, the project will include two components aimed at achieving the PDO: (a) developing a sustainable seafood cluster in Nouadhibou, and (b) increasing the value of seafood products produced and marketed in the seafood cluster with the participation of local actors in Nouadhibou.

Component 1: Developing a sustainable seafood cluster in Nouadhibou (US\$5.97 million)

31. The first component will build the capacity of ANZF and of stakeholders to plan, design, reorganize, and promote the cluster so that the objective of the sustainable management of fisheries resources is well integrated in the development of competitive seafood value chains that originate in Nouadhibou. Component 1 consists of two subcomponents that together will raise industry norms and catalyze responsible investments. The first subcomponent will foster a public-private dialogue (PPD) intended to help design and implement a sustainable seafood cluster strategy, while the second will promote investment opportunities in a way that will attract

responsible investors.

32. The following approach will ensure the transparency of the activities included in this component. The process and outcomes of the PPD, in particular the comprehensive strategy for the cluster, will be made publicly available, while outreach activities designed to attract responsible private participants in the cluster will also be conducted in a transparent manner by publicly disclosing the information used for solicitation and ensuring that no groups are discriminated against with regard to access to information. Note that transparency with regard to the publication of selected fisheries management data and the mode of fishing rights allocation will be monitored as part of the results framework of the SOP C1 project. Further, the SOP C1 project will also include an activity consisting of integrating the octopus industry within the framework of international transparency initiatives (for example, the Extractive Industries Transparency Initiative [EITI] and the Fisheries Transparency Initiative [FiTI]). The Bank will continue to support such activities with the aim of putting into practice the concept of transparency.

Subcomponent 1.1: Promoting PPD in order to develop a vision for a sustainable seafood cluster in Nouadhibou and accelerate nationwide reforms of structures impeding its development (US\$2.59 million)

33. In 2014, the Nouadhibou Free Zone approved a master plan and an investment plan, and its legal framework provides for the creation of development zones, with the Eco-Seafood Cluster selected as the first such development zone. At the same time, the Ministry of Fisheries and Maritime Economy completed a sector strategy and a multi-donor investment framework in 2015. It is expected that the fisheries management plans will be implemented, starting with the plan affecting octopus (cephalopod), which has already been adopted by decree. However, it is not yet clearly understood by stakeholders how coordination between implementation of the fisheries management plans and the activities of the Nouadhibou seafood cluster can catalyze synergies in order to maximize the benefits of the sector for the economy. Thus this subcomponent will strengthen the capacity of Nouadhibou Free Zone stakeholders to understand the intricate linkages inherent in the actions of the various participants and design the physical and institutional functions of the cluster accordingly. It will finance consultants' services and the training of stakeholders with a view to: (a) developing a holistic vision of the cluster that encompasses and clarifies certain key concepts (for example, sustainability of fish resources, rights and responsibilities of participants, inclusiveness, transparency, and competitiveness); (b) designing a robust cluster strategy (identification of target value chains, planning process, and master and investment plans); and (c) developing an adequate framework (both legal and institutional as well as fisheries management coordination schemes) and required operational tools (land geographic information systems and Monitoring & Evaluation – M&E) for the formal establishment of the Nouadhibou Eco-Seafood Cluster (NESC).

34. Meanwhile, this subcomponent will address the two nationwide thematic areas critical to the cluster's development: (a) the investment climate, and (b) public-private partnerships (PPP). While Mauritania's investment climate is poor, this is an unprecedented opportunity to build on the ongoing strong reform momentum, to which project preparation has contributed. Mauritania is among the top 10 reformers in the Doing Business Report 2016. Second, Mauritania has neither a legal and regulatory framework for PPPs nor an institutional mechanism for identifying,

structuring, and executing PPP transactions. Thus, this subcomponent will also develop the capacities of stakeholders' (both public and private) to formulate, prioritize, and foster indicator-based reforms in the fisheries sector at both local and national levels (including the investment climate and PPPs) in order to lower barriers to investment through: (a) technical assistance (TA) to ANZF and MEF with a view to establishing a strong track record of competitive industries efforts and follow-up on recommendations; (b) supporting expenditures that contribute to well-developed and functioning PPD processes; and (c) carrying out a program of activities (consultant services, goods, and non-consulting services) focusing on the establishment of a PPP framework and a reduction in investment restrictions and procedures.

Subcomponent 1.2: Generating responsible investments in the Nouadhibou Seafood Cluster (US\$3.38 million)

35. So far, the Nouadhibou Free Zone has identified flagship projects such as the seafood cluster, the deep seaport, and the new international airport. The seafood industry is already vibrant and warrants further support in light of the sector's paradigm shift toward sustainable fisheries that saw the implementation of the fisheries management plans and the introduction of total allowable catch (TAC) for some species. For truly effective management of fisheries resources and a successful seafood cluster, a comprehensive perspective on the entire seafood value chain needs to be incorporated into cluster design and implementation, which in turn calls for the participation of responsible private actors through PPPs. Thus the subcomponent will carry out a program of activities aimed at building the implementation capacity of Nouadhibou Free Zone stakeholders in the development of the NESF and identifying and attracting responsible investors for the flagships projects through: (a) a commercial viability assessment designed to enable the mobilization of private sector and institutional investor capital; (b) targeted investment promotion activities and media coverage of investment attraction, facilitation, and after-care such as promotional materials, communications campaigns, targeted missions, the NESF's website, and an Investor Tracking System; and (c) skills training and TA (environmental, legal, financial, and fiduciary) required to generate, negotiate, facilitate, monitor, and retain responsible investments.

Component 2: Increasing the value of seafood products produced and marketed in the seafood cluster with the participation of local actors (US\$3.28 million)

36. The second component aims at increasing the value of seafood products produced and marketed in the seafood cluster and increasing the participation of the local population in the cluster's activities. This will involve, among other things, improving supply chain logistics and infrastructure and investing in private sector capacity with a view to improving the handling of landed fish and reducing post-harvest losses and discards thanks to ports, onshore facilities, and services managed efficiently by the private sector. Activities implemented under this component are expected to result in an increase in investment (in particular in trade logistics), productivity growth, and a rise in exports in the fresh fish segment. Component 2 has two subcomponents that together will catalyze investments and grow the export volume and value of target seafood products. The first subcomponent aims at improving fish landing and export capacity as well as facilitating trade, while the second will better integrate small-scale local suppliers and vulnerable groups into target seafood value chains.

37. The fish landing and export infrastructure, whose operational efficiency is to be improved by project activities under this component, will serve all responsible participants in the cluster who wish to use them without anyone being excluded from accessing the facilities. Transparency of transactions at these facilities will also be ensured, following the good practices of recording and disclosing information as recommended by international transparency initiatives. While all of the activities under this project will be implemented in an inclusive and transparent manner by ensuring that the process of PPD and preparation for PPPs include all relevant stakeholder groups, activities under this component will most directly benefit the poor and the most vulnerable. For example, the improved operation of the port used by the artisanal and coastal fishing segments (EPBR) will provide small-scale fishers with stronger links to the value chain. TA for capacity building under the second subcomponent has the potential to directly increase the incomes of those engaged in the post-harvest handling of fish (where women dominate) by reducing product losses and raising productivity. Note that a legal covenant included in the SOP C1 project ensures equitable allocation of fishing rights for octopus, thus ensuring that none of the existing fishers is excluded in the process of initial rights allocation.

Subcomponent 2.1: Improving the handling of landed catch and promoting the export of fresh fish at the Nouadhibou Seafood Cluster (US\$2.16 million)

38. Even though much of Mauritanian fish is harvested by foreign fleets, often from Asia and Europe, and is contractually required to land in Mauritania, only a limited amount is landed domestically. In Nouadhibou, the main fish landing site in the country, this situation is partly due to a lack of adequate equipment and human capital at the existing landing infrastructures. Only 10 percent of the catch of the national industrial fleet is off-loaded for processing in Mauritania. Moreover, even though Mauritania is situated in relative proximity to the major seafood-consuming markets of Europe, the country does not currently exploit this advantage. While Nouadhibou's main fish product is frozen whole octopus for export to Europe and Japan, fresh octopus can command much higher prices. Export of fresh filleted fin fish to southern Europe can also achieve high value if conditions are met, including stability of raw material supplies, sanitary conditions and other aspects of product quality, and transportation and other infrastructures. To the extent that it is appropriate with respect to the country's comparative advantage in landing and processing fish catches, which is to be determined in the analysis intended to identify target fisheries value chains in Subcomponent 1.1, investing with a view to improving the operational efficiency of existing fish landing sites can increase the volume of landings in Mauritania, while investing with a view to improving the conditions under which to allow a higher proportion of the fish landed in Nouadhibou to be exported fresh rather than frozen, including efforts at trade facilitation, can substantially increase the value of landed catch. Thus, this subcomponent aims at improving the organization and management of three key infrastructures: the commercial port (PAN), the artisanal and coastal fishing port (EPBR), each with its extension zone, and the Nouadhibou International Airport. The subcomponent also aims at improving the handling of landed fish and reducing post-harvest losses thanks to ports, onshore facilities, and services managed efficiently by the private sector. The project will finance: (a) consultants' services for improving the operational efficiency of the PAN and EPBR landing sites and operationalizing their extensions; (b) works for a refrigerated warehouse at the Nouadhibou International Airport; and (c) providing TA for modernizing trade services and regulations and increasing fresh fish exports through ground transportation.

Subcomponent 2.2: Building local suppliers' and vulnerable groups' capacities to capture greater benefits from productive and inclusive seafood value chains (US\$1.12 million)

39. Negotiations over the EU fishing agreement have included conditions likely to increase the employment of Mauritians on European fishing vessels and greater off-loading of the catch for processing in Mauritania. The latter will create processing jobs and thus benefit women in particular. In addition, while priority is given in the Government strategy to refocusing fisheries development on coastal and industrial fishing segments, the artisanal, coastal, and industrial segments of fisheries will coexist in the NES. It is particularly important therefore that all fishing segments understand and become active participants in the new paradigm for fisheries management, which is to be principally brought about through the implementation of the fisheries management plans. Thus, the proposed project will strengthen the capacity of stakeholders, including small-scale fishers and vulnerable groups (such as women, the less educated, and marginalized populations) to promote the acceptance of and participation in successful implementation of the fisheries management plans as well as the capacity for improving post-harvest fish handling in Nouadhibou. This subcomponent aims at maximizing linkages between the cluster and local populations by better integrating local small-scale suppliers and disadvantaged groups in value chains with potentially high impacts on their livelihoods. A private sector support program will be housed at the FNPM in order to help develop sustainable fisheries in Nouadhibou in partnership with the Naval Academy, IMROP, and ONISPA.

40. Based on a value chains scan and prioritization exercise, the program's non-financial support will be articulated around three main pillars, with the first two focusing primarily on training and promoting champions in the sector while the third will exclusively address the participation in the cluster of small-scale fishers and vulnerable groups. The proposed project will finance a program of activities, which will include training for all relevant seafood cluster stakeholders, as follows:

- (a) Management and investment training to support the transition of private enterprises to the new fisheries management regime under the Octopus Management Plan and rationalize their harvesting efforts and processing capacity;¹⁴
- (b) TA designed to help industries and institutions comply with internal product quality control procedures and acquire and retain important certifications on food safety and quality management, environmental management systems, conformity assessment, testing and calibration laboratories, and quality management systems and eco-certification;
- (c) By focusing on the artisanal fishing segment and small-scale handling and processing of their catches (often carried out by women), the project will provide local actors with capacity-building training aiming at: (i) reducing post-harvest losses, and (ii) promoting good fishing and management practices.

¹⁴ This is part of the Octopus Management Plan (*Plan d'Aménagement du Poulpe*) and will support the industry in developing a strategy for businesses specialized in the catching of cephalopod, which suffer from weak capabilities. The project aims to restructure the cephalopod treatment process on land and will include the diversification of refrigeration units toward other resources.

B. Project Cost and Financing

41. **Secured Bank and client financing.** The proposed project is designed as an Investment Project Financing (IPF) operation to be implemented over 4 years. The total cost of US\$9.25 million will be financed through two different sources: (a) an Investment Project Financing (IPF) in the form of an IDA grant amounting to US\$7.75 million equivalent; and (b) counterpart funding by the Mauritanian Government amounting to US\$1.50 million for specific activities not financed by the IDA grant.

Table 1. Financing Summary by Component and Source (US\$, millions)

	Project Cost	IDA Financing	Government
Component 1: Developing a sustainable seafood cluster in Nouadhibou	5.97	4.66	1.32
Subcomponent 1.1	2.59	2.39	0.20
Subcomponent 1.2	3.38	2.27	1.12
Component 2: Increasing the value of seafood products produced and marketed in the seafood cluster with the participation of local actors	3.28	3.09	0.18
Subcomponent 2.1	2.16	2.03	0.13
Subcomponent 2.2	1.12	1.07	0.06
<i>Not allocated</i>	9.5%	4.9%	33.3%
Total	9.25	7.75	1.50

42. **Additional secured parallel financing.** Other secured financing is WARFP SOP C1 with an IDA grant, a Global Environment Facility (GEF) grant, and Government co-financing amounting to US\$20.05 million over five years (2015–2020) for Mauritania.

43. **Complementary financing the project builds upon or will benefit from.** On the one hand, Subcomponent 2.1 will build on ongoing investments from the Spanish Agency for International Development Cooperation (AECID), with €18 million for the PAN landing extension, and the Japan International Cooperation Agency (JICA), with US\$11 million for the EPBR extension. In addition, parallel funding for WARFP SOP C1 will include the *Kreditanstalt für Wiederaufbau* (German Development Bank), with US\$10 million for maritime surveillance, and the German Corporation for International Cooperation (GIZ), with US\$2 million toward data transparency and climate change resilience at and around the Nouakchott fish market. Finally, secured parallel financing will include the Islamic Corporation for the Development of the Private Sector, which is currently conducting a feasibility study for a 70,000-ton cold storage facility investment (co-financed by the Turkish Cooperation and Coordination Agency) and the French Development Agency (AFD), with expected TA with information systems management at PAN.

44. **Other potential parallel financing.** Other potential sources of financing are currently being explored, including the European Investment Bank (EIB), with commercially viable infrastructure investments in fisheries, the EU, with a sectoral support program to resume in January 2016 and with a focus on sectoral governance and institutional support to the Ministry of Fisheries and Maritime Economy, IMROP, the Naval Academy, ONISPA, the International Finance Corporation, with a climate-efficient industry pilot scheme for potential investments in

private companies (with emphasis on cold storage and ice manufacturing), and the African Development Bank (AfDB), with support to institutional capacity building for PPPs, while further support is expected from JICA for EPBR extension zone development.

45. **Ongoing Bank-executed, trust-funded activities.** Four multi- and single-donor trust funds will provide implementation support to MEF and NESC public and private stakeholders. This funding is expected to continue providing TA until at least the end of 2017.

- (a) *Nouadhibou Competitive Industries and Innovation Program*, financed by the EU (US\$420,000) in 2015, 2016, and 2017, will provide technical and implementation support to the delivery of the NESC concept, organization, and financing options;
- (b) *Public-Private Infrastructure Advisory Facility* (PPIAF), in 2016 and 2017, will provide legal and institutional support (for example, through the establishment of a PPP unit), conduct training workshops with public and private actors, and contribute to PPP pipeline generation by the Government;
- (c) *Green Nouadhibou Cluster*, (US\$1,100,000), financed by the government of South Korea (Korean Green Growth Partnership), will assist the Mauritanian Government in developing an eco-seafood cluster and free zone that promote resource-efficient green practices through a set of regulatory and technical measures;
- (d) *Mauritania Investment Climate Program*. This new activity, which is schedule to start in 2016, will complement the investment climate activities included under the current project and will expand its focus to a broader nationwide investment climate agenda that will build on the strong reform momentum in Mauritania (ranked among the top 10 in the Doing Business Report 2016).

C. Project Series: Objectives and Phases

46. **The NESC project (designated as WARFP SOP C2) is implemented as part of WARFP, a multi-country, multi-phase overlapping SOP, formerly known as Adaptable Program Loans.** The program encompasses eight (8) countries, and projects in all countries share the same overall program objectives. The first-phase project in Mauritania (SOP C1: see Annex 6), effective June 2015, focuses on strengthening fisheries governance and management, while SOP C2 will focus mainly on enabling conditions for enhancing revenues in the seafood value chain through private sector-led growth. While WARFP SOP C1 operates jointly with the Mauritanian Ministry of Fisheries and Maritime Economy, SOP C2 is implemented by the Nouadhibou Free Zone Authority.

47. **The rationale behind this approach is that Mauritania is endowed with valuable and shared natural resources in the form of marine fish stocks.** However, the economic and social returns currently generated from the resources are far lower than their potential due in large part to overexploitation and depletion of the resource by both legal and illegal operators. Moreover, while Mauritania captures a substantial amount of fisheries resource rents through foreign fishing agreements, the rents are not directly conducive to the development of the local economy in part because much of the fish caught in Mauritania's water is landed at foreign ports, which is where further value is added and jobs are created. In other words, Mauritania's fisheries today are characterized by: (a) low capacity for sustainably managing marine fish resources and preventing

their overexploitation; and (b) foreign and offshore legal harvesting of resources that yields only a fraction of their value to local economies. Overcoming these challenges presents a significant opportunity for Mauritania to sustainably increase the wealth it harvests from one of its largest sources of natural capital and provides the rationale for the project’s objective and design and its direct complementarity with WARFP SOP C1.

48. **WARFP SOP C1 and C2 will use a sequenced approach starting with TA for fisheries governance and support for the seafood value chain through targeted investment in commercial infrastructure (the Nouakchott fish market and the refrigerated warehouse for fresh fish exports in Nouadhibou).** It will continue with various studies identifying commercially viable and socially and environmentally sustainable opportunities. The approach will be reinforced by discrete sustainable investments in the fishing and seafood industry with private developers and anchor investors. During the subsequent phase (WARFP SOP C3), if deemed feasible, the Mauritanian Government (an IDA-only country) may request support through an IBRD loan (or guarantee). The feasibility of IBRD enclave support will depend on the prospect of commercial viability and profitability of an investment project to be identified under WARFP SOP C2, such as the deep seaport, the new airport, concessions of port extensions, and the private management of the seafood cluster zone, including the availability of reliable foreign currency revenue sources, which can act as security for the IBRD loan. Private sector participation in infrastructure development will be eased by the adoption of a PPP code under WARFP SOP C2. Moreover, IDA may consider offering partial risk guarantees for private sector investment projects but only if the Bank receives a Government request for a guarantee and if such a guarantee is assessed to help the Government in attracting private financing (equity and debt).

Table 2. WARFP Project Phases by Series

	Phase 1 Fisheries governance reform	Phase 2 Value addition and regional coordination	Phase 3 Private-sector-led sustainable growth
Series A: Cabo Verde, Senegal, and Sierra Leone	SOP A1: 2010–15 US\$67 million	SOP A2	SOP A3
Series B: Guinea-Bissau	SOP B1: 2011–16 US\$10 million	SOP B2	SOP B3
Series 3: Ghana	IPF: 2012–17 US\$43.8 million	Ghana Phase 2	Ghana Phase 3
Series C: Mauritania and Guinea	SOP C1: 2015–20 US\$30.05 million	SOP C2: 2016–20 US\$9.25 million	SOP C3
Series D: Ivory Coast and Gambia	SOP D1: 2016–20	SOP D2	SOP D3

D. Lessons Learned and Reflected in Project Design

49. **The project draws on lessons learned from several national and regional projects.**¹⁵

¹⁵ These include previous projects under WARFP in Cabo Verde, Guinea-Bissau, Ghana, Liberia, Senegal, and Sierra Leone, including the Senegal Sustainable Development of Fish Resources Project, the Senegal Integrated Coastal and Marine Resources Project, the Southwest Indian Ocean Fisheries Project, Tanzania’s MACEMP and

These lessons include the following:

50. **Zone development.** One of the main lessons learned from decades of SEZ development is that these zones cannot and should not be viewed as a substitute for a country's larger trade and investment reforms efforts. In that respect, while focusing on Nouadhibou itself, the project prioritizes key economy-wide reforms aiming to improve the investment climate and create a conducive environment for attracting private capital through PPPs. Moreover, the North-South corridor that passes by Nouadhibou at the PK55 border post should be seen as an opportunity not only for the country but also for the region (i.e., Mali, Senegal, etc.). Another important lesson is to allow SEZ enterprises as well as those licensed under other regimes to coexist within the same area. Thus it was recommended that the Nouadhibou Free Zone improve the management of various regimes instead of unifying them under the Free Zone regime. In fact, it is known that enterprises tend to consider other benefits such as availability of shared infrastructure and simplified procedures as more important determining factors for participating in zones than preferential tax rates or tax exemptions. One of the key features of the Project is that it focuses on administrative streamlining and infrastructure logistics efficiency rather than on tax exemptions. In fact, fisheries is one of the sectors currently not eligible for the Free Zone regime. Further, experience shows that promoting the private rather than the public development of such zones will lead to higher chances of success. This is why one project priority is to support the Free Zone Authority in finding one or more suitable private developers and operators of the seafood cluster (or part of it). Finally, where possible, it is important to develop an appropriate legal, regulatory, and institutional framework to ensure adequate regulation and facilitation, which in turn requires improved administrative facilities within host governments. These aspects have been included in project design: (i) one of the outcomes of the seafood strategy is to fine-tune the appropriate framework for the seafood cluster and its actors; and (ii) existing and new administrative facilities will be strengthened, including one-stop-shops for business registration in Nouakchott and Nouadhibou, access to electrical power, and exports (trade facilitation).

51. **Managing access to fish resources.** As economic theory and experience around the globe suggest, under an open-access fishery regime, fishers continue to enter the industry until profits from fishing or resource rents are completely dissipated. Pressure on the fisheries as a social safety net is strong, especially in poor coastal areas where there are few other job opportunities. For the fisheries to become an instrument of economic growth and poverty alleviation, it is of critical importance that an effective management system of access to fisheries resources be put in place.¹⁶

52. **Managing all fishing segments and the value chain approach.** Experience from other countries shows that if it leaves certain fishing segments unmanaged, an access management policy can provide an immediate expansion opportunity for the unmanaged segments. For instance, in Senegal, the artisanal segment has further expanded after the introduction of a management policy for the industrial segment. The access management systems supported by the SOP C1 Project cover the industrial, coastal, and artisanal segments, starting with the industrial

Kenya Coastal Development Project, and the Coastal Resources Management Project in East Asia as well as the Mauritania Business Environment Enhancement Project and seafood cluster experiences in the United Kingdom and the Republic of Korea.

¹⁶ The project recognizes that issues such as food security and job creation should be properly discussed in the context of the wider economy and that ascribing this challenge to the fisheries sector in isolation is inappropriate.

segment, with the aim of reducing the time lapse in the implementation of access management in all segments. A value chain and logistics approach facilitates an improved understanding of challenges to competitiveness, helps in the identification of relationships and coordination mechanisms, and assists in understanding how supply chain stakeholders deal with powerful actors as well as with who governs or influences the chain. This approach helps improve access to markets and leads to more efficient product flows while ensuring that all actors in the chain benefit.

53. **Building on prior analytical work.** The 2014 study on Transitioning toward Inclusive Green Growth in Mauritania highlights fisheries as one of the key sectors likely to drive sustainable economic growth. In addition, three of the Bank’s TA programs (Nouadhibou Free Zone TA in 2013–2014, Competitiveness of Nouadhibou Trade Sectors and Location in 2014, and Mauritania PPIAF in 2014–2015) have helped prioritize the focal sector (i.e., fisheries and the seafood industry) and related local and national activities relevant to this project. This operation directly builds on those previous studies.

54. **Sequencing of activities (master planning process and strategic implementation).** Without an appropriate management regime for accessing resources, investments aimed at facilitating fish landing or processing can lead to further increases in fishing effort and contribute to overexploitation of the resources. Previous projects have shown that master plans bring many benefits, in particular: (a) a consistent point of reference against which to make decisions; (b) the ability to make better-informed decisions over both policy implementation and infrastructure development; (c) higher predictability regarding budgeting and planning; (d) the potential to optimize resource use; (e) means of addressing citizen’s needs; and (f) the potential to generate positive economic development. While processes for pursuing these aims vary, master plans are most successful when they are flexible, they represent a vision that brings together the concerns of various interest groups, and their recommendations create a groundswell of community and political support. For this reason, the activities in Subcomponent 1.1 are critical and will therefore be pursued first. In particular, the analysis aiming at identifying target value chains will address the critical interactions between the harvesting and post-harvesting sectors and investigate the conditions for successful value chain development and the critical sequencing of activities.

55. **Monitoring & Evaluation.** Under the previous WARFP projects that formed part of the first phase, M&E has performed poorly as a result of a combination of factors, namely non-availability of data, lack of strong preparation for data collection, and ultimately indicators that were either too complex or sometimes too ambitious given the circumstances. The results frameworks under SOP C1 and SOP C2 are designed based on data that are readily available, and the POM will detail data collection procedures for each indicator. Formally staffing the proposed project with an M&E officer and setting up a properly functioning M&E mechanism are also crucial.

IV. IMPLEMENTATION

A. Institutional and Implementation Arrangements

56. **ANZF is the implementing agency for all components of the project.** This public institution was created in July 2013, it is fully operational, and it is assisted by the appropriate

fiduciary capacity in Nouadhibou.

57. **The Steering Committee, which will consist of eight (8) members representing the institutions benefiting from the proposed project,** shall be chaired by the Head of the Directorate General for Development (DGD) for the Nouadhibou Free Zone Authority and will have two vice-chairs: the Head of the Directorate General for Investment Projects and Programs (DGPPI) in MEF and the Head of the Directorate of Planning and Cooperation (DPC) in the Ministry of Fisheries and Maritime Economy (MPEM) as well as a second representative from MEF, a second representative from ANZF, two representatives of membership based fishery private sector associations (artisanal and industrial segments respectively), and one representative of civil society as well as other such membership as may be proposed by the Recipient and acceptable to the Bank.

58. **A Project Coordination Unit (PCU) is embedded in the Nouadhibou Free Zone Authority and vested with responsibility for financial matters and implementation support for all project activities.** The PCU shall, at all times during Project implementation, retain a Coordinator, a procurement specialist, a financial management (FM) specialist, an environmental specialist, an accountant, and an M&E specialist, each with experience and qualifications satisfactory to the Association.

B. Results Monitoring and Evaluation

59. **The M&E mechanism will be based on the results framework described in Annex 1 and the monitoring arrangements described in Annex 3.** ANZF will closely coordinate with public and private stakeholders on M&E reporting for the project. Monitoring results and project outcomes will be reported in project implementation progress reports every six (6) months. Furthermore, the Bank will support the project over its lifetime and supervise its results and outcomes on a regular basis in order to monitor and evaluate the achievements of the PDOs. Corrective actions, if necessary, will be discussed and agreed upon with the Government.

60. **Key institutions where data are to be collected will be incentivized accordingly.** The key institutions include ANZF, MEF, Ministry of Fisheries and Maritime Economy (MPEM), IMROP, ONISPA, EPBR, PAN, the Central Bank, CRZF, the Mauritania Airports Corporation (SAM), and private sector entities that have been granted a public mandate.

61. **In addition, monitoring will also be ensured by independent auditors financed under the proposed project and recruited to monitor Government commitment.**

C. Sustainability

62. The Nouadhibou Free Zone was created as part of the National Private Sector Development Strategy in MEF and is therefore part of a countrywide effort to attract investment to Mauritania. However, its executive entity (ANZF) exercises many of the prerogatives of the central Government within the geographic perimeter of the Free Zone (that is, everything but primary education, health, and the armed forces). Thus, its establishment has disrupted day-to-day business in Nouadhibou and to a larger extent in Mauritania. Moreover, it is important to note that the Nouadhibou Free Zone master and investments plans have contributed to the finalization of the Mauritania Fisheries Investment Framework (MPEM) and that the Free Zone

management is actively contributing to the FiTI. Thus the NESC represents the successful outcome of a strong upstream collaborative process, which shows the ability of the Mauritanian Government to make progress on this important agenda. However, it is also a reminder of its fragility when private sector or Government entities are not adequately included in the decision making process.

63. Evidence of the borrower's commitment to and ownership of the project and relevant policies can be found in the continued and renewed interest in WARFP shown by the private sector, which operates a different implementing agency from the fisheries administration. Moreover, ANZF has been entrusted with the responsibility to boost the seafood industry in Nouadhibou, the country's main fish landing site.

64. The project will address factors critical to the sustainability of the project's objectives, namely: (a) the coordination mechanism put in place by the project to ensure communication flow and joint decisions between MEF, ANZF, and MPEM so that the Free Zone does not disconnect itself from wider governance and policy reforms when it comes to the fisheries and seafood sector; (b) continued involvement of the private sector through the Seafood Task Force, a PPD platform conducive for the design and implementation of the NESC strategy; and (c) the professionalism of Nouadhibou Free Zone personnel, particularly when it comes to the public management of funds (procurement and FM), the timely execution of activities, and transparency in all aspects of the cluster's development.

V. KEY RISKS AND MITIGATION MEASURES

A. Overall Risk Rating and Explanation of Key Risks

65. The following Substantial—or High—risks to PDO achievement will need to be closely monitored during project implementation:

- **Political and governance (Substantial).** Political developments can alter the government's priorities as regards the Nouadhibou Free Zone given that the operation may be perceived as a threat to entities with vested interests in the seafood industry. The project has been designed to mitigate political and governance risks by taking into account: (a) key principles of good governance (for example, transparency, accountability, and participation and inclusiveness), and (b) results from analyses by political economists and stakeholders in the seafood sector; key project features that will mitigate those risks include: (a) the tripartite PPD (public, private, and civil society) platform; (b) public availability of all documents related to cluster design and implementation complementing the SOP C1 publication of selected fisheries management data and the mode of fishing rights allocation; (c) the contribution of project activities to putting the international transparency initiative for fisheries (FiTI) into practice; and (d) active participation of small-scale fishers and other members of fishing communities, including vulnerable groups, operating in the seafood cluster.
- **Sector strategies and policies (Substantial).** Policy designs in the fisheries sector are weak and the overall seafood sector framework does not demonstrate a clear strategy for Nouadhibou. Sector governance is also weak. Sector strategies are not fully funded, or their future funding may be uncertain. The project addresses these weaknesses with the

following mitigation measures: (a) TA to sector actors with a view to defining and implementing a clear strategy derived from a scientific diagnostic aiming at recommending the most relevant institutional, legal, and financial framework and tools; (b) implementation support for investment promotion and after-care to ensure consistency from upstream sector policies on sustainable fisheries management plans to robust follow-up in their appropriate compliance by private sector operators; (c) works in the form of a refrigerated warehouse that will leverage sustainable seafood exports; and (d) capacity building for all cluster actors so that they integrate sustainability with the fisheries resources as the priority objective of the operations of the cluster, uplift industry norms, and improve their post-harvest practices.

- **Institutional capacity for implementation and sustainability (Substantial).** Project implementation will involve several agencies (Free Zone and Government) and activities in several locations (Nouakchott and Nouadhibou). The implementing agency has limited experience with Bank procedures and other multilateral development partner operations. This is the first-ever PCU to be decentralized outside of Nouakchott. Although the implementing agency has some in-house capacity, external consultants will play an important role in the realization of project objectives. Staff members currently have limited access to relevant training. Moreover, there is uncertainty regarding the implementing agency's capacity to sustain the outcomes of the operation. In response, several mitigation measures have been put in place: (a) the institutional arrangements, with the PCU reporting to a single entity, that is the Free Zone because most of the activities take place in Nouadhibou and it is located there; (b) PCU members are required to have already acquired significant experience with Bank-financed projects in Mauritania; and (c) a training program as part of implementation support has been discussed and agreed upon. Due to the substantial reduction in the project's budget, the technical design of the operation has been modified and the scope of the proposed project is much more modest than was originally envisaged, which will likely contribute to the successful implementation of this operation.
- **Fiduciary (High).** Overall, the fiduciary environment is weak and shows little evidence that key principles, including value for money, economy, efficiency, effectiveness, integrity, transparency, and accountability have been adopted. Frequent and long delays in procurement were noticed during Project Preparation Advance (PPA) implementation. FM systems lack data controls. No internal audits are performed. Contracts routinely exceed their schedule. Mitigation measures to address procurement and FM weaknesses and reduce implementation risks are discussed in Annex 3.
- **Stakeholders (Substantial).** Opposition to the operation from stakeholders can have a negative impact on the achievement of the PDO, and the likelihood and impact of this opposition may be substantial. The operation's objectives are widely discussed but not always accurately represented and understood. A number of stakeholders oppose part of the operation. These include civil society, the private sector, and government entities, whose stakes are mostly in the frozen and processed seafood value chains, for example, fishmeal factories and frozen seafood exporters. Because it relates to the political economy of the seafood sector, the project is well informed about the main actors that could oppose the operation and derail its implementation. In response, mitigation measures include bringing on board and working with all seafood actors, including those

who could disrupt the operation (through the PPD process) in order to take into account their perspective, which often entails the recovery of past investments and therefore a smooth transition to the new paradigm. The process of determining the target value chain under this operation will be based strictly on sound and objective scientific evidence and analysis, which will minimize the room for powerful stakeholders to influence the choice of the target value chain. Another mitigation measure that is key to project success is to help stakeholders, particularly those driving reductions in post-harvest losses and improve their practices so that landed catch achieves higher value and therefore does not have to automatically become raw material for low-value processing plants. Finally, the project will foster greater collaboration within the Bank's project portfolio as well as with donors such as the EU, AfDB, the Islamic Development Bank (IDB), EIB, AFD, and JICA.

66. **The overall risk rating of the project is Substantial** due to relatively new institutional arrangements in the fisheries sector and other sectoral contexts. Addressing the overall risk will require additional implementation support and technical expertise, for which funds have been secured and are to be provided under Bank-executed trust funds. These funds will provide mitigation tools during project implementation particularly for risks related to the political economy, sector strategies, technical design, institutional capacity, and stakeholders coordination, as follows: (a) the Competitive Industries and Innovation Trust Fund, supported by the EU, will include measures aiming to support the inclusive design and implementation of the cluster strategy along with appropriate capacity building for vulnerable groups as well as targeted TA aiming to sustain a strong PPD process and citizen engagement; (b) the PPIAF, supported by 15 donors in addition to the Bank, will assist the Government's reform agenda in setting up a legal and institutional PPP framework designed to enable the mobilization of private sector and institutional investor capital; (c) the Investment Climate Program, supported by Japan, will contribute to Government efforts in reforming the business environment in Mauritania; and (d) the Green Growth Partnership, supported by the Republic of Korea, will help advance cluster norms and environmental compliance with climate-efficient TA and training designed to uplift industry standards.

VI. APPRAISAL SUMMARY

A. Economic and Financial Analysis

67. **Project's development impact.** Although it is not generally well understood, improving the management of marine resources can substantially contribute to the economy of coastal countries. Many of the fish resources around the world have deteriorated through intensive fishing activities over the past decades. Lack of management and a virtually open-access regime observed in the management of marine resources in many developing coastal countries are major factors in allowing resource degradation and depletion. If as envisaged in WARFP, fisheries management reform packages are appropriately and effectively applied around the globe, the world economy will benefit from the sustainable wealth of the oceans. The Bank (2009 and forthcoming) estimated that at the global level, gains from such reforms could be in the order of US\$50–100 billion annually. In Mauritania, in the octopus fishery alone, the types of activities supported by SOP C1 and reinforced by SOP C2 are estimated to increase annual net benefits by US\$300 million in the long term. In addition, both components of this project will result in an

increase in investments, including FDIs, and in the creation of new businesses, resulting in new jobs and greater value capture in Mauritania. Both components will help actors access foreign markets thanks to trade facilitation, including access to higher-value markets. This will help reduce fish spoilage and, through Subcomponent 2.1, generate quantifiable benefits in the form of additional revenues as a result of project interventions in the targeted fisheries value chains, leading in turn to increases in business earnings and tax revenues.

68. **Public sector provision and financing as the appropriate vehicle.** The scale and effectiveness of such activities, which are intended to improve the management of global fisheries, have been limited due to constraints on the resources allocated to achieving this ambitious objective. It is envisaged that once the conditions are met, the private sector will play a leading role in making the industries surrounding marine resources sustainably profitable, thus contributing to the national and global economies. However, in the initial phase of the transition from an unmanaged, open-access regime to an environment equipped with a proper management system, the public sector must commit to decisive and responsible involvement and enable conditions for responsible private sector actors to take part in the fisheries and seafood value chain. Thus, strong long-term support must be provided to committed public sector actors responsible for the management of the marine resources of coastal nations and a sustainable post-harvest seafood sector.

69. **Bank value added.** The Bank is in a unique and ideal position for providing the needed support, implicitly and explicitly coordinating the programs of bilateral donors and leveraging much-needed additional resources. In particular, the coordination of this project with SOP C1 will be key to the success of both projects. Although two different teams are working on these projects, their coordination will be highly effective as both projects are financed by the Bank. Except for some activities in Component 2 that directly benefit the poor and the most vulnerable, many of the benefits of this project will be realized in the form of aggregate net benefits generated in the fisheries and seafood sector. The generated surplus, whether business earnings or tax revenues, can be effectively and productively reinvested for the sustainable development of the economy with a view to reducing poverty and promoting shared prosperity. Therefore, transparency in the revenues generated and in their use is critical to ensuring maximum indirect benefits for the poor and the most vulnerable. While the activities of both SOP C1 and this project will improve transparency in the fisheries and seafood sector, the partnership between Mauritania and the Bank addresses other areas, including improving overall governance, fiscal systems, and the macro economy. Direct and indirect synergies flowing from such collaboration will be an important element of Bank value addition. Moreover, the Government of Mauritania will benefit from Bank TA. As a development institution, the Bank deals with funding issues and technical aspects, both being crucial to the project's success. Stakeholders' capacity building will be a significant aspect of the project. In particular, the experience and technical capacities of the Bank will be made available to the Government of Mauritania with a view to formulating specially adapted institutional and legislative frameworks.

70. **Because of the wide scope of the activities included in this proposed project and because many activities consist of TA not necessarily targeted toward a finite number of beneficiaries,** it is not realistic to conduct an economic and financial analysis in order to evaluate the expected benefits of the project within one single analytical framework. Accordingly, an approach was adopted whereby two sets of analysis are conducted to cover the range of activities

proposed by the project. First, the direct benefits of infrastructure construction (Subcomponent 2.1) are objectively assessed in financial terms through a standard methodology using the computation of internal rate of return (IRR) and net present value (NPV). Second, since all activities are expected to reinforce the benefits pursued under WARFP SOP C1, the benefit estimates for fisheries reform in the octopus sector in Mauritania are presented as an indication of the expected indirect benefits through improving SOP C1.

71. **For Subcomponent 2.1, the direct benefits of infrastructure construction are objectively assessed in financial terms through standard methodology using the computation of IRR and NPV.** The monetary benefits, calculated as the increase in the revenues of targeted firms, ANZF, PAN, EPBR, and other organizations in the project areas impacted by project activities will come from additional revenues attributed to project interventions in the targeted fisheries value chains leading to increases in business earnings and tax revenues. A common discount rate of 5 percent a year is applied to all cost and benefit streams in spreading present values over a 15-year span, starting in 2016. Construction and TA will start in 2016 and continue until 2017, which is when project revenue flows are expected to begin.

72. **For WARFP SOP C1, a quantitative bio-economic model was developed for the octopus fishery,** the most important commercial fishery in Mauritania. The model was used to relate the assumed fishing effort to expected levels of fish population and catch. At the same time, expected lower fishing effort levels due to project interventions imply lower fishing costs. This cost reduction was also estimated based on available information. The simulated catch levels were then used to calculate expected fishing revenues, from which, combined with estimated fishing costs, expected net revenues from fishing were obtained. For the proposed SOP C2 project, the model's results were updated. The estimated benefits imply benefits derived from successfully implemented fisheries reform in the octopus sector, which is directly supported by SOP C1. The activities proposed in SOP C2 will likely reinforce reform effectiveness and increase the probability of success.

B. Technical Analysis

73. **The technical design and approach selected for SOP C1 and reinforced by this project, namely, improvement in the management of marine resources through fisheries governance reform, are consistent with the recognition and understanding of the international fisheries management community and are strongly advocated in a series of Bank publications by PROFISH (Global Program of Fisheries).** As stated in the Economic and Financial Analysis section, at the global level, improving the management of marine resources is estimated to result in an increase in sustainable resource rents totaling US\$50–100 billion annually.

74. **These “sunken billions” can be recovered most rapidly through drastic and extreme reforms that pursue purely economic efficiency and the rapid recovery of overexploited stocks.** However, given increasing international knowledge and lessons learned from past Bank projects, the approach taken by this project as well as other Bank fisheries projects takes into consideration the specificities of developing country fisheries as well as country-specific concerns. For example, fishing rights schemes that are effective in developed countries (for

example, individual transferable quotas) will not be effective or practical in a situation where institutional capacity or physical infrastructure for implementing such a scheme is lacking. The processes and outcomes of fisheries reform also need to be socially acceptable for the benefits to be socially sustainable. From these perspectives, the following decision regarding project design was made in SOP C1: in Mauritania, individual quotas in the octopus fishery will not be transferable during the first ten (10) years at least so as to prevent excessive consolidation of fishing rights into the hands of a few operators, which could threaten the social sustainability of the scheme.

75. Another relevant international lesson is that the responsible engagement of the private sector can quickly influence industry norms and improve the incomes of participating fishers, processors, and traders in developing countries (for example, the blue swimming crab industry in Southeast Asia). The project considers that collaboration with responsible private sector actors in a sustainable seafood value chain is the only way to scale up the effort and results of reforming and rationalizing the fisheries sector in order to benefit local fishers and fishing communities. Given this observation, the project focuses on building the enabling environment for responsible private sector actors to productively operate with the NESC. In addition, in order to maximize the participation of local fishing communities in the process, the project was designed to: (a) help the sector strategy be co-designed by public and private actors through PPD so that all stakeholders have ownership of it, and (b) provide adequate tools (including skills) to all stakeholders so that they are able to implement it.

C. Financial Management

76. An FM assessment was conducted on FM arrangements for ANZF. The objective of the assessment was to determine whether ANZF has acceptable FM arrangements in place that satisfy the Bank's OP/BP 10.00. These arrangements will ensure that the implementing entity: (a) uses project funds only for the intended purposes in an efficient and economical way; (b) prepares accurate and reliable accounts as well as timely periodic financial reports; (c) safeguards the projects' assets; and (d) has acceptable auditing arrangements. The FM assessment was carried out in accordance with the Financial Management Manual issued by the Financial Management Sector Board on March 1, 2010.

77. ANZF will have overall FM responsibility for project implementation. FM arrangements will be based on existing arrangements set up under the ongoing PPA: (a) a project coordinator and FM officer with experience satisfactory to the Bank have been recruited; (b) accounting software installation is being finalized; and (c) the draft manual for financial, administrative, and accounting procedures has been reviewed and commented on by the Bank.

78. The FM capacity assessment resulted in the identification of the following weaknesses: (a) absence of an internal audit function within ANZF; and (b) lack of sufficient FM personnel. If daily tasks are to be performed by the FM team, an accountant will need to be hired to reinforce capacities.

79. Because of FM constraints, the following actions should be taken by ANZF: (a) finalize the Administrative and Accounting Manual of Procedures; (b) recruit an accountant to be part of the FM team within the PCU; and (c) within four (4) months of effectiveness, recruit

auditors (internal and external) with skills and experience satisfactory to the Association.

80. **The conclusion of the assessment is that the FM arrangements will meet the Bank's minimum requirements under OP/BP 10.00 once mitigation measures have been implemented.** The overall residual risk rating will be Moderate.

81. The detailed FM arrangements are described in the Financial Management section of Annex 3.

D. Procurement

82. **An assessment of project implementation arrangements, in particular ANZF, was carried out.** The conducted procurement assessment concluded that procurements under the project will mostly be small-value procurements. Most procurement activities planned under the project are related to consultancy services, offices equipment, vehicles, and other equipment. ANZF capacity in project implementation under the Bank's Procurement Guidelines and Consultant Guidelines is Low.

83. **Mitigation action plans have been developed** (for details, see Annex 3). The mitigation measures aiming to improve these weaknesses and reduce implementation risk, which have been agreed with ANZF, are: (a) hiring a procurement specialist (or moving the procurement specialist of the PCU) to assist the Tender Committee full-time in carrying out all procurement activities including the review of procurement documents, the management of meetings, drafting minutes and reports, and record keeping of procurement documents, bids, and other relevant documents; (b) updating the Operational Manual of the Tender Committee, the Control Committee, and the Regulatory Committee (drafting the operational user guide and ensuring its compliance with Bank procedures); (c) training the procurement officer and technical staff members involved in project implementation on Bank procedures and local operational procedures; (d) setting up an adequate filing system for project records to ensure easy retrieval of information and data; (e) designating a responsible person for data management including use of a metallic cabinet (or safe) with double locks for secure keeping of procurement documents; and (f) providing this unit with separate workspace and a complete set of filing furniture and reproduction equipment (photocopier, scanner, printer, etc.).

84. **Overall project procurement risk at the time of assessment is High.** The satisfactory implementation of the above action plans will likely bring this overall risk down to Substantial.

85. **The Procurement Plan for the first 18 months of the project has been prepared and approved by the Association.** During implementation, the Plan will be updated in agreement with the project team at least annually or as required in order to reflect actual project implementation needs and improvements in institutional capacity. It will be available in the project's database and a summary will be disclosed on the Bank's external website once the project has been approved.

E. Environmental and Social Impact Assessment (including Safeguards)

86. **The project is an Environmental Assessment Category B (Partial Assessment) project because it involves the construction of a refrigerated warehouse for fish exports**

with a capacity of 85 pallets at the Nouadhibou International Airport. The planned site for the facility is within the perimeter of the airport. It is located in the extension area of the city of Nouadhibou in the Kra Nasrani neighborhood. The cold storage facility will be located on the premises of a disused freight shed located between the technical block housing the control tower and the offices of the Air Navigation Safety Agency (ASECNA). Access to the room is from the Boulevard Maritime that serves the airport. In the project area, environmental and social problems may arise with regard to climate specificity (sea spray and sand storms), a rise in the saline water table on the site, presence of soluble chemical compounds in the soil, and presence of facilities and airport operations staff members and users.

87. **An Environmental and Social Impact Assessment (ESIA) has been prepared** to ensure that the environmental and social concerns of the project activities are properly taken into consideration from the planning phase through to the implementation and exploitation phases.

88. **Because of the environmental and social impacts that may result from the implementation of its activities,** the project has triggered the following safeguards: Environmental Assessment OP/BP 4.01 and Physical Cultural Resources OP/BP 4.11.

89. **An Environmental and Social Management Plan has been proposed,** which comprises: (a) legislative measures that must be followed during work, measures to be integrated in the project design, measures to be included in the tender documents for works, and good environmental practices to be followed during operation; (b) a monitoring plan and environmental and social monitoring measures; and (c) a capacity-building plan, information and communication plans, and institutional arrangements for implementation and monitoring.

F. Grievance Redress

90. **Communities and individuals who believe that they are adversely affected by a Bank-supported project may submit complaints to existing project-level grievance redress mechanisms or the Bank's Grievance Redress Service (GRS).** The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project-affected communities and individuals may submit their grievances to the Bank's independent Inspection Panel, which determines whether harm occurred, or could occur, as a result of the Bank's non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the Bank's attention and Bank Management has been given an opportunity to respond. For information on how to submit grievances to the Bank's corporate GRS, visit <http://www.worldbank.org/GRS>. For information on how to submit grievances to the Bank's Inspection Panel, visit www.inspectionpanel.org.

Annex 1: Results Framework and Monitoring

Country: Mauritania

Project Name: Nouadhibou Eco-Seafood Cluster Project (P151058)

Results Framework

Project Development Objectives							
PDO Statement							
The objective of the proposed project is to support the development of a seafood cluster in Nouadhibou that promotes sustainable management of fisheries and generates value for the communities.							
These results are at	Project Level						
Project Development Objective Indicators							
		Cumulative Target Values					
Indicator Name	Baseline	2016	2017	2018	2019	2020	End Target
Investments generated from responsible investors (Amount (US\$ m))	0.00	20.00	20.00	40.00	60.00	80.00	80.00
Fresh fish export (Tons/year)	936.00	1000.00	1000.00	1800.00	2200.00	2600.00	2600.00
Direct project beneficiaries (Number) – (Core)	0.00	100.00	300.00	1500.00	3000.00	6000.00	6000.00
<i>Female beneficiaries (Percentage – Sub-Type: Supplemental) – (Core)</i>	<i>n.a.</i>	<i>15.00</i>	<i>20.00</i>	<i>20.00</i>	<i>25.00</i>	<i>30.00</i>	<i>30.00</i>
Intermediate Results Indicators							
		Cumulative Target Values					
Indicator Name	Baseline	2016	2017	2018	2019	2020	End Target
Component 1: Developing a sustainable seafood cluster in Nouadhibou							

Strategic cluster framework documents (consistent with WARFP program objective) adopted and published (Number)	0.00	0.00	1.00	2.00	2.00	2.00	2.00
Commercial viability studies for PPP conducted (Number)	0.00	1.00	1.00	2.00	2.00	2.00	2.00
PPP policy framework adopted (Yes/No)	No	No	Yes	Yes	Yes	Yes	Yes
Commitments by investors and private partnerships signed (Number)	1.00	0.00	1.00	2.00	3.00	5.00	5.00
Investment climate reforms implemented (Number)	0.00	0.00	1.00	2.00	2.00	3.00	3.00
Component 2: Increasing the value of seafood products produced and marketed in the seafood cluster with the participation of local actors							
Cold storage capacity for fish products built (Metric ton)	0.00	0.00	0.00	30.00	30.00	30.00	30.00
Entities reporting improved performance (for example, improvements in business strategy, access to market, or revenue generation) (Number)	0.00	0.00	1.00	2.00	4.00	5.00	5.00
Client days of training provided (Number) - (Core)	0.00	375.00	1000.00	2500.00	3250.00	3500.00	3500.00
Client days of training provided - Female (Number - Sub-Type: Breakdown) - (Core)	0.00	75.00	250.00	625.00	975.00	1225.00	1225.00
Citizen engagement							
Tripartite PPD stakeholders (public, private, and civil society) reporting satisfaction with their involvement in the design and implementation of the cluster strategy (Percentage)	n.a.	30.00	40.00	50.00	60.00	70.00	70.00

Indicator Description

Project Development Objective Indicators				
Indicator Name	Description (indicator definition etc.)	Frequency	Data Source / Methodology	Responsibility for Data Collection
Investments generated from responsible investors	<p>Amount of direct financing (in the form of equity or debt) mobilized by private entities in the Nouadhibou seafood cluster from responsible investors whose investments contribute, for example, to the implementation of fisheries management plans and only use fish from fisheries that are sustainably managed. Investments in ancillary sectors contributing to the realization of the fisheries management plans and compliance with TAC will also be considered.</p> <p>Potential investors that meet the required standards have been identified and it is expected that one or two large investments will materialize for the largest part of the expected US\$80 million. Illustrative examples include : several pelagic processing plants (US\$40+ million each), a diced-octopus plant (US\$30 million), a shipyard (US\$80 million), and a cold storage facility (US\$15 million) and complemented by smaller investments (storage facilities, reinvestment in lines of production or harvesting effort improvements, and so on).</p>	Annual	<p>Post January 2013 investment agreement(s)</p> <p>Agreements reported as operational in annual report</p>	ANZF

Fresh fish export	<p>Simplification of procedures to increase refrigerated (fresh) fish exports to all markets from the following points: Nouadhibou International Airport (aerial transportation), and PK55 border post (road transportation).</p> <p>Fish to be exported fresh needs to be landed in Nouadhibou before contributing to economic activities at EPBR, which artisanal and coastal fishers use and which connects small-scale fishers and informal processors and traders to the value chain. In addition, fresh fish exports do not go through the government's monopolistic trading company for frozen fish, which can foster private-to-private logistics links between small-scale fishing actors and exporters.</p>	Annual	<p>Direct measurement of exports from Nouadhibou International Airport and the PK55 border post</p> <p>Data triangulation</p>	ANZF Central Bank Customs
Direct project beneficiaries	Direct beneficiaries are people or groups who directly derive benefits from an intervention, here, all persons directly involved in the seafood sector in Nouadhibou both at sea and on shore.	Annual	<p>Records of project activities</p> <p>Beneficiary count</p>	ANZF
<i>Female beneficiaries</i>	<i>Based on the assessment and definition of direct project beneficiaries, specify what percentage of the beneficiaries are female.</i>	<i>Annual</i>	<p>Records of project activities</p> <p>Beneficiary count</p>	ANZF
Intermediate Results Indicators				
Indicator Name	Description (indicator definition etc.)	Frequency	Data Source / Methodology	Responsibility for Data Collection

Component 1: Developing a sustainable seafood cluster in Nouadhibou				
Strategic cluster framework documents (consistent with WARFP program objective) adopted and published	At the minimum, the cluster strategy and one of the following Nouadhibou strategic documents are adopted and published: <ul style="list-style-type: none"> Cluster legal framework Cluster financing options Responsible cluster operators charter 	Annual	Online publication Review of documents before their approval	ANZF
Commercial viability studies for PPP conducted	Commercial viability studies include deep seaport, new airport, and other PPP projects within the scope of this operation and Bank safeguards policies.	Annual	Submission letter to the Government with study attached Review of studies	ANZF
PPP policy framework adopted	PPP code has been enacted as a result of Project activities.	Annual	Adoption of the policy framework by the parliament	MEF
Commitments by investors and private partnerships signed	Memorandum of understanding or similar documents signed between the Government and private entities as a result of Project's investment promotion activities.	Annual	Project records of activities Formal commitments documented in annual report	ANZF MEF MPEM
Investment climate reforms implemented	Investment climate legislations enacted or investment climate policies adopted as a result of project activities.	Annual	Adoption of legislation and effective implementation Official publication and beneficiary feedback survey on the effectiveness of the reform	ANZF MEF
Component 2: Increasing the value of seafood products produced and marketed in the seafood cluster with the participation of local actors				
Cold storage capacity for	Thirty tons of fish products over an area	Annual	Handover of infrastructure	ANZF

fish products built	of 500 square meters of cold storage in a warehouse built in accordance with project specifications and complying with safety inspection.		Project inspection at completion of works	
Entities reporting improved performance (for example, improvements in business strategy, access to market, or revenue generation)	Seafood cluster entities are expected to improve their overall performance as a result of: (a) direct impact of training provided in Component 2 (that is, on trade facilitation, fisheries management plans, certifications, and post-harvest losses); and (b) indirect impact of improvements in post-harvest facilities management.	Annual	Project records of activities Surveys of individuals trained	ANZF FNPM
Client days of training provided (number)	Measures the number of client days of training provided, that is, the number of clients who completed training multiplied by the duration of training expressed in days. Average days per client is 4.	Annual	Project records on activities Reported in the annual report	ANZF MEF FNPM
<i>Client days of training provided - Female (number)</i>	<i>Based on the number of client days of training provided, specifying what percentage directly benefited women.</i>	<i>Annual</i>	<i>Project records on activities Reported in the annual report</i>	<i>ANZF MEF FNPM</i>
Citizen engagement				
Tripartite PPD stakeholders (public, private, and civil society) reporting satisfaction with their involvement in the design and implementation of the cluster strategy	Survey feedback through PPD vehicle. Feedback providers will be members of this consultative process from the public, private, and civil society.	Annual	Surveys	ANZF

Annex 2: Detailed Project Description

MAURITANIA: Nouadhibou Eco-Seafood Cluster Project (P151058)

A. Project Development Objective

1. **The objective of the proposed project is to support the development of a seafood cluster in Nouadhibou that promotes the sustainable management of fisheries and generates value for the communities.** The cluster will integrate the objective of sustainable management of fish resources into the development of a competitive seafood value chain that originates in Nouadhibou with a view to ensuring explicit consideration of the biological sustainability of fish resources. Specifically, fish landed in Nouadhibou should originate from sustainably managed fisheries such that total catches do not exceed what can be harvested without compromising stock regeneration. To this end, the Nouadhibou Free Zone Authority (ANZF) will collaborate with the fisheries administration in monitoring fish landings in Nouadhibou and assist with the full implementation of fisheries management plans, starting with the Octopus Management Plan that has already been developed and adopted by decree. Sustainability also pertains to post-harvest processing, whereby the choice of processing technology decreases pollution, in particular that of air and water. The cluster will cover the following segments: harvesting, landing, processing, and wholesale distribution. Target fisheries value chains will be identified through careful examination of the viability of the entire value chain, including the state of fish stocks as well as the economic viability in the harvesting sector and investment readiness and market opportunities in the post-harvest sector. The value the proposed project aims at generating is both monetary and non-monetary. It entails, among other things, an increase in net revenues for the local population, an improved socioeconomic status for the poor and the most vulnerable, and the benefits of a healthy aquatic environment. Achieving the project's objectives will enable the fishing and seafood sector to sustainably contribute to a reduction in extreme poverty and the promotion of shared prosperity in Mauritania, where the sector has substantial potential.

2. **The proposed Project will be implemented under the multi-phase WARFP, specifically as WARFP SOP C2. The overarching development objective of WARFP is to support countries in maintaining (or increasing) targeted fish stocks and the benefits these can provide to West Africa, with priority given to poverty reduction and food security.** The SOP A, B, C, each implemented in two or three phases, aims to achieve this objective. The first phase focuses on: (a) strengthening the governance and management of fisheries, and (b) reducing illegal, unreported, and unregulated (IUU) fishing, while the second phase aims at increasing the net value generated by fish resources and the proportion of that value captured by the country in question (For more on the SOP approach, see Annex 6).

B. Project Components

3. The project will contribute to the Government's competitiveness agenda (covering fisheries, the Free Zone, and national private sector development strategies and investment frameworks) and will address four key constraints that inhibit the competitiveness of the seafood industry in Nouadhibou: (a) excess fishing effort that threaten the sustainability of raw material supplies and the profitability of the fishing industry; (b) insufficient coordination between actors

and insufficient product diversification; (c) inadequate fish landing infrastructure as well as lack of private initiative in developing and managing shared facilities (including storage) and handling services; and (d) limited linkages effects to the rest of the economy. Since without an appropriate management regime for controlling access to fish resources investments aimed at facilitating fish landing or processing can lead to further increases in fishing effort and overexploitation of fish resources, the project will comprise two components aimed at achieving the PDO: (a) developing a sustainable seafood cluster in Nouadhibou; and (b) increasing the value of seafood products produced and marketed in the seafood cluster with the participation of local actors.

4. **It is estimated that the sector's contribution to GDP can more than double and employment can increase by 20,000–30,000.** This will also involve the development of related upstream and downstream activities such as boat repair and maintenance, fishing gear and equipment maintenance, cold storage, packaging, and transportation. The expected benefits of the project along the seafood value chain are as follows:

- (a) *Overall.* (i) Physical concentration of stakeholders in a cluster will facilitate or even accelerate changes in industry norms so that concepts such as sustainability, responsibility (including anti-IUU fishing), and inclusivity (including gender equality and the engagement of small-scale fishers) become more widely accepted among cluster participants and eventually within the industry as a whole, resulting in more environmentally, socially, and economically sustainable practices along the value chain; and (ii) training of personnel from all stakeholder groups will accelerate changes in industry norms;
- (b) *Harvesting.* (i) Combined with the implementation of the fisheries management plans (in particular the Octopus Plan) supported under SOP C1, the cluster will reinforce incentives for the sustainable sourcing of raw materials (fish) by the post-harvest sector and will facilitate and complement the implementation of the fisheries management plans and encourage increased private investments in sustainable fishing and sustainable fish resources management; and (ii) by encouraging better organization and communication between value chain actors, the cluster will improve fish handling and increase the value of catch;
- (c) *Landing.* Improved operations at fish landing sites will enhance efficiency in handling landed catch and raise the quality and quantity of marketable fish from each landing;
- (d) *Processing.* (i) By reducing transaction costs between value chain actors, the cluster will improve the efficiency of production and reduce the overall cost of production; (ii) Combined with a range of training activities, the cluster will enable participating entities to identify products and market opportunities that will achieve higher revenues; and (iii) training in the sanitary handling of fish will improve access to foreign export markets of the cluster's production;
- (e) *Distribution.* Investment in a warehouse at the Nouadhibou International Airport will improve efficiency and reduce the cost of product distribution, thereby

increasing the competitiveness of the cluster's production.

Component 1: Developing a sustainable seafood cluster in Nouadhibou (US\$5.97 million)

5. **The first component will build the capacity of ANZF and stakeholders to plan, design, reorganize, and promote the cluster so that the objective of sustainable management of fish resources is well integrated into the development of competitive seafood value chains that originate in Nouadhibou. Component 1 consists of the following two subcomponents, which together will uplift industry norms and catalyze responsible investments;** (a) fostering a PPD aiming to help design and implement a sustainable seafood cluster strategy; and (b) promoting investment opportunities such that it attracts responsible investors.

6. **The following approach will ensure the transparency of the activities in this component.** The process and output of the PPD, in particular the comprehensive strategy for the cluster, will be made publicly available. Outreach activities designed to attract responsible private participants to the cluster will also be conducted in a transparent manner by publicly disclosing the information used for solicitation and ensuring that no groups are discriminated against with regard to access to information. Note that transparency with regard to the publication of selected fisheries management data and the mode of fishing rights allocation are monitored within the results framework of SOP C1. Further, SOP C1 also includes an activity consisting of integrating the octopus industry into the framework of international transparency initiatives (for example, the Extractive Industries Transparency Initiative [EITI] and the Fisheries Transparency Initiative [FiTI]). The Bank will continue to support such activities with a view to putting into practice the concepts promoted by transparency initiatives.

Subcomponent 1.1: Promoting a PPD with a view to developing a vision for the sustainable seafood cluster in Nouadhibou and accelerating nationwide reforms to constraints impeding its development (US\$2.59 million)

7. **This subcomponent supports the promotion of a PPD platform designed to help the participatory development of a vision for the cluster with a clear coordinated action plan and provide TA aiming to accelerate reforms to the business and investment climate.** These activities can generate significant cascading value to the seafood sector and the local supply chain. This subcomponent can likewise improve investor confidence and attract investments likely to enhance sustainability within the Free Zone.

8. **During project preparation, ANZF established a local PPD (Seafood Task Force).** It is expected that all relevant public and private stakeholders will be involved in: (a) development and implementation of a clear strategy and action plans for the seafood sector in Nouadhibou; and (b) a reform agenda designed to address binding constraints on investments and business operations. The local PPD will focus on identifying viable target seafood value chains for development and prepare conditions for further shared infrastructure development within NESF. Discussions should include reflections on how both harvest and post-harvest actors can best coordinate their activities (for example, through contractual arrangements, attribution of fishing quotas, and so on). The Nouadhibou Free Zone approved a master plan and investment plan in

2014, and its legal framework provides for the creation of development zones, the Eco-Seafood Cluster being the first such zone. At the same time, the Ministry of Fisheries and Maritime Economy completed a sector strategy and a multi-donor investment framework in 2015. It is expected that the fisheries management plans will be implemented, starting with the Octopus (cephalopod) Plan, which has already been adopted by decree. Other management plans for each fish species are expected to be covered.

9. **However, it is not yet well understood by stakeholders how coordination between implementation of the fisheries management plans and the activities of the Nouadhibou Seafood Cluster can catalyze synergies in order to maximize the benefits of the seafood sector for the economy.** As discussed in Paragraph 17 of the main text, the development of the post-harvest sector must be pursued in tandem with reforms in the fishing sector as the sustainability of the post-harvest sector depends on the sustainability of fish resources, while sustainability of the resources depends on a responsible post-harvest sector. For example, any development of post-harvest facilities should be consistent with research results and recommendations from IMROP and others on the biological status of the fish stocks and appropriate exploitation levels for each fish species. The rights and responsibilities of cluster participants, including those of responsible investors (Subcomponent 1.2), need to be clarified in accordance with the overall goal and objectives of the cluster. FiTI recommendations on data and information sharing can be incorporated in defining participant responsibilities. In sum, a clear and effective framework designed to coordinate the activities of all segments housed in the cluster is critical to its success.

10. **This subcomponent will first strengthen the capacity of Nouadhibou Free Zone stakeholders to understand the intricate linkages inherent in the actions of various participants and design the physical and institutional functions of the cluster accordingly.** It will finance consultants' services and the training of stakeholders with a view to: (a) developing a holistic vision of the cluster that encompasses and clarifies certain key concepts (for example, sustainability of fish resources, rights and responsibilities of participants, inclusiveness, transparency, and competitiveness); (b) design a robust cluster strategy (identification of the target value chain, planning process, and master and investment plans); and (c) develop an adequate framework (both legal and institutional) as well as fisheries management coordination schemes and required operational tools (a land Geographic Information System, M&E) for the formal establishment of the NESC. These activities are expected to address weak public sector institutional capacities, a lack of demand-driven and informed decision making and planning, and an immature regulatory environment. The participation and engagement of various stakeholder groups, including private sector actors, are key to the successful development of the NESC.

11. **With respect to accelerated nationwide reforms impeding the development of the NESC,** this subcomponent will address the two nationwide thematic areas critical to the cluster's development, namely the investment climate, and PPPs. First, while Mauritania's investment climate is poor, this is an unprecedented opportunity to build on the ongoing strong reform momentum to which project preparation has contributed. Mauritania is among the top 10 reformers in the Doing Business Report 2016. Second, Mauritania has neither a legal and regulatory framework for PPPs nor an institutional mechanism with which to identify, structure, and execute PPP transactions. Such improvement is central to NESC development as several key

projects (for example, the new airport and the deep seaport) will require both public participation (partial financing) and private investment if it is to work optimally. Thus, this subcomponent will also develop the capacity of stakeholders (public and private) to formulate, prioritize, and foster indicator-based reforms at the local and national level (including the investment climate and PPPs) with a view to lowering barriers to investment through: (a) TA to ANZF and MEF in order to establish a strong track record of competitive industries and follow-up on recommendations; (b) supporting expenditures that contribute to well-developed and functioning PPD processes; and (c) carrying out a program of activities (consultant services, goods, and non-consulting services) focusing on the establishment of a PPP framework and a reduction in investment restrictions and procedures. The following activities have already been identified: (a) establishment of a national PPP framework; (b) streamlining business registration procedures; and (c) streamlining access to electricity through the Mauritanian Electricity Corporation (*Société Mauritanienne d'Électricité*). These activities are expected to address the lack of inclusion and trust among the private sector in public policy and investments decisions, burdensome and costly regulations, policies, and procedures, and the immature regulatory framework.

12. **Expected benefits are:** (a) enhanced policies and systems for coordinating activities; (b) improved resource allocation for the development and management of the cluster; (c) a stronger citizen and beneficiary engagement in policy formulation and implementation; (d) catalyzed private investments; and (e) an increase in the number of improvements motivated by national and subnational reforms.

Subcomponent 1.2: Generating responsible investments in the NESC (US\$3.38 million)

13. **So far, the Nouadhibou Free Zone has identified flagship projects (such as the seafood cluster, the deep seaport, and the new international airport).** The seafood industry is already vibrant in Nouadhibou and warrants further support in light of the sector's paradigm shift toward sustainable fisheries with the implementation of the fisheries management plans and the introduction of TAC for some species. However, for the truly effective management of fisheries resources and a successful seafood cluster, a comprehensive perspective on the entire seafood value chain needs to be incorporated into cluster design and implementation, which in turn calls for participation by responsible private actors through PPPs.

14. **Thus this subcomponent will carry out a program of activities aimed at building up the implementation capacity of stakeholders in the Nouadhibou Free Zone as part of the development of the NESC and at identifying and attracting responsible investors for its flagships projects** through: (a) commercial viability assessments designed to enable the mobilization of private sector and institutional investor capital; (b) targeted investment promotion activities and media coverage of investment attraction, facilitation, and after-care, such as promotional material, communications campaigns, targeted missions, the NESC's website, and an Investor Tracking System; and (c) skills training and TA (environmental, legal, financial, and fiduciary) required to generate, negotiate, facilitate, monitor, and retain responsible investments. These activities are expected to address currently weak governance, a lack of focus on investment promotion efforts (attraction and servicing), and limited spillovers of FDI into the local economy (see the description of Subcomponent 2.2, which promotes the participation of the local population in cluster activities).

15. **Expected benefits are:** (a) participation of responsible businesses and investors in the seafood cluster, with a vision consistent with that of the NESCC; and (b) strengthened institutional capacities with a view to attracting and retain investments¹⁷ and monitor the cluster's development (including benchmarking and implementing investment agreements) with a strong focus on its sustainability and impacts on the local economy.

Component 2: Increasing the value of seafood products produced and marketed in the seafood cluster with the participation of local actors (US\$3.28 millions)

16. **The second component aims at increasing the value of seafood products produced and marketed in the seafood cluster and increasing the participation of local population in the cluster's activities.** This will involve, among other things, improving supply chain logistics and infrastructure and investing in private sector capacity, thus enabling the improved handling of landed fish and a reduction in post-harvest losses and discards through ports, onshore facilities, and services managed efficiently by the private sector. Activities implemented under this component are expected to result in an increase in investments (in particular in trade logistics), productivity growth, and a rise in exports in the fresh fish segment.

17. **The project explores areas for improvements to the value chain of selected seafood products identified in the analysis of Subcomponent 1.1.** For each step along the post-harvest seafood value chains, five areas have been identified for improvement: (a) enhancing cold chain reliability and security; (b) reducing logistics delays; (c) streamlining logistics and physical flow; (d) expanding landing infrastructure; and (e) others (sanitation, regulatory constraints, promotion, energy and water costs, and so on). While limited cold storage capabilities, logistics delays, and a lack of flow are the most important constraints along the fresh fish value chain at export, a lack of flow at landing and limited storage and distribution are the most important constraints on the frozen value chain.

18. **Component 2 has two subcomponents that together will catalyze investments and grow export volumes and the value of target seafood products.** The first subcomponent aims at improving fish landing and export capacity and facilitating trade, while the second will better integrate local small-scale suppliers and vulnerable groups into targeted seafood value chains.

19. **The fish landing and exportation infrastructure, whose operational efficiency is to be improved by the project activities in this component, will serve all responsible participants of the cluster that wish to use them without excluding anyone from accessing the facilities.** The transparency of transactions at these facilities will also be ensured, following the good practices of recording and disclosing information as recommended by international transparency initiatives. While all of the activities in this project will be implemented in an inclusive and transparent manner by ensuring that the process of PPD and preparation for PPP includes all relevant stakeholder groups, activities under this component will most directly benefit the poor and the most vulnerable. For example, the improved operation of the port used by the artisanal and coastal fishing segments (EPBR) will provide smaller-scale fishers with stronger links to the value chain. Meanwhile, TA for capacity building in the second

¹⁷ Beyond the benefits attributable to the project (such as increased investments), the project is expected to increase the capacities of relevant institutions to continue attracting investments after the project's end.

subcomponent can directly increase the incomes of those engaged in the post-harvest handling of fish (where women dominate) by reducing product losses and raising productivity. Note that a legal covenant in SOP C1 project ensures the equitable allocation of fishing rights for octopus, hence ensuring that none of the existing fishers is excluded from the process of initial rights allocation.

Subcomponent 2.1: Improving the handling of landed catch and promoting exports of fresh fish at the Nouadhibou seafood cluster (US\$2.16 million).

20. **Even though much of Mauritanian fish is harvested by foreign fleets, often from Asia and Europe, and is contractually required to land in Mauritania, only a limited amount is landed domestically.** In Nouadhibou, the main fish landing site in the country, this is partially due to a lack of adequate equipment and human capital at the existing landing infrastructure. Moreover, only 10 percent of the catch of the national industrial fleet is off-loaded for processing in Mauritania. To the extent that it is appropriate with respect to the country's comparative advantage in landing and processing fish catch, which is to be determined by the analysis and identification of target fisheries value chains in Subcomponent 1.1, investing in the operational efficiency of existing fish landing sites along with efforts to facilitate trade can: (a) increase the volume of landings in Mauritania; and (b) increase the value of the catch through improved handling with a view to reducing losses and increasing product quality. Spillover impacts on the local economy will include job creation, the development of a logistics industry, and increased availability of quality seafood to consumers.

21. **Even though Mauritania lies in relative proximity to the major seafood-consuming markets of Europe, the country does not currently exploit this advantage.** For example, the North-South highway corridor to and from Morocco, which passes through the PK55 border post north of Nouadhibou, has potential for further development as an alternative to shipping by air provided various obstacles along the corridor are removed, namely the high number of public administration institutions involved on both sides of the border but without proper coordination mechanisms, poor border facilities and inadequate procedures, and poor involvement of the Mauritania trucking industry in the corridor's activities, to name but the most prominent constraints. Private sector actors in the seafood industry currently face unnecessary trade barriers consisting especially of inconsistent, complex, and costly transactions toward exports markets. While Nouadhibou's main fish products consists of frozen whole octopus for export to Europe and Japan, fresh octopus can command much higher prices. The export of fresh filleted fin fish to southern Europe can also achieve high value if conditions are met, including stability in raw material supplies, sanitary conditions and other quality-related aspects of the product, and transportation and other infrastructure. Again, to the extent that it is appropriately compared to the country's comparative advantage in the landing and processing of fish catches, which is to be determined in the analysis and identification of target fisheries value chains in Subcomponent 1.1, investing with a view to improving the operational efficiency of existing fish landing sites can increase the volume of landings in Mauritania, while investing in order to improve conditions for allowing a higher proportion of fish landed in Nouadhibou to be exported fresh rather than frozen, including efforts at trade facilitation, can substantially increase the volume of landings in Mauritania as well as the value of landed catch.

22. **This subcomponent aims at improving the organization and management of three key infrastructures: the commercial port (PAN) and the artisanal and coastal fishing port (EPBR) along with their respective extension zones, and the Nouadhibou International Airport. The subcomponent also aims at improving the handling of landed fish and at bringing about a reduction in post-harvest losses through ports, onshore facilities, and services managed efficiently by the private sector.** The project will finance: (a) consultants' services for improving operational efficiency at PAN and EPBR and operationalizing their extensions; (b) works for a refrigerated warehouse at the Nouadhibou International Airport; and (c) TA for modernizing trade services and regulations and increasing fresh fish exports. The selected activities are described below:

- (a) *At the Nouadhibou International Airport*, the project will construct a refrigerated warehouse with the provision of key equipment such as standardized pallets and administrative facilities including a one-stop-shop designed to facilitate export procedures (to include the Central Bank of Mauritania, customs, tax, and airport administration representations) and an ONIPSA laboratory for quality control. The warehouse and its equipment will be designed to European standards in order to guarantee quality in the cold chain to the end market (the warehouse will be refrigerated to 15 degrees Celsius and will include a refrigerated chamber at 0–2 degrees Celsius where the fresh fish pallets will be stored, a weighing scale, and a scanner). The size of the infrastructure was determined based on the estimated current loss in revenues expressed by exporters due to a lack of such infrastructure, the aim being to optimize current and expected flows in the supply chain. To improve current fresh fish handling procedures (with polystyrene containers being handled several times, leading to breakage risks), all movements will be carried on standardized plastic pallets. This will also improve supply chain flows and allow for better temperature control. The warehouse and its facilities will be privately managed. It is expected that this infrastructure will not only secure a cold chain for fresh fish exports, hence improving the quality of the product, but also increase the visibility of the Nouadhibou label. While this infrastructure will be located at the airport, it will also serve trucking routes, and the warehouse could easily be relocated as this was one of the requirements of its design;
- (b) *At PAN*, the project will finance studies for the potential reorganization of the operating institution, its services, and its water and sanitation system (including legal status, pricing strategy, and assessment of sanitation network needs);
- (c) *At the PAN extension zone*, newly built by AECID, the project will finance: (i) studies (including a development and operating plan); and (ii) TA aiming to help operationalize the 120,000 m² extension zone;
- (d) *At the artisanal fishing port (EPBR)*, the project will finance studies (including a development and operating plan) for the operationalization of the 220,000 m² extension zone newly built by JICA, which includes 180 linear meters of quays and four docks;
- (e) *At the North–South highway corridor to and from Morocco, which passes the PK55 border post north Nouadhibou*, the project will finance a diagnostic study of major challenges as well as TA designed to address the most binding constraints identified

with regard to border management (procedures and capacity building), logistics services, and facilities;

- (f) As regards trade facilitation, the project will provide TA aimed at modernizing trade services and regulations.¹⁸

23. Expected benefits from better management and use of both ports as well as the operationalization of their extension zones and a refrigerated warehouse infrastructure that responds to market demand are: (a) increased volume of landed catch; (b) additional revenues and employment from processing, export, and related activities arising from enhanced enabling environment; (c) improved access to foreign markets; and (d) easier access to markets thanks to more efficient trade logistics.

Subcomponent 2.2: Building the capacities of local suppliers and vulnerable groups to capture greater benefits from productive and inclusive seafood value chains (US\$1.12 million)

24. Negotiations over the EU fishing agreement have included conditions for increasing the employment of Mauritians on European fishing vessels and better off-loading of catch for processing in Mauritania. The latter will create processing jobs and thus benefit poor women in particular. Most of the catch off-loaded in Mauritania is currently being landed in Nouadhibou ports (both in volume and value). In addition, while priority is given in the Government's strategy to refocusing fisheries development on the coastal and industrial fishing segments, all of artisanal, coastal, and industrial segments of the fisheries sector will coexist in the NESG. It is particularly important therefore that all fishing segments understand and become active participants in the new paradigm for fisheries management, which is to be principally brought about through the implementation of the fisheries management plans. Thus, the proposed project will strengthen the capacities of stakeholders, including local small-scale fishers and vulnerable groups (such as women, the less educated, and marginalized populations) to promote the acceptance of and participation in the successful implementation of the fisheries management plans as well as capacities for improving post-harvest handling in Nouadhibou.

25. This subcomponent aims at maximizing linkages between the cluster and the local population by better integrating local small-scale suppliers and disadvantaged groups in value chains with potentially high impacts on their livelihoods. Today, small-scale fishers in the artisanal fishing segment in Nouadhibou focus essentially on octopus harvesting or supplying fishmeal plants with low-quality catch. However, there exist in Nouadhibou alternative local, regional, and global value chains or markets with greater opportunities for job creation and revenue increases. A private sector support program will be housed at the FNPM and aimed at developing a sustainable seafood sector in Nouadhibou in partnership with the Naval Academy, IMROP, and ONISPA. These activities are expected to address the lack of diversification in value chains and the suboptimal value of seafood products and to promote participation in cluster activities by women and informal participants in fishery-related activities, who are typically the most vulnerable groups among the Nouadhibou population.

¹⁸ In particular: (i) enforcing the landing of pelagic fish; (ii) simplifying procedures for fresh fish exports; (iii) advancing the agenda of the Convention on International Transport of Goods Under Cover of TIR Carnets; (iv) abrogating the 2008 decree constraining fresh fish exports; (v) facilitating visa processing for fishing boat crews; and (vi) supporting the *ad hoc* committee in charge of the creation of a one-stop-shop for external trade.

26. Through the program, the project will guide local firms and fishery communities, including vulnerable groups (for example, women), in this transition. Based on a value chains scan and a prioritization exercise, the facility's non-financial support will be articulated around three main pillars, the first two of which will focus primarily on training and promoting sector champions while the third will exclusively address the participation of small-scale fishers and vulnerable groups in the cluster. The proposed project will finance a program of activities that will include training for all relevant seafood cluster stakeholders, as follows:

- (a) The first pillar will consist of management and investment training designed to support the transition of private enterprises to the new fisheries management regime under the Octopus Management Plan and rationalize their harvesting effort and processing capacities.¹⁹ This will include a knowledge exchange program with Namibia, which has successfully implemented similar fisheries reforms;
- (b) As global demand for wild-caught fish and crustaceans is increasing, the second pillar will target TA designed to help industries and institutions comply with internal product quality control procedures and acquire and retain important certifications on food safety and quality management (including food safety standards such GMP+, and others: Hazard Analysis and Quality Control Points with ISO 22000 & ISO 22001), environmental management systems (ISO 14001), conformity assessment (ISO 17020:2012), testing and calibration laboratories (ISO 17025:2005), and quality management systems (ISO 9000 & 9001:2008) as well as eco-certification. If a critical mass of firms within the cluster complies with a set of agreed certifications, it is expected that an NESL label will be created in order to increase the visibility of Nouadhibou;
- (c) Finally, the third pillar will focus on the artisanal fishing segment and the small-scale handling and processing of their catch. As of now, post-harvest losses occur at multiple points in the value chains, starting from poor conservation of catch on fishing vessels to inexistent or inefficiently used handling facilities to important knowledge gaps about sound handling practices and revenue-increasing opportunities. Based on the identification of value chains with high potential for income generation for vulnerable groups in Nouadhibou (Subcomponent 1.1), the project will provide small-scale fishers and post-harvest actors, including women, with capacity-building training aiming at: (i) reducing post-harvest losses; and (ii) promoting good fishing and management practices (for example, building entrepreneurship and business development skills and specific seafood handling training, and access to markets).

27. **Expected benefits of an informed, certified, and skilled private sector are:** (a) processes leading to the distribution of portions of TAC in the octopus sector understood by private sector stakeholders in the artisanal, coastal, and industrial segments on the one hand and the participatory, transparent, and scientific principles underpinning it on the other; (b) improved access to higher-value markets for firms adopting certifications; and (c) reduced losses from

¹⁹ This is part of the Octopus Management Plan and will support the sector in developing a strategy for businesses specialized in the catch of cephalopod, which suffer from weak capabilities. The project aims at restructuring cephalopod treatment on land, which will also include the diversification of refrigeration units toward other resources.

spoilage and improved unit prices of landed catch by artisanal fishers and their processed products (often done by women).

C. Project Financing

28. **Secured Bank and client financing.** The proposed project will have a total cost of US\$9.25 million and will be financed through two sources: (a) an IPF in the form of an IDA grant amounting to US\$7.75 million equivalent; and (b) counterpart financing by the Government amounting to US\$1.50 million.

Table 2.1. Financing Summary by Component and Source (US\$, millions)

	Project Cost	IDA Financing	Government
Component 1: Developing a sustainable seafood cluster in Nouadhibou	5.97	4.66	1.32
Subcomponent 1.1	2.59	2.39	0.20
Subcomponent 1.2	3.38	2.27	1.12
Component 2: Increasing the value of seafood products produced and marketed in the seafood cluster with the participation of local actors	3.28	3.09	0.18
Subcomponent 2.1	2.16	2.03	0.13
Subcomponent 2.2	1.12	1.07	0.06
<i>Not allocated</i>	<i>9.5%</i>	<i>4.9%</i>	<i>33.3%</i>
Total	9.25	7.75	1.50

29. **Additional secured parallel financing.** Other secured financing will consist of WARFP SOP C1 with an IDA grant, a GEF grant, and Government co-financing amounting to US\$20.05 million over five years (2015–2020) for Mauritania.

30. **Complementary financing on which the project builds on or will benefit from.** Subcomponent 2.1 will build on ongoing investments from AECID, with €18 million for the PAN landing extension, and JICA, with US\$11 million for the EPBR extension. Also, parallel funding of WARFP SOP C1 will include the *Kreditanstalt für Wiederaufbau* (German Development Bank), with US\$10 million for maritime surveillance and the German Corporation for International Cooperation (GIZ), with US\$2 million toward promoting data transparency and climate change resilience at and near the Nouakchott fish market. Finally, secured parallel financing will involve the Islamic Corporation for the Development of the Private Sector, which is currently conducting a feasibility study for a 70,000-ton cold storage facility (co-financed by the Turkish Cooperation and Coordination Agency), and AFD, with expected TA for information systems management at PAN.

31. **Other potential parallel financing.** Other potential sources of financing are currently being explored, including EIB sources, with commercially viable infrastructure investments in fisheries, the EU, with a sectoral support program to resume in January 2016 and a focus on sectoral governance and institutional support to the Ministry of Fisheries and Maritime Economy, IMROP, the Naval Academy, ONISPA, the International Finance Corporation (IFC), with a climate-efficient industry pilot scheme for potential investments in private companies

(with emphasis on cold storage and ice manufacturing), and AfDB, with support for institutional capacity building for PPPs. Meanwhile, further support is expected from JICA for EPBR extension zone development.

32. **Ongoing Bank-executed, trust-funded activities.** Four multi- and single-donor trust funds will provide implementation support to MEF and NESC public and private stakeholders. These are expected to continue providing TA until at least the end of 2017:

- (a) *Nouadhibou Competitive Industries and Innovation Program*, financed by the EU (US\$420,000) in 2015, 2016, and 2017; this will provide technical and implementation support for the delivery of the NESC concept, organization, and financing options. In addition, it will promote the participation of local MSMEs and fishing communities in the cluster by fostering backward and forward linkages using methods such as business development services, coaching, and entrepreneurship promotion;
- (b) *PPIAF* (2016–2017) will provide legal and institutional support (for example, establishment of a PPP unit), conduct training workshops for public and private actors, and contribute to the Government’s PPP pipeline generation. The PPIAF grant (Mauritania PPP Infrastructure Pipeline Development and Competitiveness Phase 2) has been mobilized to address the lack of a PPP framework, which has been identified as a constraint on private investment in the NESC;
- (c) *Green Nouadhibou Cluster* (US\$1,100,000), financed by the government of Korea (Korean Green Growth Partnership), will assist the Government of Mauritania in developing an eco-seafood cluster and a Free Zone that promote resource-efficient and green practices through a set of regulatory and technical measures. A technical and financial diagnostic of resource use within the cluster will help identify opportunities for firms, and a training program will be designed and implemented To that effect;
- (d) *Mauritania Investment Climate Program*. Given the limited IDA resources for WARFP C2, the focus has been prioritized toward investment climate reforms that address constraints affecting, among others, operators in the NESC. This new activity, which is schedule to start in 2016, will complement the investment climate activities included under the current project and will expand its focus to a broader nationwide investment climate agenda that will build on the strong reform momentum in Mauritania (ranked among the top 10 in the Doing Business Report 2016).

D. Series of Projects Objectives and Phases

33. **The NESC project (WARFP SOP C2) is implemented as part of WARFP, a multi-country, multi-phase overlapping SOP formerly known as Adaptable Program Loans.** The program encompasses (up to) nine (9) countries, and projects in all countries share the same overall program objective. Under WARFP, each country receives resources after meeting the eligibility criteria for a country to join the program, consisting in the identification of a series of policy reforms for improved governance of the fisheries sector and the definition of a framework for investment designed to achieve these reforms (including actionable milestones) and a

minimum legal and regulatory framework for fisheries surveillance acceptable to the Bank. Each SOP group can overlap with other regional WARFP lending (that is, SOP-A for Cabo Verde, Liberia, Senegal, and Sierra Leone, SOP-B for Guinea-Bissau and Ghana, and SOP-C for Mauritania and Guinea). Each country can receive two to three phases of support based on progress made under the preceding phase(s), where the focus of the first phase is on fisheries management improvement at the national level and the second and third phases on regional integration and value chain development. Each phase in the program is expected to last about five (5) years. Thus WARFP is a long-term effort spanning about 15 years. The overall cost of the first two phases is estimated in the range of US\$200 million. The cost of Phase 3 is difficult to estimate since it stretches well into the future and depends on actual progress under the preceding phases. By complementing the results of SOP-C1 in Mauritania (through fisheries management improvement), SOP-C2 will help catalyze and lay the foundations for Phase 3 of SOP-C for Mauritania, that is, private-sector-led sustainable growth.

34. **The rationale behind this approach is that Mauritania is endowed with valuable and shared natural resources in the form of marine fish stocks.** However, the economic and social returns currently generated from the resources are far lower than their potential due in large part to overexploitation and depletion of the resource by both legal and illegal operators. Moreover, while Mauritania captures substantial amount of fisheries resource rents through foreign fishing agreements, the rents are not directly conducive to the development of the local economy in part because much of the fish caught in Mauritania's waters is landed at foreign ports, which is where further value is added and jobs are created. In other words, Mauritania's fisheries today are characterized by: (a) low capacity to sustainably manage its marine fish resources and prevent their overexploitation; and (b) foreign and offshore legal harvesting of a resource that yields only a fraction of its value to the local economy. Overcoming these challenges presents a significant opportunity for Mauritania to sustainably increase revenues from one of its largest sources of natural capital and provides the rationale for the project's objective and design and its direct complementarity with WARFP SOP C1.

35. **WARFP SOP C1 and C2 will use a sequenced approach starting with TA for fisheries governance and support for seafood value chain development through targeted investment in commercial infrastructure (the Nouakchott fish market and the refrigerated warehouse for fresh fish exports in Nouadhibou).** It will continue with various studies identifying commercially viable and socially and environmentally sustainable opportunities. The approach will be reinforced by discrete sustainable investments in the fishing and seafood industry by private developers and anchor investors. In the subsequent phase (WARFP SOP C3), if feasible, the government of Mauritania (an IDA-only country) may request support through an IBRD loan or guarantee. The feasibility of IBRD enclave support will depend on prospects for the commercial viability and profitability of an investment project to be identified under WARFP SOP C2, such as the deep seaport, the new airport, concessions over port extensions, private management of the seafood cluster zone, and so on, including the availability of reliable guarantees of foreign currency revenue sources, which can constitute security for the IBRD loan. Private sector participation in infrastructure development will be facilitated by the adoption of a PPP code under WARFP SOP C2. IDA may consider offering partial-risk guarantees for private sector investment projects but only if the Bank receives a Government request for such a guarantee and if such a guarantee is assessed to help the Government in attracting private financing (equity and debt).

Table 2.2. WARFP Project Phases by Series

	Phase 1 Fisheries governance reform	Phase 2 Value addition and regional coordination	Phase 3 Private-sector-led sustainable growth
Series A: Cabo Verde, Senegal, and Sierra Leone	SOP A1: 2010–2015 US\$67 million	SOP A2	SOP A3
Series B: Guinea-Bissau	SOP B1: 2011–2016 US\$10 million	SOP B2	SOP B3
Series 3: Ghana	IPF: 2012–2017 US\$43.8 million	Ghana Phase 2	Ghana Phase 3
Series C: Mauritania and Guinea	SOP C1: 2015–2020 US\$30.05 million	SOP C2: 2016–2020 US\$9.25 million	SOP C3
Series D: Côte d’Ivoire and Gambia	SOP D1: 2016–2020	SOP D2	SOP D3

E. Lessons Learned and Reflected in Project Design

36. **The project draws on lessons learned from several national and regional projects.**²⁰ These lessons include the following:

37. **Zone development.** One of the main lessons learned from decades of SEZ development is that zones cannot and should not be viewed as a substitute for a country’s larger trade and investment reforms efforts. Another important lesson is to allow SEZ enterprises as well as those licensed under other regimes to coexist within the same area. It has also been found that enterprises tend to consider other benefits, such as availability of shared infrastructure and simplified procedures, as more important determining factors in participating in zones than preferential tax rates or tax exemptions. Further, experience show that promoting the private rather than the public development of zones has higher chances of success. Finally, where possible, it is important to develop an appropriate legal, regulatory, and institutional framework to ensure adequate regulation and facilitation, which in turn requires greater administrative capabilities within host governments.

38. **Managing access to fish resources.** As economic theory and experience around the globe suggest, under an open-access fishery regime, fishers continue to enter the industry until the profits from fishing or resource rents are completely dissipated. Pressure on the fisheries as a social safety net is strong, especially in poor coastal areas, where there are few other job opportunities. For the fisheries sector to become an instrument of economic growth and poverty alleviation, it is of critical importance that an effective management system of access to fisheries

²⁰ These include previous projects under the WARFP in Cabo Verde, Guinea-Bissau, Ghana, Liberia, Senegal, and Sierra Leone, including the Senegal Sustainable Development of Fish Resources Project, the Senegal Integrated Coastal and Marine Resources Project, the Southwest Indian Ocean Fisheries Project; Tanzania’s MACEMP and Kenya Coastal Development Projects, and the Coastal Resources Management Project in East Asia as well as the Mauritania Business Environment Enhancement Project and seafood cluster experiences in the United Kingdom and the Republic of Korea.

resources is put in place.²¹ However, based on lessons learned from SOP A1 in particular, it is important to implement intermediate or transitory measures designed to protect existing small-scale fishers and communities and prevent the resource from further degradation until more refined management systems are in place. This will be a temporary measure until management plans by fisheries or management units based on sustainable level of harvest and associated fishing capacities are operational. In addition, the introduction of controlled access to fish resources can result in reduced or denied access for certain populations within and outside the fishing communities at a time when the wealth of the ocean is often considered a national asset. The project recognizes the need for sensitivity to this issue and encourages clients to devise plans describing how the benefits from fisheries will be redistributed among the broader population.

39. **Managing all fishing segments and the value chain approach.** Experience from other countries shows that if it leaves some fishing segments unmanaged, an access management policy can provide an immediate expansion opportunity for the unmanaged segment. In Senegal, for example, the artisanal segment has further expanded after the introduction of a management policy for the industrial segment. The access management systems supported by SOP C1 will cover industrial, coastal, and artisanal segments, starting with the industrial segment, with the aim of reducing the time lapse occurring in the implementation of access management in all segments. A value chain and logistics approach facilitates improved understanding of challenges to competitiveness, helps with the identification of relationships and coordination mechanisms, and assists in understanding how chain actors deal with powerful interest governing or influencing the chain. This approach helps improve access to markets and generates more efficient product flows while ensuring that all actors in the chain benefit.

40. **Building on prior analytical work.** The 2014 study entitled “Transitioning toward Inclusive Green Growth in Mauritania” highlights the fisheries sector as one of the key sectors capable of driving sustainable economic growth. In addition, three Bank TA schemes (namely Nouadhibou Free Zone TA in 2013–2014, Competitiveness of Nouadhibou Trade Sectors and Location in 2014, and Mauritania PPIAF in 2014–2015) have helped prioritize the focal sector (that is, the fisheries and seafood industry) and related local and nationwide activities relevant to this project. This operation directly builds on those previous studies.

41. **Sequencing of activities (master plan and strategic implementation).** Without an appropriate management regime for access to resources, investments aimed at facilitating fish landing or processing can lead to further increases in the fishing effort and contribute to the overexploitation of the resource. Previous projects have shown that master plans bring many benefits, in particular: (a) a consistent point of reference against which to make decisions; (b) the ability to make better-informed decisions over both policy implementation and infrastructure development; (c) higher predictability regarding budgeting and planning; (d) the potential to optimize resource use; (e) means of preserving citizen’s needs; and (f) the potential to generate positive economic development. While processes for developing these vary, master plans are most successful when they are flexible, present a vision that brings together the concerns of various interest groups, and their recommendations create a ground swell of community and political support. For this reason, the activities included in Subcomponent 1.1 are critical and

²¹ The project recognizes that issues such as food security and job creation are most properly discussed in the context of the wider economy and that ascribing this challenge to the fisheries sector in isolation is inappropriate.

will therefore be pursued first. In particular, the analysis designed to identify target value chains will address critical interactions between the harvesting and post-harvesting sectors and investigate conditions for successful value chain development and the critical sequencing of activities.

42. **Monitoring & Evaluation.** Under previous WARFP projects in Phase one, M&E has performed poorly as a result of a combination of factors, namely lack of availability of data, lack of strong preparation for data collection, and ultimately indicators that were too complex and sometimes too ambitious given the circumstances. The results frameworks under SOP C1 and SOP C2 are based on data that are readily available, and the POM will detail data collection procedures for each indicator. Formally staffing the proposed project with an M&E officer and setting up a well-functioning M&E system is fundamental.

Annex 3: Implementation Arrangements

MAURITANIA: Nouadhibou Eco-Seafood Cluster Project (P151058)

Project Institutional and Implementation Arrangements

1. **ANZF is the implementing agency for all components of the project.** This public institution was created in July 2013 and is fully operational and it is assisted with the appropriate fiduciary capacity in Nouadhibou.
2. **The Steering Committee, which will consist of eight (8) members representing the institutions benefiting from the proposed project,** shall be chaired by the Head of the Directorate General for Development (DGD) for the Nouadhibou Free Zone Authority and will have two vice-chairs: the Head of the Directorate General for Investment Projects and Programs (DGPI) in MEF and the Head of the Directorate of Planning and Cooperation (DPC) in the Ministry of Fisheries and Maritime Economy (MPEM) as well as a second representative from MEF, a second representative from ANZF, two representatives of membership based fishery private sector associations (artisanal and industrial segments respectively), and one representative of civil society as well as other such membership as may be proposed by the Recipient and acceptable to the Bank.
3. **A Project Coordination Unit (PCU) is embedded in the Nouadhibou Free Zone Authority** and vested with responsibility for financial matters and implementation support for all project activities. The PCU shall at all times during project implementation retain a coordinator, a procurement specialist, a financial management (FM) specialist, an environmental specialist, an accountant, and an M&E specialist, each with experience and qualifications satisfactory to the Association.

Project Administration Mechanisms

4. A draft POM has been submitted and is currently being reviewed by the Bank fiduciary team.

Financial Management, Disbursements, and Procurement

Financial Management

5. **Budgeting arrangements.** ANZF will prepare an annual budget based on an agreed annual work program and procurement plan. The budget will be adopted by the Program Steering Committee before the beginning of the year, and its execution will be monitored on a quarterly basis. The budgeting process and its monitoring will be clearly defined in the Administrative and Accounting Procedures Manual. Annual draft budgets will be submitted for the Bank's "no objections" process before adoption and implementation no later than November 15 each year. Periodic reports on budget monitoring and variance analysis will be prepared by the FM team.
6. **Accounting arrangements.** Current accounting standards in use in Mauritania for

ongoing Bank-financed projects will be applicable. Project accounts will be maintained on an accrual basis and supported by appropriate records and procedures designed to track commitments and safeguard assets. Annual financial statements will be prepared by ANZF.

7. **Internal Control.** The Administrative and Accounting Procedures Manual will provide clear descriptions of the approval and authorization processes with respect to the rule of segregation of duties. An internal auditor with qualifications satisfactory to the Association will be recruited to strengthen the internal control environment.

8. **Financial reporting arrangements.** ANZF will prepare quarterly Interim Financial Reports (IFR) for the project in form and content satisfactory to the Association. These IFRs will be submitted to the Bank within 45 days from the end of the respective quarter. ANZF will prepare and agree with the Bank the format of the IFRs by negotiation. ANZF will also prepare project financial statements in compliance with international accounting standards and Bank requirements. These financial statements²² will comprise the following:

- (a) Balance sheet;
- (b) Statement of sources and uses of funds;
- (c) Statement of commitments;
- (d) Accounting policies adopted, with appropriate notes and disclosures;
- (e) Management statement to the effect that program funds have been expended for the intended purposes as specified in the relevant grant agreement.

9. **Auditing arrangements.** The Financing Agreement will require the submission of audited financial statements for the project and for ANZF entity to IDA within six (6) months from the end of the fiscal year. The audit report should reflect all activities conducted under the project. An external auditor with qualifications and experience satisfactory to the Bank will be appointed to conduct annual audits of the project's financial statements.

Table 3.1. Audit Reports

Audit Report	Entity	Due Date
Annual audited financial statements and management letter	ANZF	June 30, N+1

Flow of Funds and Disbursement Arrangements

10. **Disbursement arrangements.** Disbursements will be made in accordance with the World Bank Disbursement Guidelines for Projects, dated May 1, 2006. The financing proceeds will be disbursed using one or more of the four disbursement methods available to the project: reimbursement, advance, direct payment, and special commitment as specified in the Disbursement Letter. Disbursements will be transaction-based, with withdrawal applications

²² It should be noted that the project's financial statements should be all-inclusive and cover all sources and uses of funds and not only those provided through IDA funding. It should thus reflect all program activities, financing, and expenditures, including funds from other development partners.

being supported by a statement of expenditures.

11. Withdrawal applications will be supported with Statement of Expenditures (SOE).. Documentation will be retained at ANZF for review by Bank staff and auditors. The Disbursement Letter will provide details of the disbursement methods, required documentation, the designated account (DA) ceiling, and minimum application value. On project closure, a period of four (4) months (grace period) from the closing date will be allowed in order to complete the processing of disbursements for eligible expenditures incurred up to the closing date of the grant.

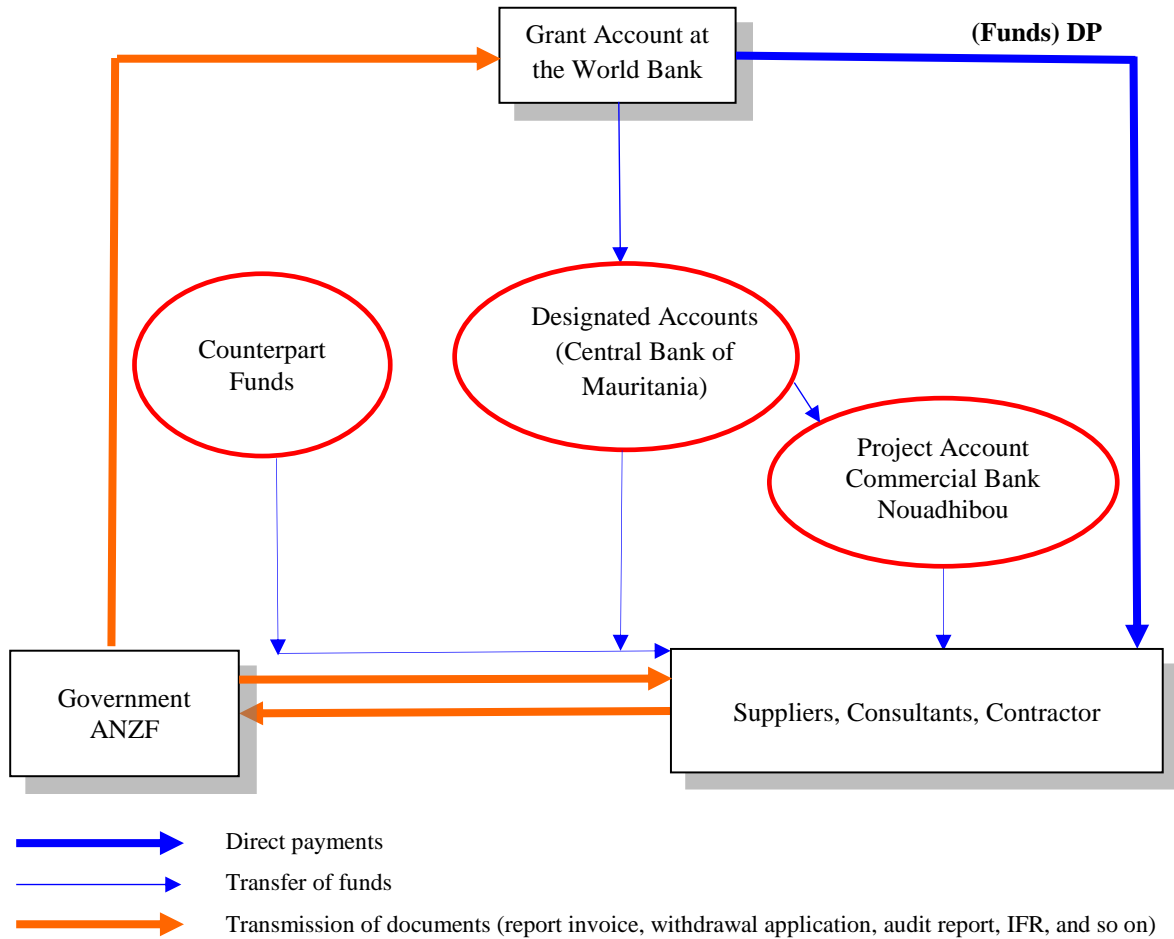
12. **Banking arrangements.** A Designated Account (DA) for the project will be opened in the Central Bank of Mauritania and a project account will be opened in a commercial bank in Nouadhibou on terms and conditions acceptable to the Bank. The DA will be used for all eligible payments financed by the grant, as indicated in the specific terms and conditions of the Financing Agreement.

13. ANZF will initially submit a withdrawal application to the Bank to withdraw an initial advance up to the DA ceiling amount which has been set to USD 1 million, equivalent to a four-month's forecast of expenditures expected to be made through the DA. The Bank will process the withdrawal application and deposit funds into the DA. Subsequent withdrawals will be supported with SOEs which report on the use of advance for eligible project expenditures. The DA and the project account will be used to pay for most eligible expenditures, except for those exceeding 20 percent of the DA ceiling. Such payments shall be made through the direct payment method or a special commitment letter issued by the Bank. The DA should be replenished on a monthly basis.

14. **Counterpart Funds.** Counterpart funds in the aggregate amount of USD 1.5 million equivalent will be provided by the Government of Mauritania to as parallel funding for activities under both components. Counterpart funds will be disbursed to a project account in an initial installment of US\$600,000 no later than two (2) months after the Effective Date; thereafter, in equal annual installments of US\$300,000 on each April 1 of the remaining three years of project implementation. The project account will remain open not less than eight (8) months after the end of project implementation for the sole of purpose of depositing funds provided by the Recipient for the financing of the Project.

15. **Flow of funds arrangements.** The flow of funds arrangements for the project is as shown in Figure 1.

Figure 1. Flow of Funds Arrangements



16. **Disbursements by Category.** The table below sets out the expenditure categories and percentage of eligible expenditures to be financed out of the Financing proceeds taking into account the prevailing Country Financing Parameter for Mauritania:

Category	Amount of the Financing Allocated (expressed in US\$)	Percentage of Expenditures to be Financed (inclusive of Taxes)
(1) Goods, non-consulting services, consultants' services, Operating Costs and Training for the Project	2,750,000	100%
(2) Refund of Preparation Advance	5,000,000	Amount payable pursuant to Section 2.07 of the General Conditions
TOTAL AMOUNT	7,750,000	

17. **Action plan.** The actions listed in Table 3.2 need to be taken in order to enhance the FM arrangements for the project.

Table 3.2. FM Arrangements Criteria

No.	Action	Due Date	Responsible Entity
A	Finalize Administrative and Accounting Manual of Procedures	By effectiveness date	ANZF
B	Recruit accountant with competence and experience satisfactory to the Association (as part of the PCU)	By effectiveness date	ANZF
C	Recruit internal auditor with competence and experience satisfactory to the Association	Not later than four (4) months after effectiveness	ANZF
D	Select external auditor with competence and experience satisfactory to the Association	Not later than four (4) months after effectiveness	ANZF

18. **Financial covenants.** The borrower shall establish and maintain an FM system including records, accounts, and preparation of related financial statements in accordance with accounting standards acceptable to the Bank. Financial statements will be audited in accordance with international auditing standards. The audited financial statements for each period shall be furnished to the Association within six (6) months from the end of the fiscal year. The borrower shall prepare and furnish unaudited IFRs for the project to the Association within 45 days from the end of each calendar quarter in form and substance satisfactory to the Association. The borrower shall be compliant with all the rules and procedures required for withdrawals from the DA of the project.

19. **Implementation support plan.** Based on the outcome of the FM risk assessment, the implementation support plan detailed in Table 3.3 is proposed. The objective of the implementation support plan is to ensure that ANZF maintains a satisfactory FM system throughout the project’s life.

Table 3.3. Implementation Support Plan

FM Activity	Frequency
Desk reviews	
IFR review	Quarterly
Audit report review of the program	Annually
Review of other relevant information such as interim internal control systems reports	Continuous as they become available
On-site visits	
Review of overall operation of the FM system	Annual for implementation of support mission
Monitoring of actions taken regarding issues highlighted in audit reports, auditors’ management letters, internal audits, and other reports	As needed
Transaction reviews (if needed)	As needed
Capacity-building support	
FM training sessions	During implementation and as and when needed

20. **Conclusion.** The conclusion of the assessment is that FM arrangements will meet the Bank's minimum requirements under OP/BP 10.00 once mitigation measures are implemented.

21. The overall residual risk rating will be Moderate once mitigation measures are implemented.

Procurement Processes and Procedures

22. **Procurement under the project will be carried out** in accordance with the Bank's: (a) Guidelines: Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers, dated January 2011, revised in July 2014; (b) Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers, dated January 2011, revised July 2014; and (c) Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants, dated October 15, 2006, revised January 2011, as well as the provisions stipulated in the Financing Agreement.

23. **The general description of various items under different expenditure categories is presented under Procurement Arrangements.** For each contract, the different procurement methods or consultant selection methods, the need for pre-qualification, estimated costs, prior review requirements, and the time frame are agreed between the borrower and the Bank in the Procurement Plan. The Procurement Plan will be updated at least annually or as required in order to reflect actual project implementation needs and improvements in institutional capacity.

24. **In addition to the prior review of contracts by the Bank as indicated in the Procurement Plan, the procurement capacity assessment recommends at least one supervision mission each year** aiming to carry out a post-review of procurement actions and a technical review. Post-reviews focus on technical, financial, and procurement reports carried out by the Bank or by consultants selected and hired under the project. The percentage of procurements subject to post-reviews and technical reviews will be decided on a case-by-case basis by the Bank's mission.

25. **Advertising procedures.** To guarantee the broadest attention from eligible bidders and consultants, a General Procurement Notice will be prepared by the implementing entity and published in United Nations Development Business (UNDB), on the World Bank's external website, and in at least one newspaper with national circulation in the borrower's country or in the official gazette or a widely used website or electronic portal with free national and international access. The borrower shall keep records of responses received from potential bidders or consultants interested in the contracts and shall send them the Specific Procurement Notices (SPN).

26. **SPNs** for all goods and non-consulting services are to be procured under International Competitive Bidding (ICB), and expressions of interest for all consulting services with a cost equal to or above US\$200,000 shall be published in UNDB, on the Bank's external website, and in at least one newspaper with national circulation in the borrower's country or in the official gazette or a widely used website or electronic portal with free national and international access. SPNs for goods and non-consulting services shall be procured using National Competitive

Bidding (NCB). Expressions of interest for all consulting services with a cost less than US\$200,000 shall be published in at least one newspaper with national circulation in the borrower's country.

27. **NCB.** The procurement procedure to be followed for NCB shall be the open competitive bidding procedure set forth in Mauritania's Public Procurement Code 2010-044 of July 22, 2010 provided that such procedure shall be subject to the provisions of Section I and Paragraphs 3.3 and 3.4 of the Procurement Guidelines as well as the following additional provisions:

- (a) Bidding documents acceptable to the Bank shall be used;
- (b) Eligibility to take part in a procurement process and to be awarded a Bank-financed contract shall be as defined under Section I of the Procurement Guidelines; accordingly, no bidder or potential bidder shall be declared ineligible for contracts financed by the Association for reasons other than those provided in Section I of the Procurement Guidelines. Foreign bidders shall be allowed to take part in NCB procedures and shall not be required to partner with local bidders in order to take part in the procurement process;
- (c) Bidding shall not be restricted to preregistered firms, and foreign bidders shall not be required to be registered with local authorities as a prerequisite for submitting bids;
- (d) No margins of preference of any sort (for example, on the basis of bidder nationality, origin of goods, services or labor, or preferential programs) shall be applied in the bid evaluation;
- (e) Joint venture or consortium partners shall be jointly and severally liable for their obligations. Bidders shall be given at least thirty (30) days from the date of publication of the invitation to bid or the date of availability of the bidding documents, whichever is later, to prepare and submit bids. Bids shall be submitted in a single envelope;
- (f) If justified by exceptional circumstances, an extension of bid validity may be requested in writing from all bidders before the original bid validity expiration date if such extension shall cover only the minimum period required to complete the evaluation and award a contract but shall not to exceed thirty (30) days. No further extensions shall be requested without the prior written concurrence of the Bank;
- (g) All bids (or the sole bid if only one bid is received) shall not be rejected, the procurement process shall not be canceled, and new bids shall not be solicited without the Bank's prior written concurrence;
- (h) Qualification criteria shall be applied on a pass or fail basis;
- (i) Bidders shall be given at least twenty-eight (28) days from receipt of the notification of award to submit performance securities;
- (j) In accordance with the Procurement Guidelines, each bidding document and contract shall include provisions stating the Bank's policy to sanction firms or individuals found to have engaged in fraud and corruption, as set forth in the Procurement Guidelines;

- (k) In accordance with the Procurement Guidelines, each bidding document and contract shall include provisions stating the Bank's policy on inspection and audit of accounts, records, and other documents relating to the submission of bids and contract performance;
- (l) The evaluation committee shall include at least two (2) specialists in the matter, and should never include Tender Committee members.

26. **Fraud and corruption.** All procurement entities as well as bidders and service providers (that is, suppliers, service providers, and consultants) shall observe the highest standard of ethics during the procurement and execution of contracts financed under the project in accordance with paragraphs 1.16 and 1.17 (Fraud and Corruption) of the Procurement Guidelines and paragraph 1.23 and 1.24 (Fraud and Corruption) of the Consultant Guidelines, and the Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants, dated October 15, 2006 and revised in January 2011, in addition to the relevant articles of the national public procurement legislation.

Procurement Arrangements

27. **Procurement of works.** The works to be financed will include construction of a refrigerated warehouse at the Nouadhibou airport. Works, estimated to cost US\$10,000,000 equivalent or more per contract, shall be procured through ICB. Contracts estimated to cost less than US\$10,000,000 equivalent may be procured through NCB. Contract for simple civil works estimated to cost less than US\$200,000 equivalent per contract may be procured through shopping.

28. **Procurement of goods.** Goods to be procured under the project will include vehicles, computers and accessories, printers, photocopiers, and other information technology equipment, software and licenses, furniture, and school equipment and stationary for training. Contracts with an amount equal to or above US\$1,000,000 equivalent shall be procured through ICB. Goods orders shall be grouped into larger contracts wherever possible with a view to achieving economies of scale. Contracts with an amount lower than US\$1,000,000 but equal to or above US\$50,000 may be procured through NCB. Contracts with an amount below US\$50,000 may be procured using shopping procedures in accordance with paragraph 3.5 of the Procurement Guidelines and based on a model request for quotations satisfactory to the Association. Shopping consists of the comparison of at least three (3) price quotations in response to a written request. Direct contracting may be used in exceptional circumstances only with the prior approval of the Bank, regardless of the amount, in accordance with paragraph 3.7 and 3.8 of the Procurement Guidelines.

29. **Procurement of non-consulting services.** Procurement of non-consulting services such as services for organizing workshops, training, data collection, transportation services, and maintenance of office equipment will follow procurement procedures similar to those stipulated for the procurement of goods, depending on their nature. The applicable methods shall include ICB, NCB, shopping, and direct contracting.

30. **Selection of consultants.** The services of both national and international consultants will be required under the project as regards the development and implementation of the Social

Registry, the Social Transfer Program, the expanded early-warning system, analytical activities aiming to inform the design of policies and programs, and financial auditing. Selection of consultants will be carried out in compliance with the Consultant Guidelines. Provisions for consulting services provided by firms and individual consultants may vary, as follows:

- (a) **Firms.** Selection of consulting firms will include launching a Request for Expressions of Interest, short-listing, and issuing a Request for Proposal (RFP) using the Bank's standard formats, as and when required by the Bank's guidelines. The selection method shall be chosen from among the following: Quality and Cost-Based Selection whenever possible, Quality-Based Selection, Selection under a Fixed Budget, Least-Cost Selection, Single-Source Selection as appropriate, and Selection Based on Consultants' Qualifications for all consultancy services estimated to cost less than US\$300,000 equivalent. The shortlist of firms for assignments estimated to cost less than US\$100,000 equivalent per contract may be composed entirely of national firms in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines if a sufficient number of qualified national firms are available and no foreign consultant desiring to take part is barred;
- (b) **Individual consultants.** Individual consultants shall be selected by comparing the qualifications of at least three (3) candidates and hired in accordance with the provisions of Section V of the Consultant Guidelines.

31. **Single-Source Selection may be used** for consulting assignments that meet the requirements of paragraphs 3.8–3.11 of the Consultant Guidelines and shall require the Bank's prior review regardless of the amount. Procedures for selection of individual consultants shall apply to assignments that meet the requirements of paragraphs 5.1 and 5.6 of the Consultant Guidelines.

32. **All terms of reference for the selection of firms and individual consultants, regardless of the estimated value of the assignment, shall be subject to Bank review and clearance.**

33. **The recruitment of civil servants** as individual consultants or as part of the team of consulting firms shall abide strictly by the provisions of paragraphs 1.9 to 1.13 of the Consultant Guidelines.

34. **Workshops, seminars, and conferences.** Training activities shall comprise workshops and training, based on individual needs, as well as group requirements, on-the-job training, and hiring consultants for developing training materials and conducting training. Selection of consultants for training services shall follow the requirements applicable to the selection of consultants. All training and workshop activities (other than consulting services) shall be carried out on the basis of approved annual work or training plans that identify the general framework of training activities for the year, including: (a) type of training or workshop; (b) personnel to be trained; (c) institutions that will conduct the training and reasons for selection of the particular institutions; (d) justification for the training and how it will lead to effective performance and implementation of the project or sector; (e) duration of the proposed training; and (f) cost estimate of the training. Reports by the trainees, including completion certificates or diplomas received upon completion of the training, shall be provided to the project coordinator, kept as

parts of records, and shared with the Bank, if required.

35. **Operating costs.** Operating costs are incremental expenses arising under the project and based on annual work plans and budgets approved by the Bank under the Financing Agreements. They are incurred based on eligible expenses as defined in the Financing Agreement and cannot include the salaries of the borrower's civil and public servants. The procedures for managing these expenditures shall be governed by the recipient's own administrative procedures, if acceptable to the Bank.

36. **Procurement documents.** Procurement of works and goods under ICB and recruitment of consultants shall be carried out using the Bank's latest Standard Bidding Documents (SBD) and the respective standard RFP. For NCB, the borrower shall submit a sample format for the bidding documents to the Bank for prior review. Bidding documents shall incorporate the exceptions listed above and shall be used throughout the project once the format has been agreed. Forms of Evaluation Reports developed by the Bank shall be used. The SBD for NCB will be updated to include clauses related to fraud and corruption, conflict of interest, eligibility, and the Bank's inspection and auditing rights requirements consistent with the Bank's Procurement Guidelines.

Assessment of Procurement Capacity of the Implementing Agency and Risks

37. **Procurement activities shall be managed by the PCU anchored in ANZF,** which shall have overall responsibility for carrying out the following activities: (a) managing the overall procurement activities and ensuring compliance with the procurement process described in the relevant manuals; (b) preparing and updating the Procurement Plan; (c) preparing bidding documents and draft RFPs, evaluation reports, and contracts in compliance with Bank procedures; and (d) seeking and obtaining approval of national entities and of IDA on procurement documents, as required.

38. **Legal backing for procurement.** The Mauritanian Procurement Code is regulated by Decree no 2010-044 of July 22, 2010 and its implementing regulations (decrees, presidential decrees, and prime-ministerial bylaws). This code was reviewed with IDA assistance. In general, the country's procurement procedures do not conflict with the Bank's guidelines. No special permits or licenses need be specified in the credit documents since Mauritania's procurement practices allow IDA for procedures to take precedence over any contrary local regulation or practice. A Country Procurement Assessment Review carried out in Mauritania in June 2002 flagged the following main issues: (a) lack of capacity among the borrower's staff; (b) absence of SBDs at the national level; (c) insufficient capacity of local contractors for handling contracts subject to ICB; and (d) corrupt practices. Recommendations were made to address these issues, and the current Procurement Code implemented since February 2012 is the result of these recommendations. In addition, the Public Sector Capacity Building Project and Public Governance Sector Project are providing or planning funds aiming to support the procurement system recently put in place. The Public Sector Capacity Building Project hired a consultant to identify a capacity-building plan designed to strengthen all new stakeholders. This plan has already been approved and its implementation will start shortly. It includes: (a) a detailed review of all SBDs drafts; (b) training of staff involved in the procurement process at tender boards and control board levels; and (c) supply of equipment for procurement entities.

- (a) **Implementation arrangements.** The fiduciary responsibility under the project, including procurement and FM, is entrusted to the PCU anchor in ANZF. The PCU will support ANZF and others beneficiaries such as MEF, MPEM, and the private sector in the procurement and implementation of the activities under the project in accordance with the Project Manual's provisions. The Coordinator, Procurement Officer, and the technical team of the PCU will support and collaborate closely with ANZF in implementing the project. ANZF is an independent government authority with an independent Tender Committee that has been setup and is in place according to Prime-Ministerial Decree 2013-151 of September 23, 2013. It is entrusted with responsibility for all contracts above MRO 10 million (or US\$33,000). After two years of operation, the Free Zone Market Commission (*Commissions des Marchés de la Zone Franche*) is adequately organized but needs support in order to strengthen its members' capacities, implement procurement activities under the project for goods such as vehicles, motorcycles, office equipment, and information technology equipment (computers, copiers, scanners, shelving, and so on) as well as technical support for procurement monitoring, and contract management. Although the Commission will benefit from the PCU's Eco-Seafood Cluster Project capacity-building support, it needs special attention over Bank procurement procedures and international practices and standards;
- (b) **Organization and function.** ANZF has a Tender Committee led by the Secretary General who manages all its procurements activities and all structures without any other human resources support that of an Executive Assistant. The Secretary manages *ad hoc* tender bidding and selection processes, including preparing bidding documents or RFPs, advertisements for bids or sending RFPs, receiving bids or proposals, opening bids or proposals, evaluating bids, awarding contracts, and record keeping.
- (c) **Staffing.** ANZF does not have a procurement service but plans to obtain full support from the PCU's procurement officer, who was recently hired under project funding and has knowledge and solid experience of public procurement for goods, works, and services. ANZF will transfer the newly recruited Procurement Officer of the PCU in order to fully support the Tender Committee in all procurement activities and record keeping.
- (d) **Procurement planning.** ANZF's procurement planning capacity is relatively low; however it has already elaborated a Project's Procurement Plan (for the first 18 months) that has been approved by the Association.
- (e) **Procurement process.** Until now, Mauritania has not had SBDs. However, their development by the Regulatory Authority for Procurements (*Autorité de Régulation des Marchés Publics*) is underway. Thus, procurement will be carried out using the Bank's SBDs.
- (f) **Record keeping.** Record keeping by ANZF is assessed as Unsatisfactory. There is no separate file for procurement or contract management for each contract. Instead, there are many separate folders for each contract, kept in several locations by several persons. As a result, it is not easy to review the entire history of the procurement process associated with each contract. All procurement documents and files are kept

in open cabinets in the Secretary General’s office. Public access to procurement information is easy as the information is stored in open cabinets with unlimited access. Access can be authorized only by the Procurement Officer or Financial Director. Sensitive documents, such as bid documents, financial proposals, and originals of bids, are kept in a safe cabinet with access limited to the Secretary General, who is the Head of the Tender Committee.

- (g) **Experience in the use of Bank procurement procedures.** ANZF has no experience in Bank project implementation, and procurement staff members have no knowledge or experience of Bank project implementation.

39. **Conclusion.** The assessment concludes that the procurement under the project will cover small-value procurements. Most procurement activities planned under the project are related to consultancy services, office equipment, and vehicles and related equipment. ANZF’s capacity in project implementation under the Bank’s Procurement Guidelines and Consultant Guidelines is very low. The mitigation measures designed to improve these weaknesses and reduce implementation risk, which have been agreed with ANZF, are: (a) hiring a procurement specialist (or moving the procurement specialist of the PCU) to assist the Tender Committee full time in carrying out all procurement activities, including reviewing procurement documents, managing meetings, drafting minutes and reports, and keeping records of procurement documents, bids, and other relevant documents; (b) updating or drafting the Operational Manual of the Tender Committee, Control Committee, and Regulatory Committee (drafting the operational user guide and ensuring its compliance with Bank procedures); (c) training the Procurement Officer and technical staff involved in project implementation in Bank procedures and local operational procedures; (d) setting up an adequate filing system for protect records while ensuring easy retrieval of information and data; (e) designating a responsible person for data management, including use of a metal cabinet (or safe) with double locks for secure keeping of procurement documents; and (f) providing this unit with a separate workplace and a complete set of filing furniture and reproduction equipment (photocopier, scanner, printer, and so on).

40. **Based on the procurement capacity assessment and experience on the ground, the overall project risk for procurement is rated High.** This is expected to be reduced to Substantial after completion of the proposed mitigation measures.

41. **Supervision plan.** It is recommended that official implementation supervision missions be carried out at least twice each year. The need for post-reviews will be decided based on the number of contracts. If there is a small number of post-review contracts, these will be reviewed as part of the overall supervision missions.

42. **Identified risks and measures.** The procurement risks identified and the measures to be implemented are provided in Table 3.4.

Table 3.4. Risks and Mitigation Measures

No.	Key Risks	Mitigation Actions	Time Frame
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No.	Key Risks	Mitigation Actions	Time Frame
1.	Lack of adequate skills, capacities, and experience needed to carry out consultant selection process, draft terms of references and RFPs, and undertake and manage the consultancy services contract	Hire a Procurement Specialist (or moving the PCU Procurement Specialist) to assist the Tender Committee full time in carrying out all procurement activities including reviews of procurement documents, managing meeting, drafting minutes and reports, and filing procurement documents, bids, and other relevant documents	By effectiveness date
		Train the Procurement Officer and technical staff members involved in project implementation in Bank procedures and local operation procedures	Throughout project life
2.	Project implementing the entity's Operational Manual	Updating or drafting the operational manual for the Tender Committee, the Control Committee, and the Regulatory Committee (drafting the operational user guide and ensure its compliance with Bank procedures)	By effectiveness date then throughout project life
3.	Data inaccessibility	Set up adequate filing system for project records while ensuring easy retrieval of information and data	By effectiveness date
4.	Data and procurement documentations insecurity	Designating a person responsible for data management, including a metallic cabinet (or safe) with double locks for safekeeping of the procurement documents	By effectiveness date
5.	Lack of material means for the procurement unit	Providing this unit with a separate and complete set of furniture and configuration unit for document reproduction (photocopier, scanner, printer, etc.)	By effectiveness date then throughout project life

Summarized Procurement Plan

43. The main works, goods, and non-consulting services to be procured in the Project are listed in Table 3.6 below.

Table 3.5. Prior review of thresholds for Works, Goods, and Non-consultant Services

	Selection method	Threshold for the method (US\$)	Threshold for <i>a priori</i> review (US\$)
1.	ICB and LIB (Goods)	> 500,000	All
2.	NCB (Goods)	< or = 500,000	First tender
3.	ICB (Works)	> 10 million	All
4.	NCB (Works)	< or = 10 million	First tender
5.	ICB (Services except consultancy)	> 300,000	All
6.	NCB (Services except consultancy)	< or = 300,000	
7.	Shopping (Goods)	< or = 50,000	
8.	Shopping (Works)	< or = 100,000	
9.	Direct contracting	-	All

Table 3.6. List of Works, Goods and Non-Consulting Services Contract Packages to be procured

Ref. No.	Description	Estimated Cost (US\$)	Procurement Method	Pre-qualification (yes/no)	Domestic Preference (yes/no)	Review by World Bank (Prior/Post)	Forecast opening of tenders	Comments
1	Works for construction of a refrigerated warehouse at the Nouadhibou International Airport	700,000	NCB	No	No	Prior	July 16	ANZF
2	Promotion and marketing : Recruitment of an agency to produce a marketing video	30,000	Shopping	No	No	Post	July 16	ANZF
3	Development of a website for the Nouadhibou seafood cluster	30,000	CQS	No	No	Post	July 16	ANZF

44. The main consulting assignments of the Project are listed in Table 3.8 below.

Table 3.7. Prior review thresholds for consultant services

Ref. No.	Selection method	Threshold for the method (US\$)	Threshold for <i>a priori</i> review (US\$)
1.	QCBS, QBS, LCS, and FBS	All	> 200,000
2.	CQS	< or = 200, 000	> 100, 000
3.	Direct contracting (firms, individual consultants)	–	All

Table 3.8. Consulting Assignments with Selection Methods and Time Frame

Ref. No.	Description of Assignment	Estimated Cost (US\$)	Selection Method	Review by Bank (Prior/Post)	Forecast opening of proposals	Comments
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Ref. No.	Description of Assignment	Estimated Cost (US\$)	Selection Method	Review by Bank (Prior/Post)	Forecast opening of proposals	Comments
1	Development and publication of a holistic vision for the cluster, encompassing and clarifying certain key concepts (e.g. sustainability of fish resources, rights and responsibilities of participants, inclusiveness, transparency, and competitiveness)	150,000	QCBS	Post	July 16	MPEM
2	Expert recruitment to draft terms of references for spatial planning activities	15,000	IC	Prior	July 16	ANZF
3	Development of a practical guide on appropriate business law for Nouadhibou Free Zone	10,000	IC	Post	July 16	CRZF
4	Study of land rights in the Nouadhibou seafood cluster	20,000	IC	Post	July 16	CRZF
5	Recruitment of a firm responsible for communication events	320,000	CQS	Prior	July 16	ANZF
6	Information systems technical assistance	50,000	CQS	Prior	July 16	UCP-ANZF
7	Legal technical assistance	50,000	CQS	Prior	July 16	UCP-ANZF
8	Sanitation needs assessment for PAN	60,000	CQS	Post	August 16	ANZF
9	Needs assessment for export facilitation at PK55 border post	70,000	CQS	Prior	July 16	ANZF
10	Study of the value (including potential increase) of fish exports through North-South highway corridor	150,000	CQS	Prior	July 16	ANZF
11	Support for establishment of one-stop-shop in Nouadhibou to facilitate fresh fish exports	50,000	IC	Prior	July 16	ANZF
12	Recruitment of consultant for: (i) technical assistance to the national fish federation; and (ii) training for all relevant seafood cluster's stakeholders (fisheries management plans, certifications, and artisanal fisheries)	900,000	QCBS	Prior	July 16	FNPM

Environmental and Social Impact Assessment (including Safeguards)

Project Background and Objectives of the Environmental and Social Impact Assessment

45. The government of Mauritania, with support from the Bank, is preparing the construction of a cold storage facility for fresh fish at the Nouadhibou Airport as part of the NESC project.

46. The construction of this facility could have negative effects on the environment and thus requires the application of operational guidelines for environmental and social protection. It is within this context that this Environmental and Social Impact Assessment (ESIA) has been prepared in order to ensure that the environmental and social concerns generated by project activities are properly taken into consideration from the planning phase through to the implementation and exploitation phases.

47. **Project description.** The project involves the construction of a cold storage facility for fish with a capacity of 85 pallets at the Nouadhibou Airport.

48. **Characteristic of the project area.** The construction of the cold storage facility concerns the Nouadhibou Free Zone. The city of Nouadhibou is located in the northwestern corner of Mauritania on the edge of the Atlantic Ocean. The climate is characterized by a highly stable temperature (around 26°C during the day), virtually nonexistent rainfall, and generally low humidity because of prevailing winds. Due to its geographic location and its status as an economic capital, the city presents specific characteristics that give it a highly privileged status.

49. **Project site.** The planned site for the location of the cold storage facility is within the perimeter of the airport. It is located in the extension area of the city of Nouadhibou in the Kra Nasrani neighborhood. The facility will be located in the premises of a disused freight shed located between the technical block housing the control tower and the offices of ASECNA. Access to the facility is from the Boulevard Maritime that serves the airport.

50. **Constraints and environmental challenges identified in the project area.** Environmental and social problems arise in the project area with regard to climate specificity (sea spray and sand storms), a rise in the saline water table on the site, presence of soluble chemical compounds in the soil, and presence of facilities and airport operations staff and users.

51. **Legal, institutional, and Bank safeguard policies.** At the legislative and regulatory level, several texts are available on environmental and social issues, including the framework law on the environment, the Fisheries Code, the Hygiene Code, the Labor Code, decrees 94/2004 and 105/2007 relating to the Environmental Impact Assessment, and so on. International conventions applicable to the project are mainly the United Nations Framework Convention on Climate Change and the Montreal Protocol.

52. Institutionally, the project will challenge several categories of stakeholders: the Ministry Delegate to the Prime Minister for Environment and Sustainable Development, the Nouadhibou Free Zone Authority, PCU, ONISPA, and nongovernmental actors. At the institutional level, efforts are still needed with regard to environmental and social capacities. This context is therefore still to be strengthened as part of the project.

53. Because of the environmental and social impacts that may result from the implementation of its activities, the project has triggered two safeguard policies of the Bank, namely OP 4.01 – Environmental Assessment and OP 4.11 – Physical Cultural Resources. Other operational policies of the Bank are not applicable to this project.

54. **Positive potential environmental and social impacts.** Project implementation will enable significant improvement in the conservation of fresh fish for export from Nouadhibou. The most significant positive impact during the construction phase is the creation of jobs. During the operational phase, the major positive impact will be the proper conservation of fisheries products, access to the international market, revenue generation, improvement in the value chain in the fisheries sector, stimulation of the local fishing economy, reduction in post-production losses, the professionalization of conservation standards for the export of fresh fish, and socioeconomic benefits for beneficiaries.

55. **Negative potential environmental and social impacts.** The project will generate negative impacts, the most significant of which are the following:

- (a) During installation at the work site: Pollution and congestion by waste and dismantling of the residue of existing facilities, risk of occupational accidents during construction, risk of soil instability and erosion, and pollution and noise;
- (b) In the operating phase: Common impacts related to air quality and climate effects, cold effects and the risk of accidents for operating personnel, the risk of fire and explosion, discomfort and inconvenience to the neighborhood, quality of fish stored, power consumption, and costs of export accessibility.

Environmental and Social Management Plan

56. An Environmental and Social Management Plan has been proposed, which comprises: (a) legislative measures that must be followed during work, measures designed to be integrated into the project design, measures designed to be included in tender documents for works, and good environmental practices during operation; (b) a monitoring plan and environmental and social monitoring; and (c) a capacity-building plan, information and communication plans, and institutional arrangements for implementation and monitoring.

57. The costs of environmental measures are US\$60,000 in the construction phase and US\$40,000 per year during operation.

58. In conclusion, it is clear from the ESIA that potential negative impacts in the process of work and exploitation will be relatively moderate. However, the measures included in the Environmental and Social Management Plan and the environmental and social monitoring device during the operation phase will avoid, reduce, or significantly mitigate the potential negative impacts identified.

Monitoring & Evaluation

59. Under the previous first phase of the WARFP project, M&E has performed poorly as a result of a combination of factors: lack of availability of data, lack of strong preparation for data

collection, and ultimately, indicators that were too complex and sometimes too ambitious given the circumstances. The results frameworks under SOP C1 and C2 are designed based on data that are readily available, and the POM will detail data collection procedures for each indicator. Formally staffing the project with an M&E officer and setting up a well-functioning M&E system are fundamental.

Annex 4: Implementation Support Plan

MAURITANIA: Nouadhibou Eco-Seafood Cluster Project (P151058)

Strategy and Approach for Implementation Support

1. The strategy for implementing support has been developed so as to be consistent with the nature of the project and its risk profile. It will aim at making support implementation more flexible and efficient and will focus on implementation of the risk mitigation measures defined in the Systematic Operations Risk-Rating Tool.

- (a) **Strong coordination between Bank project teams (WARFP SOP C1 and C2), project beneficiaries (both local and national), and a regional partner (the Sub-Regional Fisheries Commission – *Commission Sous-Régionale des Pêches*).** The Bank task team will bring a comprehensive set of instruments and expertise to advice on project activities. It will work closely with ANZF, which is responsible for the project, project beneficiaries, and the PCU in order to ensure project success. The project will take a flexible approach to ensure that it meets client needs as circumstances evolve;
- (b) **Technical inputs.** The technical team will provide regular inputs on technical issues to the PCU. In particular, it will review the terms of reference and help draft reports by consultants;
- (c) **Procurement and FM inputs.** Close supervision of procurement and FM will be deployed particularly given the decentralized nature of most of the project activities in Nouadhibou. Procurement supervision will include prior reviews of procurement activities as well as post-reviews. In addition, the procurement process will be closely monitored against the detailed Procurement Plan. As regards FM, the project will be supervised on a risk-based approach. Supervision will focus on the status of the FM system in order to verify whether the system continues to operate effectively and provide support where needed;
- (d) **M&E, including environmental and social safeguards inputs.** The Bank will review the updated result framework submitted quarterly by the PCU during the implementation support mission or as a desk review. The team leader will discuss progress and deviations (if any) with the Project Steering Committee in order to identify any areas where additional help from the Bank might be needed. The team leader will facilitate the use of M&E data in order to promote awareness of the project results.

Implementation Support Plan

2. Many of the Bank team members will be based in country offices in the greater region (Nouakchott, Bamako, Dakar, and so on) in order to ensure timely, efficient, and effective implementation support to the client. Formal implementation support missions and field visits will be carried out semi-annually. Detailed inputs from the Bank team will be as follows:

- (a) **Technical inputs.** The technical supervision of the project requires expertise in fisheries economics, seafood value chains strategy, PPPs, value for money assessment, investment climate reforms, investment promotion, trade facilitation, PPD, ports development, and MSME and vulnerable group development for inclusion in the seafood cluster. This expertise will be provided by the Bank’s Trade and Competitiveness Global Practice and Environment and Natural Resources Global Practice.
- (b) **Fiduciary requirements and inputs.** The procurement specialist will be based in Nouakchott while the FM specialist will be based in Dakar, which will allow for timely and regular support. There will be at least two on-site supervision visits per year during the implementation, and a review of transactions will be performed during supervision visits. Procurement supervision will be carried out on a timely basis, as required by the client.
- (c) **Financial Management.** Implementation support missions for FM supervision will be consistent with a risk-based approach and will involve a collaborative approach with the entire task team (including the procurement specialist). A first implementation support mission will be performed six (6) months after project effectiveness date. From that point on, the missions will be scheduled to include the following diligences: (i) monitoring of FM arrangements during the supervision process at intervals determined by the risk rating assigned to the overall FM assessment at entry and subsequently during implementation; (ii) review of the IFRs; (iii) review of audit reports and management letters from the external auditors and follow-up on material accountability issues by engaging with the task team leader, client, or auditors; in addition, the quality of the audit is to be closely monitored to ensure that it covers all relevant aspects and provides confidence in the appropriate use of funds by the recipients; (iv) physical supervision on the ground, especially for Component 2; and (v) assistance in building or maintaining appropriate FM capacities.

Table 4.1. Resourcing Timeline

Time	Focus	Skills Needed	Resource Estimate	Partner Role
First 12 months	Identify any potential problems early in the life of the project. Help in fully operationalizing the PCU. Provide advice and quality review for the three largest procurement packages in the project (cluster strategy, warehouse, and support to local actors in the cluster).	FM, procurement, investment promotion, investment climate, PPP, trade facilitation, ports, fishery business development services, climate-efficient industries, and PPD	40 weeks	The Sub-Regional Fisheries Commission will ensure overall alignment with regard to coherence and consistency with the regional fishery program. Specific attention to be given to cluster strategy, framework, and trade facilitation.
12–48 months	Review the continuing adequacy of fiduciary arrangements and enabling framework of the project.	FM, procurement, investment promotion, investment climate,	88 weeks	The Sub-Regional Fisheries Commission will ensure overall alignment with regard to coherence and consistency with

Time	Focus	Skills Needed	Resource Estimate	Partner Role
		trade facilitation, ports, and climate-efficient industries		the regional fishery program. Specific attention to be given to seafood industry norms, promotion, and trade facilitation.

- (d) **Safeguards inputs.** Inputs from an environmental specialist will be required for the construction of a refrigerated warehouse for fish exports at the Nouadhibou International Airport.

3. The main focus of annual implementation support is summarized in Table 4.2 (showing the average mix of skills needed per annum).

Table 4.2. Main focus of implementation support

Skills Needed	Number of Staff Weeks	Number of Trips	Comments
Procurement review and training	2	2	Based in the region (Nouakchott)
FM training and supervision	2	2	Based in the greater region (Dakar)
Seafood and fisheries development and implementation support	6	4	Based both in and outside of the region (Washington, DC, Paris, Istanbul, and Casablanca)
PPD	2	2	Based in the greater region (Dakar)
PPP	2	2	Based both in and outside of the region (Washington, DC, Dakar, and Paris)
Trade facilitation	4	4	Based both in and outside of the region (Washington, DC, Casablanca, London, and Dakar)
Investment promotion	2	2	Based outside of the region (Washington, DC)
Investment climate	2	2	Based in the greater region (Dakar)
MSMEs and local inclusion	2	2	Based both in and outside of the region (Washington, DC, Paris, and Casablanca)
Other technical support	2	2	Based both in and outside of the region (to be determined)
Team leadership	6	4	Based both in and outside of the region (Washington, DC and Bamako)
TOTAL	32	28	Based both in and outside of the region

Table 4.3. Partner Contributing to IS at Regional Level

Name	Institution/Country	Role
Sub-Regional Fisheries Commission	Intergovernmental agency, headquartered in Dakar (Senegal)	Ensure overall coherence and consistency with regional fisheries program

Annex 5: Detailed Economic and Financial Analysis

MAURITANIA: Nouadhibou Eco-Seafood Cluster Project (P151058)

1. Although the project location is limited to Nouadhibou, this project concerns an entire value chain of targeted fisheries and seafood products. Therefore, the scope of both the proposed activities and their impacts will be wide. Table 5.1 summarizes the nature of benefits expected to flow from the proposed interventions. As expected, many of the expected benefits are the results of the improved business and investment climate in the targeted seafood value chain. In addition, because all activities in this project are expected to reinforce the benefits pursued under WARFP SOP C1, many of the benefits of that project also will be relevant. Table 5.4 summarizes indirect benefits achieved through improving the implementation of the SOP C1 project.

Table 5.1. Expected Project Benefits by Component

Component	Expected Benefit
Component 1: Developing a sustainable seafood cluster in Nouadhibou	<ul style="list-style-type: none"> ● Increase in investments, including FDIs ● Increase in creation of new businesses, resulting in new jobs and value capturing ● Firms' improved access to foreign markets, including higher-value markets ● Indirect benefits through improving SOP C1 (Table 5.4)
Component 2: Increasing the value of seafood products produced and marketed in the seafood cluster with the participation of local	<ul style="list-style-type: none"> ● Increased value of catch through: (a) improved handling (reduced losses and increased product quality); and (b) partial and gradual shift from exports of frozen fish to exports of fresh fish, which achieve higher value ● Increase in business earnings and tax revenues ● Spillover impacts on the local economy, including job creation, development of a logistics industry, increased availability of quality seafood to consumers, and improved economic position for the vulnerable population (for example, women) ● Indirect benefits through improving SOP C1 (Table 5.4)

2. Because of the wide scope of the activities in this proposed project and because many activities consist of TA not necessarily targeted to a finite number of beneficiaries, it is not realistic to conduct an economic and financial analysis to evaluate the expected benefits of the project within one single analytical framework. Accordingly, an approach was adopted whereby two analyses are conducted to cover the range of activities proposed in the project. First, direct benefits of infrastructure construction (Subcomponent 2.1) are objectively assessed in financial terms through a standard methodology using the computation of IRR and NPV. Second, as an indicator of the expected indirect benefits derived from improvements under SOP C1, benefit estimates of fisheries reform in octopus fishing in Mauritania are presented. Note that because many of the benefits shown in Table 5.1 are not easily monetized, only a subset of these items is included in the estimation. Therefore, the benefit estimates presented here represent a lower bound of the overall benefits.

(a) Direct Benefit of Infrastructure Development (Subcomponent 2.1)

3. This section presents the analysis designed to: (a) identify all quantifiable and non-quantifiable benefits and costs of the subcomponent; and (b) estimate the expected NPV and economic rate of return (ERR) implied by benefits and costs measurable in monetary terms. This economic and financial analysis contributes to the evaluation of the project's expected overall contribution.

(b) Expected Value of the Project

(i) Project Value and Project Costs

4. The cost of Subcomponent 2.1 is US\$2.155 million, of which US\$805,000 is for physical infrastructure (refrigerated warehouse for fish export at the Nouadhibou International Airport) and US\$1,350,000 for TA in overcoming trade logistics barriers, of which US\$450,000 is related to export capacities for fresh fish.

5. As stated above, the objective of Component 2 is to increase the value of seafood products produced and marketed in the seafood cluster with the participation of local actors. Hence, the main benefit expected from Subcomponent 2.1 is the increased value of catch through: (a) improved handling (reduced losses and increased product quality), and (b) partial and gradual shift from export of frozen fish to export of fresh fish, which achieves higher value. The benefits of infrastructure construction and TA in trade logistics for fresh fish export are assessed conservatively (accounting for the benefits generated from only one typical species of high-value fresh fish, namely sea bream²³) in financial terms through a standard methodology using the computation of IRR and NPV against the status quo relative to the “business as usual” alternative.

Table 5.2. Distribution of Costs and Value

Subcomponent 2.1	Costs (US\$, millions)	Share of Costs (%)	NPV²⁴ (US\$, millions)	ERR²⁵ (%)
Construction of refrigerated warehouse	0.805	37	1.752	24.8
TA for fresh fish exports	0.450	21	0.405	13.6
TA for operationalization of PAN and EPBR extensions	0.900	42	—	—

(ii) Monetary Benefits

6. The project is expected to generate two kinds of benefits, namely quantifiable benefits that can be readily evaluated in monetary terms and therefore figure in the calculation of the NPV as summarized in Table 5.2, and benefits that though real and important cannot be quantified in monetary terms due to a lack of a universally accepted yardstick or readily quantifiable benefits. These are in the nature of public goods or quasi-public goods and cannot

²³ Sea bream was selected for the economic assessment because of the availability of data on total yearly catch and a pricing structure of its fresh versus frozen supply chains, including margins captured in Mauritania for the frozen and fresh segments.

²⁴ Conservative figure as benefits are accounted for sea bream only.

²⁵ Conservative figure as benefits are accounted for sea bream only.

therefore be readily priced from the point of view of targeted or direct beneficiaries of the project.

7. Benefits of the first category are calculated as the increase in the incomes or revenue of targeted firms, ANZF, and other organizations in the project areas attributable to project activities.

Expected Growth in Earnings

8. Monetary benefits will flow from additional revenues attributed to project interventions in the targeted fisheries value chains, leading to increases in business earnings and tax revenues.

Breakdown of Measured Monetary Benefits by Categories of Beneficiaries

Growth in Private Sector Business Incomes

9. About 95 percent of the total measurable monetary benefits generated by Subcomponent 2.1 (US\$4.7 million) will be in the form of growth in incomes brought about through improvements in the fresh fish supply chain.²⁶

10. Growth in business incomes will come mainly from: (a) the gradual and partial shift from exports of frozen fish to exports of fresh fish resulting in increased volumes of exports of a more valuable product and increased margins captured by the Mauritanian private sector²⁷ (US\$1.7 million in increased value for sea bream only); and (b) reduced losses currently due to non-optimized supply chains²⁸ (US\$460,000 in reduced losses for sea bream only).

11. In addition, the refrigerated warehouse will constitute a new income center. It will be privately managed and is expected to generate US\$2.5 million in revenues, an NPV of US\$230,000, and an IRR of nine percent.

Growth in Non-business Earnings and Tax Revenues

12. The construction of the refrigerated warehouse as a new income center will also slightly increase ANZF revenues (by US\$20,000) and contribute to approximately US\$200,000 in GDP growth.

(iii) Assumptions Used in the Calculation of NPV and ERR

13. A common discount rate of 5 percent a year was applied to all cost and benefit streams in arriving at the present values over a 15-year span, starting in 2016. Construction and TA will

²⁶ Conservative figure as benefits are accounted for sea bream only.

²⁷ Estimations were made for sea bream only based on a study of the supply chain (Karistem 2015), where the end market price for fresh sea bream is US\$13.6 per kg, of which 9.6 percent is captured in Mauritania, while the end market price for frozen sea bream is US\$6.4 per kg, of which 11.8 percent is captured in Mauritania (including by the Mauritanian Corporation for the Commercialization of Fisheries Taxes).

²⁸ Based on the above-mentioned study of the supply chain, it is estimated that Mauritanian exporters are currently losing 19 percent of the end market price of sea bream due to the lack of adequate air transport and logistics facilities.

start that year and will take place until 2017, which is when project revenue flows are expected to start.

14. Taxes on fresh fish exports were not taken into account, and only a flat income tax rate of two percent payable to ANZF was included in the model.

15. As regards the warehouse inputs parameters, investment costs, operational costs, and pallet flows (volume of exports of fresh fish by air) are based on the logistics study.²⁹

16. The volume of sea bream catch is based on data provided by the Directorate for Research and Fisheries Resources Management (*Direction des Études et de l'Aménagement des Ressources Halieutiques*), and the assumptions of end market prices for frozen and fresh sea bream and margins are extracted from the supply chain study.³⁰ The partial shift from frozen sea bream to fresh sea bream is deemed to be incremental (over 10 years) with total constant catch and a ceiling (or maximum volume of exported fresh sea bream) estimated conservatively at six percent of total demersal species, which themselves currently constitute half of the total volume of exported fresh fish.

(iv) Risk and Sensitivity Analysis

17. The assumptions listed above about cost and value parameters are all based on a mix of expert opinion and statistical data whose quality vary and are therefore liable to errors. Computations of ERR and NPV as reported in Table 5.2 are thus subject to sensitivity analysis designed to assess the potential effect of variation and errors in the assumed parameters on the reliability of the calculations. The analysis also identifies the switching values of the variables of interest, where the switching value of a cost parameter is the percentage change (relative to the assumed value) needed to occur to make the NPV of the project equal to zero or to equate the IRR to the discount rate used to calculate the NPV.

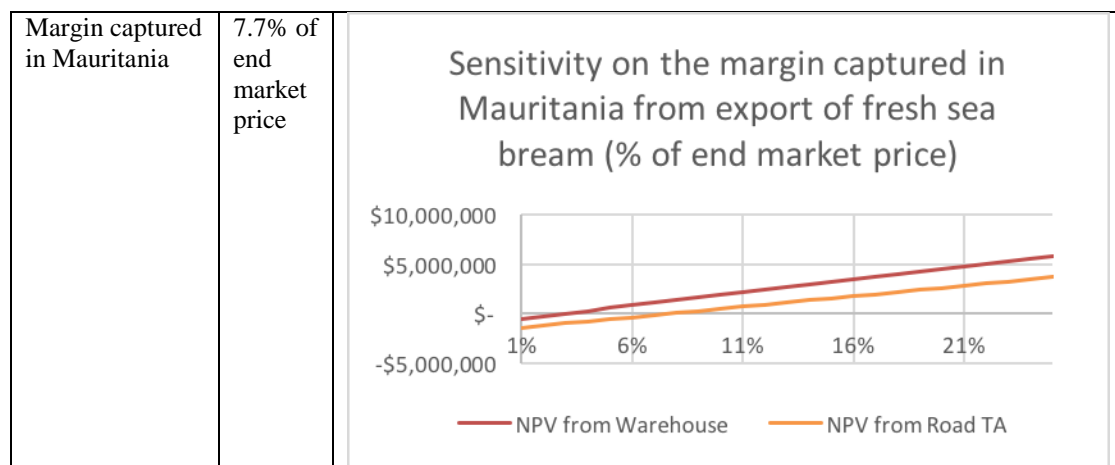
18. Table 5.3 summarizes the key switching values:

²⁹ Nouadhibou Airport Cold Storage Facility Construction Project (*Projet de Construction d'une Chambre Froide sur l'Aéroport de Nouadhibou*), November 2015.

³⁰ Karistem, July 2015.

Table 5.3. Results of Sensitivity Analysis – Switching Value

Parameter	Switching Value																
Discount rate	25%	<p style="text-align: center;">Sensitivity on Discount Rate</p> <table border="1"> <caption>Data for Sensitivity on Discount Rate</caption> <thead> <tr> <th>Discount Rate (%)</th> <th>NPV Eco (\$)</th> </tr> </thead> <tbody> <tr><td>5%</td><td>1,750,000</td></tr> <tr><td>10%</td><td>1,000,000</td></tr> <tr><td>15%</td><td>500,000</td></tr> <tr><td>20%</td><td>200,000</td></tr> <tr><td>25%</td><td>0</td></tr> <tr><td>30%</td><td>-100,000</td></tr> </tbody> </table>	Discount Rate (%)	NPV Eco (\$)	5%	1,750,000	10%	1,000,000	15%	500,000	20%	200,000	25%	0	30%	-100,000	
Discount Rate (%)	NPV Eco (\$)																
5%	1,750,000																
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Cost of capital	318%	<p style="text-align: center;">Sensitivity on Cost of Capital</p> <table border="1"> <caption>Data for Sensitivity on Cost of Capital</caption> <thead> <tr> <th>Cost of Capital (%)</th> <th>NPV Eco (\$)</th> </tr> </thead> <tbody> <tr><td>100%</td><td>1,750,000</td></tr> <tr><td>150%</td><td>1,250,000</td></tr> <tr><td>200%</td><td>750,000</td></tr> <tr><td>250%</td><td>250,000</td></tr> <tr><td>300%</td><td>-250,000</td></tr> <tr><td>350%</td><td>-750,000</td></tr> </tbody> </table>	Cost of Capital (%)	NPV Eco (\$)	100%	1,750,000	150%	1,250,000	200%	750,000	250%	250,000	300%	-250,000	350%	-750,000	
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End market price of fresh sea bream	US\$10.8 per kg	<p style="text-align: center;">Sensitivity on the End Market Price of Fresh Sea Bream (US\$/kg)</p> <table border="1"> <caption>Data for Sensitivity on the End Market Price of Fresh Sea Bream</caption> <thead> <tr> <th>End Market Price (US\$/kg)</th> <th>NPV from Warehouse (\$)</th> <th>NPV from Road TA (\$)</th> </tr> </thead> <tbody> <tr><td>5</td><td>500,000</td><td>-500,000</td></tr> <tr><td>10</td><td>1,000,000</td><td>-250,000</td></tr> <tr><td>15</td><td>1,500,000</td><td>0</td></tr> <tr><td>20</td><td>2,000,000</td><td>750,000</td></tr> </tbody> </table>	End Market Price (US\$/kg)	NPV from Warehouse (\$)	NPV from Road TA (\$)	5	500,000	-500,000	10	1,000,000	-250,000	15	1,500,000	0	20	2,000,000	750,000
End Market Price (US\$/kg)	NPV from Warehouse (\$)	NPV from Road TA (\$)															
5	500,000	-500,000															
10	1,000,000	-250,000															
15	1,500,000	0															
20	2,000,000	750,000															



(c) Non-monetary Benefits, Externalities, and Provision of Public Goods

19. It is important to stress that the project will generate important non-monetary benefits and may also generate significant non-environmental externalities that will need to be borne in mind in making decisions based on the NPV and ERR estimates reported in Table 5.2. Spillover impacts on the local economy will include job creation, development of a logistics industry, and increased availability of quality seafood to consumers.

(d) Indirect Benefit through Improving the Quality of SOP C1 (All Subcomponents)

20. As discussed earlier, the activities proposed in SOP C2 will likely enhance the results and increase the probability of success for SOP C1. Possible positive synergies between the two SOPs are summarized in Table 5.4:

Table 5.4. Expected Indirect Benefit through Improving SOP C1

Component	Expected Benefit
<p>Component 1: Developing a sustainable seafood cluster in Nouadhibou <i>Subcomponent 1.1: Promote PPD designed to develop a vision for the sustainable Nouadhibou seafood cluster in Nouadhibou and accelerate nationwide reforms to facilitate its development</i></p> <p><i>Subcomponent 1.2: Generate responsible investments in NESC</i></p>	<ul style="list-style-type: none"> ● Improved management capacity and efficiency of the public agency responsible for the fisheries sector ● Increased stakeholder self-governance and incentives for rational management ● Strengthened social cohesion within fishing communities and among stakeholder groups ● Increased availability and quality of fisheries-related statistical data ● Improved technical efficiency and lower fishing costs ● Increased profits and rents throughout value chain
<p>Component 2: Increasing the value of seafood products produced and marketed in the seafood cluster with the participation of local actors</p>	<ul style="list-style-type: none"> ● Reduced losses from fish spoilage ● Improved access to foreign markets due to improved sanitary conditions during processing and cold storage

Component	Expected Benefit
<p><i>Subcomponent 2.1: Improve the handling of landed catch and promote the export of fresh fish at the Nouadhibou seafood cluster</i></p> <p><i>Subcomponent 2.2: Build local suppliers' and vulnerable groups' capacities to capture greater benefits from productive and inclusive seafood value chains</i></p>	<ul style="list-style-type: none"> ● Improved prices per unit weight of landed catch due to improved quality and greater market access ● Additional income and employment from processing, export, and related activities arising from an enhanced enabling environment ● Greater FX earnings from increased fish exports ● Increased tax revenues from increased fish exports

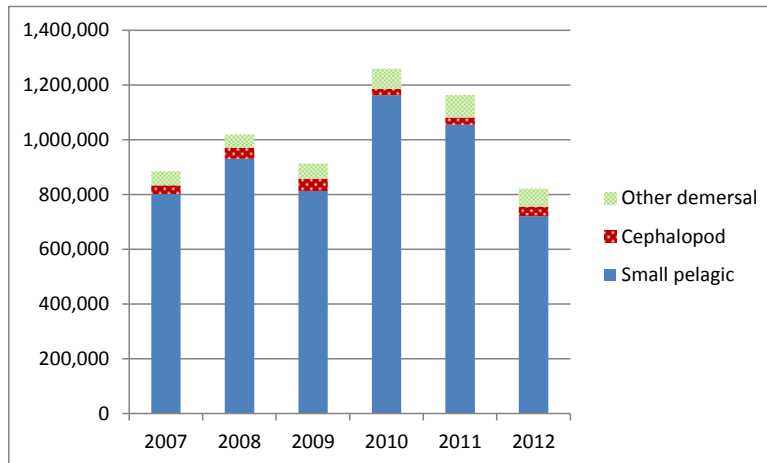
21. As an indication of these indirect project benefits derived from improve quality thanks to WARFP SOP C1, updated results of the economic analysis conducted for SOP C1 are presented here. For SOP C1, a quantitative bio-economic model was developed for the octopus fishery, the most important commercial such sector in Mauritania. This model was used to relate assumed fishing effort levels to expected levels of fish population and catch. At the same time, expected lower fishing effort levels due to project interventions imply lower fishing costs. Thus cost reductions were also estimated based on available information. The simulated catch levels were then used to calculate expected fishing revenues, from which, combined with estimated fishing costs, expected net revenues from fishing was obtained. As regards the proposed SOP C2 project, the model's results were updated. Estimated benefits imply benefits derived from successfully implemented fisheries reform in the octopus sector.

(e) Performance of Fisheries and State of Fish Resources in Mauritania

22. Mauritania's EEZ is ranked among the most productive fishing waters in the world. The fisheries sector provides jobs to 36,100 people, of which 88 percent covers activities related to artisanal fishing. While employment in the fisheries sector accounts only for three percent of total national employment, this figure masks wide local variation. For example, the sector accounts for 29 percent of total employment in Nouadhibou, the area where the tax-free zone that was established in 2013. The estimated value of primary production in 2011 was US\$179 million in marine artisanal fishing and US\$563 million in marine industrial fishing, or a total of US\$742 million, contributing 3.4 percent to overall GDP. Mauritania's fisheries sector is export-oriented, with 90 percent of production being exported. Fish exports contribute substantially to foreign exchange (FX) earnings. During 2008–2011, fish exports accounted for 20–27 percent of total exports in value (excluding oil).

23. Figure 5.1 illustrates the level and composition of the total catch in Mauritania's EEZ in recent years. Clearly, small pelagic fish dominate the catch volume. Octopus and squid are important cephalopod species, while the Other Demersal category includes shrimp and fin fish species. Octopus is the single most important species with regard to value of catch. For example, the average export price of octopus in 2012 was US\$8,235 per ton, while the export price was US\$2,245 per ton for cephalopods in general and US\$665 per ton for pelagic fish.

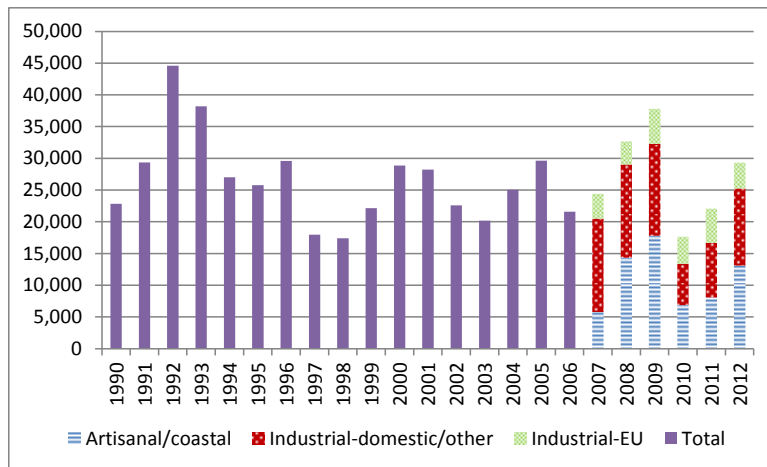
Figure 5.1. Total Catch in Mauritania’s EEZ (Tons)



Source: COFREPECHE

24. Figure 5.2 depicts the evolution of the octopus catch between 1990 and 2012. This reveals considerable fluctuations. Information on catch by industry segment is available from 2007 onward. During the period, the industrial segment accounted for 53–76 percent of total catch, of which catch by EU vessels represented 20–40 percent, while the artisanal and coastal segment accounted for 24–47 percent of total octopus catch.

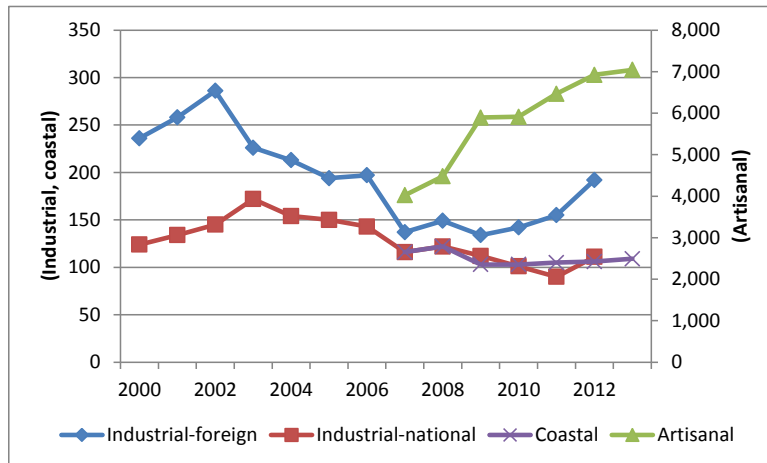
Figure 5.2. Octopus Catch in Mauritania’s EEZ (Tons)



Source: GT IMPROP 2006, COFREPECHE

25. Figure 5.3 describes total fishing capacity in Mauritania with regard to the number of fishing vessels and boats by industry segment. Information on fishing capacity specifically for octopus was not available. From this table, it can be observed that the total number of fishing vessels in the industrial segment has been in a downward trend since early 2000s, with a recent upward trend in the number of foreign vessels. On the other hand, the number of coastal boats appears stable, while the number of artisanal boats increased rapidly between 2007 and 2012, likely putting substantial pressure on nearshore fish resources.

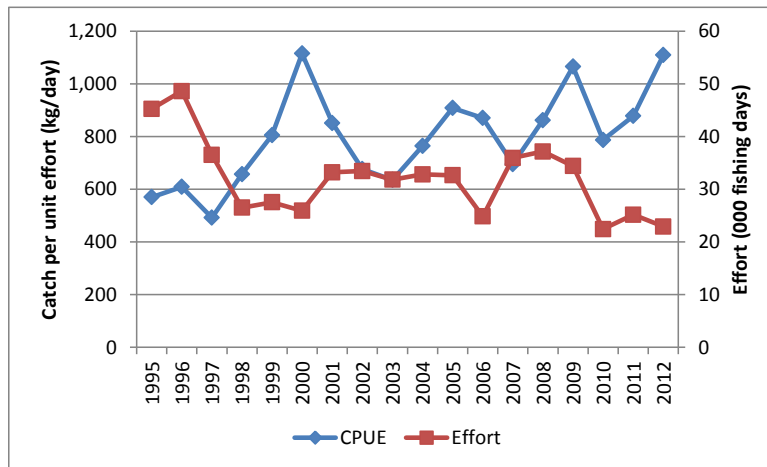
Figure 5.3. Number of Fishing Vessels and Boats in Mauritania



Source: COFREPECHE

26. Proxy information on total effort for octopus fishing was available. Figure 5.4 illustrates the dynamics of the aggregate number of fishing days (as proxy for effort) and catch per unit effort (per fishing day) for octopus. The octopus fishing effort appears to have exhibited an upward trend during the 2000s. However, the effort seems to have declined in the early 2010s. Historical catch per fishing day shows oscillating patterns, with a general upward trend.

Figure 5.4. Fishing Effort (Number of Fishing Days) and Catch per Unit Effort in Octopus Fishery in Mauritania

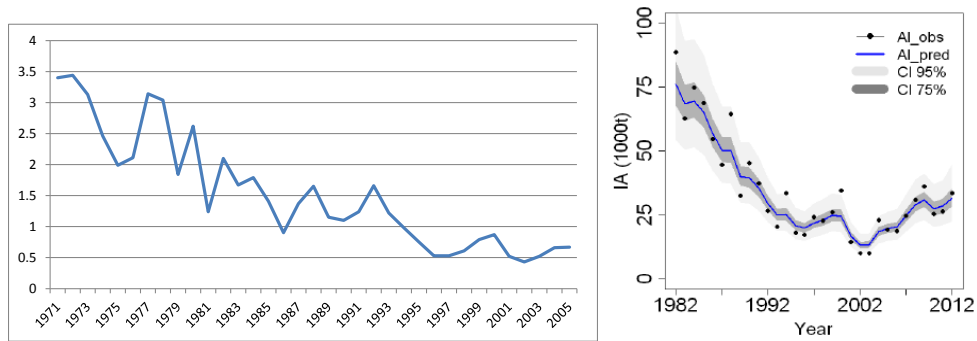


Note: CPUE= Catch per Unit Effort.

Source: COFREPECHE

27. Finally, a general indication of the octopus population dynamics in Mauritania’s EEZ can be discerned based on the two panels in Figure 5.5. While the left panel suggests that octopus stocks appear to have declined steadily since the 1970s, the right panel suggests that stocks appears to have been on a recovery trend since the early 2000s and to have recovered to the level of the early 1990s by 2012.

Figure 5.5. Trend in Abundance Index for Octopus in Mauritania



Note: obs. = observed; pred. = predicted.

Source: Beyah MEISSA et Didier GASCUEL, Rapport de la sixième réunion du Comité Scientifique Conjoint RIM-UE - Rennes, 2-5 avril 2013 -

(f) Scenarios

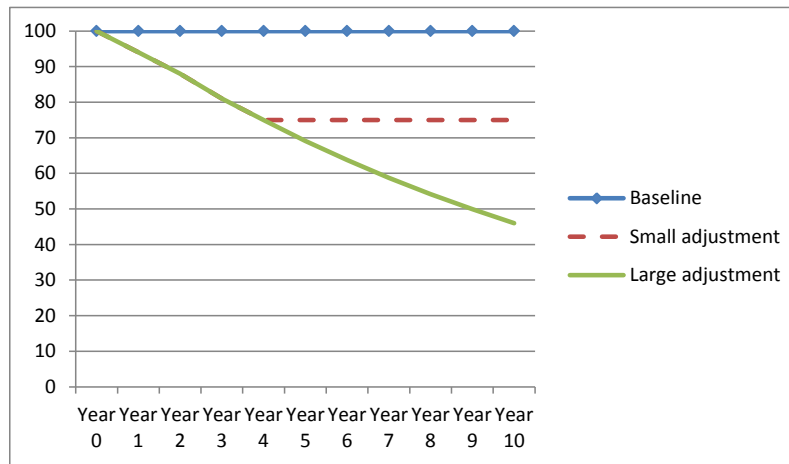
28. The SOP C1 project intends to influence the state of fish resources and benefits generated from the resources through a number of interrelated activities targeted principally at the octopus sector. Most directly, the project aims at controlling fishing capacity (number and size of fishing vessels and boats) in the artisanal or coastal and industrial segments as well as fishing effort (the rate at which the capacity is used). Accordingly, the economic analysis is based on how the project may affect total fishing effort and how such changes may affect the catch and stock dynamics. In Mauritania, the octopus fishing effort will be controlled through the introduction of individual quotas in the industrial segment and fishing licenses in the artisanal and coastal segment. Although the licenses will not specify allowable catch, license holders will be subject collectively to the quota for the artisanal and coastal segment. Given that the licenses will be issued for a long period, behavior consistent with long-term interests is expected among the license holders, at least to some extent.

29. The literature suggests that the introduction of secure and exclusive fishing rights, in particular individual quotas, usually leads to a reduction in the number of vessels in operation because of the exit of less-efficient operators. Exit may be induced through administrative rules designed to influence conditions for operation (for example, gear type, condition of vessels and boats, and so on). The exit of inefficient operators may be accelerated when fishing rights are transferable, which will allow for consolidation in fishing rights among more efficient operators. Under the project, individual quotas or fishing licenses will therefore not be made transferable at least during the initial ten (10) years to prevent potentially excessive consolidation and concentration of fishing rights, which can threaten the social sustainability of fisheries management.

30. In this analysis, three scenarios for fishing effort are considered for the aggregate fishing effort of the artisanal or coastal and industrial segments. As the fishing capacity in the octopus sector is composed of heterogeneous vessels and boats, aggregation will reduce the precision of the analysis. However, due to the lack of disaggregated data on octopus fishing capacity or effort, the segments are combined in this analysis. The first scenario is the baseline scenario, or

the case outside of the project, in which it is assumed that total fishing effort will remain at the current level for the next ten years. In the second scenario (the “small adjustment” scenario), a sharp drop in the number of vessels is envisaged, particularly in connection with the renewal of the national industrial fishing fleet (retirement of aging vessels and construction of new vessels). In this scenario, a 25 percent reduction is assumed over the initial four years. In the last scenario (the “large adjustment” scenario), a continued adjustment in the fishing fleet is envisaged beyond the initial four years. Such continued adjustment was observed, for example, in New Zealand between 1984 and 1995, when individual transferable quotas were introduced. In this scenario, a 54 percent reduction in aggregate fishing effort over 10 years was assumed. Figure 5.6 illustrates the assumed path of the octopus fishing effort under the three scenarios.

Figure 5.6. Three Scenarios for Octopus Fishing Effort in Mauritania



Source: Model assumption

(g) Assumptions and Parameters Used in the Bio-economic Model

31. The implications of the fishing effort scenarios on catch levels are simulated using a bio-economic model. Given the lack of detailed data, a simple Schaefer (logistic) model, following World Bank (2009)³¹, was parameterized. The parameterization was carried out such that the simulated stock dynamics are consistent with the evolution of the abundance index for the 1997–2012 period. The carrying capacity is assumed at 467,000 tons and the maximum sustainable yield at 35,900 tons. As discussed in the scenario section above, aggregate harvest by the fishing segments is simulated based on the assumed number of days of operation. While the schooling parameter is assumed at unity, the catchability coefficient is calibrated to the 2012 observation of the effort and catch levels (resulting in a catchability coefficient value of 0.012).

32. The observed average octopus export price of US\$8,235 per ton in 2012 was used as the constant unit output price for the entire 10-year horizon. To obtain an estimate of fishing costs per unit of fishing effort, it was assumed that starting in 2012, at the effort level of 23,500 days, the fishery resource rent is completely dissipated. As the initial total fishing revenue is obtained as US\$241.5 million (US\$8,235 per ton x 29,325 tons in 2012), total fishing costs are also assumed as US\$241.5 million, and unit costs at US\$10,300 per fishing day. For reference, Mele

³¹ Cf. *The Sunken Billions: The Economic Justification for Fisheries Reform*. World Bank, 2009

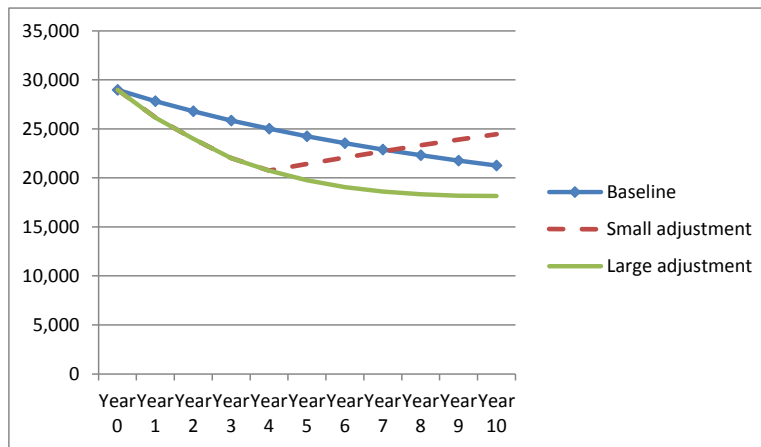
(2014)³² estimates total fishing cost in Mauritania’s octopus fishery at US\$283.0 million. The base cost was linearly scaled according to the assumed effort level (Figure 5.6) for each year under each scenario.

(h) Results

33. Figure 5.7 illustrates the octopus catch implied by the Schaefer model under each scenario. As seen in Panel 5.7-a, under the baseline scenario and with constant effort assumed, the catch will steadily decline over the analysis horizon, reaching 21,260 tons by Year 10. Under the “small adjustment” scenario, the assumed rapid reduction in the effort level during the initial four years translates into a rapid decrease in the catch, while after the initial four years, the effort level stabilizes while stocks recover and the catch starts increasing to reach 24,442 tons by Year 10. Under the “large adjustment” scenario, the model suggests that continued reduction in the fishing effort will result in a further decrease in octopus catch, with the catch reaching 18,141 tons by Year 10.

34. However, the full effects of the fishing effort reduction under the two scenarios are expected to be realized beyond the initial 10 years. As Panel 5.7-b illustrates, under the baseline assumption of the fishing effort level, the catch is projected to continue declining to 15,000 tons by 2050. Under the “small adjustment” scenario, the catch will continue to increase and stabilize at around 30,000 tons. On the other hand, if the effort level is assumed to stabilize after the initial 10 years under the “large adjustment scenario,” the catch will start increasing rapidly after Year 10 (corresponding to 2023), eventually achieving the maximum sustainable yield of 35,600 tons.

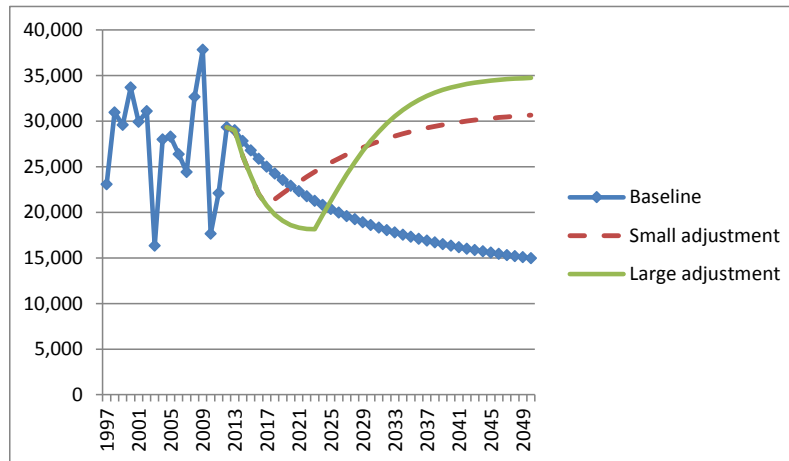
Figure 5.7. Simulated Octopus Catch (Tons)
(5.7-a. Simulation over the 10-year Horizon)



Source: Model results

³² Cf. Mauritania: *Counting on Natural Wealth for a Sustainable Future*. World Bank, 2014

(5.7-b. Data for 1997–2012 and Simulation for 2013–2050)



Source: Model results

35. The benefits of reduced fishing effort can be seen more clearly with regard to simulated net revenues in Table 5.5. Cumulatively over the 10 years, the “small” and “large” adjustment scenarios will result in gross revenues lowered by four percent and 13 percent, respectively, compared to the value under the baseline scenario. However, this effort reduction will lead to substantial reductions in fishing costs, by 19 percent under the “small adjustment” scenario and 29 percent under the “large adjustment” scenario relative to the baseline. Overall, the estimated benefits of the project are substantial. Cumulatively (i.e., without discounting), the fisheries sector will incur a loss of US\$429.2 million under the baseline scenario. In contrast, this loss will be reduced to US\$5.4 million under the “small adjustment” scenario, and positive net revenues of US\$43.8 million will be achieved under the “large adjustment” scenario.

Table 5.5. Simulated Revenues, Costs, and Net Revenues for the Octopus Sector in Mauritania (US\$, millions)

	Revenues			Costs			Net Revenues		
	Base	Small	Large	Base	Small	Large	Base	Small	Large
Year 0	238.7	238.7	238.7	241.5	241.5	241.5	-2.8	-2.8	-2.8
Year 1	229.1	215.4	215.4	241.5	227.0	227.0	-12.3	-11.6	-11.6
Year 2	220.6	197.5	197.5	241.5	212.5	212.5	-20.9	-15.0	-15.0
Year 3	212.9	181.3	181.3	241.5	195.6	195.6	-28.6	-14.3	-14.3
Year 4	205.9	170.8	170.8	241.5	181.1	181.1	-35.6	-10.3	-10.3
Year 5	199.6	176.4	162.6	241.5	181.1	166.9	-41.9	-4.7	-4.3
Year 6	193.8	181.8	156.9	241.5	181.1	153.9	-47.7	0.7	3.1
Year 7	188.5	187.0	153.2	241.5	181.1	141.8	-52.9	5.9	11.4
Year 8	183.7	192.0	150.9	241.5	181.1	130.7	-57.8	10.9	20.2
Year 9	179.2	196.8	149.8	241.5	181.1	120.5	-62.3	15.7	29.3
Year 10	175.1	201.3	149.4	241.5	181.1	111.1	-66.4	20.2	38.3
Cumulative total	2,227.2	2,139.1	1,926.6	2,656.4	2,144.4	1,882.8	-429.2	-5.4	43.8

36. Table 5.6 shows discounted cumulative net revenues under the baseline and the two scenarios for fishing effort reduction. Even with a discount rate of 20 percent, cumulative net revenues over the initial five (5) years is estimated to be larger, by US\$40 million, under the small and large adjustment scenarios relative to the baseline scenario, which exceeds project costs.

Table 5.6. Discounted Cumulative Net Revenues for Mauritania’s Octopus Sector (US\$, millions)

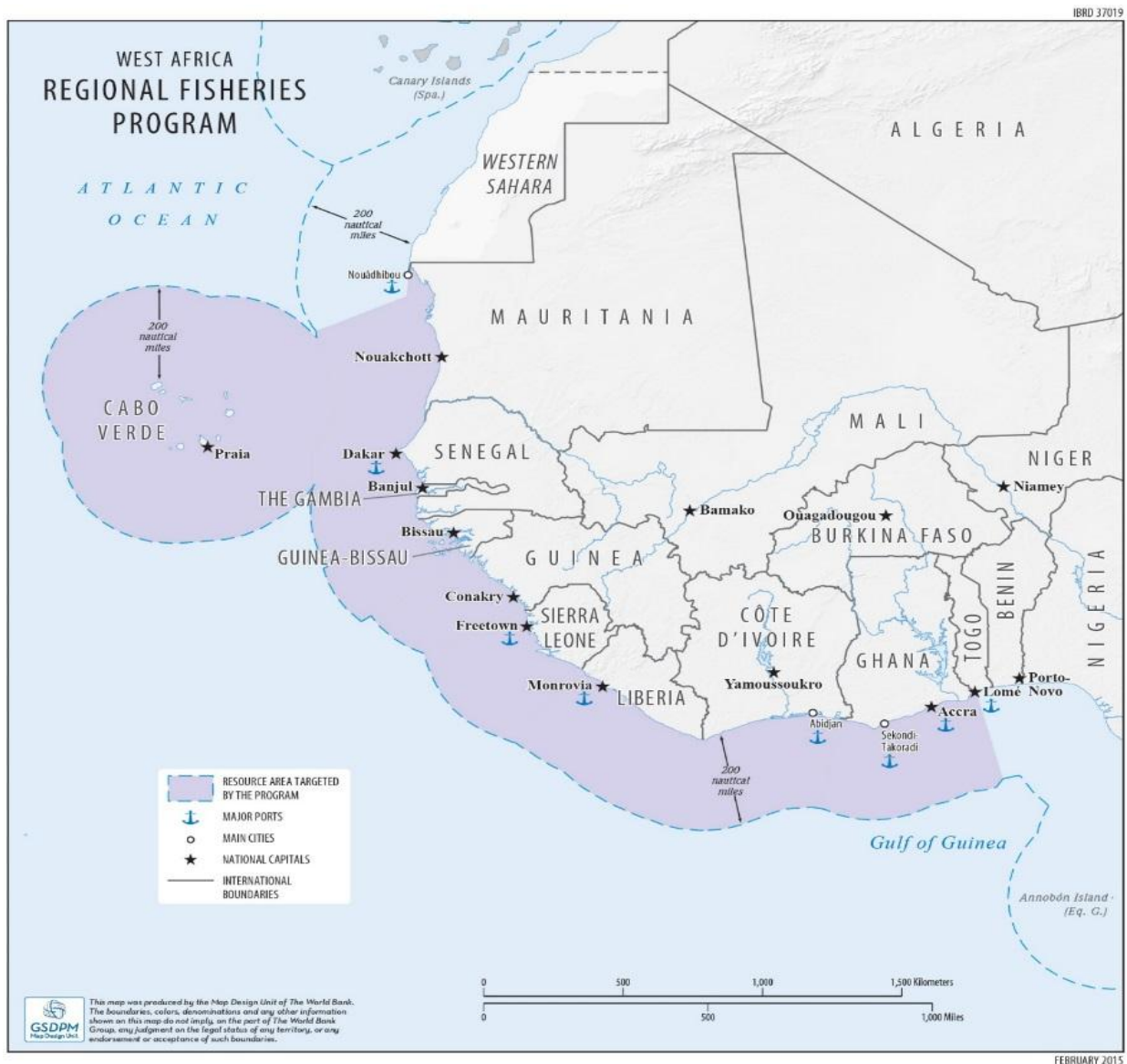
	Discounted Rate		
	5%	10%	20%
Baseline scenario			
Cumulative 5 years	-120.3	-103.1	-78.1
Cumulative 10 years	-313.5	-236.1	-145.1
Small adjustment scenario			
Cumulative 5 years	-52.0	-46.4	-38.0
Cumulative 10 years	-17.4	-23.5	-27.3
Large adjustment scenario			
Cumulative 5 years	-51.7	-46.2	-37.9
Cumulative 10 years	14.7	-2.1	-17.1

37. Caveats related to the estimates presented here are as follows: First, the parameters of the bio-economic model face uncertainty, resulting in turn in uncertainty regarding the simulated relationship between fishing effort reduction and catch levels. Second, the fact that the fishing segments—both industrial and artisanal or coastal—are aggregated in the analysis is also likely to introduce errors into the calculations. Third, uncertainty regarding fishing costs makes the levels of net revenues uncertain. However, relative to the results under the baseline scenario, the higher net revenues under the other two scenarios is clear. Overall, the benefits from this project will likely far exceed project costs.

Annex 6: West Africa Regional Fisheries Program

1. In 2009, the Bank's Board of Directors approved the first operation of a multi-country, multi-phase SOP known as WARFP. The overall program objective of WARFP is to support countries in maintaining (or increasing) targeted fish stocks and reaping the benefits these can provide to West Africa, with priority given to poverty reduction and food security. As of January 2016, a total of eight (8) countries had taken part in WARFP: Cabo Verde, Mauritania, Guinea-Bissau, Senegal, Guinea, Sierra Leone, Liberia, and Ghana, while potential participation by Côte d'Ivoire and Gambia is under discussion. Figure 6.1 shows the geographic extent of the current and potential membership of WARFP and associated EEZs.

Figure 6.1. Current and Potential WARFP Member Countries



2. WARFP member countries are grouped according to the project series to which they belong. Project series represents the order of implementation.

- Series A countries: Cabo Verde, Liberia, Senegal, and Sierra Leone
- Series B country: Guinea-Bissau
- Series 3 country: Ghana
- Series C countries: Guinea and Mauritania
- Series D countries: Côte d’Ivoire and Gambia (potential members)

3. **WARFP projects are implemented in phases.** Each phase will last about five (5) years, and three phases are envisaged for each country. That is, the entire time span for the WARFP program is about 15 years for each country. Phase One focuses on fisheries governance reform, mainly in order to: (a) lay the legal and institutional foundations for managing fishing capacity and fishing effort; and (b) reduce illegal and unreported fishing in related EEZs. In the second phase, the effort with fisheries governance reform will continue and deepen alongside with: (a) promoting increased policy coordination across countries within the subregion; and (b) investing in an enabling environment for private sector actors to actively engage in the sustainable development of the fisheries sector and fishing communities. Finally, the third phase will support sustainable growth in the fisheries and seafood value chain that will be predominantly led by the private sector.

4. The following chart describes the timing and scale of each project series and their progress thus far. As of January 2016, SOP C2 for Mauritania is under preparation, and preparation for SOP A2 is about to begin.

Figure 6.2. Summary of WARFP Series and Phases (as of January 2016)



5. **Positive results have already been obtained** since the implementation of the project in the first group of countries in the program (SOP A1: Cabo Verde, Liberia, Senegal, and Sierra Leone) that began in 2010. Box 1 highlights some of the achievements of the program.

Box 1. WARFP preliminary results

The WARFP program has yielded transformative results under SOP A1 in Cabo Verde, Liberia, Senegal, and Sierra Leone. The fight against illegal fishing has been particularly successful in countries that suffered the most from this scourge. In Liberia, the incidence of illegal fishing has been reduced by 83 percent. A number of fraudulent licenses were discovered in the country, which were worth more than the annual revenues collected from official licenses, revealing a pattern of fraud in the past. In Liberia and Sierra Leone, the exclusion of illegal trawlers from the six-mile inner zone has opened up space for local fishing communities, and coastal communities are now visibly wealthier as a result of having secured their activities. A recent assessment carried out by the EU commended Cabo Verde's efforts to fight illegal fishing, which was a condition for the country being authorized to export to the EU market. This positive result can be partly attributed to the Observers Program set up by the WARFP.

Improved fisheries governance and management are also generating visible impacts in early WARFP countries. Thanks to improved governance in Sierra Leone's fisheries administration, official public revenues from the fisheries sector have increased from US\$0.9 million in 2008 to US\$3.8 million in 2013, a 322 percent increase over five years. The introduction of community-led fisheries management in Senegal has been successful in restoring the resources. Some communities have reported a 133 percent increase in catch efficiency. Almost all countries have reached a 100 percent registration rate for the artisanal fleet. Cabo Verde has piloted an incentive-based registration system, which is now reported as a best practice in West Africa.

6. Mauritania is the seventh country to join this program (together with Guinea under SOP C1), and its participation is essential to achieving the broader regional objectives. Given the absence of physical borders in the ocean, improved governance and management in the waters of one country could drive undesirable practices and outcomes into the less-regulated waters of neighboring countries. Therefore, comprehensive regional coverage is crucial if the full benefit of interventions is to be achieved at the regional level.

7. **SOP C1 in Mauritania.** With the PDO of strengthening the governance and management of targeted fisheries and improving the handling of landed fish at selected sites, SOP C1 in Mauritania (totaling US\$20.05 million, or US\$12 million from IDA, US\$7 million from GEF, and US\$1.05 million from the client) will support three sets of activities: (a) strengthening the governance and sustainable management of the fisheries, in particular by developing and implementing fisheries management plans and promoting transparency in all activities in the sector; (b) improvement to the sanitary and other conditions in post-harvest handling at the Nouakchott fish market; and (c) regional coordination within WARFP to ensure that regular M&E is conducted and the results fed back into decision making and project management. SOP C1 uses disbursement-linked indicators to ensure proper activity sequencing as well as steady and timely progress. These indicators are related to industry transparency (publication of data and information), fishing capacity (fishing vessel registration and fleet size monitoring), setting octopus TAC and its allocation to the industrial or coastal and artisanal fishing segments, and fishing vessel monitoring capacity.

Annex 7: Map of the project

