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INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT AND INTERNATIONAL
DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A PROPOSED {LOAN/CREDIT}

IN THE AMOUNT OF SDR__ MILLION (USD 65.00 MILLION EQUIVALENT) TO THE REPUBLIC OF
MADAGASCAR

A PROPOSED GRANT

IN THE AMOUNT OF SDR__ MILLION (USD 9.00 MILLION EQUIVALENT) TO THE INDIAN OCEAN
COMMISSION

A PROPOSED GRANT FROM THE GLOBAL ENVIRONMENT FACILITY TRUST FUND

IN AN AMOUNT NOT EXCEEDING USD 6.42 MILLION TO THE REPUBLIC OF MADAGASCAR

AND A PROPOSED GRANT FROM THE POLICY AND HUMAN RESOURCES DEVELOPMENT FACILITY
TRUST FUND

IN AN AMOUNT NOT EXCEEDING USD 2.73 MILLION TO THE REPUBLIC OF MADAGASCAR

FOR A

SECOND SOUTH WEST INDIAN OCEAN FISHERIES GOVERNANCE AND SHARED GROWTH
PROJECT - REGION & MADAGASCAR

January 11, 2017

Environment & Natural Resources Global Practice
AFRICA

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CURRENCY EQUIVALENTS

(Exchange Rate Effective {Nov 10, 2016})

Currency Unit =

= USD1

USD = SDR 1

FISCAL YEAR

January 1 - December 31

Regional Vice President: Makhtar Diop

Country Director: Mark Lundell

Senior Global Practice Director: Karin Kemper

Practice Manager: Benoit Bosquet

Task Team Leader(s): Xavier F. P. Vincent, Benjamin Garnaud

ABBREVIATIONS AND ACRONYMS

AIODIS	African and Indian Ocean Developing Island States
ASH	Fisheries Sanitary Authority (<i>Autorité Sanitaire Halieutique</i>)
CMM	Conservation and Management Measures
COREMAP	Coral Reef Rehabilitation and Management Project
COMESA	Common Market for Eastern and Southern Africa
CPC	IOTC Members and Cooperating Non-Contracting Parties
CSP	Fisheries Monitoring Center (<i>Centre de Surveillance des Pêches</i>)
DGF	Development Grant Facility
EAF	Ecosystem Approach to Fisheries
EEZ	Exclusive Economic Zone
ESMF	Environmental and Social Management Framework
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FAO-CA	Food and Agriculture Organization – Compliance Agreement
FAO-PSMA	Food and Agriculture Organization – Port State Measures Agreement
FID	Intervention Fund for Development (<i>Fonds d'intervention pour le développement</i>)
FIS	Fisheries Information System
FPAOI	Indian Ocean Federation of Artisanal Fishers (<i>Fédération des Pêcheurs Artisans de l'Océan Indien</i>)
FPU	Financial and Procurement Unit
GEF	Global Environment Facility
GDP	Gross Domestic Product
GPO	Global Partnership for Oceans
IDA	International Development Association
IFAD	International Fund for Agricultural Development
IFC	International Finance Corporation
IFMIS	Integrated Financial Management Information System
IFR	Interim Financial Report
IOTC/CTOI	Indian Ocean Tuna Commission (<i>Commission des Thons de l'Océan Indien</i>)
IOC	Indian Ocean Commission
IUU	Illegal, Unreported and Unregulated (fishing)
MACEMP	Marine and Coastal Environment Project
MCS	Monitoring, Control and Surveillance
MRHP	Ministry of Aquatic Resources and Fisheries (<i>Ministère des Ressources Halieutiques et de la Pêche</i>)
MSY	Maximum Sustainable Yield
M&E	Monitoring and Evaluation
NIU	National Implementation Unit

PHRD	Policy and Human Resources Development
PIU	Project Implementation Unit
PROFISH	Global Program on Fisheries
PROP	Pacific Islands Regional Oceanscape Program
PSM	Port State Measures
REC	Regional Economic Communities
RIU	Regional Implementation Unit
SADC	Southern African Development Community
SOP	Series of Projects
SWIO	South West Indian Ocean
SWIOFC	South West Indian Ocean Fisheries Commission
SWIOFP	South West Indian Ocean Fisheries Project
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNCLOS	United Nations Convention on the Law of the Sea
UNFSA	United Nations Fish Stocks Agreement
VMS	Vessel Monitoring System
WARFP	West Africa Regional Fisheries Program
WAVES	Wealth Accounting and Valuation of Ecosystem Services
WWF	World Wildlife Fund

BASIC INFORMATION

Is this a regionally tagged project? Yes	Country(ies) Madagascar, Mauritius	Lending Instrument Investment Project Financing
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- Situations of Urgent Need of Assistance or Capacity Constraints
- Financial Intermediaries
- Series of Projects

Approval Date 22-Mar-2017	Closing Date 29-Sep-2023	Environmental Assessment Category B - Partial Assessment
Bank/IFC Collaboration No		

Proposed Development Objective(s)

The proposed Project Development Objective is to improve the management of selected fisheries at regional, national and community levels and to increase access by targeted fishers to alternative livelihood activities.

Components

Component Name	Cost (US\$, millions)
Component 1. Enhanced regional collaboration	8.20
Component 2. Strengthening capacities for priority fisheries management	21.62
Component 3. Strengthening capacities for engagement in alternative fishing practices and livelihoods activities	47.53
Component 4. Project management and coordination	6.80

Organizations

Borrower : Indian Ocean Commission (COI)
 Ministère des Finances et du Budget

Implementing Agency : Ministère des Ressources Halieutiques et de la Pêche

<input checked="" type="checkbox"/> Counterpart Funding	<input type="checkbox"/> IBRD	<input checked="" type="checkbox"/> IDA Credit <input type="checkbox"/> Crisis Response Window <input checked="" type="checkbox"/> Regional Projects Window	<input checked="" type="checkbox"/> IDA Grant <input type="checkbox"/> Crisis Response Window <input checked="" type="checkbox"/> Regional Projects Window	<input checked="" type="checkbox"/> Trust Funds	<input type="checkbox"/> Parallel Financing
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Total Project Cost:	Total Financing:	Financing Gap:
84.15	84.15	0.00
	Of Which Bank Financing (IBRD/IDA):	
	74.00	

Financing (in US\$, millions)

Financing Source	Amount
Borrower	1.00
Global Environment Facility (GEF)	6.42
International Development Association (IDA)	65.00
IDA Grant	9.00
Japan Policy and Human Resources Development Fund	2.73
Total	84.15

Expected Disbursements (in US\$, millions)

Fiscal Year	2017	2018	2019	2020	2021	2022	2023	2024
Annual	0.00	2.88	8.16	12.36	17.16	20.28	22.32	83.16
Cumulative	0.00	2.88	11.04	23.40	40.56	60.84	83.16	0.00

INSTITUTIONAL DATA

Practice Area (Lead)

Environment & Natural Resources

Contributing Practice Areas

Finance & Markets
 Social Protection & Labor

Climate Change and Disaster Screening

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

Gender Tag

Does the project plan to undertake any of the following?

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

No

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

Yes

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

Yes

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	● High
2. Macroeconomic	● Moderate

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

COMPLIANCE

Policy

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

Yes No

Does the project require any waivers of Bank policies?

Yes No

Safeguard Policies Triggered by the Project

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

Legal Covenants

Sections and Description

MADAGASCAR

Dated covenants:

1. The Recipient shall, not later than six (6) months after the Effective Date, issue a ministerial decree, satisfactory to the Association, implementing the stipulations required to allow the Recipient to enforce, and comply with, the provisions of Article 73 of the Law of the Sea Convention. (Schedule 2, Section I.E, paragraph 5)

Sections and Description

2. The Recipient shall review with the Association, on or about September 30, 2020, or such later date as the Association shall request, a report on the progress of the Project and shall take all measures required to ensure the efficient completion of the Project and the achievement of the objectives thereof, based on the conclusions and recommendations of the said report and the Association's views on the matter. (Schedule 2, Section II.B)

Sections and Description

Recurrent covenants:

1. the Recipient shall, through the MRHP, select and employ executing agencies in accordance with the Procurement and Consultants Guidelines in each of the selected Target Areas where a management plan is in force to assist it in implementing the co-management activities and coordinating the co-management adherence activities. (Schedule 2, Section I.A.2 (b))

Sections and Description

2. The Recipient shall ensure that no works are commenced under the Project, until and unless: (i) the Recipient shall have verified, through its own staff, outside experts, or existing environmental/social institutions, that the works meet the environmental and/or social management requirements, if applicable, of appropriate national and local authorities and that they comply with the review procedures set forth in the Environmental and Social Management Framework (ESMF) and/or Process Framework (PF), as the case may be, and the provisions of the National Project Implementation Manual; and (ii) if required, the Recipient shall have prepared and adopted the Social Impact Assessment (ESIA), the Environmental and Social Management Plan (ESMP) and/or Plan of Action (PA), as the case may be, and the same documents have been consulted upon and disclosed as approved by the Association. (Schedule 2, Section I.D.I.1)

Sections and Description

3. The Recipient shall ensure that the Project is implemented in accordance with the provisions of the ESMF and/or PF, as the case may be, and each of the ESMP, ESIA, and/or the Plan of Action, as the case may be, in a manner satisfactory to the Association, and that none of the provisions of the aforementioned documents is amended or waived without the prior written agreement of the Association. (Schedule 2, Section I.D.I.2)

Sections and Description

4. The Recipient shall take all action necessary on its behalf to carry out the PA with due diligence and efficiency and at all times provide the funds necessary therefor and to ensure that, during Project implementation, no restriction to access to fishing grounds under the Project is enforced until and unless the Association shall have approved the site-specific PA. (Schedule 2, Section I.D.II)

Sections and Description

5. All surveillance activities carried out by the Recipient shall be under the control of the Centre de Surveillance des Pêches and shall be carried out by, or under the control of, civilian authorities, under terms of reference limited to fisheries surveillance. (Schedule 2, Section I.E, paragraph 1)

Sections and Description

6. The Recipient shall ensure that all works, goods, services, and Operating Costs financed out of the proceeds of the Credit are used exclusively by, or under the control of, civilian authorities for the purposes of the Project, and not for any military purpose, or for any criminal investigation, prosecution or proceedings, or for any other purposes unrelated to the objectives of the Project. (Schedule 2, Section I.E, paragraph 2)

Sections and Description

7. Each surveillance mission carried out by the Recipient shall be:

(a) governed by detailed protocols prepared in accordance with terms of reference satisfactory to the Association, requiring that such missions be: (i) under the operational command or authority of a civilian fisheries officer; and (ii) conducted during a specific time period that is duly recorded and documented; and

(b) conducted by personnel who have been properly trained in the operation of any equipment used in the surveillance mission.

(Schedule 2, Section I.E, paragraph 3)

Sections and Description

8. Upon the Association's request, the Recipient shall employ an independent expert or an independent panel of experts, as the Association may deem necessary, to audit periodically the surveillance activities to be carried out by the Recipient under the Project, and whose qualifications, experience and terms of reference are satisfactory to the Association. To this end, the Recipient shall take all measures required on its part, including the provision of all information required and access to all relevant sites, to enable said expert or panel of experts, as the case may be, to conduct the audits required under, and in the manner prescribed pursuant to the provisions of the Financing Agreement. (Schedule 2, Section I.E, paragraph 4)

Sections and Description

9. The Recipient shall: (i) take all action required to carry out the Project in accordance with the provisions

and requirements set forth or referred to in the National Project Implementation Manual; (ii) submit recommendations to the Association for its consideration for changes and updates of the National Project Implementation Manual as they may become necessary or advisable during Project implementation in order to achieve the objectives of the Project. (Schedule 2, Section I.G)

Sections and Description

10. The Recipient shall prepare, under terms of reference satisfactory to the Association, and furnish to the Association not later than January 15 in each calendar year, for the Association's consideration, a proposed work plan of activities to be included under the Project for the following calendar year, such plan to include an implementation schedule and budget and financing plan therefor. (Schedule 2, Section I.H)

Sections and Description

1. The Financing Agreement with the Commission or the GEF Trust Fund Grant Agreement with Madagascar or the PHRD Trust Fund Grant Agreement with Madagascar shall have failed to become effective by December 31, 2017.
 2. The Association has suspended in whole or in part the right of the Commission to make withdrawals under the Financing Agreement with the Commission.
 3. As a result of events which have occurred after the date of this Agreement, a situation has arisen which makes it improbable that the Recipient will comply with its undertakings or commitments stipulated in the Letter of Commitment.
- Section 4.01 (a), (b) and (c) and Section 4.02.

Sections and Description

INDIAN OCEAN COMMISSION

Dated covenants:

1. The Commission shall review with the Association, on or about September 30, 2020, or such later date as the Association shall request, a report on the progress of the Project and shall take all measures required to ensure the efficient completion of the Project and the achievement of the objectives thereof, based on the conclusions and recommendations of the said report and the Association's views on the matter. (Schedule 2, Section II.B)

Sections and Description

Recurrent covenants:

1. The Commission shall: (i) take all action required to carry out the Project in accordance with the provisions and requirements set forth or referred to in the Regional Project Implementation Manual; (ii) submit recommendations to the Association for its consideration for changes and updates of the Regional Project Implementation Manual as they may become necessary or advisable during Project implementation in order to achieve the objectives of the Project. (Schedule 2, Section I.D)

Sections and Description

2. The Commission shall prepare, under terms of reference satisfactory to the Association, and furnish to the Association not later than January 15 in each calendar year, for the Association’s consideration, a proposed work plan of activities to be included under the Project for the following calendar year, such plan to include an implementation schedule and budget and financing plan therefor. (Schedule 2, Section I.E)

Sections and Description

Additional Events of Suspension:

1. The Financing Agreement, GEF Trust Fund Grant Agreement or the PHRD Trust Fund Grant Agreement with Madagascar shall have failed to become effective by December 31, 201–7.
 2. The Association has suspended in whole or in part the right of Madagascar to make withdrawals under the Financing Agreement with Madagascar.
 3. The Commission Enabling Legislation has been amended, suspended, abrogated, repealed or waived so as to affect materially and adversely the ability of the Commission to perform any of its obligations under the Financing Agreement with the Commission.
- Section 4.01 (a), (b) and (c) and Section 4.02

Conditions

Type	Description
Effectiveness	<p>MADAGASCAR</p> <p>1. The Recipient shall have established and embedded the five (5) Local Implementing Units within each of the Aquatic Resources and Fisheries Districts of the MRHP operating in the Target Areas, all under terms of reference and with composition and resources satisfactory to the Association. Section 5.01 (a)</p>
Effectiveness	<p>Description</p> <p>2. The Recipient shall have adopted the National Project Operational Manual in form and substance satisfactory to the Association. Section 5.01 (b)</p>
Effectiveness	<p>Description</p> <p>INDIAN OCEAN COMMISSION</p> <p>1. The Commission shall have adopted the Regional Project Operational Manual in form and substance satisfactory to the Association. (Section 5.01)</p>

PROJECT TEAM

Bank Staff

Name	Role	Specialization	Unit
Xavier F. P. Vincent	Team Leader(ADM Responsible)	Fisheries	GEN07
Benjamin Garnaud	Team Leader	Natural Resources Management	GEN07
Sylvain Auguste Rabeloson	Procurement Specialist(ADM Responsible)	Procurement	GGO07
Maharavo Harimandimby Ramarotahiantsoa	Financial Management Specialist	Financial Management	GGO13
Anders Jensen	Team Member	Monitoring & Evaluation	GENGE
Claudia M. Pardinias Ocana	Counsel	Lawyer	LEGAM
Jayne Angela Kwengwere	Team Member	Assistant	GEN07
Julia Rachel Ravelosoa	Team Member	Financial Transfers	GSP01
Lova Niaina Ravaoarimino	Team Member	Procurement	GGO07
Marie Bernadette Darang	Team Member	Assistant	GEN07
Noro Aina Andriamihaja	Team Member	Financial Education	GFM07
Patrick Kabuya	Team Member	Financial Management	GGO25
Paul-Jean Fenô	Safeguards Specialist	Environmental Safeguards	GEN07
Peter F. B. A. Lafere	Safeguards Specialist	Social Safeguards	GSU01
Winona Rei Bolislis	Team Member	Operations	GENDR
Younes Rouessi	Team Member	Operations	GEN07

Extended Team

Name	Title	Organization	Location
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SOUTHERN AFRICA
SECOND SOUTH WEST INDIAN OCEAN FISHERIES GOVERNANCE AND SHARED GROWTH PROJECT -
REGION & MADAGASCAR

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I. STRATEGIC CONTEXT

A. Context

I. REGIONAL STRATEGIC CONTEXT

a. Regional Context

1. **Fisheries is a key sector for the South West Indian Ocean coastal countries.** Nine countries border the waters of the South West Indian Ocean (SWIO) – the island nations of Comoros, Madagascar, Mauritius and Seychelles, and five mainland countries: Somalia, Kenya, Tanzania, Mozambique and South Africa. Together with Yemen, Maldives and France¹, these countries are members of the South West Indian Ocean Fisheries Commission (SWIOFC), a regional fisheries body.² In recent years, the fisheries sector has formally accounted for up to 30 percent of Gross Domestic Product (GDP) in Seychelles, 8 percent in the Comoros, about 6 percent in Mozambique, 2 percent in Tanzania and Madagascar³, 1.5 percent in Mauritius and 0.5 percent in Kenya and South Africa. Among the members of the Indian Ocean Commission (IOC)⁴, with the exception of La Réunion, the sector contributes around 22.5 percent annually to total exports within the region.⁵ The total estimated value of these exports for the island (IOC) countries is around USD900 million per year, of which a large portion is attributed to tuna and shrimp.

2. **Coastal populations in the SWIO region heavily depend on fisheries for their livelihoods.** The small-scale and subsistence fisheries are of major social importance as an economic backbone of livelihoods and economies in rural coastal communities. An estimated 107 million people live within 100 kilometers of the coast in the SWIO countries. While data are poor and likely underestimate the importance of the sector, direct employment in the fisheries sector is estimated at more than one million. Over 45 percent of the workforce are women, mostly involved in small-scale fisheries, including

¹ Some of the French overseas territories, including La Réunion and several other islands, are located in the SWIO and surrounded by extensive Exclusive Economic Zones (EEZs).

² The South West Indian Ocean Fisheries Commission is a regional fisheries body under the Food and Agriculture Organization of the United Nations (FAO), whose objective is to promote the sustainable utilization of the living marine resources of the South West Indian Ocean region and address the common problems of fisheries management and development faced by the member countries, without prejudice to the sovereign rights of coastal States. The member States are: Comoros, France, Kenya, Madagascar, Maldives, Mauritius, Mozambique, Seychelles, Somalia, South Africa, the United Republic of Tanzania, and Yemen.

³ For Madagascar, the 2 percent value is for 2013/2014. This is a decrease compared to 2006, before the shrimp production collapsed, when the fisheries sector is thought to have contributed in the order of 7 percent of GDP.

⁴ A sub-region in the SWIO region, which includes: Comoros, Madagascar, Mauritius, Seychelles and France (La Réunion).

⁵ Indian Ocean Commission – SMARTFish (2016 April). *Le Secteur des Pêches et de l'Aquaculture dans l'Espace COI: Retombées Socio-économiques versus dépenses publiques engagées pour sa gestion.*

collecting, processing, trading, marketing and aquaculture.

3. **The fisheries sector is a major contributor to nutritional health and food security in the SWIO region.** The coastal rural population, in particular the poorest, has limited alternatives to fish as a source of animal protein as well as essential nutrients, vitamins, minerals and trace elements. Fish accounts for around 50 percent of animal protein intake in Mozambique, up to 70 percent in Tanzania, and 20 percent in Madagascar.⁶

b. Regional Challenges

4. **Pressure on fish stock has reached a high level.** An estimated 28 percent of the regional fish stock is over-exploited or depleted (especially the high-value coastal resources, such as shrimp, lobster, and sea cucumber which are easily accessible in particular to small-scale fishers), and a further 40 percent is fully exploited.⁷ Depletion results from overfishing and unsustainable fishing practices by both large-scale and small-scale fishers, through fishing pressure above resource regeneration capacity and widespread use of destructive techniques with direct negative consequences on the environment and resource regeneration. This outcome is largely due to insufficient fisheries governance. As a result, critical ecosystems, already weakened by land-based pollution, are further endangered by productivity and biodiversity loss and destruction of habitats. Increase of fishing pressure on fully exploited stocks would have a further negative impact on fishing productivity with loss of production and revenue, subsequent loss of jobs and livelihoods, and would ultimately pose a threat to food security and nutrition.

5. **As small-scale fisheries modernize or the number of fishers increases, the limited potential of many coastal fisheries will require that the fishing effort be reduced to adjust to optimal resource regeneration capacity.** This will generally translate into fewer vessels or jobs in harvesting operations and will require attention to alternative livelihood opportunities in post-harvest value added, aquaculture or in other sectors. Reduction or elimination of destructive fishing is also a significant governance and social challenge, as communities are dependent on the declining catches from this spiraling environmental and economic depletion – typical of the tragedy of the commons. Co-management approaches can serve as important pathways out of overexploitation and poverty – particularly for the poorest– through providing communities with the mandate and skills to manage and benefit from fishery resources.

6. **Tuna fisheries are by far the most important in the region both in terms of value and total catch and, as tuna resources are migratory, they require regional management for ensuring stocks productivity and optimum harvesting.** In an effort to achieve this objective, the coastal nations and distant waters fishing nations collaborate within the frame of the Indian Ocean Tuna Commission (IOTC), an intergovernmental organization responsible for the management of tuna and tuna-like species in the Indian Ocean. The IOTC is responsible for monitoring the health of the stocks, promoting research relevant for the conservation and management of the resources and fisheries, as well as adopting conservation and management measures for the conservation and optimum utilization of the fish

⁶ UNEP, 2015; FAO, not dated.

⁷ SWIOFC, 2011.



resources.

7. **Tuna fishing, processing and marketing remain dominated by foreign operators, with modest benefits retained in the region.** With some exceptions, much of the tuna fishery remains an ‘offshore economy’ with the region’s developing coastal states playing a relatively marginal role despite the resource wealth. Since 60 percent of the IOTC-tuna and tuna-like catches takes place in Economic Exclusive Zones, SWIO countries could potentially exert significant influence by working together on the management of and access to these valuable regional marine resources to increase the share of benefits retained in the region.

c. Rationale for a Regional Approach

8. **The SWIO marine fisheries are part of a larger marine ecosystem shared by all countries of the region.** This ecosystem is a regional public good, whose health and sustainability require regional coordination to limit the negative and enhance the positive externalities from national activities. Some fish resources, widely spread or migratory, such a tuna-like species, need management from regional to national and local levels. Similarly, resources shared among various countries or various communities will need regional and national and local management or national and local management depending of the geographical distribution of the resource. Discrete resources require mainly national and local management since their spatial distribution is limited; however the different stages of their life cycle can take place in different countries; e.g., growth and reproduction takes place in Madagascar, but larvae drift to other islands and life cycle continue there.

9. **Efficient fisheries management requires a coordinated approach from the regional to the local level and vice-versa.** In absence of coordination, management efforts done at one level can be dissipated at the other levels. The regional and national activities of each project of SWIOFish SOP promote same level of engagement and capacity for all SWIO countries and key stakeholders into the regional dialogue and management under the regional components, as well as for all stakeholders into the national and local dialogue and management. Subsequently national activities contribute to implementation of management measures at national and local levels, based on the subsidiarity principle, for all resources important at regional and national levels, under the national components.

10. All countries in the region would benefit from regional collaboration expanding beyond fish resource management since they are facing the same challenges:

- i. The fisheries sector in the SWIO is already largely regional, with each country’s decision impacting on the other countries’ activities. In particular, large national investments, such as ports, fishing fleets, or processing plants, are competing against each other: uncoordinated fisheries management generates suboptimal implementation costs and efficiency and results in suboptimal benefits for the region and individual countries.
- ii. The countries face common constraints and challenges with regard to their fisheries sector: weak national governance, weak human and institutional capacity, and a fragile business environment.
- iii. The SWIO countries have repeatedly called for attention to regional collaboration in the sector, recognizing the important contribution by the marine fisheries to regional and national goals:

poverty reduction, food security, economic growth, balance of payments, and the value of natural capital.

11. **Regional collaboration is currently being reinforced through the SWIOFish1 Project**, where a wide range of issues are tackled between member countries, particularly in terms of improving the conditions for access to tuna fisheries, strengthening the regional fisheries body, SWIOFC, to ensure effective and sustainable regional collaboration across stakeholders, as well as improving regional Monitoring, Control, and Surveillance (MCS) activities. The proposed SWIOFish2 project will serve as an avenue to help reinforce and widen this collaboration across countries and stakeholders in the extended region. The project strongly contributes to the realization of Sustainable Development Goal No. 14, which aims to *“Conserve and sustainably use the oceans, seas, and marine resources for sustainable development”*.

d. Theory of Change

12. **The measures and objectives targeted by the proposed project would require a change management phase.** The regional approach aims to assist the fisheries sector in the concerned countries to achieve better governance as a pathway to the overarching SOP development objectives, i.e., to increase the economic, social, and environmental benefits to SWIO countries from a sustainable exploitation model of fish resources. Measures will have to be taken to regulate the fisheries and foster new behaviors as, currently, open access, illegal and destructive fishing practices impact negatively fish resource health and reproductive capacity, subsequently fisheries productivity and ultimately protein, job and revenue generation. This will imply, for example, restriction of access to fisheries, prohibition of gear and catch of certain fish, and law enforcement. For better acceptance and ultimately adherence of the fishers to the new management measures and objectives, the project will have to include a change management phase, and facilitate the transition phase by providing incentives for new behaviors. The change management phase will include reforms in the fisheries sector management through financial transfers, assistance to alternative livelihoods, activities and business management, financial education, and a communication campaign directly tailored to the implementation of the fisheries management plans in target areas:

13. **Financial transfers.** The new management measures may affect the fish-workers financially with a possible revenue loss compared to an unregulated scenario. Financial compensation would help mitigate their loss, and could temper resistance to change and encourage good practices.

14. **Assistance to alternative activities and business management.** Regulating the fisheries might drive some stakeholders to enter, temporally or permanently, into alternative activities (in the case of fishing closure due to overexploitation, for example). Identified fish-workers will be provided with training to help them learn a new job, acquire new skills, and create a new sustainable source of revenue. Finance management training will be provided to fish-workers as the project may impact their revenues and income regularity (e.g., high income within a short period following the fisheries re-opening). For those who select professional conversion, technical assistance will be provided on how to run a business.

15. **Financial education.** This set of activities will complement the training and implementation of regulations. The purpose would be to help the fishers to learn to save money for the long run and better

manage their finances. Micro-credit or matching grant access will be enhanced for alternative livelihoods and fishing-related practices.

16. **Communication campaign.** Proper outreach and communication are critical for the success of the project. They will help the fish-workers to understand why fisheries management would benefit them and the advantages of engaging in the change process. This will hopefully facilitate a softer transition from the current unregulated system to the implementation of fisheries management plans.

II. THE SERIES OF PROJECTS APPROACH

17. **Consolidating the emerging regional vision and collaborative framework, founded on the common objective of economic growth and poverty reduction based on the sustainable use of SWIO marine resources, can only be achieved over the longer term.** The World Bank has been sponsoring the SWIOFish Series of Projects (SOP) and approved the first project, SWIOFish1 (Comoros, Mozambique and Tanzania), in February 2015. The SWIOFish SOP will serve as a long-term financing platform to help SWIO countries address the shared challenges and development issues through an expanded multi-borrower approach. The SOP encompasses the eleven developing countries of the SWIOFC.

18. **The overarching SOP Development Objective is to increase the economic, social, and environmental benefits to SWIO countries from sustainable marine fisheries. The SOP Development Objective-level Results Indicators are as follows:**

- i. Reduce the degradation of the status of fish stocks;
- ii. Increase in the fisheries-related GDP in participating countries; and
- iii. Increase in local fisheries-related value-added benefitting the households.

19. **The SOP will help establish a financing, coordinating and knowledge exchange mechanism and will provide for a suite of regional and country-level activities over the medium and long term.** Given the range of issues affecting countries of the SWIO region, the SOP activities target core governance and productivity challenges, the removal of critical constraints to private investment and sustainable business, bringing part of the 'offshore fisheries economy' within country economies, and adding value through regional collaboration and integration.

20. **SOP Phases.⁸ The SOP is a multi-phase operation to be implemented with iterative investments in each country roughly over a 15-year period.** All SWIOFC member countries are eligible to participate, contingent on available funding. The first SOP phase aims to ensure conditions for achieving rational exploitation of fish resources for constant stock regeneration and high productivity as the cornerstone for a perennial and competitive fisheries and seafood industry. This phase will consolidate and strengthen regional cooperation on fisheries and living marine resources management and the blue economy through improved management of fisheries, reinforced regional fisheries

⁸ The World Bank has not committed to financing any activities beyond the proposed project. Any anticipated subsequent phases would be reviewed based on respective priorities of an agreement between the countries and the Bank, and the success of the proposed project.

institutions, knowledge exchanges and capacity development. It establishes the core human and institutional competencies and frameworks for sustainable fisheries management, blue economy development planning and provides incentives for stakeholders to engage in the needed reforms. It also develops community fisheries co-management and promotes increased regional, national and local value-addition. It prepares for major public and public/private capital investments required in the future (e.g., fleet adjustment, aquaculture and port infrastructure). As such, phase 1 has a major focus on human and institutional capacity development, design and implementation of fisheries management plans, and provides for community livelihoods with a view to reducing the pressure on the resource. At present, this first phase includes the on-going SWIOFish1 Project in Comoros, Mozambique and Tanzania and the proposed SWIOFish2 Project in Madagascar. Projects for Seychelles and Maldives are also under preparation. Other SWIOFC countries could join the SOP in subsequent projects.

21. **A potential future phase (phase 2) would further strengthen the policy reforms and empower stakeholders and users to have a greater role and incentives to secure the long-term health of the resource.** It would finance major investments prepared and shown to be viable in phase 1, including in infrastructure, in co-financing of aquaculture development, sector infrastructure and fleet adjustment and fisheries reform. It would deepen regional collaboration with a focus on ensuring sustainability of that collaboration and regional management efforts. Finally, it would further harness benefits along domestic and international value chains. Phase 2 investments could start in any country when phase 1 is completed, where fisheries management plans are effectively implemented as illustrated by law enforcement and decreased illegal practices, and infrastructure investments in the sector are prepared on the technical, environmental, financial and economic aspects. A potential third phase would be aimed at fully consolidating investments and activities undertaken under the previous two phases, as needed.

Figure 1: Phasing of SWIOFish SOP

Projects	Beneficiaries	SWIOFish Phase 1: Regional collaboration & foundation of fisheries management							SWIOFish Phase 2: Enhanced regional collaboration & fisheries governance							SWIOFish Phase 3: Value chain development and integration				
		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	[...]	
SWIOFish1 (P132123)	IOC/SWIOFC																			
	Comoros																			
	Mozambique																			
	Tanzania																			
SWIOFish2 (P153370)	IOC/IOTC-AIODIS-FPADl																			
	Madagascar																			
SWIOFish4 (P157801)	Maldives																			
SWIOFish3 (P155642)	Seychelles																			
Potential	Somalia																			
SWIOFish	Mauritius																			
Projects	Kenya																			

III. MADAGASCAR COUNTRY CONTEXT

22. **The long political crisis has taken a toll on the economy of Madagascar.** After five years of political stalemate, presidential and legislative elections finally took place at the end of 2013. A natural rebound after the prolonged crisis however has not yet taken place. The country was unable to reach the UN Millennium Development Goals (MDG) in 2015, and especially the eradication of extreme poverty, which in 2007 was deemed potentially achievable. Madagascar ranks 154th out of 188 countries in the 2015 Human Development Index. In recent years, growth remained below 3 percent compared to the pre-crisis rate of 5 percent (2004–2008). Faster and inclusive growth is necessary to make a dent in the elevated rate of extreme poverty, estimated at 82 percent of the population.

23. **The weak economy remains vulnerable to shocks.** The Malagasy economy is dominated by its primary sector (agriculture, hunting, forestry and fisheries) which represents about 26 percent of its GDP, 20 percent of the exports and employs around 75 percent of the population (African Economic Outlook, 2015). However, growth was mainly sustained by the secondary sector with industry progressing at 22 percent while growth of the agriculture sector over the period 2004 to 2014 was 1.3 percent. Industry performance was mainly due to export-oriented activities in the mining sector and dedicated manufacturing and processing zones, targeting European and Asian markets. Madagascar's economy remains fragile and its capacity to absorb further shocks is at a bare minimum. This is coupled by the weak governance of natural resources and the widespread practice of illicit activities.

B. Sectoral and Institutional Context

24. **The fisheries and seafood sector is a key contributor to the Malagasy economy, important for both local livelihoods and national growth, but it is still an underperforming sector.** With 5,600 km of coast, a maritime Exclusive Economic Zone (EEZ) covering over 1 million km², and more than 117,000 km² of continental shelf, Madagascar is endowed with substantial marine and coastal resources. However, the estimated catch potential of 480,000 tons is to be taken with caution in the absence of adequate research and statistics and it probably does not account for resource not accessible to small operators. Fisheries represented 2 percent of GDP⁹ in 2010 and 13 percent of exports. Fish products play an important role for food security and nutrition, contributing about 20 percent of animal protein consumption.

25. **An estimated 500,000 people work in the fisheries and seafood sector¹⁰, the vast majority being in the small-scale sector and poorly trained.** A national survey (2012) identified more than 2,500 villages, where 58,000 fishing households represented around 45 percent of the total population, this percentage increases to 50 to 70 percent in the coastal regions. The fishing communities are often the most marginalized populations and have limited access to basic social services and sufficient infrastructure to strengthen human capacity and sector development. Around 102,000 fishers catch 135,000 tons of fish per year subject to high post-harvest losses. Fishers are generally relatively young persons that entered the activity around the age of 11 -15, their active life is generally between 16-50 for women and 16-55 for men. Most of them did not attend school (60 percent of men and 61 percent

⁹ In 2006 the fisheries sector has contributed in the order of 7 percent of GDP. GDP increased from USD5.5 million in 2006 to USD10.8 million in 2010, while the fisheries contribution decreased in absolute value, mainly due to declines in production in particular in the shrimp sector.

¹⁰ Enquête Cadre Nationale (2013).



of women), and only 5.7 percent of men and 8.7 percent of women went above primary school. In average only 5 percent of the fishers have benefitted from training by Non-Governmental Organization or Civil Society Organizations. Eighty-five percent of the fishers indicate fishing as their main activity; their main secondary activity is agriculture (72 percent). Part-time fishers are mainly farmers. Only 78 percent of the fishers are using fishing vessels.

26. **Women account for an important part of the fish-workers, value chain enhancement would have direct impact on their empowerment and livelihoods.** Women represent 21 percent of the fishers and this rate is higher in coastal areas. Compared to other similar countries, women are well represented in fishing vessels (13 percent of crew), while they represent only around half of the fishers without vessels. Worldwide, women are more present in the upstream value chain where additional small operators are involved in fish handling, marketing, processing, construction or repair of gears and dugout canoes and services. Women's role in the upstream value chain in Madagascar needs to be better documented. .

27. **The sector is a major source of foreign currency, but small operators have limited access to the high-value export markets.** The main exports come from the local industrial shrimp fisheries while the tuna fisheries remain dominated by foreign vessels and an offshore economy, as vessels rarely call into local ports. Small-scale operators have limited access to lucrative markets due to limited knowledge of good practices, adequate infrastructure and access to energy and cold technology, and proper sanitary and traceability arrangements.

28. **Meanwhile the decline in catch rates reveals a worrisome state of the marine resources, impacting the sector's socio-economic potential.** Few stock assessments take place, and available data indicates decline in many coastal fisheries accessible to small-scale operators, due to overfishing, harmful fishing practices and habitat destruction. The total illegal catch is estimated at around half of the entire sector's legal production. Without proper management, total and individual catches will decrease as revenues and profits, and ultimately jobs, livelihoods, food security and nutrition will be impacted.

29. **In the absence of a proper management system fisheries stocks are exploited beyond optimal biological, social and economic limits.** Less than 10 percent of the canoes are registered and catches are being largely unreported, stock assessments are rare, economic data are limited and widely dispersed among agencies. The limited data undermines the policy decision-making process for development and management. The result is that Madagascar is exploiting its fisheries stocks without knowledge of maximum sustainable yields and - as has recently been evidenced in the shrimp industry where the causes of massive declines are still being debated - incurring direct social and economic losses or failure to optimize revenue generation.

30. **The weak institutional framework hampers the management and development of the fisheries sector.** The Ministry of Aquatic Resources and Fisheries (MRHP)¹¹ is responsible for the

¹¹ Comprising over 40 separate directorates, services and agencies, among others the *Agence Malagasy de la Pêche et de l'Aquaculture* (AMPA) that manages the revenue of the public sector, the *Observatoire Economique de la Pêche et de l'Aquaculture* (OEPA) that collects economic data on the fisheries sector to inform policy making, the *Autorité Sanitaire Halieutique* (ASH), which acts as the competent authority for seafood certification; the *Centre de*



fisheries sector, while other government agencies are responsible for related activities (e.g., Ministry in charge of environment and the State Secretary in charge of the sea). These institutions all suffer from a lack of human, technical and financial resources as well as a high staff management turnover and political instability.

31. **The policy and legal framework governing the sector requires updating and implementing.** Sector policies are outdated and their implementation has been limited. The Fisheries Law was updated in 2016, but the implementing legislation is yet to be drafted, with exception of the decree on freshwater fisheries already adopted, and needs to be made consistent with international and regional obligations. The lack of law enforcement and the absence of sanctions are likewise lacking. The monitoring and enforcement capacity has improved dramatically over the past two decades for industrial fisheries but it requires further strengthening to address the specificity of the small-scale fisheries. Following the 2009 political crisis, the Fisheries Monitoring Center has been facing financial difficulties, thus making it unable to carry out its tasks. In order to improve management and compliance, the MRHP wants to reinforce co-management arrangements and transfer some competencies to the local communities, something that will require capacity building.

32. **The concentration of MRHP presence and power in the capital city affects proper fisheries management and development.** The fishing sector's administrative and managerial presence is weak in the coastal regions, and no fisheries management plan is effectively implemented. At the local level, the ministry is lacking resources and governance capacity to implement policies. Not enough agents are deployed in the field, and those who are there are not adequately equipped.

33. **Strategic coordination across the other government bodies to develop the fisheries sector is essential to ensure proper management and development planning.** This would include coherent and non-conflictual approaches between the ministries in charge of fisheries, environment and the seas, to ensure proper balance between all usages of the maritime space.

34. **With small-scale fisheries reaching overexploitation and as fisheries management plans begin to be effectively implemented under the proposed project, alternative sustainable activities would need to be presented to the affected fish-workers.** Fish-workers affected by implementation of fisheries management measures will need compensation, incentives and capacity building to be able to comply with the restriction measures in the short term (e.g., through targeted conditional cash transfers), to adopt good practices, as well as to explore alternative livelihoods to cope with temporary or permanent restriction of access to fisheries resources (i.e., during fishing closure periods or transition to new fishing practices, or for operators leaving the sector). Developing small-scale fisheries value-chains has promising alternative livelihoods and income generation potential for the poor and affected fish-workers in the current context of difficult access to markets and low value-addition.

35. **Developing access to electricity in coastal villages can reduce post-harvest losses and facilitate access to markets for micro-, small- and medium enterprises.** The limited access to electricity hampers the development of the fisheries sector by restricting access to cold and processing technologies. Access to off-grid electricity through pre-electrification of coastal fishing villages would promote sectoral development and community well-being. Furthermore, the seafood sector in Madagascar could benefit

Surveillance des Pêches (CSP) in charge of surveillance. The latter two have been facing severe financial difficulties that have limited their potential to effectively carry out their tasks.

from the start from eco- and climate-friendly technology, as the country is still in the process of developing the needed infrastructure and its associated technologies and skills in the sector.

C. Higher Level Objectives to which the Project Contributes

36. **The proposed project is designed to contribute to the World Bank Group's corporate goals of ending extreme poverty and promoting shared prosperity in a sustainable fashion.** It recognizes the importance of fisheries as a key contributor to food security, nutrition, and job creation for the rural coastal populations in Madagascar, which are among the poorest and most vulnerable. It also acknowledges the potential for seafood value chains to further contribute to inclusive economic growth and poverty alleviation. Promoting sustainable exploitation of fisheries, linking small-scale operators to extended value chains for improved revenue generation and better harnessing fisheries to national economies will ensure that the sector socio-economic benefits are captured and their distributive factor is optimized. This will contribute to boosting shared prosperity in Madagascar.

37. **The key challenges and opportunities being addressed through the proposed project feature in the 2015 Systematic Country Diagnostic.** The improvement of governance, especially the management of renewable natural resources, is explicitly mentioned in the Systematic Country Diagnostic (SCD).¹² The SCD recognizes the importance of fisheries management in order to improve the sustainability of the sector, sustainability, in turn, being considered the most critical challenge for Madagascar to achieve growth and shared prosperity. The SCD also underscores the importance of providing livelihoods, reorienting the sector towards a sustainable path, and developing value chains for improved income generation. The proposed project also contributes to the government's national strategies for the sector¹³, which address: (i) sustainable management of fisheries and preservation of resources; (ii) efficient and accountable governance of the sector; (iii) promotion of alternative opportunities and activities (including aquaculture and post-harvest); and (iv) professional strengthening and capacity building of the stakeholders. These objectives are also captured in the country's national development plan 2015-2019 that recognizes the importance of sustainable growth in the sector. By supporting building competitiveness and employment and addressing vulnerability and resilience, with a foundation on governance and public sector capacity, the proposed project is also in line with the World Bank's Africa Strategy. The proposed project is also in line with the Africa Climate Business Plan (ACBP), the USD19 billion multi-sector plan launched by the WBG and partners at COP21, by building fish stocks resilience to climate change and identifying key challenges and opportunities for accelerated progress in achieving livelihood development benefits from sustainably managed fisheries.

38. **By supporting building competitiveness and employment and addressing vulnerability and resilience, with a foundation on governance and public sector capacity, the project is in line with the World Bank's Africa Strategy.** It is also fully consistent with the Regional Integration Assistance Strategy for Sub-Saharan Africa (RIAS), which emphasizes the importance of management of shared natural resources and the provision of regional public goods.

¹² The Country Partnership Framework, currently under finalization, indicates that in fishery, the focus will be on sustainable management of fisheries and conservation of resources, including the promotion or reinforcement of sustainable co-management arrangements and the emergence of priority fishery value chains.

¹³ Programme Sectoriel Agriculture, Elevage et Pêche (PSAEP) ; Stratégie nationale de bonne gouvernance des pêches, 2012.

39. **The proposed project is also consistent with the GEF's International Waters Focal Area strategies and its IW-3 objective 7– Foster Sustainable Fisheries**, namely to enhance multi-state cooperation and catalyze investments to foster sustainable fisheries, restore and protect coastal habitats, and reduce pollution of coasts and large marine ecosystems, and will coordinate with other GEF-funded United Nations Development Program (UNDP) and United Nations Environment Program (UNEP) marine programs in the same area. The project activities will promote resilience to climate-induced risks faced by highly vulnerable and important coastal and marine fisheries habitats, such as reefs and mangroves, and the communities that depend on them. The project will enhance their adaptation to climate change by promoting sustainable fisheries management and activities focused on improving economic benefits of those fisheries, as well as through promoting sustainable conservation of critical habitats. The project is in line with the provision with the Nairobi and Abidjan's conventions and it will take into account the recommendations of the COPs of these conventions in relation to conservation, fisheries and climate during implementation.

II. PROJECT DEVELOPMENT OBJECTIVES

A. PDO

40. The proposed Project Development Objective is to improve the management of selected fisheries at regional, national and community levels and to increase access by targeted fishers to alternative livelihood activities.

B. Project Beneficiaries

41. **At regional and national level, beneficiaries are regional, national and local institutions in the fisheries sector and associated with the maritime and coastal economy.** They will benefit from improved capacity to formulate, analyze and implement policy and to promote public-private coordination as a result of project-financed institutional development activities.

42. **At national and local levels, the main project beneficiaries are the coastal small-scale fishing communities.** These communities include subsistence fishers, households where fishing is a vital component of rural livelihoods, small-scale commercial fishers and fish and seaweed farmers. Women are mostly engaged in processing and marketing, but also have an important role in managing household finances, credit and savings, shore collection of marine organisms and aquaculture. The total number of fishers in the target areas is estimated to a minimum 7,800 persons of which 25 percent are women (census 2012). Co-management arrangements to be developed under the project will ensure proper citizen engagement including female and youth. This broad-based consultative process with stakeholders will contribute to consensus and inclusion building, and give a voice to poorer stakeholders.

43. The project will also target producer and professional organizations, industry or fisher associations and an expanding set of local community co-management institutions.

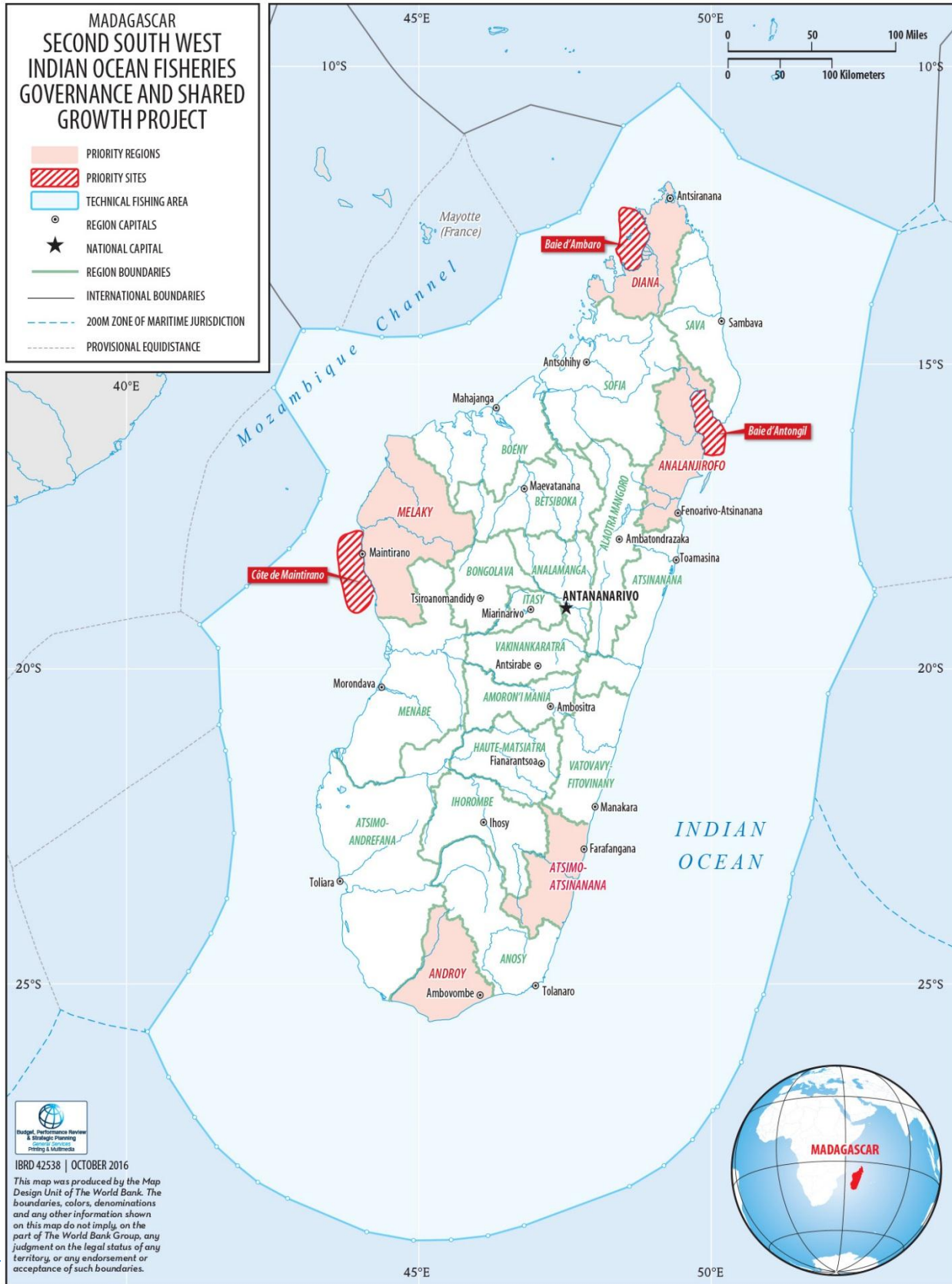
44. **In Madagascar, the project will be focusing on five target areas that have been identified as**



strategic for fisheries, and potential fisheries growth poles. Of these, three regions where fisheries management plans have been developed or are under finalization are considered priority, namely: Ambaro bay and Ampasindava in the Diana and Sofia regions; Antongil bay in the Sava and Analanjirifo regions and Melaky region (cf. map below).. The two other areas, in the Androy and Atsimo-Atsinanana regions, are characterized by fisheries development potential and weak presence of the administration. In addition, the Androy region faces a food shortage challenge Some key activities will extend at national level such as development of the legal framework and strategies, the statistics system and offshore surveillance patrols in the framework of a regional fisheries surveillance plan.

45. Ambaro bay represents an important shrimp fishing ground, Ampasindava and Antongil have a strong biodiversity potential, while Melaky area is facing challenges linked to balancing fisheries development and environmental protection. These areas benefit from fisheries management plans, adopted or under adoption, to be implemented under the project.

46. In the two other areas the project will mainly finance fisheries management plan development, strengthen the administration presence, improve fisheries to help to reduce the malnutrition impact on the local population, and create the conditions for deepening project interventions in the future if conditions prevail.



C. PDO-Level Results Indicators

47. The proposed PDO-level indicators are as follows:
- i. Compliance rate of SWIO countries with IOTC Resolutions (average percentage);
 - ii. Small-scale fishing units in the priority areas using prohibited gear observed during on-shore inspections (percentage);
 - iii. Additional villages in priority areas accessing electricity for post-harvest and value-addition activities (number);
 - iv. Share of targeted community members with rating 'Satisfied' or above on project interventions (disaggregated by sex, age).

III. PROJECT DESCRIPTION

48. **Subsidiarity principle.** As described in section I, many of the challenges addressed by the project are regional in nature. Addressing them requires action at the national level, which will yield important regional benefits, enhance country ownership and efficiency, and strengthening national institutions will help enhance the overall health of fisheries in the region. Project implementation will follow a principle of subsidiarity, whereby only project activities that are transnational will be managed at the regional level through a regional body (component 1), as under SWIOFish1. Most of the activities will be implemented at the national level (components 2 and 3). The fourth component will consist of regional and national project management activities.

49. At the regional level, the proposed project would build on and extend the activities supported by the SWIOFish1 with a specific focus on enhancing regional tuna fisheries management, addressing challenges specific to Island Developing States and strengthening small-scale fishers' voice in regional fora. At the national level, the proposed project will focus on Madagascar, as described further below.

50. **Geographical and investment prioritization.** To optimize project resources and focus interventions, project activities will be implemented gradually in Madagascar. At the local level, the first three-year phase will focus on the three priority areas described earlier. After the first phase, a mid-term review will evaluate the successes and challenges in implementing management plans locally, and activities in general and, for the remaining three years, either propose an extension of the approach to new sites, consolidate the support to existing sites, or refocus this support to a subset of sites.

51. **Prerequisite for financing productive infrastructure.**¹⁴ To access productive infrastructure financing, each priority region should meet all the prerequisites. First, the management plans should be developed, cleared, and adopted in each of the targeted areas. At this stage only community infrastructure not impacting fish exploitation would be financed. Once the theory of change takes effect and fisheries management plans are implemented and accepted by targeted populations who engage in alternative fishing practices and livelihoods activities, investment in productive infrastructure related to

¹⁴ Infrastructure linked to fish production.



the fisheries sector will be considered (i.e., planning). Once a change of behavior and adhesion to the new management plans is evident as illustrated by lower infraction rates, a shift to actual investment in productive infrastructure will take place and will continue subject to tangible legal compliance and management results observed in the fisheries.

52. **Thematic prioritization.** At the national level, a similar phasing will be adopted: a subset of priority national activities (i.e., statistics, legal and institutional framework and access control system) that directly supports the local implementation of the fisheries management plans will be funded in the first phase. Depending on the results and available funds, a second subset, with lower priority but still directly supporting local implementation of fisheries management, will be discussed and potentially financed following the mid-term review.

53. **Towards a seascape approach in Madagascar through a cooperation platform.** The Global Environment Facility (GEF) will finance a coordination platform assembling government entities linked with the sea. This will be a tool for sharing information and experiences related to field challenges. This platform for collaboration will put around the table the MRHP, the Ministry in charge of environment and the State Secretariat for the Sea.

A. Project Components

54. **Component 1. Enhanced regional collaboration** (IOC: USD 8.20 million IDA grant). This regional component covers three core activities to: (1.1) promote the implementation of IOTC Resolutions in the SWIO countries enhancing their compliance with their international fisheries obligations (USD 3.60 million); (1.2) provide a coordination mechanism between African and Indian Ocean Developing Island States (AIODIS) for collaborating and sharing their own experiences to address some of their specific challenges (USD 2.30 million); and (1.3) strengthen the newly created *Fédération des Pêcheurs Artisans de l'Océan Indien, FPAOI* (Indian Ocean Federation of Artisanal Fishers) (USD 2.30 million).

55. **Component 2. Strengthening capacities for priority fisheries management** (Madagascar: USD 15.20 million IDA and USD 6.42 million GEF). The component primarily targets policies, strategies, institutions, legal frameworks, and actions by the public sector necessary to improve priority fisheries management and performance and to sustain regional marine environmental health and resilience to climate change. It will be backed by applied research activities aimed at understanding the resource base, and building human and institutional capacity necessary to implement fisheries policies and management plans. The sub-components include: (2.1) Fisheries public policy including the improvement of the legal and institutional framework, the statistical system, the applied research, the central administration capacity, the inter-ministerial coordination and the sanitary certification system; (2.2) Sustainable management of fisheries and conservation of resources, including the development of fisheries management plans, their enforcement; (2.3) Strengthening deconcentration and the co-management system and the presence of the administration in the regions.

56. The GEF financing would specifically finance the improvement of the statistical system under sub-component 2.1 (USD 2.80 million) and the enforcement of fisheries management plans under sub-component 2.2 (USD 3.62 million) and the coordination platform between environment, sea and

fisheries administrations.¹⁵

57. **Component 3. Strengthening capacities for engagement in alternative fishing practices and livelihoods activities** (*Madagascar: USD 44.80 million IDA and USD 2.73 million PHRD*). This component supports the fisheries management activities in component 2 by building acceptance and adherence to the fisheries management plans by the targeted communities. This component directly benefits the targeted local population by providing financial transfers, training, and small community infrastructure. Accompanying measures identified in the co-management plans developed under component 2 will be implemented here, including compensation for potential access restrictions. The sub-components include: (3.1) Short-term compensatory measures through cash transfer mechanisms; (3.2) Promoting good practices and alternative activities, through in particular training and extension services, promotion of safety at sea and financial education; (3.3) Strengthening local participatory strategic planning; and (3.4) Infrastructure in support of community and sector development including PHRD financing for off-grid energy services.

58. **Component 4. Project management and coordination** (*IOC: USD 0.80 million IDA grant; Madagascar: USD 5.00 million IDA, USD 1.00 million national co-financing*). This component will support regional project coordination, implementation and management, country-level implementation and management, and monitoring and evaluation at regional and country levels. The sub-components include: (4.1) regional coordination and project management at the regional level (USD 0.80 million IDA grant) and (4.2) project management at the national level (USD 5.0 million IDA).

B. Project Cost and Financing

59. **Secured Bank and GEF financing.** The project will be financed through a regional and national IDA credit, a GEF grant and a PHRD grant to Madagascar and a regional IDA grant to the IOC. A parallel co-financing approach will be followed. The total cost of the project will be USD 84.15¹⁶ million for a period of 6 years.

60. **Regional IDA.** The SWIOFish SOP satisfies the regional IDA access criteria: (i) it currently directly involves six countries¹⁷; (ii) its benefits spill over country boundaries; (iii) all SWIOFC member countries have strongly pushed for a continuation of the regional approach, while showing strong ownership of the national investments; and (iv) the project, through continued support to the SWIOFC and its member countries, provides a platform for a high-level of policy harmonization between countries and is part of a well-developed and broadly supported regional strategy. The IOC satisfies the technical criteria for accessing Regional IDA grants, as described in Annex 4.

¹⁵ The project will be allocating at least 1% of the GEF IW grants towards supporting IW:LEARN activities, for instance producing an Experience Note, a Results Note and establishing a homepage following the IW:LEARN guidelines. Moreover, the project will participate in regional IW:LEARN activities and International Water Conferences during implementation.

¹⁶ Including Government's in-kind contribution estimated at USD 1.0 million.

¹⁷ Comoros, Mozambique and Tanzania under the on-going SWIOFish1 (P132123); Madagascar under the proposed SWIOFish2 (P153370); Seychelles under the proposed SWIOFish3 (P155642); and Maldives under the proposed SWIOFish4 - Maldives Sustainable Fisheries Resources Development Project (P157801).

Countries/ regional institutions	Project cost	National IDA	Regional IDA	GEF	PHRD
Madagascar	75.15*	32.25	32.25	6.42	2.73
Indian Ocean Commission	9.00		9.00	0.0	0.0
Total Costs	84.15*	32.25	41.25	6.42	2.73

* includes counterpart funding of USD1.0 million in Madagascar

Project Components	Project cost	IDA Financing	Trust Funds (GEF, PHRD)	Counterpart Funding
1: Enhanced regional collaboration	8.20	8.20	0.0	0.00
2: Strengthening capacities for priority fisheries management	21.62	15.20	6.42	0.00
3: Strengthening capacities for engagement in alternative fishing practices and livelihoods activities	47.53	44.80	2.73	0.00
4: Project management and coordination	6.80	5.80	0.00	1.00
Total Costs	84.15	74.00	9.15	1.00
Total Project Costs	84.15	74.00	9.15	1.00
Total Financing Required	84.15	74.00	9.15	1.00

C. Lessons Learned and Reflected in the Project Design

61. **The project draws on lessons learned from the SWIOFish1 project as well as several national and regional projects.**¹⁸ These lessons include:

- i. Operations in the fisheries sector involving social change and reforms require an extended time horizon, a high degree of flexibility, continuous support for progressive capacity-building and

¹⁸ These include Development Policy Loans in Peru and Gabon, the West Africa Regional Fisheries Program (WARFP), the Lake Victoria Environmental Management Project, the South West Indian Ocean Fisheries Project (SWIOFP), Tanzania's Marine and Coastal Environment Management Project (MACEMP), and Kenya Coastal Development Project (KCDP) projects and the Coastal Resources Management Project (COREMAP) in East Asia and Pacific Islands Regional Ocean-scape Program (PROP) in the Pacific.



repeated financing to maximize impact, learning and sustainability. For this reason, the investment is phased within the project lifetime with a gradual extension of geographical scope and activities, if conditions prevail, and phased in the SOP with possibility for reinforcing and scaling-up of the adopted approach under new financing after this project;

- ii. Business enabling environment and livelihoods support activities are essential for mobilizing stakeholders and obtaining their engagement on the sustainability agenda and required social changes and reforms. Such national investments are required for achieving regional sustainability objectives. However, improving business environment and identifying sustainable alternative livelihoods require a long period incompatible with the timeframe for implementing urgently needed fisheries management measures. For this reason the project incorporates short term compensation and incentives in the form of targeted cash transfers that will evolve from simple targeted cash transfers to cash transfers conditioned on training and engagement in alternative livelihoods or fishing practices;
- iii. Local fisheries management has to be embedded in broad-based consultative processes to build consensus and inclusion, and give a voice to poorer stakeholders. In turn, this creates flexibility and builds ownership necessary to maximize sustainability and the impact of otherwise controversial conservation activities. In line with this lesson, the project will support community-based fisheries management processes and administrative deconcentration supporting this agenda;
- iv. Embedding project management in the Indian Ocean Commission and a clearinghouse mechanism in the South West Indian Ocean Fisheries Commission ensured an important level of coordination among regional initiatives and ownership. Under previous Bank projects, such as a DGF grant and SWIOFish1, IOC management and fiduciary capacities have proven efficient. Use of IOC, a permanent institution, has permitted to capitalize experience and capacity to the opposite of the use of temporary Project Management Unit, as was the case under the pre-sequel of SWIOFish program, the GEF-financed WB-managed South West Indian Ocean Fisheries Project.

62. **Investment in the communities appears as a necessary condition for successful resource management plans, in particular as they contribute to poverty reduction and shared prosperity.** A well-thought use of conditional cash transfers and conditioned support, through community infrastructures and alternative livelihoods, for natural resource management has the potential to enhance investments to productive resources for the individual or the household, while ensuring the preservation of vital environmental assets such as forests and fish stocks. The connection established between components 2 and 3 of SWIOFish2is reflects this lesson. Specific examples include:

63. **Bolsa Floresta, Brazil**¹⁹. Launched in 2007, *Bolsa Floresta* is an integrated financial compensation program that supports Brazil's agenda in committing to zero deforestation, with the aim of improving the welfare of the affected residents in selected sustainable development reserves (SDRs) of the Brazilian Amazon. The implementation of *Bolsa Floresta* has complemented the then existing expansion

¹⁹ Bakkegard, R. K., & Wunder, S. (2014). *Bolsa Floresta, Brazil*. In E. O. Sills, S. S. Atmadja, C. d. Sassi, A. E. Duchelle, D. L. Kweka, I. A. Resosudarmo, & W. D. Sunderlin (Eds.), *REDD+ on the ground: A case book of subnational initiatives across the globe*. Bogor, Indonesia: CIFOR.



of protected areas in the country which has helped in significantly reducing total deforestation between 2004 and 2006. The program offers resident households with a financial incentive of approximately 30 USD per month. The original SDR management plan provided specific information on the area each resident and household are allowed to clear each year. Households were normally allowed to deforest up to 20% of their land, but are not allowed to sell them. On the other hand, *Bolsa Floresta* exceeds forest reserve management by also supporting alternative livelihoods through agricultural production and social activities such as child education and memberships to association, among others. By studying two SDRs, Bakkegard and Wunder (2014) found that the project had the positive conservation effects and equality effects. Furthermore, the project, together with the other conditional cash transfer programs in Brazil, has helped reduce poverty rate in the country from 28% in 2001 to 17% in 2008.

64. **Octopus Fishery Management, Rodrigues**²⁰. The autonomous island of Rodrigues, 600 km north-east of Mauritius, has introduced a way to curb the unregulated nature of the octopus fishing in the island that has contributed to a significant reduction of octopus resources. The declining fish stocks have, in turn, affected the livelihoods of fishers and women in the island. The aim of the local government-led initiative was to introduce regular temporary closures of the fishing area to allow the stocks to recover, notably since the reported octopus catches were usually juvenile females. This was adapted from the seasonal closures of octopus fishing in Madagascar. The first closure, in 2012 for a period of two months, resulted in significant fish landings due to the increase of the octopus population during the closure. The results of the closure also saw a significant increase in the size and weight of the octopus caught and subsequently their market value. During the closures, the project introduced a payment for environmental services policy, instead of a compensation scheme, by initiating alternative livelihoods for affected households. They included work such as beach clean-ups, riverbed and reservoir maintenance, invasive plant control and other agricultural activities. Community activities, in collaboration with various local institutions, in the form of trainings on first aid, swimming, boat maintenance, surveillance and monitoring of fishery resources were also offered. Other temporary alternative activities were also launched in collaboration with SmartFish project, South East Marine Protected Area (SEMPA) Management Unit, Small and Medium Enterprise Development Agency (SMEDA) and the Forum for Rodrigues Women Entrepreneurs (FFER) to involve individuals, particularly women, in the different agricultural production activities. The success of the project in Rodrigues has also encouraged other areas in Mauritius to follow a similar approach.

²⁰ Yvergnieaux, Y. (2014). *SmartFiche 12: Management of the octopus fishery in Rodrigues*. Retrieved January 7, 2017, from Indian Ocean Commission: <http://commissionoceanindien.org/fileadmin/projets/smartfish/Fiche/FICHE12ENGLISH.pdf>

IV. IMPLEMENTATION

A. Institutional and Implementation Arrangements

65. **At the regional level, the Indian Ocean Commission (IOC) will implement the regional activities.** The IOC is a regional leader in fisheries and marine environment with strong internal capacity for project management. It has successfully implemented regional projects funded by the World Bank and other development partners and is currently implementing the regional activities of the SWIOFish1. The IOC, mandated by the African and Indian Ocean Island Developing States to drive their agenda, and a partner of the Indian Ocean Federation of Artisanal Fishers and the Indian Ocean Tuna Commission, would implement the related Regional IDA grant. The Regional Implementation Unit (RIU), hosted by IOC and created under SWIOFish1, will cover all the fiduciary and project management aspects.

66. **At the national level, a National Implementation Unit (NIU) within the Ministry of Aquatic Resources and Fisheries (MRHP) will be responsible for the coordination and implementation of the national activities, as well as the related fiduciary aspects.** Established during project preparation, the NIU is already operational. It is composed of dedicated civil servants from the MRHP and will be supported by consultants, when and if required. The NIU consists of: (i) a Project Coordinator and two deputies; (ii) two Component Managers; (iii) a Financial Management Specialist assisted by two accountants and logistician; (iv) a Procurement Specialist and two deputies; (v) a Social and Environmental Safeguards Specialist; (v) an Information and Technology Specialist; (vi) a Monitoring and Evaluation Specialist and (vii) auxiliary personnel (secretary, drivers). All are civil servants. The NIU will contract consultants to support implementation, as needed. The NIU will implement the project under the oversight of a National Steering Committee, already in place.

67. **At the local level, a Local Implementation Unit (LIU) will be responsible for the coordination and the implementation of the local activities in each of the five priority regions.** These LIUs will be set up by effectiveness and embedded within the Aquatic Resources and Fisheries Districts (*Circonscriptions des Ressources Halieutiques et de la Pêche*), under the responsibility of the Regional Director (*Directeur Régional des Ressources Halieutiques et de la Pêche*). The Head of District (*Chef de Circonscription*) will act as the local project coordinator and will be assisted by two technical leads (consultants, one per component) and a deputy coordinator (consultant), if needed. Administrative and financial assistants will be recruited to support the Regional Directors on fiduciary aspects in each of the priority regions. As such, the project will be an important driver for the current deconcentration agenda of the MRHP.

68. **The MRHP will establish formal partnerships to facilitate the implementation of some project activities,** mainly at the local level and in areas outside its core mandate. These partners include, among others: the Local Development Fund (*Fonds de Développement Local*) for the improvement of local governance and development planning; the Intervention Fund for Development (*Fonds d'Intervention pour le Développement*) for cash transfers; the Renewable Energy Development Agency (*Agence de Développement des Énergies Renouvelables*) for the community pre-electrification; and the Agricultural Services Center (*Centre de Services Agricoles*) for the promotion of alternative livelihoods. Along the project life, other institutional partners will be identified as needed. In addition, the MRHP will select

executing agencies in each of the project areas to assist it in implementing the co-management activities and coordinating the co-management adherence activities. The implementation arrangements are described in greater detail in Annex 2.

B. Results Monitoring and Evaluation

69. **Monitoring and evaluation of outcomes and results are a core part of the project design.** The RIU and the NIU will collect and present data and reports every six months in conjunction with World Bank implementation support missions. Discussions during these missions will relate to institutional capacity building, financial viability and technical reviews and site visits will also provide effective means of monitoring progress. The NIU has appointed a dedicated Monitoring and Evaluation (M&E) Specialist to regularly monitor the project indicators. An M&E manual, part of the Project Operational Manuals, will detail the approach and tools and clarify the M&E roles and responsibilities. The project will also devote funds to the implementation of the M&E framework, including regular field surveys.

70. **The project will also help improve the M&E system for the sector,** and the project M&E Specialists will take an integral part in the management and development of the fisheries sector statistics in the country and the development of scientific, economic, and social dashboards, of which some will be publically available, to support fisheries management and decisions related to the development of the fisheries sector. Efforts to centralize the data, or part of it, at regional level are being explored. A first step in the M&E process will be to prepare and implement a national fisheries information and statistics master plan to develop the core social, environmental and economic tracking modules to deliver the dashboard of indicators for the sector with emphasis on the social and economic targets (project year 2). The second step will be to link the dashboard to the performance indicators and deliverables of the dependent institutions, major projects, and to milestones of country sector plans, poverty reduction plans, and other strategic instruments (project year 4). The third step will be to link the dashboard of the project and national decision-making and management process (by the end of the project).

C. Sustainability

71. **The core element of institutional sustainability will be the capacity building coupled with the alignment of policies with investments and the tracking of impacts.** The RIU and the NIU are fully embedded within regional and national entities (IOC, MRHP) favoring ownership of the project achievements beyond its closing. The specific attention given in Madagascar to deconcentration is also designed to foster local ownership of the project approach and activities, and to avoid capacity concentration within the central government and mitigate the impacts of political risks on project activities. Feedback through participatory processes will guide adaptive management to respond to changing economic, social, and environmental conditions. This approach will help align the project activities around a shared vision, prioritize and sequence investments, and establish a framework for the progressive realization of higher level objectives, thus strengthening the ownership and sustainability of the project's achievements.

72. **The project will contribute to public sector financial sustainability by improving the effectiveness of the public institutions and by increasing private sector rents.** In the long term, public

finances will benefit from more cost-effective production from public fiscal receipts through new and more profitable enterprises entering the economy and through the timely repayment of public investments supporting private sector productivity.

D. Role of Partners

73. **Coordination with parallel initiatives.** There are a number of parallel initiatives in Madagascar and at regional level, some of them supported by other development partners, which relate to the proposed project.

74. In Madagascar, the MRHP will ensure efficient coordination with the other initiatives through adequate communication, attendance to steering committees and events related to parallel initiatives, and invitation of relevant stakeholders to the Project Steering Committee. For example, one parallel project of specific importance is the Expanding and Consolidating Madagascar's Marine Protected Areas Network Project, implemented by the Ministry of Environment, Ecology and Forests (*Ministère de l'Environnement, de l'Ecologie et des Forêts*, MEEF) and or the Secretariat of State for the Seas (Secrétariat d'Etat à la Mer) and financed by the Global Environment Facility (GEF) through the World Wildlife Fund (WWF). The project objective is to ensure that Madagascar's marine biodiversity and productivity are effectively managed through a sustainable, resilient national network of MPAs. The coordination between both projects and the relevant ministries will be done by the existing Fisheries-Environment Commission (*Commission Environnement - Pêche*). Specific meetings will be organized in the field every six months.

75. At the regional level, the SWIOFC platform as well as the SWIOFish1's regional project implementation unit (RIU) promote coordination among regional initiatives. The SWIOFC and the RIU will continue to ensure coordination with other regional fisheries-related initiatives and in particular with GEF-funded UNDP (SAPPHIRE) and UNEP (WIO-SAP) marine programs in the same area. The project will take into account the recommendations of the conference of the parties of the Nairobi convention as well as Abidjan convention when relevant in relation to conservation, fisheries and climate during implementation.

V. KEY RISKS

A. Overall Risk Rating and Explanation of Key Risks

76. **Overall Risk Rating.** The overall risk rating is deemed high, due to potential risks associated with: (i) complex policy issues, including the management of reform processes; (ii) weak capacity of the participating governmental agencies, particularly with respect to Bank fiduciary and safeguard procedures; (iii) resistance of key public and private stakeholders to the introduction of reforms, which may not provide equal or short-term benefits; (iv) difficulty in developing viable and functional production and value-chain models and alternative livelihoods at different levels; (v) dependence on factors and conditions outside the control of the project, including occurrence of natural disasters; (vi) political instability which can impact the project; (vii) the poor investment climate baseline; and (viii) high dependency of coastal fishing communities on the resource. The investments in capacity building



and leadership, careful design of reform processes, and the use of private sector innovation will help mitigate these risks.

77. **Political and Governance risks.** Political risk in the country is considered to be high. Madagascar has experienced repeated political instability, including coups, violent unrest and disputed elections. The most recent coup in 2009 led to five years of political deadlock, international condemnation and economic sanctions. Despite the return of democratic elections in 2013, the political situation remains fragile. Election cycles could represent a risk of future political instability as the political situation in the country remains fragile. This risk would in particular impact the activities directly implemented by the administration mainly under component 2, the activities implemented with the implementing agencies and directly benefiting the coastal populations should be less affected by political fluctuations.

78. **Sector strategies and policies.** The risks are considered substantial, as achievement of the PDO is dependent on changes needed to fisheries policies, strategies, institutions, legal frameworks, and actions by the public sector necessary to improve priority fisheries management and performance. The project and the theory of change have been designed to support these changes.

79. **Technical Design of Project.** The risks are considered substantial due to the complexity of a regional project and multi-regional interventions and difficulty in developing viable and functional production and value-chain models and alternative livelihoods at different levels. Even though this is the second project of the series, the MRHP has not benefitted from any pilot project as the SWIOFish1's countries and most of the approach is new in Madagascar. The Bank team will have to provide adequate implementation support effort and executing agencies with adequate experience and knowledge of the project areas will be recruited to lower the risk.

80. **Institutional capacity including for fiduciary aspects.** These risks are considered substantial for the MRHP as their presence is concentrated in Antananarivo and the governance and capacities in the regions are weak, and could impact the project as many project activities are implemented in areas away from the capital. Capacity of the participating governmental agencies, particularly with respect to Bank fiduciary and safeguard procedures is weak overall. Support to the deconcentration process and training will be central in the project to mitigate the risks.

81. **Stakeholders.** Risk related to adhesion to and engagement in alternative fishing practices and livelihoods activities from the targeted population is high. The project is exposed to resistance to implementing the fisheries management plan from targeted populations, and to misunderstanding of its benefits. The theory of change has been developed to mitigate the risk which includes sensitization campaigns, financial compensation schemes, training and financial education. The co-management approach and the phasing in the compensation mechanisms, from cash transfer in the short term to engagement in alternative livelihoods in the medium term mitigate this risk. Communication on positive experience in the management of fisheries resulting in increased productivity e.g., the small-scale octopus fisheries in South West Madagascar, will support adherence of fish-workers to the approach.

82. **Other.** Climate change impact, incidence of natural disasters and recurrent diseases represent additional risks that are beyond control of the project and that will be monitored.

VI. APPRAISAL SUMMARY

A. Economic and Financial (if applicable) Analysis

83. **Development Impact.** The magnitude and main types of expected benefits from the project include improved and transparent resource assessment and access rules at national and regional levels; increased resource rent captured by public and private actors in particular from Madagascar and the region; improved income and safety for fishers and coastal communities; and increased local and national value-added from healthy fisheries and post-harvest activities.

84. **Results of the economic analysis.** The economic analysis assesses the internal rate of return (IRR) of the project after 5 years and 10 years, and is broken down per component and submitted to a sensitivity analysis. It presents the baseline and the business as usual scenario, and compares it with the project expected benefits. The IRR estimated at the end of the project (5 years) is relatively high (11.0 percent), rising to 28 percent after 10 years without further investment, and not overly sensitive to a decrease in expected returns or to increased costs. The detailed economic analysis is presented in Annex 5.

85. **Public rationale.** The activities proposed under the project are typically government- financed. Institutional reforms in the fisheries sector, strengthening of the enabling environment for private sector development, and fostering coordination on regional issues can only happen through government action.

86. **Bank value-added.** The World Bank has been at the forefront in supporting the management and development of the SWIO fisheries sector in the past decade, mainly through the successful implementation of the Bank-managed, GEF-financed South West Indian Ocean Fisheries Project (SWIOFP) and preparation of the SWIOFish SOP. The World Bank's convening power will also be a critical asset to the project to foster cooperation across sectors, boundaries and donors. In addition, the World Bank's experience in developing and implementing similar operations in Comoros, Mozambique, Tanzania, Seychelles and Maldives and at the regional level as well as in West Africa and the Pacific will bring significant value-added to the achievements of this project.

B. Technical

87. The proposed project will resolve several critical technical challenges facing capture and culture fisheries. The nature of the technical solutions is well-known. The challenge is to design the most appropriate package for each country's unique circumstances and develop the necessary public-private consensus and financing. Building this blend of technical and financial interventions is a vital project activity. New or revised fishery policy instruments will be based on current analyses of best practices with respect to consensus-based fishing tenure and concessions while the implementation at the local level would draw upon recent World Bank, International Fund for Agriculture Development (IFAD) and other partner experiences in deconcentration and community-driven development. The high-cost surveillance activities will benefit from new technologies and timely regional information exchange and collaboration to increase cost-effectiveness and deterrence, and draw upon recent Indian Ocean Commission regional experiences. The economic models and value-chain analyses will inform policy and

project adaptation and reduce externalities and transaction costs.

88. **Structuring private sector finance and credit facilitation, and providing the complementary public support, presents one of the major technical challenges because of the variety of production systems, timescales, differential access to credit, investment climate risks, and the diversity of stakeholders involved.** The focus will be on using existing investors: supporting restructuring in the case of underperforming capture fisheries and building a critical mass of technical skills and services. The current rural/agricultural credit constraints will be expected to be largely resolved by the time major private investments would occur, possibly during subsequent projects in the Series of Projects (SOP), and the SOP would supplement these emerging solutions. The institutional architecture for regional collaboration on enforcement is already mapped out, through the IOC managed projects, and viable institutional and financing models can be adapted from regional collaboration in the Pacific tuna fisheries. The investments in capacity building, leadership, knowledge, and education networks will backstop adoption of relevant technologies and development of new niche markets and innovations.

C. Financial Management

I. REGIONAL

89. **The financial management arrangements in the Indian Ocean Commission were assessed as adequate (meet the Bank's minimum requirements in OP/BP 10.00).** However, to further strengthen the arrangements, it was agreed that codes for each project activity shall be created for inclusion in the IOC chart of accounts SAGE Pastel accounting system once the project is approved, and that the project funded activities shall be included in the IOC budget from 2018 budget. Details of the assessments are included in Annex 2.

II. MADAGASCAR

90. **The financial management arrangements in the MRHP were assessed as adequate (meet the Bank's minimum requirements in OP/BP 10.00).** However, the MRHP: (i) possesses limited experience in the financial management of World Bank-funded projects; (ii) does not have formal procedures and does not have an appropriate Integrated Financial Management System (IFMIS). The project envisages capacity building and the putting in place of acceptable financial management arrangements and internal controls (FM manual, adequate FM system). Details of the assessments are included in Annex 2.

D. Procurement

I. REGIONAL

91. **The IOC has experience in various donor procedures including the Bank and therefore has the capacity to implement procurement activities for the project.** The procurement and contract service of the IOC, in charge of the procurement of more than ten projects from five development partners, is staffed with experienced and proficient staff, one head of the service and two assistants. The IOC

procurement staff has experience in Bank procedures which was strengthened with the implementation of the SWIOFish1 Project. Nonetheless, additional training and continuous support from the Bank procurement specialist will be provided throughout project implementation.

II. MADAGASCAR

92. **A Procurement Code was enacted in July 2004 and included simplification of procedures and compliance with international standards.** The Procurement Code has also been supplemented by regulations, procedures manuals, and standard bidding and other procurement documents. Nevertheless, during the preparation of the project, it was agreed with the Borrower that IDA Guidelines and Standard Bidding Documents (SBDs) will be used. The National Project Operational Manual governing SWIOFish2 will reflect the arrangements for the proposed project.

93. **The National Implementation Unit within MRHP will have the overall responsibility for procurement activities for the project.** The procurement team is currently duly staffed with proficient procurement officers. The procurement unit staff does not have experience in managing procurement operations for Bank-financed projects but has experience in national procurement procedures. A procurement capacity assessment of the NIU at MRHP, including training needs and arrangements, was conducted as part of project preparation. Further details are provided in Annex 2.

94. **An initial 24-month procurement plan has been developed by MRHP, covering procurement activities under the project components.** Once the project is approved, it will be published on the Ministry of Finance and Budget website and the Bank's external website. The procurement plan will be updated in agreement with the Bank at least annually or as required to reflect the actual project implementation needs and improvements in institutional capacity. The prior review thresholds set out in the procurement plan will be reviewed from time to time and revised as needed during the project implementation.

E. Social (including Safeguards)

95. **The social objectives for capture fisheries target increased employment, local food security and subsistence livelihoods.** Pursuing social objectives rather than financial optimization often means the fisheries operate at a biological maximum (known as Maximum Sustainable Yield or MSY) with lower net financial returns from harvesting. However, other substantial benefits, including post-harvest incomes, food supply, job creation and other economic activity, accrue along the value-chain. Given limited fish resources and trends towards modernization of fishing operations, returns to labor and capital will decrease unless the unit value of the catch increases. The sustainable community fisheries activities, including the creation of alternative livelihoods, address this threat and provide a pro-poor axis for the project. Although an imperfect measure of wellbeing, income and employment indicators are intended to specifically track the social dimension.

96. **In 2012, around 273,800 household members or 45 percent of the total population of fisher**



villages were depending directly on the fisheries sector, with a large majority employed full-time.²¹ Policies contributing to job creation thus have an important impact on poverty reduction. The project will support inclusive growth by promoting more efficient use of fishery resources, strengthening the legal and institutional framework for fisheries management, public private partnerships, and critical community infrastructures. All such actions contribute to an environment more conducive to business activity and job creation, a necessary condition to further reduce poverty.

97. **The project will make specific provisions for enforcement of access restrictions to some fishing grounds, through community co-management or, possibly, support to Marine Protected Areas.** This triggers the Involuntary Resettlement safeguard policy (OP/BP 4.12) and, therefore, a Process Framework (PF) acceptable to the Bank has been prepared in Madagascar. Public consultations were held and the information was disclosed, and appropriate grievance-handling procedures and arrangements will be prepared, including the preparation of action plans, acceptable to the Bank, describing the specific measures to be undertaken to assist the affected persons and the arrangements for their implementation, before to enforcing of restriction. The government hired a consultant to support it in preparing the safeguard documents and organizing the necessary consultations. The project will ensure access to training and support activities by women. The PF was disclosed in Madagascar and published by the World Bank InfoShop before appraisal, on December 9, 2016.

F. Environment (including Safeguards)

98. **The project is expected to have a substantial positive impact not only directly on the marine and coastal environment but also on the institutional stewards and the users of the coastal natural resources.** It will establish practices for the sustainable and profitable use of marine and coastal fisheries resources and contribute directly to the adaptive capacity of the coastal communities, many of which are in the front line of climate change. The core natural resource governance foundation of the project is expected to ensure conformity with safeguard policies triggered.

99. **The project is considered Category B (partial assessment) with regard to potential environmental and social impacts could involve the construction and rehabilitation of fishery infrastructure and administrative buildings in the project zones.** Regarding applicable safeguard policies, Environmental Assessment (OP/BP 4.01) is triggered as the project may have small-scale, localized negative impacts stemming from limited infrastructure investments (such as renovation or expansion of existing landing sites, markets or office building). Likewise, Natural Habitats (OP/BP 4.04) is triggered as the project is expected to have impacts on the coastal and marine environment, though globally positive thanks to the support for improved management of the resource exploitation contained therein. An Environmental and Social Management Framework (ESMF) was prepared in Madagascar, providing screening procedures for environmental and social impacts and outlining proposed mitigation measures including: (a) the Environmental Codes of Practice for construction activities; (b) safeguards documentation preparation and clearance or sample of terms of reference for Environmental and Social Impact Assessments (ESIAs), if needed; (c) safeguards implementation, supervision, monitoring, and reporting; (d) institutional strengthening and capacity-building programs;

²¹ Ministère de la Pêche et des Ressources Halieutiques. Enquête Cadre Nationale 2012-2013.

and (e) institutional arrangements and budget. The affected people and communities and other relevant stakeholders have been consulted during the elaboration of the ESMF. The feedback from the consultations have been incorporated into the project design and the final ESMF. Appropriate grievance handling procedures and arrangements for monitoring environmental management plans implementation were prepared. The ESMF has been reviewed and cleared by the Bank and disclosed in Madagascar and published by the World Bank InfoShop prior to appraisal, on December 9, 2016.

100. **The application of Physical Cultural Resources (OP 4.11) are addressed through the Environmental and Social Assessment process.** For better assurance, the ESMF has made provisions for cultural resources management in the event the Physical Cultural Resources OP 4.11 is triggered during the implementation phase and includes “chance finds” procedures for inclusion in the contractors’ contract. Mitigation measures will be included in the respective subproject Environmental Management Plans (EMPs), including chance find procedures.

G. Other Safeguard Policies (if applicable)

101. **Borrower’s Responsibilities Regarding the United Nations Convention on the Law of the Sea. The World Bank’s OP 4.01 addresses project activities and their relation to international treaties and agreements.** In order to be eligible for World Bank financing for fisheries enforcement, the fisheries legislation of a country should be compatible with the United Nations Convention on the Law of the Sea (UNCLOS) particularly Article 73, whereby any foreign vessels and crews detained in the Exclusive Economic Zone (EEZ) will be immediately released upon posting a reasonable bond and the flag of the vessel is immediately notified. Madagascar has signed and ratified UNCLOS, and as part of the project preparation, the World Bank reviewed the country’s fisheries legislation, deviation were identified and will be corrected in the legislation with the issuance, not later than six (6) months after the Effective Date of the Financing Agreement, of a ministerial decree implementing the stipulations required to allow the Recipient to enforce, and comply with, the aforementioned provisions of Article 73 of the Convention on the Law of Sea. Until this decree is issued, the Recipient has provided assurances of compliance with the letter and spirit of Article 73 in a Letter of Commitment dated __, 2017, from the the Government, declaring it will respect the UNCLOS obligations under the Project and follow them in implementing the Project. Besides the Letter of Commitment, the government has also transmitted a letter (see Annex __) to the Bank acknowledging the disputed areas and confirming that no activity, in particular surveillance, will take place in disputed areas under the Project.

H. World Bank Grievance Redress

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

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



VII. RESULTS FRAMEWORK AND MONITORING

Results Framework

COUNTRY : Southern Africa

Second South West Indian Ocean Fisheries Governance and Shared Growth Project - Madagascar

Project Development Objectives

The proposed Project Development Objective is to improve the management of selected fisheries at regional, national and community levels and to increase access by targeted fishers to alternative livelihood activities.

Project Development Objective Indicators

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: 1. Compliance rate of SWIO countries with IOTC resolutions		Percentage	70.00	75.00	Annual	IOTC assessment using Compliance Reports (baseline: 2015)	IOTC
Somalia		Percentage	71.00	76.00	Annual	IOTC assessment using Compliance Reports (baseline: 2015)	IOTC
Comoros		Percentage	75.00	80.00	Annual	IOTC assesement using Compliance Reports	IOTC



Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
						(baseline: 2015)	
Kenya		Percentage	66.00	71.00	Annual	IOTC assessment using Compliance Reports (baseline: 2015)	IOTC
Madagascar		Percentage	66.00	71.00	Annual	IOTC assessment using Compliance Reports (baseline: 2015)	IOTC
Mozambique		Percentage	80.00	85.00	Annual	IOTC assessment using Compliance Reports (baseline: 2015)	IOTC
Tanzania		Percentage	56.00	61.00	Annual	IOTC assessment using Compliance Reports (baseline: 2015)	IOTC



Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Maldives		Percentage	78.00	83.00	Annual	IOTC assessment using Compliance Reports (baseline: 2015)	IOTC
Description:							
Name: 2. Small-scale fishing units in the priority areas using prohibited gear observed during on-shore inspections		Number	80.00	30.00	Annual	Review of on-shore inspection reports	CSP
Description:							
Name: 3. Additional villages in priority areas accessing electricity for post-harvest and value-addition activities		Number	0.00	20.00	Annual	Review and count of technical inspection report about completion of civil works	MRHP / ADER
Description:							
Name: 4. Share of targeted community		Percentage	0.00	25.00	Annual	Field-based perception survey by third party	MRHP / Survey firm's report



Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
members with rating "Satisfied" or above on project interventions (disaggregated by sex, age)						(consultant)	
Description:							

Intermediate Results Indicators

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: 1.1. IOTC Compliance Support Mission (CSM) in participating countries		Number	0.00	5.00	Annual	IOTC CSM reports	IOTC / RIU
Description:							

Name: 1.2. Annual high-level meeting of African and Indian Ocean Developing Island States (AIODIS)		Number	0.00	6.00	Annual	Minutes of AIODIS meetings	IOC / RIU
Description:							



Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: 1.3. Annual FPAOI General Assembly meeting		Number	0.00	6.00	Annual	Minutes of FPAOI General Assemblies	FPAOI / RIU
Description:							
Name: 2.1. Legal texts (by-laws) for implementation of the 2015 Fisheries Law adopted by the Ministry in charge of fisheries		Number	0.00	120.00	Annual	Review of cover letter and minutes of meetings in ministry and institutional database inclusive of all adopted implementation texts	MRHP / SLC
Description:							
Name: 2.2. Regions collecting and transmitting statistical catch and effort data electronically at national level to the MRHP		Number	0.00	5.00	Annual	Review of transmission reports	MRHP
Description:							



Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: 2.3. Fisheries management plans implemented		Number	0.00	3.00	Annual	Review of fisheries management plans	MRHP
Description:							
Name: 2.4. Fishers in priority areas with a professional card		Number	0.00	7200.00	Annual	Review of the ID card registration logs	MRHP / DRRHP
Description:							
Name: 2.5. Small-scale fishing vessels registered and externally marked in priority areas		Number	457.00	2800.00	Annual	Review of annual CirRHP activity report	MRHP / CirRHP
Description:							
Name: 2.6. Small-scale fishing units inspected annually on-shore in priority areas		Percentage	0.00	60.00	Annual	Review of inspection reports and comparison with survey data.	CSP
Description:							



Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Description:							
Name: 3.1. Fishers participating in alternative fishing practices and livelihoods activities in the priority areas		Number	0.00	3500.00	Semi-annual	Agex / service providers reports	MRHP / AGEX
Description:							
Name: 3.2. Infrastructures in priority areas transferred to the target communities management committee		Number	0.00	320.00	Annual	Review of transfer agreements	MRHP / DRRHP
Description:							
Name: 3.3. Local Community Electrification Plans adopted for target communities		Number	0.00	20.00	Annual	Plans validated by ADER	MRHP, DRRHP
Description:							



Target Values

Project Development Objective Indicators

Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	YR6	YR7	End Target
1. Compliance rate of SWIO countries with IOTC resolutions	70.00	70.00	71.00	72.00	73.00	74.00	75.00	75.00	75.00
2. Small-scale fishing units in the priority areas using prohibited gear observed during on-shore inspections	80.00	80.00	75.00	70.00	60.00	45.00	30.00	30.00	30.00
3. Additional villages in priority areas accessing electricity for post-harvest and value-addition activities	0.00				5.00	10.00	20.00	20.00	20.00
4. Share of targeted community members with rating "Satisfied"™ or above on project interventions (disaggregated by sex, age)	0.00		15.00	0.00	20.00	0.00	25.00	0.00	25.00
Somalia	71.00	71.00	72.00	73.00	74.00	75.00	76.00	76.00	76.00
Comoros	75.00	75.00	76.00	77.00	78.00	79.00	80.00	80.00	80.00
Kenya	66.00	66.00	67.00	68.00	69.00	70.00	71.00	71.00	71.00



Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	YR6	YR7	End Target
Madagascar	66.00	66.00	67.00	68.00	69.00	70.00	71.00	71.00	71.00
Mozambique	80.00	80.00	81.00	82.00	83.00	84.00	85.00	85.00	85.00
Tanzania	56.00	56.00	57.00	58.00	59.00	60.00	61.00	61.00	61.00
Maldives	78.00	78.00	79.00	80.00	81.00	82.00	83.00	83.00	83.00

Intermediate Results Indicators

Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	YR6	YR7	End Target
1.1. IOTC Compliance Support Mission (CSM) in participating countries	0.00	0.00	1.00	2.00	3.00	4.00	5.00	5.00	5.00
1.2. Annual high-level meeting of African and Indian Ocean Developing Island States (AIODIS)	0.00	1.00	2.00	3.00	4.00	5.00	6.00	6.00	6.00
1.3. Annual FPAOI General Assembly meeting	0.00	1.00	2.00	3.00	4.00	5.00	6.00	6.00	6.00
2.1. Legal texts (by-laws) for implementation of the 2015 Fisheries Law adopted by the	0.00	10.00	60.00	120.00	120.00	120.00	120.00	120.00	120.00



Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	YR6	YR7	End Target
Ministry in charge of fisheries									
2.2. Regions collecting and transmitting statistical catch and effort data electronically at national level to the MRHP	0.00	0.00	1.00	3.00	5.00	5.00	5.00	5.00	5.00
2.3. Fisheries management plans implemented	0.00	1.00	2.00	3.00	4.00	4.00	5.00	5.00	3.00
2.4. Fishers in priority areas with a professional card	0.00		1000.00	2000.00	3000.00	5000.00	7200.00	7200.00	7200.00
2.5. Small-scale fishing vessels registered and externally marked in priority areas	457.00	457.00	600.00	900.00	1500.00	2100.00	2800.00	2800.00	2800.00
2.6. Small-scale fishing units inspected annually on-shore in priority areas	0.00	10.00	20.00	30.00	40.00	50.00	60.00	60.00	60.00
3.1. Fishers participating in alternative fishing practices and livelihoods activities in the priority areas	0.00	500.00	1000.00	1500.00	2000.00	2500.00	3500.00	3500.00	3500.00
3.2. Infrastructures in priority areas transferred to the target communities management	0.00			40.00	120.00	200.00	320.00	320.00	320.00



Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	YR6	YR7	End Target
committee									
3.3. Local Community Electrification Plans adopted for target communities	0.00	5.00	10.00	20.00	20.00	20.00	20.00	20.00	20.00



ANNEX 1: DETAILED PROJECT DESCRIPTION

COUNTRY : Southern Africa

Second South West Indian Ocean Fisheries Governance and Shared Growth Project - Region & Madagascar

1. **Component 1. Enhanced regional collaboration** (*IOC: USD8.20 million IDA grant*). This regional component consists of three core activities. The objectives are to: (1.1) promote the implementation of IOTC Resolutions in the SWIO countries enhancing their compliance with their international fisheries obligations (USD 3.60 million); (1.2) provide a coordination mechanism between African and Indian Ocean Developing Island States (AIODIS) for collaborating and sharing their own experiences to address some of their specific challenges (USD 2.30 million); and (1.3) strengthen the newly created *Fédération des Pêcheurs Artisans de l'Océan Indien, FPAOI* (Indian Ocean Federation of Artisanal Fishers) (USD 2.30 million).
2. The sub-components 1.2 and 1.3 aim at creating conditions for (i) participation of small-scale operators in the regional management dialogue of a similar level of representation than the industrial sector and defend their specific interest; (ii) helping Small Islands Developing States (SIDS) to have a stronger voice in regional dialogue. Both sub-component promotes regional collaboration among these specific stakeholders and between the various stakeholders groups. Improved coordination among and dialogue with small-scale operators is essential for regional fish resources management due to their increasing catches. In addition, AIODIS-related activities aims at paving the way for future investments in the maritime economy, also known as Blue or Ocean Economy.
3. **Sub-Component 1.1: Indian Ocean Tuna Commission** (*USD 3.60 million IDA grant*). The first sub-component will expand on the support to regional cohesion and coordination among SWIO coastal states implemented under the SWIOFish1 to increase regional fisheries management efficiency by targeting the management of tuna and tuna-like species through the Indian Ocean Tuna Commission (IOTC). It would be implemented by the Indian Ocean Commission (IOC).
4. The activities will encompass the provision of consultants' services, non-consulting services, training, workshops and equipment and the financing of operating costs required to implement a set of measures aimed to ensure the participation of the SWIOFC countries in the IOTC forum and enhance their compliance with their international fisheries obligations under the IOTC for sustainable tuna fisheries management. It will include for the benefit of SWIOFC countries: (i) strengthening the capacity of the IOTC Secretariat with long-term technical/administrative and support staff for implementation of the sub-component; (ii) carrying out sessions, intersessional meetings and studies to inform the Working Parties and Working Groups within the IOTC and to strengthen beneficiary countries capacity on compliance; (iii) reinforcement compliance with IOTC Resolutions in the beneficiary countries, including financing compliance missions on conservation management measures, the delivery of workshops and training, the development of guidelines and a compendium, the transposition of IOTC's resolutions into national legislation, the development of an information system, the creation of a logbook system, and the promotion of awareness on IOTC's processes and conservation management measures; (iv) strengthening of flag state performance of beneficiary countries through a better understanding and implementation of their obligations; (v) strengthening of the implementation of port states of measures to fight against IUU, through the required administrative and operational support underpinning, delivery of regional training for national interagency cooperation and regional cooperation, the development



and improvement of an electronic application and the training of coastal countries in its use, promotion of awareness and provision of legal support; and (vi) strengthen the beneficiary countries capacity for Monitoring, Control and Surveillance' of tuna and tuna-like fisheries, through the production of a best-practice manual and related guidelines and technical assistance for implementation of newly adopted IOTC's Resolutions.

5. **Sub-Component 1.2: African and Indian Ocean Developing Island States (AIODIS) (USD 2.30 million IDA grant).** The regional component will provide a platform to the eight countries of the African and Indian Ocean Island Developing States group (Cabo Verde, Guinea Bissau, São Tomé & Príncipe, Comoros, Mauritius, Madagascar, Maldives and Seychelles) to collaborate and share their experiences in addressing some of their specific challenges such as improving the sustainable management of their vast maritime territory; innovating and developing their blue economy in the context of climate change; and collaboratively mobilizing financing for addressing those challenges.

6. Activities include through provision of consultants' services, non-consulting services, training, workshops and the financing of operating costs: (i) the organization of high-level meetings to discuss specific challenges and issues of regional interest; (ii) the creation and exchange of knowledge; (iii) the provision of a preparation facility to mobilize expertise to prepare project proposal for improving sustainable management of maritime territories and development of the maritime economy; and (iv) the financing of the AIODIS Secretariat to be hosted by the IOC, meetings of the AIODIS bureau as needed, and publication and dissemination of the AIDOIS Secretariat materials.

7. **Sub-Component 1.3: Indian Ocean Federation of Artisanal Fishers (FPAOI) (USD 2.30 million IDA grant).** The regional component will also support the recently-created Indian Ocean Federation of Artisanal Fishers (*Fédération des Pêcheurs Artisans de l'Océan Indien*). In view of the importance of fish to islanders and the increasing concern regarding the sustainability of the fish stocks in the oceans, there is a strong demand from both the federation and the governments to help promote regional non-states actor platforms and specifically improve the local human capacity of artisanal fisheries across the region. The objective of this sub-component is to facilitate coordination and strengthen the participation of the artisanal fisher associations in the SWIO region in regional and international fora as well as support the design of more inclusive policies and management. This sub-component will lay the foundation to facilitate trainings, increase coordination, apprenticeships and other opportunities to help improve the livelihoods of artisanal fishers across the region.

8. Activities include support to: (i) strengthening the capacity of the FPAOI secretariat; (ii) statutory meetings and regional consultations; (iii) participation in regional and international key events in particular regional fisheries bodies' meetings; (iv) a fisher exchange program among participating national fishers' organizations through the provision of consultants' services, training, and apprenticeships and other similar learning opportunities for the direct benefit of IDA-eligible countries only.

9. **Component 2. Strengthening capacities for priority fisheries management (Madagascar: USD 15.20 million IDA and USD 6.4 million GEF).** The component primarily targets policies, strategies, institutions, legal frameworks, and actions by the public sector which are necessary to improve priority fisheries management and performance and support regional marine environmental health and resilience to climate change. It will be backed by applied research activities aimed at understanding the resource base, and building human and institutional capacity necessary to implement fisheries policies



and management plans. The sub-components include: (2.1) Fisheries public policy including the improvement of the legal and institutional framework, the statistical system, the applied research, the central administration capacity, the inter-ministerial coordination and the sanitary certification system; (2.2) Sustainable management of fisheries and conservation of resources, including the development of fisheries management plans and their enforcement; (2.3) Strengthening deconcentration and the co-management system and the presence of the administration in the regions

10. The GEF financing would specifically support the improvement of the statistical system under sub-component 2.1 (USD 2.80 million) and the enforcement of fisheries management plans under sub-component 2.2 (USD 3.62 million) and the coordination platform between environment, sea and fisheries administrations.²²

11. The subcomponents will be implemented through the provision of works, goods and equipment, consultants' services, non-consulting services, training, and workshops, and the financing of operating costs as follows:

12. **Sub component 2.1: Fisheries Public Policy (USD 9.10 million IDA, USD 2.80 million GEF).** The sub-component will aim at reinforcing the capacity of the administration to develop fisheries management instruments. It will finance: (i) the improvement of the legal and institutional framework, encompassing the updating of strategies, the strengthening the legal basis and governance system for resources access and for sustainability of state functions with regard to income and expenditures, , the preparation of the second phase of the program; (ii) the development of the statistical and information systems, including on economic sector performance, by supporting data collection, quality control, entry, processing, analysis and dissemination; (iii) the promotion of applied research on the priority fisheries, including direct or indirect stock assessment; (iv) the development of information, communication and awareness campaigns; (v) the strengthening of the central administration capacity through the rehabilitation of buildings, acquisition of equipment and provision of related operating costs operating costs, training and workshops and the carrying out of institutional reviews and studies; (vii) enhancement of coordination among the relevant Participating Country's ministries in charge of fisheries, environment and the seas to promote seascape level coordination of biodiversity and priority fisheries management in target areas; and (viii) strengthening the sanitary competent authority for/in ensuring proper control and certification of seafood products.

13. **Sub-component 2.2: Sustainable management of fisheries and conservation of resources (USD 1.70 million IDA, USD 3.62 million GEF).** The sub-component aims at strengthening of the management of fisheries at both the national and local levels and enforcement of the compliance with the fisheries management plans and regulations by the *Centre de Surveillance des Pêches (CSP)*, as required for: (i) the development and/or update and implementation of the fisheries management plans, including the organizational restructuring of the Tuna Statistics Unit (USTA) and the implementation of measures under the national tuna management strategy; (ii) building or rehabilitation of CSP's surveillance centers in the regions, purchase of equipment including cars and small coastal patrol vessels for the target areas

²² The project will be allocating at least 1% of the GEF IW grants towards supporting IW:LEARN activities, for instance producing an Experience Note, a Results Note and establishing a homepage following the IW:LEARN guidelines. Moreover, the project will participate in regional IW:LEARN activities and International Water Conferences during implementation.



adapted to the local condition and following necessary technical, operational, economic and financial feasibility studies; and (iii) surveillance activities, encompassing the financing of strategic plans, maintenance of patrol vessels, training and operational expenses as required for the carrying out of terrestrial, aerial and maritime patrols, the establishment/reinforcement of an observer program, a vessel monitoring system and an Electronic Reporting System (ERS).

14. **Sub-component 2.3: Strengthening deconcentration** (USD 4.40 million IDA). This sub-component will provide MRHP with tools to engage local communities in the management agenda through (i) study for designing and developing the co-management system and platforms for specific fisheries and value chains including, financing of workshop for concertation and co-management units and platforms' meetings and operational costs of their bureau,(ii) strengthening of the deconcentrated administration capacity through the rehabilitation of buildings, acquisition of equipment and provision of related operating costs, training and workshops and the carrying out of institutional reviews and studies.

15. **Component 3. Strengthening capacities for engaging in alternative fishing practices and livelihoods activities** (Madagascar: USD 44.80 million IDA and USD 2.73 million PHRD). This component supports the fisheries management activities in component 2 by building acceptance and adherence to the fisheries management plans by the targeted communities. This component directly benefits the targeted local population by providing financial transfers, trainings, and small community infrastructure. The accompanying measures identified in the co-management plans in force, or developed under component 2, in the target areas will be implemented here, including compensation for potential access restrictions. The sub-components include: (3.1) Short-term compensatory measures through cash transfer mechanisms; (3.2) Promoting good practices and alternative activities, through in particular training and extension services, promotion of safety at sea and financial education; (3.3) strengthening local participatory strategic planning; and (3.4) Infrastructure in support of community and sectors developments including PHRD financing for off-grid energy services.

16. **Sub-component 3.1: Short-term compensatory measures** (USD 6.30 million IDA). The sub-component will provide for specific measures to assist stakeholders affected by management measures during the initial implementation of the fisheries management plans when needed to compensate for loss of access to resources and to revenues by supporting them through financial transfers. Over the course of the project, the cash transfers are expected to evolve from simple targeted cash transfers to cash transfers conditioned on training and engagement in alternative livelihoods or fishing practices (known as *Argent Contre Travail Productif*). The sub-component will include among others: (i) studies, including a social analysis to better inform the finalization of the local activities, to identify persons affected and eligible for compensation measures and technical studies to design the cash transfer systems, (ii) definition of the financial transfers amounts; (iii) the undertaking of workshops and dissemination activities to inform the target populations; (iv) the implementation of annual survey of beneficiaries to monitor impact; and (v) the fund for the financial transfers.

17. **Sub-component 3.2: Promoting good practices and alternative activities.** (USD 15.90 million IDA) The sub-component aims at developing good practices in fisheries for reaching sustainability and increasing value-added, for security-at-sea for fishers and for promotion of alternative activities, including for women's groups to develop these business opportunities and the entire value chain. Activities will encompass the provisions of works, goods and equipment, training and workshops and the financing of operating costs required for: (i) the professionalization of fishers and value chains'



operators through design of improved fishing units, conservation system, processing equipment and practices, pilot testing, and dissemination of good practices in value chain's activities and knowledge exchanges programs, market study, value chain analysis and commercial fairs for products promotion; (ii) the promotion of safety-at-sea through reinforced awareness, tailored training, and design of improved vessels and building practices, small vessels upgrade, security equipment, practices testing, dissemination, and use monitoring, the updating of national legislation, the carrying out of surveys and knowledge exchange programs; (iii) elaboration of action plans for measures to assist persons affected by restriction of access to fish resources and revenues, diagnostic for identifying opportunities for economic diversification and engagement in alternative livelihoods consisting of vocational training or job placement in seafood handling, processing and marketing, aquaculture, non-seafood sector-related activities, provision of small equipment and community work such as mangrove plantation, surveys of beneficiaries; and (iv) facilitation of access to finance through the carrying out of studies, training and workshop, dissemination and awareness activities, financial education and assistance in the process of submission of credit applications to micro-finance institutions and banks, knowledge exchange and promotion of financial self-help groups.

18. **Sub-component 3.3: Strengthening local participatory strategic planning** (USD 7.80 million IDA). The sub-component will finance (i) recruitment of executing agencies (firms or non-governmental organizations) in the priority areas to work close to the communities involved in the implementation of management plans to help driving the participatory planning process and implementing the project locally; (ii) capacity building of the local elected-members and personnel of the local government (*Communes, Fonkontany*); (iii) the development or updating of Municipal; Development Plans (*Plans de Développement Communaux*) and local development plans (*Plans de Développement Locaux*) for investment planning.

19. **Sub-component 3.4: Infrastructure in support of community and sector development** (USD 14.80 million IDA, USD 2.73 million PHRD). The sub-component will provide means for carrying out of a comprehensive infrastructure program encompassing works, goods and equipment, consultants' services, non-consulting services, training, and workshops and the financing of operating costs as necessary for: (i) construction of community/communal infrastructures, including feasibility studies, consultation, work monitoring and training; (ii) construction of infrastructure for the benefit of the fisheries sector operators, and implementation of feasibility studies, consultation, work monitoring and training including for infrastructure management and maintenance; and (iii) under PHRD financing, access to off-grid energy, through the installation, operation and maintenance of off-grid electrification equipment and off-grid energy services to rural fishing communities to support increased productivity and the pre-electrification strategy, and the provision of technical assistance to encourage knowledge transfer, develop local skills, and create partnerships among stakeholders to help develop and establish the use of innovative, sustainable, and renewable forms of energy for priority fishery communities.

20. The PHRD grant will focus on providing off-grid electrification and off-grid energy services to rural fishing communities to support increased productivity. It will also support the pre-electrification strategy developed by the Agency for Development of Renewable Energy (ADER – *Agence de Développement de l'Energie Renouvelable*). The sub-component will further pilot the testing of equipment supporting better management, enforcement and monitoring, and safety-at-sea in the fisheries sector. Electrification and services can come in the form of solar-powered smart electric grids or solar photovoltaic systems (mini, home-scale, or pico-systems) such as fish-drying and processing,



seaweed production and drying, and ice making and cold storage for fish preservation, among others. The target is to at least 20 additional villages in priority areas accessing electricity for post-harvest and value-addition activities, which would benefit to an estimated 43,000 inhabitants. The project also envisions helping provide equipment such as PV-powered cell phones, PV-powered satellites, and other supporting equipment as well as training to strengthen communication, management, and monitoring and enforcement in the sector on a pilot basis.

21. The PHRD grant also aims to promote the involvement of technical, social economic and political experts and energy networks in encouraging knowledge transfer, developing local skills, and creating partnerships among stakeholders to help develop and establish the use of innovative, sustainable, and renewable forms of energy for priority fishery communities. The activities are positive step towards developing a more resilient fisheries community.

22. The increase in access to electricity is a factor supporting the development and scaling up of the fisheries sector. If successfully implemented, the activities may serve as a model for similar approaches in the region. The increased productivity from improved fish landing, handling, and distribution has the potential to have substantial positive spill-over effects in other sectors in the long-run. These others sectors will likewise benefit from the increased access to electricity.

23. Specific activities under PHRD financing include:

- i. **Develop or update the Local Community Electrification Plan**, with support from the *Fonds de Développement Local (FDL)* and the *Agence de Développement de l'Énergie Renouvelable (ADER)*. The first activity involves the development of a local development plan, which includes the identification and screening of the pilot communities that will be covered by the project; technical design (economic analysis, engineering analysis, technology selection, system specifications, etc.); and stakeholder dialogue. Given the different socio-economic and environmental structures across each community, the aim of this activity is to be able to define the project goals and objectives, approach, technology, budget, schedule, and expected outputs for each pilot community. In addition, the project aims to define the strategies and functions of the community and the government as well as mechanisms to ensure the sustainability of the project (i.e. the development of an operation and maintenance fund, battery storage captures, back-up, etc.). This activity will lay the foundations of the project based on stakeholder dialogue and consultations, surveys, interviews, and data verification. The final output is a report on the concrete strategies and steps for electrification development and the associated technology and infrastructure (e.g. renewable energy technologies, cold storage and ice-generation facilities, etc.)
- ii. **Engagement, Education, Communication and Community Preparation Activities.** Engagement, education and communication activities will serve as an important strategy in promoting the advantages of renewable energy off-grid electrification within the community to further engage stakeholders and potential participants in the process of helping strengthen the fisheries sector and other sectors that benefit from the rural electrification project. The activities would involve informational events, presentations, exhibits and other materials that would identify the benefits and challenges experienced in the design and implementation of the project. The second activity also involves the need to prepare the communities to ensure that the local electrification plans are consistent with community interests, needs, capacities and resources.



This will include a series of assessments to ensure the pilot communities' willingness to organize and involve themselves in the process, in particular to manage the operation, cost-recovery, and identification of high value-productive activities through the off-grid electricity. The aim is to provide training and help strengthen the capacity of the community to guarantee the ownership and sustainability of the project, including the possibility of mobilizing a community fund to help maintain the technology and infrastructure beyond the cycle. It will also help strengthen the capacity of the national and local government bodies to provide training and support to the communities. Trainings will include: operations, maintenance, trouble-shooting, repairs, user orientation, renewable energy, leadership training, financial management and accounting, and other necessary cross-cutting skills to support the project. This activity will not only help support the fisheries sector and other sectors that can benefit from the project, but will also create jobs in the renewable or green energy sector. These activities can be done in parallel to Activity (iii) (cf. below).

- iii. **Procurement, Installation and Testing of off-grid Electricity and Energy Services.** This activity aims to develop the procurement packages of the selected technology, trainings, and other activities including defining contract conditions, administrative arrangements and other assistance needed for the project. It will also support the installation of the technology and relevant infrastructure needed as well as the components/parts needed (generator, charge controllers, batteries, inverter, PV array, battery storage, etc.). Once installation is completed, the technology and process will be tested for a specified period to guarantee the suitability of the design in the community.
- iv. **Maintenance and Sustainability of the Off-grid Electricity Schemes.** In order to help ensure the overall sustainability and performance of the project, the community will conduct periodic updates of the grids, with the assistance of the technical experts within the period of the project.

24. **Component 4. Project management and coordination** (IOC: USD 0.80 million IDA; Madagascar: USD 5.00 million IDA). This component will support regional project coordination, implementation and management, country-level implementation and management, and monitoring and evaluation at regional and country levels. The sub-components include: (4.1) regional coordination (USD 0.80 million IDA grant) and (4.2) project management at the national level (USD 5.0 million IDA).

25. **Sub-component 4.1: Project Management at the regional level** (USD 0.80 million). The Indian Ocean Commission (IOC), which is also the regional implementation unit under the ongoing SWIOFish1 Project, will be responsible for the regional component management and coordination. The Regional Implementation Unit (RIU) housed in the IOC will be responsible for the administration of the regional component funds and related fiduciary aspects. The costs associated with the management and coordination at the regional level will be supported by a Regional IDA grant. Activities include monitoring and evaluation, audits, mid-term and final evaluation reports, and costs associated with core operational functions, as well as regional project coordination. The entire component 1 will be managed by IOC.

26. **Sub-component 4.2. Project management at the national level** (USD 5.00 million). The sub-component will support the country's National Implementation Unit (NIU), the Local Implementation Units (LIUs) and the National Steering Committee (NSC). Activities supported include monitoring and



evaluation, audits, mid-term and final evaluation reports, and other costs associated with core operational functions (training, equipment, staff, manuals, etc.).



ANNEX 2: IMPLEMENTATION ARRANGEMENTS

COUNTRY : Southern Africa

Second South West Indian Ocean Fisheries Governance and Shared Growth Project - Region & Madagascar

Project Institutional and Implementation Arrangements

A. Regional Implementation Arrangements

1. The regional implementation (SWIOFish2's component 1) will be managed by the existing Regional Implementation Unit (RIU) under the SWIOFish1. This arrangement will take advantage of IOC's experience in: (i) implementing donor-funded projects, including those of the World Bank and the GEF, particularly with regard to procurement and financial management; and (ii) coordinating regional activities and projects expanding beyond IOC's geographical scope.
2. The IOC will be in charge of collating the annual work plan and budget for submission to the Bank from the partner institutions namely, the IOTC, the AIODIS and the FPAOI. Each partner institution will use its own governance mechanisms for steering the project²³. Relation between IOC and the IOTC, and IOC and the FPAOI will be established through letters of Intent.
3. The RIU is headed by an IOC Officer in charge and comprises a Finance and Procurement Unit (FPU) in charge of financial management and procurement, M&E and auditing embedded in the Indian Ocean Commission. The IOC officer in charge will be assisted by a Regional Project Coordinator to be recruited under the grant. The RIU will be responsible for the administration of the regional IDA grant and related fiduciary aspects. The RIU will also be mandated to provide technical assistance and backstopping to the national implementing agencies on fiduciary aspects.
4. In addition to guidance from the RIU, implementation of the SWIOFish2's regional component will be based on a set of manuals and plans, such as a Regional Project Operational Manual, specifying administrative and financial procedures and rules, a Regional Project Implementation Plan, and a Regional Project Expenditure Plan – all specific to the implementation of the project. All manuals and plans will be approved by the Bank by project effectiveness.
5. **Coordination with parallel initiatives.** The IOC will ensure synergy with regional initiatives in domains pertaining to the project, in particular for projects directly under their management and coordination, such as IOC-SMARTFish and promote coordination with GEF-financed projects, such as the GEF-financed sister-projects implemented by the UNDP (SAPPHIRE) and the UNEP (WIO-SAP).

B. National Implementation Arrangements

²³ For IOTC, through IOTC: restricted circular and or IOTC Session.



6. At the national level, the Ministry of Aquatic Resources and Fisheries (*Ministère des Ressources Halieutiques et de la Pêche*, MRHP) will lead the implementation of the project through its Directorates. A Steering Committee and a National Implementation Unit (NIU), already established as part of the MRHP structure, will have main responsibility for the implementation of the project. At the local level, five Local Implementation Units (LIU) will be responsible for the coordination and the implementation of the local activities in the five target areas. Details are presented below:

7. **Steering Committee.** The tasks of the Steering Committee will be: (i) to provide overall policy guidance and decision-making, in line with the project objectives and fiduciary and safeguards requirements on all issues relating to the project; (ii) to facilitate coordination among the relevant agencies; and (iii) to review and approve annual work and expenditure plans. The World Bank and representatives of co-financing entities may be invited to participate as observers. The MRHP will chair the Steering Committee and the National Project Coordinator (NPC) will be its Secretary. The Steering Committee will meet twice a year or as needed.

8. **Implementing agency.** The Ministry of Aquatic Resources and Fisheries (*Ministère des Ressources Halieutiques et des Pêches*, MRHP) through the Directorate of Fisheries (*Direction de la Pêche*), will be the lead implementing agency. Other implementing agencies include: the Fisheries Monitoring Center (*Centre de Surveillance des Pêches*) in charge of surveillance activities, the Economic Observatory (*Observatoire Economique de la Pêche et de l'Aquaculture*) in charge of collating, analyzing and disseminating fisheries sector's economic information, and the Fisheries Sanitary Authority (*Autorité Sanitaire Halieutique*) in charge of the sanitary certification of seafood products.

9. **Institutional partnerships.** The MRHP will also enter into partnerships, through Memorandum of Understandings, to facilitate the implementation of some project activities, mainly at the local level and in areas outside its core mandate. These partners include, but are not limited to: the Local Development Fund (*Fonds de Développement Local*) for the improvement of local governance and development planning; the Intervention Fund for Development (*Fonds d'Intervention pour le Développement*) for cash transfers; the Renewable Energy Development Agency (*Agence de Développement des Énergies Renouvelables*) for the community pre-electrification; and the Agricultural Services Center (*Centre de Services Agricoles*) for the promotion of alternative livelihoods.

10. **Coordination with parallel initiatives.** There are a number of parallel initiatives, some of them supported by other development partners, which relate to the proposed project. The MRHP will ensure efficient coordination with the other initiatives through adequate communication, attendance to steering committees and events related to parallel initiatives, and invitation of relevant stakeholders to the Project Steering Committee. For example, one parallel project of specific importance is the Expanding and Consolidating Madagascar's Marine Protected Areas Network Project, implemented by the Ministry of Environment, Ecology and Forests (*Ministère de l'Environnement, de l'Ecologie et des Forêts*, MEEF) and or the State Secretary for the Seas (*Secrétariat d'Etat à la Mer*) and financed by the Global Environment Facility (GEF) through the World Wildlife Fund (WWF). The project objective is to ensure that Madagascar's marine biodiversity and productivity are effectively managed through a sustainable, resilient national network of MPAs. The coordination between both projects and the relevant ministries will be done by the existing Fisheries-Environment Commission (*Commission Environnement - Pêche*). Specific meetings will be organized in the field every six months.

11. **National Implementation Unit.** The National Implementation Unit (NIU) will be responsible for

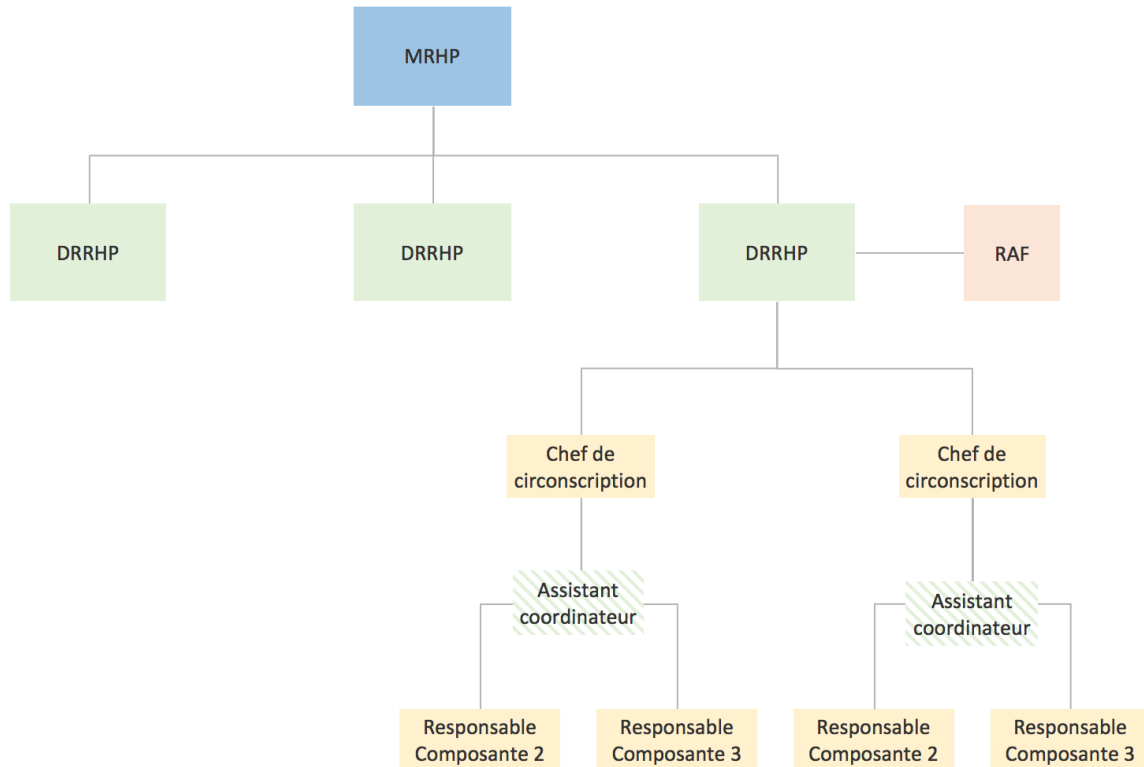


the coordination of the implementation of the project, its administration, procurement, financial management and control (including audits), monitoring and evaluation, supervising compliance with safeguard policies and technical support to activity implementation at the national level. In addition, it will act as the Secretariat for the Steering Committee. The integration of the NIU in the MRHP is expected to strengthen management capacities, effectively streamline processes, and reduce transaction costs.

12. The NIU consists of: (i) a Project Coordinator and two deputies; (ii) two Component Managers; (iii) a Financial Management Specialist assisted by two accountants and logistician; (iv) a Procurement Specialist and two deputies; (v) a Social and Environmental Safeguards Specialist; (v) an Information and Technology Specialist; (vi) a Monitoring and Evaluation Specialist and (vii) auxiliary personnel (secretary, drivers). . All are civil servants. The NIU will contract consultants to support implementation, as needed.

13. The NIU will monitor the provision and the utilization of the funds under a chart of accounts approved by the Bank and in line with the Project Operational Manual. The financial monitoring of the project will be the responsibility of the MRHP, assisted by its NIU, which will submit quarterly reports to the Ministry of Finance, the Steering Committee and the World Bank. IDA and GEF funds will be deposited in separate accounts at the Central Bank of Madagascar. The disbursement of funds will follow the World Bank's disbursement procedures.

14. **Local Implementation Units.** At the local level, five Local Implementation Units (LIU) will be responsible for the coordination and the implementation of the local activities in the five targeted areas. These LIUs will be embedded within the Aquatic Resources and Fisheries Districts (*Circonscriptions des Ressources Halieutiques et de la Pêche*), under the responsibility of the Regional Director (*Directeur Régional des Ressources Halieutiques et de la Pêche*) representing the MRHP in the region (cf. organigram below). The Head of District (*Chef de Circonscription*) will act as the local project coordinator and will be assisted by two technical leads (consultants, one per component) and a deputy coordinator (consultant), if needed. Administrative and financial assistants will be recruited to support the Regional Directors on fiduciary aspects in each of the priority regions. The LIUs will report directly to the NIU.



15. **Local executing agencies.** In addition, the MRHP will select executing agencies in each of the selected priority areas to assist it in implementing the co-management activities and coordinating the co-management adherence activities under supervision of the LIUs. These activities include: the local implementation of national development plans and the master plan, the implementation of local plans including support to alternative activities, the structuring of professional organizations, training, co-management, monitoring, control and surveillance, legal security, safety-at-sea, data collection, applied research in support of development plans, etc. The implementation of these activities will greatly benefit from the presence and expertise of MRHP partners in the proposed sites, particularly non-governmental organizations.

16. **Geographical prioritization.** To optimize project resources and focus its interventions, project activities will be implemented gradually. At the local level, the first three-year phase will focus on the three priority areas i.e., regions where fisheries management plans have been developed or are under finalization and are considered a priority, namely Ambaro bay and Ampasindava in the Diana and Sofia regions; Antongil bay in the Sava and Analanjirofo regions and Melaky region. After the first phase, a mid-term review will evaluate the successes and challenges of the local implementation of the management plans and activities in general and, for the remaining three years, either propose an extension of the approach to new sites, consolidate the support to existing sites, or refocus this support to a subset of sites, namely, the Androy and Atsimo-Atsinanana regions, which characterized by fisheries development potential but with weak presence of the administration. In addition, the Androy region is facing a food shortage challenge. In the first phase of the project activities in these two regions will focus on fisheries management plan preparation and institutional strengthening.



17. **Thematic prioritization.** At the national level, a similar phasing will be adopted: the first phase will fund a subset of priority national activities (i.e., statistics, legal and institutional framework and access control system) that directly supports the local implementation of the fisheries management plans. Depending on the results and available funds, a second subset, with lower priority but still directly supporting local implementation of fisheries management, will be discussed and potentially financed following the mid-term review.

18. **Prerequisite for financing productive infrastructure.**²⁴ To access productive infrastructure financing, each priority region should have met all the prerequisites. First, the management plans should be developed, cleared, and adopted in each of the targeted areas. At this stage only community infrastructure not impacting fish exploitation, such as association headquarters, classrooms, water-wells... would be financed. Once the fisheries management plans are implemented and accepted by the targeted communities, who, in turn, engage in alternative fishing practices and livelihoods activities, investment in productive infrastructure related to the fisheries sector will be considered (i.e., planning). Once a change of behavior and adherence to the new management plans is evident as illustrated by lower infraction rates, a shift to actual investment in productive infrastructures will take place and will continue subject to tangible law compliance and management results observed in the fisheries.

Financial Management including Disbursement Arrangements

C. Regional Financial Management

19. **Overall Financial Management assessment.** A financial management (FM) assessment was undertaken in IOC to re-evaluate whether the IOC FM arrangements that would be applied to the proposed project meet the Bank's minimum requirements under OP/BP 10.00. Similar arrangements are applied to manage SWIOFish1. The assessment was conducted following the Financial Management Manual for World Bank-Financed Investment Operations that became effective on March 1, 2010, as well as the Bank's Financial Management Assessment and Risk Rating Principles. Based on the appraisal, the overall financial management was assessed to be adequate and the risk rating was assessed as low.

20. **Financial Management Arrangements for the Project.** The IOC will continue to have implementation responsibility for specific component. IOC agreed to apply the following specific FM arrangements:

21. **Staffing.** The Head of Administration and Finance division shall be responsible for financial management. The person in this position is suitably qualified and has vast experience in Bank procedures gained in administering past Bank-funded projects and in participating in Bank trainings. He shall be supported by a project accountant who is currently responsible of SWIOFish1 and is suitably qualified and has been trained on Bank FM requirements. An assistant project accountant is in the process of being recruited to support the project: s/he will benefit from the experience of the current staff and regular support that will continue to be provided by the Bank team.

22. **Budgeting arrangements.** Project budget preparation, approval, and monitoring will follow IOC

²⁴ Infrastructure linked with fish production.



procedures. The management of the agency will regularly monitor execution of the budget by comparing planned to actual expenditures on a monthly and quarterly basis.

23. **Internal controls.** The IOC shall apply the internal controls set out in the Financial and Procurement Regulations Manual. The manual sets out internal control procedures: segregation of duties, approval procedures and limits, assets management and safeguard etc. The internal control requirements in the manual are commonly acceptable by all development partner agencies and hence are applied in all IOC transactions (including project transactions). Procurement shall be done in line with World Bank procurement policies and procedures.

24. **Internal auditing.** The IOC Internal Audit Unit shall be required to perform two internal audit reviews per year during the project implementation period to provide objective assurance on the functioning of internal controls – copies of the report shall be submitted to the World Bank.

25. **Accounting arrangements. Accounting software.** SAGE Pastel accounting system shall be used to record and timely issue reports on project transactions. To accurately present and timely record and issue reports on the project, management shall create specific project codes (classified per component/activity) in the chart of accounts of SAGE Pastel system.

26. **Accounting basis.** IOC will use cash basis accounting, in line with International Public Sector Accounting Standards (IPSAS) to prepare annual financial statements.

27. **Financial reports.** To monitor project implementation, like SWIOFish1, IOC shall prepare and submit the following two reports using the reporting formats applied under SWIOFish1:

28. **Interim Financial Reports (IFRs):** The contents of the IFR will include (i) financial report narrative summary; (ii) a statement of sources and uses of funds by disbursement component/activity, showing for the period and cumulatively, actual and planned cash receipts and payments; (iii) sources and uses of funds by component/activity; and (iv) designated account activity statement with cash forecast for the ensuing two reporting periods. The IFRs should be prepared on a quarterly basis and submitted to the Bank within 45 days of the end of the reporting period. The IFR shall be accompanied by substantive progress report and procurement reports for all components. The format and content of the interim financial reports shall be agreed upon with World Bank before negotiations.

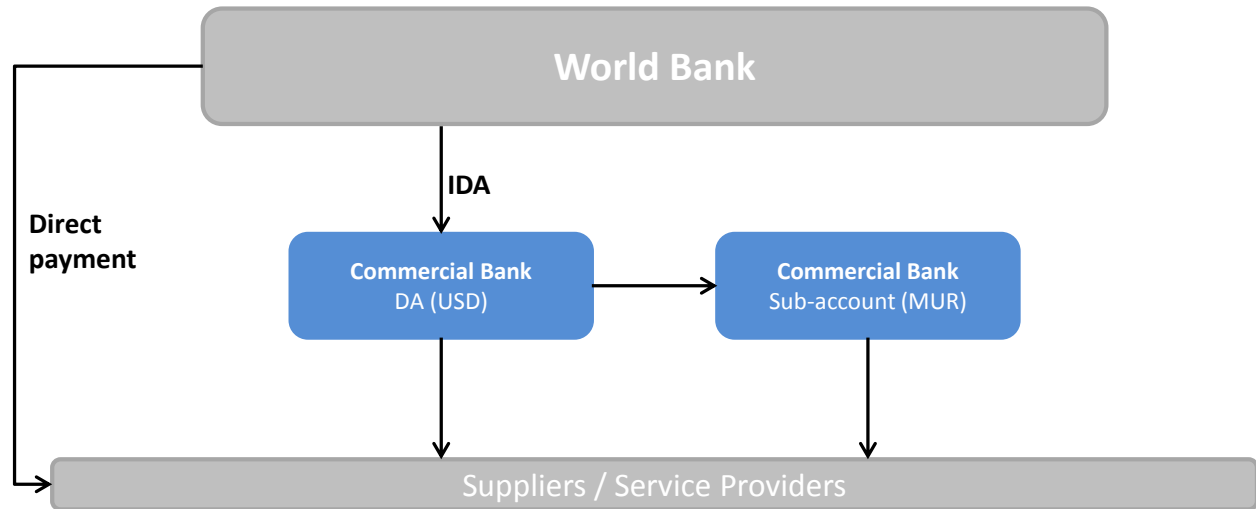
29. **Project Annual Financial Statements (audited):** Project annual financial statements shall be prepared by IOC using International Public Sector Accounting Standards – cash basis. These will be prepared within three months after the end of the financial year and handed over to the external auditors for audit.

30. **External Auditing arrangements and submission of audited annual financial statements.** The project annual financial statements shall be subject to audit by a private audit firm. The firm, which should be acceptable to the Bank, shall be contracted using Bank's procurement procedures. Ideally, the audit firm should be the same one engaged to conduct the audit of the IOC financials. The audited financial statements, audit report and management letter shall be submitted to the World Bank within six months after the year end. The audits shall be done in terms of International Standards of Auditing. The audit report will be publically disclosed in accordance with the World Bank's disclosure policy.

31. **Flow of funds.** A Designated Account (DA) denominated in USD and to be managed by the IOC will be opened in a local commercial bank under terms and conditions acceptable to the Bank. Disbursements from the Bank will be deposited into the DA. The proceeds, based on the project



approved work plan, will then be transferred to a Mauritius Rupee account that shall be opened in the same bank. The flow of funds from the grant is presented as follows:



32. IOC will submit the signatories to the Designated Account and Project Accounts to the Bank as well as the bank account details between the signing and effectiveness of the project.

33. **Disbursement arrangements.** The project may use any of the following methods to disburse the grant proceeds (i) advance method, (ii) direct payment to a third party; (iii) special commitment to pay amounts to a third party in respect of expenditure to be financed out of the grant proceeds, upon the request and under terms and conditions stipulated in the financing agreement; and (iv) reimbursement procedure where the Bank would reimburse the expenditures eligible for financing that IOC has pre-financed from its own resources.

34. Transaction-based disbursements shall be followed during project implementation. Under the transaction-based procedure, the required supporting documentation will be the Statements of Expenditure (SOE) (certified by IOC). All SOEs supporting documentation will be kept by the IOC. They shall be available for review by Bank supervision missions and internal and external auditors. The IOC shall be encouraged to register the project in the Bank Client Connection to facilitate ease processing of withdrawal requests.

35. Disbursement of Funds to service providers, contractors and suppliers: the IOC will make payments to service providers, contractors and suppliers of goods and services for specified eligible activities under the grant. Such payments will be made on the basis of the terms and conditions of each contract.

36. IDA will disburse an initial advance into the DA in an amount up to the ceiling of the DA (initially set to USD 300,000) and subsequent advances will be made against withdrawal applications supported by appropriate documents which will include SOEs reporting on the use of the advances. The withdrawal applications shall be prepared by Administration and Finance division and signed by designated IOC officials and subsequently submitted to the IDA electronically using the Bank Client Connection portal. IOC will designate appropriate officials to be signatories to the withdrawal applications.



37. The grant will disburse 100 percent of eligible expenditures (inclusive of taxes). The proceeds of the grant have been allocated as follows:

Category	Amount of the Grant allocated (USD million)	Percentage of expenditures to be financed from IDA
(1) Goods, non-consulting services, consultants' services, Operating Costs and Training for Components 1 and 4.1 of the Project	USD 7,900,000	100%
(6) Refund of Preparation Advance	USD1,100,000	100%
Total Amount	USD9,000,000	100%

38. **Financial Management Action Plan.** The Financial Management Action Plan described below has been developed to mitigate the overall financial management risks.

Issue	Remedial action recommended	Responsible entity	Completion date	Conditions
Accounting system	Project codes to be created and incorporated in SAGE Pastel Accounting System to enable detailed recording and reporting project transactions	IOC – Admin and Finance Division	By negotiation date	No
External auditing	Recruit an external auditor – private firm – to conduct the audit in compliance with terms of reference setting out the audit scope and reporting requirements to be prepared by the IOC management.	IOC – Admin and Finance Division	Within three months after the project effectiveness date	No

39. **Supervision plan.** Since the risk assessment for the IOC part of the project is considered to be moderate to low, only one supervision mission will be carried out per year during the implementation period of the project. The mission objective will be to ensure that strong financial management systems are maintained for the project throughout its life.

40. In addition, the Bank FM Specialist will review quarterly IFRs as soon as they are submitted, internal audit reports, the annual audit reports and follow up on issues and recommendations raised by external auditors and the task team leader.

41. **Conclusion of the assessment.** The conclusion of the assessment for the IOC part of the project is that the financial management arrangements in place meet the World Bank's minimum requirements under OP/BP10.00, and therefore are adequate to provide, with reasonable assurance, accurate and



timely information on the status of the project required by the World Bank. The overall Financial Management residual risk rating of the project is low.

D. National Financial Management

42. **Overall Financial Management assessment.** This is a summary financial management assessment of the credit for the proposed SWIOFish2 – Madagascar. This assessment documents the financial management arrangements, which include the funds flow, financial management staffing, payments, accounting, internal controls, financial reporting and auditing procedures.

43. The MRHP possesses limited experience in the execution of World Bank-funded projects, it is the implementing agency for the Preparation Advance of this project. The dedicated team identified by the ministry for the financial management of the credit has limited experience in financial and requires capacity building. The project recruited a consultant to prepare the Project Operational Manual including the financial manual that will be adopted before project effectiveness. The project will purchase and install an adequate IFMIS no later than three months after effectiveness.

44. Overall, the residual financial management risk is assessed as substantial.

45. Transaction-based disbursements will be used for as the basis for advancing IDA, GEF and PHRD financing proceeds to three (3) segregated Designated Accounts to be opened by the NIU.

46. **Staffing.** The project implementation team at the MRHP will be responsible for overall coordination and day-to-day management of the credit. As part of the key project staff, the Ministry nominated, during the preparation phase, three civil servants: one Finance Manager, supported by two Accountants. Regarding the low experience of this team in managing project, capacity building and regular assessment are required to address timely weaknesses. The role of each responsible will be described in the FM manual of procedures. The Finance Manager will be ensure the adequacy of the project's financial management arrangements.

47. **Funds Flow.** According to local legal regulation, a Designated Account denominated in US dollars will be opened at the Central Bank for each source of funding (IDA, GEF and PHRD) and operated by the NIU for the purposes of receiving funds. Payments to providers will be made via a project account opened at an accredited commercial bank. IDA will disburse an initial advance into the DA in an amount up to the ceiling of the DA (initially set to USD 2.7 million for IDA, USD 250,000 for GEF and USD 100,000 for PHRD) and subsequent advances will be made against withdrawal applications supported by appropriate documents which will include Statements of Expenditure (SOEs) reporting on the use of the advances.



agreed with the World Bank. The system will be managed by qualified FM staff who will be trained on the use of the system. The training will be part of the contract’s package.

<i>Audit Report Type</i>	<i>Due date</i>
Install an adequate information system	Three months after effectiveness

51. **External Auditing.** The annual financial statements will be audited by an independent audit firm which will be contracted in conformity with the Bank’s procurement guidelines. A management letter shall also be issued. The Bank will review the compliance with the audit requirements as per the table given below:

<i>Audit Report Type</i>	<i>Due date</i>
Annual financial statements	Six months after the end of the financial year

52. **Disbursement Categories.** A parallel co-financing approach will be followed for the IDA, GEF and PHRD financing.

53. **IDA Eligible Expenditures** that may be financed out of the proceeds of the Credit, the allocations of the amounts of the Credit to each Category, and the percentage of expenditures to be financed for Eligible Expenditures in each Category are:

Category	Amount of the Credit Allocated (expressed in USD to be converted in SDR)	Percentage of Expenditures to be Financed (inclusive of Taxes)
(1) Works, goods (including equipment), non-consulting services, consultants’ services, training, workshops and Operating Costs under Parts 2, 3 and 4.2 of the Project (excluding Parts 2.1 (ii), 2.2 (ii), 2.2 (iii) and 3.4 (iii) thereof)	61,000,000	100%
(2) Refund of Preparation Advance	4,000,000	Amount payable pursuant to Section 2.07 of the General Conditions
TOTAL AMOUNT	65,000,000	

54. **GEF Eligible Expenditures** that may be financed out of the proceeds of the Grant, the allocations of the amounts of the Grant to each Category, and the percentage of expenditures to be financed for Eligible Expenditures in each Category are:

Category	Amount of the GEF Grant	Percentage of Expenditures to be Financed
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	Allocated (expressed in USD)	(inclusive of Taxes)
(1) Goods, works, non-consulting services, consultants’ services, training, workshops and Operating Costs under Parts 2.1 (ii), 2.2 (ii) and 2.2 (iii) of the Project	6,422,018	100%
TOTAL AMOUNT	6,422,018	

55. **PHRD Eligible Expenditures** that may be financed out of the proceeds of the Grant, the allocations of the amounts of the Grant to each Category, and the percentage of expenditures to be financed for Eligible Expenditures in each Category are:

Category	Amount of the PHRD Grant Allocated (expressed in USD)	Percentage of Expenditures to be Financed (inclusive of Taxes)
(1) Works, goods, non-consulting services, consultants’ services, training, and workshops under Part 3.4 (iii) of the Project	2,730,000	100%
TOTAL AMOUNT	2,730,000	100%

56. **Conclusion.** Given that the MRHP (i) possesses limited experience in the financial management of World Bank-funded projects, (ii) does not have formalized manual procedures for FM project and does not have appropriate IFMIS, (iii) the FM risk is assessed as substantial. The risk will be mitigated by capacity building and the putting in place of acceptable financial management arrangements and internal controls (FM manual, adequate FM system).

Procurement

E. Procurement – Regional level

57. Procurement activities for the SWIOFish2 project will be carried out in accordance with the World Bank’s "Guidelines: Procurement of Goods, Works and Non Consulting Services under IBRD Loans and IDA Credits and Grants by World Bank Borrowers" dated January 2011 and revised in July 2014 (Procurement Guidelines); "Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits and Grants by World Bank Borrowers" dated January 2011 and revised in July 2014 (Consultant Guidelines); "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants (revised as of July 2016) and as the provisions stipulated in the Financing Agreement.

58. The Indian Ocean Commission (IOC) will be the agency responsible for the regional component



implementation and coordination and procurement activities will be carried-out by the same staff currently in charge under SWIOFish1 Project.

59. Overall, the proposed project will continue to apply the same procurement arrangements as with the SWIOFish1 Project. The procurement capacity assessment of IOC conducted in July 2014 is reconfirmed in the framework of the SWIOFish2 Project. The assessment reviewed the organizational structure, functions, staff skills and experiences, and adequacy for implementation of the project. The procurement capacity assessment review of IOC has concluded that IOC generally has experience in various development partner procedures including the Bank and therefore has the capacity to implement procurement activities for the proposed project. The procurement and contract service of IOC, in charge of the procurement of several projects from multiple sources, is staffed with experienced and proficient staff, one head of the service and one assistant. The IOC procurement staff has experience in Bank procedures which was strengthened during the implementation of SWIOFish1 Project. It is proposed that an additional procurement assistant, fully dedicated to the proposed project, could be added to support the team and recruited during the preparation under the advance.

60. Although the procurement staff of IOC have experience in Bank procedures, additional training will be provided to the procurement officers and other IOC staff involved in the proposed SWIOFish2 Project. Continuous support from the Bank procurement specialist will also be provided all through project implementation.

61. A 24-month procurement plan for the SWIOFish2 proposed project has been submitted for Bank review before negotiation. The recipient shall use the World Bank’s online procurement planning and tracking tools to prepare, clear and update its procurement plans and conduct all procurement transactions.

62. The overall project risk for procurement was assessed moderate, but with mitigation measures outlined in the table below, the residual risk will be reduced to low.

Overall Project Risks

Risk	Action	Timeframe	Responsibility
Risk of confusion on procurement processes due to the existence of multiple procedures from multiple donors.	Provide refreshment procurement training on Bank procedures to IOC procurement staff and other IOC staff involved in the management of the project	By Effectiveness	WB

63. **Frequency of Procurement Supervision.** Since the procurement risk of the project is moderate, one supervision mission six months after effectiveness and then one per year, to carry out post procurement reviews will be conducted, in addition to prior reviews done from the Bank’s offices.

64. All terms of reference regardless of the value of contract, consultancy services estimated to cost USD 200,000 and above equivalent per contract for firms and USD 400,000 and above equivalent



per contract for Individuals; and all single source selection of consultants would be subject to prior review by the Bank.

65. **Shortlists composed entirely of regional consultants.** Short-lists for consultancy services for contracts estimated to cost less than USD300,000 equivalent per contract may be composed entirely of national and regional consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines.

66. **Advertising.** Consultancy services for contracts estimated to cost USD300,000 and above equivalent per contract shall be advertised in the UNDB on-line in addition to advertising in the national newspaper of wide circulation and/or regional newspaper in accordance with the provisions of paragraph 2.5 of the Consultant Guidelines.

67. Thresholds for procurement methods and for prior review are presented below:

Expenditure Category	Contract Value Threshold (USD)	Procurement/ Selection Method	Contracts Subject to procurement Prior Review
Goods	≥4,000,000	ICB	All
	<4,000,000 ≥ 500,000	ICB	None (Post Review)
	< 500,000	ICB	None (Post Review)
	<100,000	Shopping	None (Post review)
	All values	Direct Contracting	All
Consulting Services -Firms	≥ 2,000,000	QCBS/ Other ² (QBS/FBS/ LCS)	All
	≤ 2,000,000 ≥200,000	CQS/ Other ² (QCBS/QBS/ FBS/LCS)	None (post review)
	< 200,000	CQS/ Other ² (QCBS/QBS/ FBS/LCS)	None (Post Review)
	All values	SSS	All
Consulting Services –	≥400,000	IC – Qualification	All
	<400,000	IC – Qualification	None (Post review)



Individuals (IC)	All Values	IC – SSS	All
All Terms of reference regardless of the value of the contract are subject to prior review			

F. Procurement –Madagascar

68. **General.** Procurement activities for the SWIOFish2 Project will be carried out in accordance with the World Bank’s "Guidelines: Procurement of Goods, Works and Non Consulting Services under IBRD Loans and IDA Credits and Grants by World Bank Borrowers" dated January 2011 and revised in July 2014 (Procurement Guidelines); "Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits and Grants by World Bank Borrowers" dated January 2011 and revised in July 2014 (Consultant Guidelines); “Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants”, dated October 15, 2006 and revised in January 2011 and the provisions stipulated in the Financing Agreement.

69. **Goods** to be procured under the project would include mainly equipment for investments in rehabilitation/upgrade of fisheries facilities,

70. **Works.** Works to be procured under this project would include the rehabilitation and upgrading of fisheries facilities.

71. **Consultant Services.** These would include: advisory services in technical dimensions, design and implementation of institutional reforms in the areas of public financial management, accounting, public procurement, audit, strategic planning, human resources management; design and delivery of training, capacity building and institutional strengthening programs; project related reviews and surveys, project audit and services of individual consultants to support project coordination and implementation.

72. **Training.** The project will finance training programs for a large number of stakeholders in fisheries sector. The project teams at MRHP will develop a detailed training plan which will be approved by the Bank.

73. **Procurement methods.** Procurement of works, goods and non-consulting services will be conducted using the Bank’s Standard Bidding Documents (SBD) for all ICB and a Sample Bidding Document for Procurement of Works and Goods following NCB procedures for all NCB. The standard NCB provisions for Madagascar, as included in the Financing Agreement, would be applied to all the NCB contracts. The following methods will be used: International Competitive bidding (ICB), National Competitive bidding (NCB), Shopping, Direct contracting and procurement from the Food and Agriculture Organization of the United Nations.. Selection methods for consulting firms will depend on the nature and complexity of assignments, interest to foreign firms and need for international expertise, together with the estimated budget of the services. The following methods will be used: Quality and Cost-Based Selection (QCBS), Least Cost Selection (LCS), and Selection Based on Consultant’s Qualification (CQS), Individual Consultants Selection (ICS) and Single-Source Selection (SSS). Short lists of consultants for services estimated to cost less than USD300,000 equivalent per contract may be composed entirely of national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines.

74. **Shortlists composed entirely of national consultants.** Shortlists for consultancy services for



contracts estimated to cost less than USD200,000 equivalent per contract may be composed entirely of regional consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines

75. **Operational Costs.** Operating costs would include all expenses necessary to ensure proper implementation of the project, including but not limited to local travel, communication and bank charges. The quarterly budget for operating costs would be prepared by MRHP/NIU and cleared by the Bank.

76. **Advertising Procedures.** General Procurement Notice (GPN), Specific Procurement Notices (SPN), Requests for Expression of Interest (EOI) and results of the evaluation and contracts award should be published in accordance with advertising provisions in the Procurement Guidelines and Consultant Guidelines. The borrower will keep a list of received responses from potential bidders interested in the contracts. Consultancy services for contracts estimated to cost USD200,000 and above equivalent per contract shall be advertised in the UNDB on-line in addition to advertising in the national newspaper of wide circulation and/or regional newspaper in accordance with the provisions of paragraph 2.5 of the Consultant Guidelines.

77. **Assessment of the agency’s capacity to implement procurement.** The capacity of the NIU teams at MRHP for implementation of procurement activities were assessed in February 2016 and documented in the P-RAMS.

78. The overall project risk for procurement is rated high’. After mitigation measures are implemented, the residual risk would be substantial. The risks associated with procurement and the mitigation measures were identified in the assessment of the agency’s procurement capacity and are summarized in the table below:

Description of Risk	Risk Rating	Mitigation Measures	Residual Risk Rating
<p>Potential procurement delays: arrangements for clearance of evaluation reports with the SWIOFISH 2 may lead to procurement delays; Government officials from implementing partners-agencies, who would be involved in project procurement through Tender Committees may not be familiar with international procurement procedures; coordination problem.</p>	H	<p>(i) The Bank and MRHP have agreed on a timeline to finalize tenders from bid document preparation to contract award. The Bank team will closely monitor adherence to the timeline; (ii) Intensive procurement training for government staff, including Tender Committee members, involved in conducting procurement.</p>	S
<p>Contract administration procedures may not be adequate to ensure efficient and timely contract implementation; contract amendments not processed diligently</p>	H	<p>More emphasis and training on appropriate contract management; regular physical inspections and compliance checks and quality control of the deliverables by the SWIOFISH 2 team at MRHP.</p>	S



Description of Risk	Risk Rating	Mitigation Measures	Residual Risk Rating
Complaint resolution procedures not in place and nor effective	H	Compliant resolution procedure to be addressed in the Project Operational Manual	S
Perceived level of corruption in the country is high.	H	Enforcement of public disclosure and transparency provisions of the Bank’s Guidelines; publishing contract awards and progress reports from the implementing entities on the Ministry of Finance and Budget and external Bank websites; Close Bank implementation supervision.	S
OVERALL	H		S

79. **Procurement Plan.** The initial 24-month procurement plan shall be agreed between the Borrower and the Bank and be finalized at or before negotiations. After the project is approved by the Bank’s Board of Executive Directors, the procurement plan will be published on the Ministry of Finance’s website and Bank’s external website. The procurement plan would be updated in agreement with the Bank team at least annually or as required to reflect the actual project implementation needs and improvements in institutional capacity. The prior review thresholds set out in the procurement plan will be reviewed from time to time and revised as needed during project implementation.

80. **Procurement review thresholds.** The thresholds for methods of procurement and prior review limits are detailed below.



Expenditure Category	Contract Value (USD)	Procurement Method	Bank Prior Review
Works	≥5,000,000	ICB	All the ICB contracts
	< 5,000,000	NCB	First 2 NCB contracts and all other NCB contracts above \$5,000,000
	≤ 100,000	Shopping	The 1st Shopping contract
	Irrespective of Value	DC	All DC contracts and amendment of contracts rising NCB contracts above \$5,000,000
Goods (including non-consulting services)	≥500,000	ICB	All the ICB contracts
	< 500,000	NCB	First 2 NCB contracts and all other NCB contracts above \$500,000
	≤ 100,000	Shopping	The 1st Shopping contract
	Irrespective of Value	DC	All DC contracts and amendment of contracts rising NCB contracts above \$500,000
Consultant Services	Irrespective of Value	QCBS, LCS, CQS*, IC, SSS, UN FAO	All contracts above USD 200,000 for firms plus the 1st CQS contract regardless of value; all contracts above USD 50,000 for individuals; and all SSS contracts.
Notes:	ICB – International Competitive Bidding NCB – National Competitive Bidding DC – Direct Contracting QCBS – Quality and Cost Based Selection LCS – Least Cost Selection *CQS – Selection Based on Consultants’ Qualification would be followed depending on type of assignments for estimated value less than USD 300,000 SSS – Single Source Selection IC – Individual Consultant selection procedure		

81. **Frequency of Procurement Supervision.** In addition to the prior reviews to be carried out from the World Bank country office, the capacity assessment of the Implementing Agency has recommended two supervision missions per year during which ex-post reviews would be conducted on a sample basis (20 percent in terms of number of contracts) for the contracts that are not subject to the Bank’s prior review. One post review report, which would include physical inspection of sample contracts, would be prepared each year. At least 10 percent of the contracts would be physically inspected.

82. **Disclosure.** The following documents shall be disclosed on the Ministry of Finance and Budget



and State Agency for Public Procurement websites: (a) procurement plan and updates; (b) invitation for bids for goods and works for all ICB and NCB contracts; (c) request for expression of interest for selection/hiring of consulting services; (d) contract awards of goods and works procured following ICB/NCB procedures; (e) list of contracts/purchase orders placed following shopping procedure on quarterly basis; (f) short list of consultants; (g) contract award of all consultancy services; (h) list of contracts following DC or CQS or SSS on a quarterly basis; and (j) action taken report on the complaints received on a quarterly basis.

83. The following details shall be sent to the Bank for publishing in the Bank's external website and UN dgMarket: (a) invitation for bids for procurement of goods and works using ICB procedures and selected procurement irrespective of contract value; (b) request for expression of interest for consulting services with estimated cost more than USD300,000 and selected procurement irrespective of contract value; (c) contract award details of all procurement of goods and works using ICB procedure; (d) contract award details of all consultancy services with estimated cost more than USD300,000; and (e) list of contracts/purchase orders placed following SSS or CQS or DC procedures on a quarterly basis.

Environmental and Social (including safeguards)

84. Given the project objectives of improving governance in the fisheries management sector through better data collection, sectoral governance and institutional reform, stronger enforcement of conservation measures, and renewed emphasis on co-management strategies, the overall environmental and social impacts of the project are expected to be positive. However, the proposed sub-projects on the construction/expansion/rehabilitation of small fisheries infrastructures (landing sites, markets, office buildings) could generate some minor adverse environmental and social impacts. The Environmental and Social Assessment (ESA) prepared by the Government of Madagascar pursuant to OP4.01 confirms that large-scale, significant and/or- irreversible environmental impacts are not expected.

85. The ESA documents, however, do point out that some potential negative small-scale and localized environmental and social impacts from project investments may occur, and which should be taken care of in the design of the project and its implementation arrangements. These negative impacts include seasonal, temporary or permanent access restrictions that may be implemented for certain fisheries or in specific geographic locations, short-term reduction in income to small-scale fishers engaged in illegal or unsustainable fishing activities due to strengthened fisheries monitoring, control and surveillance, and localized environmental and possible social impacts from infrastructure rehabilitation, upgrading or construction such as air, soil and water pollution, loss of vegetation, coastal erosion, increase in HIV AIDS and safety (accidents on the work camps).

86. Given that any adverse environmental and social impacts from implementation of the proposed project are generally expected to be site-specific, not significant, and not irreversible, this project has been designated as a Category 'B'. The project has triggered the following four Safeguards policies: OP/BP 4.01 (Environmental Assessment); OP/BP 4.04 (Natural Habitats); OP/BP 4.11 (Physical Cultural Resources); and OP/BP 4.12 (Involuntary Resettlement). Because the exact nature and location of investments may not be determined up front, i.e. prior to appraisal, the Government prepared and consulted upon an Environmental and Social Management Framework (ESMF) and a Process Framework (PF).



87. The ESMF provide an environmental and social screening form that will be applied by qualified personnel, precisely Environmental and Social Focal Points, within the NIU, at the planning stage of future investments. They also provide for the methodology to follow when planning for investments that could have a negative environmental or social impact. They also summarize the grievance redress mechanism fleshed out in the PF.

88. Concerning infrastructure subprojects mainly the rehabilitation/construction of small community or fishery infrastructures or/and administrative building in the project zones, and the upgrading of existing fishery infrastructures, no archaeological vestiges will be impacted following the socio-economic survey developed in the ESMF. For more assurance, the ESMF has made provisions for cultural resources management in the event the Physical Cultural Resources OP 4.11 is triggered during the implementation phase and includes “chance finds” procedures for inclusion in the contractors’ contract. Mitigation measures will be included in the respective subproject ESIA and Environmental Management Plans (EMPs), including chance find procedures.

89. The project is not expected to involve land acquisition leading to involuntary resettlement of project-affected persons (PAPs), as project infrastructure would take place on already existing sites. However, the project proposes to strengthen the effective management and protection of natural resources in near-shore or off-shore waters as well as potentially expand areas under protection. These access restrictions, be it seasonal, temporary or permanent, may provide some prospect for negative impacts on livelihoods for some individuals in some coastal communities, at least in the short-term. Therefore, a PF has been developed and extensively consulted upon to ensure people views and concerns are fully taken into consideration in the final project design. Public consultations were held and the information was disclosed, and appropriate grievance-handling procedures and arrangements will be prepared, including the preparation of action plans, acceptable to the Bank, describing the specific measures to be undertaken to assist the affected persons and the arrangements for their implementation, before to enforcing of restriction.

90. The PF establishes a process whereby individuals, households or communities who may lose some or all of their livelihoods from fishing or fisheries-related activities, as a result of project investments, are able to participate in a process to minimize such negative impacts on project affected communities livelihoods and living conditions, precisely by: (i) designing the fisheries resource restrictions; (ii) determining measures necessary to restore or improve their livelihood conditions; and (iii) implementing and monitoring relevant project activities. The PF includes institutional arrangements, capacity building, grievance redress mechanism and an estimated budget for PF implementation. Special attention will be given to women, youth and other vulnerable groups whose livelihood are intrinsically linked to the fishing activities. The PF prepared by Madagascar has been deemed acceptable by the World Bank.

91. The grievance redress mechanism is detailed in the PF. The PF list preventative measures to be applied to avoid exacerbation of conflicts: awareness-raising and regular information about project activities, participatory and inclusive co-management processes, consultations and negotiations with PAPs, training in conflict management, community empowerment. The actual grievance and conflict redress mechanism list different levels of resolution: local community mechanisms are to be used to provide a first level of listening and informal consultation. If unsuccessful, or outside of the scope of the community leadership, the grievance is transmitted to higher administrative levels. Informal settlement is always preferred. If unsuccessful, the formal settlement process is detailed in the PF. PF provide for



the constitution of grievance committees, and detail the different steps to be followed in grievance and redress processes: documentation of the grievance, resolution procedure at the first administrative level, and resolution procedures at the higher levels if unsuccessful. Clear timelines and responsibilities are stated to ensure timely resolution of conflicts.

Monitoring and Evaluation

92. Monitoring and evaluation of outcomes and results are a core part of the project design. The RIU and NIU will collect and present data and reports for six-monthly reviews in conjunction with World Bank implementation support missions. The RIU and NIU each appointed dedicated Monitoring and Evaluation Specialist to regularly monitor the indicators of the project. An M&E manual, part of the Project Operational Manual, will formalize the approach and tools and clarify the roles and responsibilities for the monitoring and the evaluation of the project results. The project will also devote funds to the implementation of the M&E framework, including the regular field surveys.

93. In Madagascar, the project will also help improve the M&E system for the sector. The role of the M&E Specialist will not be limited to project indicators, and s/he will take an integral part in the development of the fisheries sector statistics in the country and the development of scientific, economic and social dashboards to support fisheries management and decisions related to the development of the fisheries sector.

94. The existing statistical systems are fragmented and of varying quality. This is largely due to inadequate human capacity and insufficient investment in maintaining the dedicated data collection systems, software and human resources required. A Preparation Advance (PA) is being used to determine target fisheries and communities for intervention and, for each sub-component, establish baseline indicator values. Baselines have been established using existing but fragmented information. These include information generated by country surveys, SWIOFP and Agulhas and Somali Current Large Marine Ecosystems (ASCLME) studies (e.g., governance, status of fish stocks), World Bank studies, studies undertaken by the SmartFish Program and a range of other sources (exports, fish food consumption, household income surveys, governance indicators), and the financial reports of sector agencies.

95. The outcomes of the project will be tracked through the enhanced fisheries statistical system developed to populate a dashboard. The M&E functions will be embedded in the dashboard activities. These activities will in turn be mainstreamed into the improved statistical systems. The M&E activities will in all cases be part of improved knowledge and information systems required to manage the sector while simultaneously serving the needs of the project. The outputs from the specific activities will be monitored through the M&E capability provided in the NIU in accordance with specific targets and timetables approved by the Steering Committee. Indicative targets are provided in the result frameworks (Annex 1).

96. In addition to conventional recording and analysis of capture fishery and aquaculture production, catch per unit of effort, imports, exports, and fish prices, the dashboard will include close tracking of the economic performance of a representative sample of operators. Specific linkages will be made to higher level policy objectives through metrics on fish food supply, sector balance of payments and employment. The dashboard will enable timely assessment and adaptive management by the lead



agency and the project. It will also enable oversight by the planning and finance ministries and the private sector. The dashboard will be complemented by transparency and anti-corruption targets based on a Fisheries Industry Transparency Initiative, the EAF²⁵ scorecard used by SWIOFC, the compliance reports produced annually by the IOTC Secretariat²⁶ under the Compliance process and, possibly, Fisheries Performance Indicators under development in other World Bank projects.

97. Due caution will be exercised to balance the indicators and avoid the pitfalls of applying conventional economic and social indicators to the sector. Conventional fisheries sector GDP frequently does not include post-harvest activities and GDP fails to account for fish stock depletion or ecosystem degradation. Similarly increased employment in capture fisheries may come at the expense of profitability and incomes as more fishers chase less fish with a higher cost per unit of catch. Where baselines are lacking the project will develop the systems to assemble them. Particular attention will be devoted to coherence and synergies with other information systems, such as ensuring fisheries related questions in household surveys and proper specification of fish imports and exports.

²⁵ Ecosystem Approach to Fisheries

²⁶ Data are presented generally 6 months after the end of year during the IOTC Compliance Committee.



ANNEX 3: IMPLEMENTATION SUPPORT PLAN

COUNTRY : Southern Africa

Second South West Indian Ocean Fisheries Governance and Shared Growth Project - Region & Madagascar

Strategy and Approach for Implementation Support

1. The project implementation strategy is based on the following: (a) ensuring a high degree of quality at entry and implementation readiness of all project components; (b) focused technical, financial, and procurement reviews by the World Bank; (c) close and constant focus on high risk areas such as quality and speed of procurement; and (d) close and continuous follow-up on issues highlighted during implementation support missions.

2. **Team composition.** The implementation support team is expected to consist of: (i) one experienced Overall Task Team Leader (TTL) in charge of overall coordination of the SWIOFish Program's (SOP) investments within the South West Indian Ocean region; (ii) to the extent possible, a National co-Task Team Leader and/or implementation support consultant(s) will be based in Madagascar to represent the Bank and work with the government as needed to support implementation. In addition to this core implementation support team, region- and country-based fiduciary staff (procurement and financial management), and social and environmental staff will participate as full team members and be responsible for the implementation of project specific activities in their areas of expertise. The environmental and social specialists following the project will closely monitor the execution of the mitigation measures and safeguards documents. If required, implementation support consultants will be hired on an ad-hoc basis to provide real-time technical assistance to governments to support smooth implementation of the investment, where capacity is weak, without speaking formally for, or representing the World Bank.

Implementation Support Plan and Resource Requirements

3. **Implementation support plan.** The Implementation Support Plan describes how the World Bank will support the implementation of the risk mitigation measures and provide the technical advice necessary to facilitate achieving the Project Development Objective (PDO) (linked to results/outcomes identified in the result framework). The Implementation Support Plan also identifies the minimum requirements to meet the World Bank's fiduciary obligations.

4. **Frequency of implementation support effort.** For the regional organization and Madagascar, the objective will be to supplement the ongoing support provided by the Overall and National TTLs and/or implementation support consultants, with up to two full implementation support missions of the wider team (including partners), as well as a quarterly virtual mission via audio/video to review progress in annual work plan, if necessary. The IOC and Madagascar will submit an annual work plan, updated budget and procurement plan at the end of the calendar year, for World Bank non-objection for the following year.



5. **Implementation support budget.** To ensure a strong and continuous implementation support effort, especially during the first two full years of implementation, a minimum of USD332,000 per year implementation support budget will be required to cover all related fixed and variable cost, not including safeguards and fiduciary aspects. The tables below provide the breakdown for the implementation support budget for the project.

Skills required	Fixed costs (USD)	Variable costs (USD)	Staff weeks	No of trips
Overall TTL (IOC, Madagascar)	66,000	40,000	12	2 to 4
National co-TTL (Madagascar)	40,000	10,000	8	As required (Country / Sub-region based)
Procurement				
. IOC			2	2 (Sub-region based)
. Madagascar			1	As required (Country-based)
FM				
. IOC			3	2 (Sub-region based)
. Madagascar			2	As required (Country-based)
Environmental safeguards (Madagascar)			4	2 (Sub-region based)
Social safeguards (Madagascar)			4	2 (Sub-region based)
Thematic specialists (ideally FAO CP recruited)			18	6

Time	Focus	Skills Needed	Resource Estimate
First twelve months	Administrative and fiduciary management	TTLs, fiduciary teams	USD 332,000 excluding fiduciary and safeguards teams



12-48 months	Technical aspects Safeguards Fiduciary aspects	TTLs, thematic experts, safeguards and fiduciary team	USD 1,660,000 excluding fiduciary and safeguards teams
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Skills Mix Required

Skills Needed	Number of Staff Weeks	Number of Trips	Comments
Overall TTL (IOC, Madagascar)	12	2 / year	
National co-TTL (Madagascar)	8	Field trips as required	Country office / sub-region based
Procurement			
- IOC	2	2	Country office / sub-region based
- Madagascar	1	1	
FM			
- IOC	1	1	Country office / sub-region based
- Madagascar	2	2	
Environmental safeguards (Madagascar)	4	2	Sub-region based
Social safeguards (Madagascar)	4	2	Sub-region based
Thematic specialists	18	6	



ANNEX 4: ELIGIBILITY CRITERIA FOR ACCESS TO IDA GRANTS BY REGIONAL INSTITUTIONS (for the Regional Implementing Unit to be hosted within the Indian Ocean Commission)

COUNTRY : Southern Africa

Second South West Indian Ocean Fisheries Governance and Shared Growth Project - Region & Madagascar

Eligibility Criteria	Commission de l’Océan Indien (COI) / Indian Ocean Commission (IOC)
<p>1. Recipient is a bona-fide regional organization that has the legal status and fiduciary capacity to receive grant funding and the legal authority to carry out the activities financed.</p>	<p>The Indian Ocean Commission is an organization of South West Indian Ocean (SWIO) States to promote cooperation for the social and economic development within the SWIO region. The activities to be financed by the grant are covered under Article 1 of the IOC General Agreement (<i>“Accord Général de Coopération entre les Etats membres de la COI”</i>).</p> <p>The IOC has received World Bank financing before and the fiduciary assessment concluded that the organization is capable of receiving IDA grants.</p>
<p>2. Recipient does not meet eligibility requirements to take on an IDA credit.</p>	<p>The IOC is a regional organization that is not owned by one particular country and hence does not meet the IDA requirement to take on an IDA credit. In addition, the IOC has no independent stream of revenue to repay an IDA credit.</p> <p>The proposed activities include regional coordination, capacity building, and regional policy dialogue and development.</p>
<p>3. The costs and benefits of the activity to be financed with an IDA grant are not easily allocated to national programs.</p>	<p>The activities to be financed by the IDA grant will benefit several countries in the Africa and Indian Ocean and these benefits cannot be credited for specific countries.</p>
<p>4. The activities to be financed with an IDA grant are related to regional infrastructure development, institutional cooperation for economic integration, and coordinated interventions to provide regional public goods.</p>	<p>The IDA grant will support institutional cooperation and coordinated intervention to sustainably manage and develop transboundary fisheries and the Blue Economy, therefore providing regional public goods.</p>
<p>5. Grant co-financing for the activity is not readily available from other development partners.</p>	<p>No other development partner has grant co-financing available for the specific activities to be covered by the IDA grant. Parallel grant co-</p>



	financing is identified for complementary activities.
6. The regional entity is associated with an IDA-funded regional operation or otherwise supports the strategic objectives of IDA on regional integration.	The IOC will be hosting the Regional Management Unit of the South West Indian Ocean Fisheries Governance and Shared Growth Projects, involving several SWIO and AIODIS countries that will access IDA financing. The USD 9.0 million grant will complement IDA and GEF and PHRD financing of USD 74.15 for Madagascar.



ANNEX 5: ECONOMIC AND FINANCIAL ANALYSIS

COUNTRY : Southern Africa

Second South West Indian Ocean Fisheries Governance and Shared Growth Project - Region & Madagascar

I. Baseline (without project)

1. Regional and national fisheries and marine ecosystems play an important role in the economic development of SWIO countries. The SWIO Island states and Madagascar's neighbors on the African continent (Tanzania and Mozambique) share widely distributed and migratory resources, and their coastal fisheries ecosystems face similar challenges. Marine fisheries and aquaculture production was worth more than USD296 million per year for Comoros, Tanzania and Mozambique, the three countries in the SWIOFish1 project, and USD213 million per year for Madagascar alone, where fisheries can contribute up to 7 percent of GDP annually (see table 1.1). In Madagascar the sector directly employs at least 300,000 and indirectly or part-time an estimated 500,000 people²⁷, including a high proportion of the coastal population which has some of the most vulnerable, marginalized and landless communities. Many women are involved in the small-scale fisheries sector, mainly in fish processing, marketing and aquaculture. The sector is also a major contributor to nutritional health and food security. The SWIO region's seafood exports (excluding South Africa) were valued at more than USD1 billion in 2008, of which tuna and shrimp accounted for more than half even though piracy has reduced tuna fisheries operations in the northern part of the SWIO after 2007.

2. *Business as usual scenario.* The 'business as usual scenario' for Madagascar would deliver some benefits, but they would be considerably inferior to the potential benefits from strengthened national capacity and strengthened regional collaboration, and net benefits would likely gradually erode. The 'business as usual scenario' would contribute only to limited regional benefits due to the national capacity constraints that limit national actions, and to the pressing need for further strengthening of the regional action framework. The baseline scenario would incur costs and losses due to: (i) a continuing trend in coastal resource over-exploitation and habitat degradation driving losses of natural capital and ecosystem services, (ii) limited national statistics for policy, planning and decision making, (iii) sales and export of raw products with limited local value added, (iv) inefficient and aging fleets, (v) increased fishing pressure on near shore marine ecosystems and biodiversity, (vi) limited regional collective action or coordination with working groups operating in a reactive or ad hoc manner in the absence of a coherent long-term vision and process, and (vii) limited management of transboundary fish stocks and reduced compliance with international regulations in national waters.

²⁷ National Development Plan 2015–2019, Government of Madagascar.



Table 1 Macro-economic and fisheries sector indicators for Madagascar SWIOFish2 and SWIOFish1 countries (Comoros, Mozambique and URT²⁸)

2008 – 2010 and 2014*	Madagascar	SWIOFish 1 countries
Land area (km ²)	589,712	1,745,217
Coastline (km)	5,600	4,234
EEZ ('000 km ²)	1,888	976
Continental shelf (km ²)	117,000	92,000
Seagrasses and lagoons (km ²)	60,000	
Mangroves (km ²)	3,097	4,245
Coral reefs (km ²)	1,350	5,870
Population (million)*	24	60
Coastal population (million)	10	9
Fisheries production (USD million)	213	296
Direct employment (million)	0.3	1.3
Wages to fishers (USD million)	128	115
Nb. Port/ coastal transport	11	19
GNI per capita (USD)*	1,370	1,710
HDI*	0.51	1.4
GDP (USD billion)*	11	36,778
Fisheries (percent of GDP)	7	1

**Data collated and approximated for 2014 for Madagascar from various sources, including: 2015 African Economic Outlook; 2013; Technical case study for the WAVES Global Partnership in Madagascar (World Bank), Le Manach et al; ASCLME 2011, 28 CBA Island States; Mangroves of East Africa; UNEP 2003; UNEP World Atlas of Coral reefs, 2001; <http://www.indexmundi.com> and 2012 HDI report, <http://hdr.undp.org/en/data/map/>).*

II. Trends in the state of fish stocks, economic rents

3. The baseline assumes that improved fisheries management (Component 2) and greater involvement of communities and the private sector in fisheries co-management leading to efficient implementation of the management plans and increased contribution to economies (Component 3) are necessary to prevent further loss of ecosystem services. In particular, entire communities rely on the productivity of coastal waters and mangroves. At the regional level, the baseline “without project” scenario is unlikely to contribute significant collective benefit, as activities of regional institutions (Component 1) would progress slowly to address priority issues and confront long-term financial sustainability challenges. Meanwhile, a continued decline in the state of shared fish stocks would be likely.

²⁸ United Republic of Tanzania. The United Republic of Tanzania includes the Indian Ocean islands of Pemba and Zanzibar.



a. Baseline trends for EEZ and coastal fisheries

4. *Baseline scenario.* The baseline scenario assumes that the activities funded by the project are necessary to reverse the current trend of increasing over-exploitation of coastal resources and loss of marine ecosystem services. An increasing number of coastal fisheries in SWIOFC²⁹ countries are either biologically fully or over-exploited. Fisheries that are exploited in the biological sense at the “Maximum Sustainable Yield” (or MSY fishing effort level) are found to be underperforming in economic terms although they may contribute important social benefits, suffering from excessive vessel numbers and poor return on capital: as fleet fishing effort increases past the “Maximum Economic Yield” level toward the MSY fishing effort level, production costs increase faster than revenues and profit margins decrease. For overfished stocks, the baseline assumptions are that: (i) the number of fisheries underperforming in economic terms will continue to increase at a rate of 6 percent per year, following the trend observed between 2005 and 2009 (last data available) without the project, and that (ii) as a result, SWIO coastal states as a whole would incur an annual loss of economic rent of USD225 million (in 2008 USD), proportionate to the gross value of catch estimated by the World Bank for World fisheries or 0.45 percent of USD50 billion.³⁰ The working assumption is that project activities could prevent 10 percent of the rent loss through improved management, notably with the development of Ecosystem Approach Fisheries Management Plans (EAF-MP) and co-management systems, from Year 2. Assuming that Madagascar accounts for 36 percent of the SWIO fisheries first-sale value, this would correspond to a loss in rent of USD81 million (in 2008 dollars) per year.

Table 2. Trends in the status of main fisheries stocks in SWIO region, 2005 to 2009

Stock status		2005	2006	2007	2009
Considered economically* overfished	Recovering	1	2	3	4
	Depleted	5	8	7	12
	Overexploited	19	22	19	21
	Fully exploited	29	32	36	40
Not considered econ. overfished	Moderately	21	20	17	14
	Underexploited	24	16	18	9
Percentage of economically overfished stocks		54	64	65	77

* Economically overfished extends to fisheries that are biologically fully exploited.

5. The most commonly over-exploited fisheries are the near-shore, high value species, such as lobsters, sea cucumbers, shrimp, octopus, crab, snappers and groupers in the traditional and artisanal fisheries. These fisheries also have the greatest potential for rapid improvement from a combination of national and community-led co-management. Many of these high-value species are short-lived (1 to 3 years) and yield could be improved within the life of the first phase of the SWIOFish program. Although production could decrease during the initial years of stock recovery, in many cases the income of the private sector and fisheries households could be maintained, or increased through improved fisheries

²⁹ SWIOFC, Status of the Resources, Mahe Maldives 13-16 March 2011, 12p. SFS/DM/SWIOFC/09/ 3 F and E from <http://www.fao.org/fishery/rfb/swiofc/en#Org-EIMS>.

³⁰ Kelleher K, Wouldmann R, Arnason R. 2009 The Sunken Billions: The economic justification for fisheries reform. The International Bank for Reconstruction and Development / The World Bank: Economic data for 2004.



products quality, prices and local valued added (Component 3). The baseline scenario assumes that all project activities are necessary to reverse the trend of over-exploitation of coastal resources.

6. For shared tuna and tuna-like resources, the most recent resource assessments from IOTC (2015 and 2016³¹) show that most migratory tuna and tuna-like species are neither overfished nor currently subject to overfishing, apart from: (i) the Yellowfin tuna (*T. albacares*) currently overfished and subject to overfishing; (ii) the Black, Blue and Striped marlins and sailfish, which are all subject to overfishing; and (iii) neretic (coastal) tuna species, which are either of unknown status (Bullet tuna, Frigate tuna, Kawakawa tuna, Indo-Pacific king mackerel) or overfished and subject to overfishing (Longtail tuna, Narrow-barred Spanish mackerel). These fisheries bring substantial revenue to the SWIO coastal states through foreign fishing agreements, licensing revenue and, to a lesser extent, national and regional value added. IOTC data show a steady decrease in quantities (not price) produced in WIO region since 2008, explained in part by piracy problems that have closed large areas to fishing. Recent studies^{32, 33}, suggest considerable potential for increased revenues from these fisheries. Project activities at national and regional level are designed to improve on the reporting and management, and to increase national value of coastal and offshore tuna fisheries, including from improved conservation measures, enforcement and minimum terms and conditions of licensing for foreign vessels. The internal rate of return (IRR) makes the assumptions that, through national and regional activities combined, the revenue could be increased by 50 percent by Year 5 from the current baseline.

b. Ecosystem services

7. Sustainable development of fisheries and aquaculture in the SWIO region is supported by coastal ecosystems and biodiversity of great richness and unique world value. However, the scarcity of economic valuations at national and regional levels limits the scope and precision in the cost-benefit analysis (CBA) and preparation of environmental accounts.³⁴ The baseline “without project” scenario uses a recent CBA valuation for direct services (food, raw and ornamental material extraction) and indirect services (regulating, cultural, – including tourism and recreation – and supporting), provided particularly by mangrove and coral reef habitats.

8. The provision of fisheries resources as a direct ecosystem service is already accounted for in terms of the landed value of the catch. For Madagascar, the annual net value for the fisheries sector of USD212.83 million (Table 2) corresponds to a net present value (NPV) for a thirty-year period, with a 3 percent discount rate, of USD4.17 billion (Table 3). Its capital value is estimated at less than 5 percent of the total marine ecosystem NPV (for four SWIO countries, Table 1.3). By comparison, the NPV of nutrient cycling services provided by the open ocean, shallow waters and estuaries is four times higher (22 percent) than for fisheries, and the global benefit from maintenance of genetic diversity largely

³¹ see <http://www.iotc.org/science/status-summary-species-tuna-and-tuna-species-under-iotc-mandate-well-other-species-impacted-iotc#ttmt>

³² Barnes, C. and Mfodwo K., 2012. A market price valuation of tuna resources in the Western Indian Ocean – an indicative regional and country/EEZ perspective, WWF.

³³ POSEIDON, MRAG, NFDS and COFREPECHE, 2014. Review of tuna fisheries in the western Indian Ocean (Framework contract MARE/2011/01 – Lot 3, specific contract 7). Brussels, 165 p.

³⁴ UN/FAO, 2004. Handbook of National Accounting – Integrated Environmental and Economic Accounting for Fisheries. Studies in Methods, Series F, No.97 (ST/ESA/STAT/SER.F/97); and EC, FAO, IMF, OECD, UN, WB, 2012. System of Environmental-Economic Accounting, Central Framework, 331p.



provided by mangrove, seagrass and coral reef habitats is 13 times higher (66 percent). The NPV for the maintenance of genetic biodiversity of USD58 billion was estimated from the surface area of mangrove habitats and coral reefs - both also of crucial importance to fisheries and tourism in the region.

Table 3. Economic valuation (NPV) of coastal ecosystems services in Madagascar (Seychelles, Comoros and Mauritius for illustrative purpose, USD million/ year)

Services	Madagascar	Seychelles	Comoros	Mauritius	Total	% Overall
Direct: Provision Services						
Fisheries	4,172	4,185	44	184	8,585	4.2%
Ornamental resources	48	911	17	292	1,268	0.6%
Raw materials	41	10	1	3	55	0.0%
Indirect: Regulation services						
Shoreline protection	7	13	1	32	53	0.0%
Disturbance regulation	463	109	7	33	612	0.3%
Climate regulation	2,897	2,105	546	1,083	6,631	3.2%
Cultural & recreational services	2,479	1,847	234	3,091	7,651	3.7%
Indirect: Supporting services						
Nutrient cycling	28,888	10,503	2,934	3,895	46,220	22.4%
Maintenance of genetic diversity	57,942	43,911	11,173	22,605	135,631	65.6%
Total	96,937	63,594	14,957	31,218	206,706	100.0%

From ASCLME, 2012. CBA Island States, report 28.

9. Overall coastal ecosystem services in Madagascar are estimated to be worth a total economic value (NPV aggregated net income discounted over time assuming a discount rate of 3 percent over 30 years) of USD97 billion or USD207 billion for the four island states of Comoros, Seychelles, Mauritius and Madagascar³⁵, which have the only data in the region. The project would collaborate with ecosystem valuation initiatives³⁶ to obtain more precise biodiversity indicators alongside those for the production quantities and values in selected fisheries.

III. Project costs

10. The project financing summary is provided in Table 4 for Madagascar and for the regional component. The SWIOFish2 provisional budget is USD75.15 million and USD9.0 million for the regional component (Table 4), with a national co-financing of USD1.0 million. Project costs were estimated at 2015 prices. Some of the modalities for parallel sources of funding are not finalized, so these are not included in the economic analysis.

³⁵ ASCLME, 2012. Rakotobe Andriamanganiaina T., CBA Island States, report 28.

³⁶ See <http://teeboceans.org/>; [www.wavespartnership.org.](http://www.wavespartnership.org/)



Table 4. SWIOFish2 summary of financing (USD million)

Level	IDA	GEF	PHRD	Gov. of Madagascar	Total
Regional	9.00	0.00	0.00	0.00	9.00
Madagascar	65.00	6.42	2.73	1.00	75.15
Total	74.00	6.42	2.73	1.00	84.15

IV. Project benefits – 5 and 10 year horizons

11. The project is designed to be adaptive. Its operational components 1 to 3 would include substantial investment in critical capacity strengthening, technical and managerial support for targeted fisheries led by public service agencies and by the private sector and coastal communities identified in the preparation phase. It would pave the way to future major infrastructure investments beyond project life and as a result the economic and financial appraisals do not fully capture the extended benefits expected from the project.

a. Basic assumptions

12. The preliminary economic analysis considers the following potential project benefits. Three categories of benefits are attributed to improved governance: (i) benefits from a recovery of co-managed coastal fisheries in priority areas through improved regulatory, strategic planning, information and capacity building systems at local level, (ii) Increased rate of return (RoR) and gross value added (GVA) from distant tuna vessels through strengthening of statistics and of the authority in charge of the quality and safety of food products. An additional four categories of benefits can be attributed to private sector activities: (i) improved incomes for traditional and artisanal fishers, (ii) increased value added to products along value chains, (iii) benefits of improved or new infrastructure, and (iv) benefits from improved ecosystem services. Regional activities would also generate increased economic returns for Madagascar and costs savings for the region in particular through: (i) joint positions on IOTC Conservation Management Measures, effort optimization, increased rents and license revenues; (ii) reduced illicit fishing activities and increased returns to legitimate operators from Port State Measures implementation; (iii) improved resilience and strengthening of the Indian Ocean SIDS capacity to embrace the Blue Economy, adapt and mitigate the effect of climate change through the network of African and Indian Ocean Developing Island States (AIODIS) and (iv) opportunities for investment and value added activities through the strengthening of the FPAOI small to medium scale sector representation capacity, coordinated and shared information, training, public and private best practice, marketing and investment strategies, leading to an equitable share of benefits for the coastal states. The costs and benefits of possible investments in port and other infrastructure were left out until more precise information becomes available and since they will materialize beyond the project life.

13. The returns expected for each operational component are based on the following basic assumptions:

- i. Each national or shared priority fishery identified for SWIOFish2 support in Madagascar would be described by quantified environmental, social and economic indicators (component 2) determined during the project initial stage and shared across the region that would be



- monitored on an annual basis to allow adaptive management measures and maximize investment return;
- ii. The project would be expected to stabilize or increase the sustainable production of key priority fisheries. The South West Indian Ocean Project (SWIOFP, closed in 2013) demonstrated that many fisheries such as for demersal species do not appear to be shared across the region and may be effectively managed at the national level. However, recruitment for many invertebrate fisheries such as lobsters, and some reef fish resources, is shared between neighboring countries, and the most important fisheries for tuna and tuna-like species are shared across the region and beyond. For these resources to be managed sustainably, the regional scale is a necessity. In addition, coordination and standardization of data collection protocols, data format and database structures can easily save costs and help increase cooperation and understanding. Therefore the value added of a regional project would be greater than the sum of its national projects parts.
 - iii. Furthermore, ex-post analyses of World Bank funded projects have shown high rates of return to investments in institutional strengthening and particularly to extension-related activities.
14. The magnitude and main types of expected benefits would depend on the priority fisheries supported by the project and would include improved and transparent resource assessment and access rules at national and regional levels; increased resource rent captured by public and private actors; improved income and safety for fishworkers and increased local, national and regional value added from post-harvest activities. The assumptions specific to the economic appraisal are as follows:
- i. Economic distortions prevailing in developing countries, including overvalued exchange rates, tariffs and quantitative import restrictions, high commodity taxes, and a general shortage of savings, particularly for public sector investment projects are included in the project costs. Foreign exchange, price and other contingencies are included in the budget, corresponding to an overall 4.68 percent.
 - ii. Even though a full CBA of the whole project investment or detailed appraisals are not feasible at this stage, an economic IRR is estimated based on the following assumptions:
 - a. The IRR is computed for each expected result after 5 years and also 10 years when results of institutional strengthening and regional activities supported are expected to show their full benefit.
 - b. Uncertainty is not detailed by component or sub-component and cannot be usefully separated given the natural variability and uncertainty such as from market prices for input and outputs, piracy at sea or climate change. However a basic sensitivity analysis presents changes in IRR from increased costs and from decreased expected benefits.
 - c. The IRR estimation is made on the assumption of a constant economic performance projected from the baseline, and in several instances on the assumption that a decline could be reduced or halted rather than marine ecosystem production would be increased. Both options are conservative.
 - d. The project investment Net Present Value (NPV), given as part of the sensitivity analysis, is calculated for discount rates of 6 percent and 7 percent as per 2015 World Bank guidelines. The project would bring both qualitative and quantitative benefits and the



additional assumptions and expected benefits are given below for each of the three operational components.

- e. At this initial stage, the IRR is computed overall. A description by component below provides a discussion of the assumptions made on the basis of data available.

Component 1. Enhanced Regional Collaboration

15. Activities under the regional component 1 would generate increased economic returns and costs savings for each country and the region. This would occur in several different ways: (i) Improved management through joint positions and adoption of new Conservation Management Measures (CMM) and implementation of IOTC resolutions would help rebuild stressed tuna stocks, and ensure an equitable share of benefits for the coastal states; (ii) support through IOTC for the implementation of Port State Measures (PSM), standardized information exchange, enforcement protocols, observer coverage, port controls and catch reporting and cross-checking; Improved catch per unit effort information would lead to effort management, effort optimization, increased rents and license revenues; (iii) Development of the small-scale sector (*Fédération des Pêcheurs Artisans de l'Océan Indien* – FPAOI) representation and organizational capacity by strengthening their regional pooled capacity, coordinated information sharing, training, public and private best practice, marketing and investment strategies would support increased social value added for the coastal states; (iv) support of the AIODIS, network organization for the African and Indian Ocean Developing Island States to strengthen their capacity to embrace the Blue Economy, and to adapt and mitigate the effect of climate change.

16. Benefits derived from increased coordination and collective actions at the regional level would be numerous for private business. Taking care to avoid double counting, direct benefits (and cost savings) are expected for national fishing companies from a strengthening of the FPAOI including the development of regional brand and product standards, regional marketing initiatives, regional representation at trade negotiations.

17. Regional activities under component 1 are assumed to generate large combined overall and national benefits of USD3 million per year from the second project year that could clearly be attributed to specific regional activities once an M&E system is in place.

Component 2. Strengthening capacities for priority fisheries management

18. Three types of benefit from improved governance are considered for the CBA in the first instance, (i) benefits from a recovery of coastal fisheries, (ii) benefits from increased RoR and GVA from distant tuna vessels, and (iii) improved information systems.

19. Improved governance with staffed, trained and suitably equipped public services and a responsible private sector is considered essential for effective management of renewable resources and their ecosystems.³⁷ Component 2 would address the management of priority fisheries and coastal

³⁷ Gutiérrez, N. L., Hilborn, R. & Defeo, O. (2011) Leadership, social capital and incentives promote successful fisheries. *Nature*. Doi:10.1038/nature09689.



ecosystem services and establish an information system for data collection and analyses aiming to provide realistic and up-to-date indicators (fisheries sector dashboard) of the economic and social characteristics of the sector in each country. These would provide a transparent and iterative basis for the formulation of EAF management plans and more effective government support to co-management. These benefits are highly likely.

20. A review of coastal state revenues from licenses for tuna and highly migratory species fisheries shows that an increase in access fees from 5 percent to 7 percent of the gross value of the catch would generate additional revenue of USD2.3 million per year, and from 7 percent to 10 percent, an additional USD3.4 million per year above the baseline scenario. The “with project” scenario assumes, for the purse seiners and longliners tuna fisheries, improved an information system and analyses would increase fee revenue collection the generation of more GVA, including increased national and regional employment on foreign tuna vessels from USD2 million in year 2 to USD6 million in Year 10.

21. The progressive development of Madagascar’s fisheries information systems under the proposed project would provide the required precision and tool to monitor these assumptions. Improved and efficient public services are also essential to reduce ecosystem impacts of fishing activities. Benefits, from up-to-date and reliable shared regional fisheries information system including production and value information, are expected (conservatively) starting in year 2, to increase the collective worth of the fisheries and mariculture sector by an average USD3.6 million per year, by Year 10.

Component 3. Strengthening capacities for engagement in alternative fishing practices and livelihoods activities

22. Five categories of benefits accruing from component 3 were considered for the CBA: (i) benefits from a recovery of coastal fisheries attributable to communities and the private sector, (ii) improved incomes, food security and resilience for traditional and artisanal fishers through financial transfers, (iii) improved or new community and fisheries infrastructure (iv) increased value added to products along value chains, and (v) benefits to the private sector and coastal communities from improved ecosystem services leading to increased fishers resilience to climate change and natural disasters.

23. Support to increase private sector technical and organizational capacity would deliver additional value added through higher quality products and reduced post-harvest losses. The project would support improved community-level professional organization through training, best practice, improved income, food security and resilience from small-scale fisheries through mixed livelihoods of SWIO traditional, artisanal and subsistence fisheries and improved community and fisheries infrastructure. A conservative baseline assumption (Tables 1 and 3) is that benefits from small-scale fisheries could already be in excess of USD100 million per year for Madagascar. The IRR assumption is that project activities under (i) to (iii) above would generate an additional USD1 million per year in year 1, increasing to USD11 million by Year 5 and USD14 million by year 10.

24. In addition to economic rent collected by various levels of government in the form of fishing and trading permits and local and national taxes, the income of fishers is highly dependent on the state of



the resource. For example, even a partial resource recovery for sea cucumber in Madagascar could double the income of collectors on foot, divers and traders.³⁸ While labor is a production cost and fishers' income therefore cannot be counted as a benefit in a standard CBA, increased product quality and local value added along the value chains are assumed to add from USD1 million to USD5 million per year by year 5 to year 10.

25. Activities under component 3 are also assumed to help prevent a loss of biodiversity services to benefit local communities by increasing resilience to environmental change and natural disasters. A conservative estimate for overall annual benefits linked to specific activities is USD5 million per year from year 2 to year 10.

b. Overall Project benefit

26. A scenario for the baseline "without" and for the "with" project can be developed for all activities.³⁹ Conservative assumptions at all stages lead to an estimated IRR after 5 years of 11.0 percent, which would be slightly more than prevailing discount rates (between 6 percent and 7 percent). The IRR estimated value is most likely lowered by the current lack of information rather than by low project expected benefits. The assumptions used at all stages are very conservative.

27. The rate of return would be higher from component 2 investments to strengthen public sector capacity and resources management, which have the potential to bear sustainable economic activities. Relatively, component 3 would have the lowest costs and lower expected IRR. Estimates cannot account precisely for benefits from improved know-how and infrastructure and are therefore conservative. For a relatively very low added cost, investments to strengthen regional institutions (component 1) would bring additional and relatively high returns to Madagascar from the development of SWIO shared fisheries management mechanisms, coordination and capacity for collective action that would decrease costs (for surveillance and scientific research, component 2) and increase national management capacity and revenue collection from shared resources.

28. To conclude, the IRR estimated at the end of the project (5 years) is relatively high (11.0 percent), rising to 28 percent after 10 years without further investment.

29. Fiscal. The project is not expected to generate fiscal obligations from governments. By contrast, activities aiming to increase government capacity to monitor and manage access to the resources in their EEZ have the potential to increase the "rent" that accrues from a more sustainable use of renewable resources. It is estimated that fiscal revenue from priority fisheries could be increased, both as a result of better management from more efficient public sector services and from private sector operators paying fees for the use of co-managed infrastructures and services.

³⁸ Andrianaivojaona, C. 2012. Value chain analysis for sea cucumber in Madagascar, Smartfish report SF/2012/25.

³⁹ Excluding major infrastructure not envisaged at present by Madagascar, and for which detailed economic justifications would need to be made separately.



Table 5. Economic Internal Rate of Rate and Sensitivity Analysis

Scenarios	% or USD million	Total for Madagascar and region
Investment costs (USD millions)		84.15
Base IRR (5 years)		11.0 %
IRR (10 years)		28 %
NPV (5 years) with discount rate:	6 %	USD 15 million
"	7 %	USD 12 million
IRR (5 years)	Costs +10%	8 %
"	Costs +20%	5 %
"	Returns -10%	8 %
"	Returns -20%	4 %

30. The choice of information and assumptions were set to provide conservative estimates of the Project IRR. Unfortunately, available economic data is very patchy and for some, quite dated. However, the project is likely to have a high relative impact on the development of fisheries activities, in terms of institutional strengthening, sustainable marine fishing activities and their contribution to social and economic development. In Madagascar, the project has specific activities for the collection of baseline information and monitoring of the project result.

Sensitivity analysis

31. Conservative options were chosen throughout the analysis to obtain more robust estimates and avoid excessive detail in the absence of precise data. The overall IRR at year 5 is 110 percent but not overly sensitive to a decrease in expected returns or to increased costs – a flat 10 percent or 20 percent change of annual estimates, leads to an estimated decrease to 4 to 8 percent in economic return (IRR 5 years).



ANNEX 6: INCREMENTAL COST ANALYSIS

COUNTRY : Southern Africa

Second South West Indian Ocean Fisheries Governance and Shared Growth Project - Region & Madagascar

I. Project Objectives

1. The South West Indian Ocean Fisheries Governance and Shared Growth Program (SWIOFish) aims at increasing the economic, social, and environmental benefits of SWIO countries from sustainable marine fisheries. The project would strengthen the financing, coordinating and knowledge exchange mechanism initiated through the first SWIOFish project of the series, SWIOFish1, with its suite of mutually supporting regional and country-level activities over the medium- and long-term. The project activities would target core governance and productivity challenges in Madagascar, remove critical constraints to sustainable business and private investment, bring part of the 'offshore fisheries economy' within country economies and add value through regional collaboration.
2. The specific objectives of the second project (SWIOFish2) will be to further strengthen management effectiveness of selected priority fisheries at regional level, and at national and community level in Madagascar, through (i) consolidating and strengthening regional cooperation on fisheries and marine resource management, the regional representation and capacity of the fisheries small-scale sector and the capacity for fisheries' economic governance among the country members of the SWIOFC; and (ii) harnessing fisheries to regional economy. In Madagascar, the primary targets are (i) the management of the most economically important fisheries, (ii) co-management of the small-scale fisheries and (iii) planning and/or implementing critical hard and soft infrastructure investments to increase contribution of fisheries to national economies. The project will build the capacity and leadership required.
3. A preliminary Incremental Costs Analysis (ICA) estimates that incremental costs at national levels (USD6.42 million) would be eligible for GEF financing associated with focal area IW-3 Program 7.

II. Rationale

4. The rationale to support the SWIOFish2 fisheries project in the Southwest Indian Ocean stems from the need to improve fisheries governance in all coastal states around the Southwest Indian Ocean (SWIO). The SWIO has a number of transboundary fisheries for large pelagic (tuna and tuna-like) resources and other coastal resources that are shared between countries along the eastern coast of Africa (from Somalia in the North to South Africa) and by the Small Island Developing States. The range of some of key fisheries resources and some vulnerable marine species such as sharks and turtles also extends to the high seas. Nine countries in the SWIO region (Comoros, Kenya, Madagascar, Mozambique, Mauritius, Tanzania, Seychelles, South Africa, France in virtue of its outermost regions,



Somalia and Maldives being observers) with the assistance of the GEF-funded ASCLME and SWIOFP projects, prepared a Transboundary Diagnostic Analysis and a Strategic Action Plan.⁴⁰ They identified priority objectives, activities and outcomes aligned with the goals of the International Waters GEF focal area (component 2) and with global marine biodiversity conservation targets with the Regional GEF priorities (component 1). The countries collaborate through the regional fisheries body, the South West Indian Ocean Fisheries Commission (SWIOFC), and through the Indian Ocean Tuna Commission (IOTC) for the regional fisheries management of tuna and tuna-like species.

III. Status Quo

5. *Scope and Costs.* The Project baseline scenario will have a budget of USD77.73 million⁴¹ for Madagascar and some regional coordination, supporting activities organized under three operational and one project management component:

- i. **Component 1. Enhanced regional collaboration.** Activities in this component aim to enhance regional public goods, in particular to support the active participation of all countries in the SWIO region to fisheries management, data sharing and analyses, and collective regional decisions, including for the countries that do not have national investment yet. No GEF financing will be applied as co-financing for this component.
- ii. **Component 2. Improved governance of priority fisheries.** This component will focus on improving policies, strategies, institutional mechanisms and actions by the public sector to improve fisheries performance and marine environmental health. Without GEF funds, Madagascar activities relating to the monitoring and reporting of shared fisheries, especially large pelagic species caught in small-scale fisheries will be reduced, as well as to mainstreaming biodiversity in fisheries management.
- iii. **Component 3. Increased economic benefits from priority fisheries.** This component will focus on supporting engagement in alternative fishing practices and livelihoods to support fisheries management plans' implementation and ultimately increasing economic benefits generated by communities and the private sector. No GEF financing will be applied as co-financing for this component.
- iv. **Component 4. Project management and coordination.** No GEF financing will be applied as co-financing for this component.

6. In the absence of GEF assistance, support to some component 2 key activities would be reduced (Table 1).

⁴⁰ ASCLME, 2012

⁴¹ Total IDA financing is USD65.0 million and other financing estimated to USD3.73 million (not including GEF), to complement GEF USD6.42 million



Table 1 Project costs financing by expenditure account (Madagascar and regional institutions) in USD million

Sources and uses of funds	IDA	GEF	PHRD	GoM	Total
Component 1. Enhanced regional collaboration	8.20	0.00	0.00	0.00	8.20
Component 2. Improved governance of priority fisheries	15.20	6.42	0.00	0.00	30.52
Component 3. Increased economic benefits from priority fisheries	44.80	0.00	2.73	0.00	43.03
Component 4. Project management and coordination	5.80	0.00	0.00	1.00	7.40
Total (USD million)	74.00	6.42	2.73	1.00	84.15

IV. GEF alternative

7. *Scope and Costs.* Implementation of the baseline scenario investment project would generate national benefits, some of which would extend across the region in the manner of the leadership role assumed by the Seychelles at the Indian Ocean Tuna Commission (IOTC, 2012) regarding the tuna species quota allocation keys for coastal states. However, in the absence of GEF assistance, the project would lack essential component 2 activities to strengthen national capacity to monitor and report fisheries impact, especially for tuna and tuna like species.

8. The goal of the GEF International Waters focal area is to promote collective management for transboundary water systems and subsequent implementation of the full range of policy, legal, and institutional reforms and investments contributing to sustainable use and maintenance of ecosystem services. The countries in the SWIOFC region worked closely together in the GEF-financed Bank-managed South West Indian Ocean Project (SWIOFP) to deliver a number of key national and regional outputs that make it possible to focus on management reforms and investments to ensure fisheries resource recovery and sustainable growth in regional value added and contribution to poverty reduction and food security.

9. For Madagascar and regional institutions in the project (IOTC, AIODIS, FPAOI), the total cost of the baseline scenario is estimated to be USD77.73 million. The GEF alternative is estimated at USD84.15 million. GEF would finance USD6.42 million incremental costs to support national activities Madagascar. Resources essential to comply with the GEF’s co-financing requirements and to support the complementary country-level actions that contribute directly to the outcomes would be financed through IDA and supplemented by a range of co-financing.

10. The project and proposed regional component are fully consistent with the requirements of the International Waters envelope for co-financing.

11. *Benefits.* In addition to national benefits associated with the baseline scenario, global benefits of the GEF alternative are summarized below.



V. Incremental cost matrix

Component 1. Enhanced regional collaboration			
Cost category	USD million	National benefit	Global Benefit
Baseline	8.20	IOTC CMM, SWIOFC countries dialogue, FPAOI and AIODIS reinforced	Contribution to regional initiatives
With GEF Alternative	8.20	Madagascar has means to contribute and guide regional fisheries management, data sharing and analyses, and collective regional decisions (supported by GEF under component 2 at country level based on the subsidiarity principle).	Effective collaboration between countries to increase benefits from sustainably managed priority fisheries and aquaculture, increase shared knowledge and decrease costs (supported by GEF under component 2 at country level based on the subsidiarity principle).
Incremental	0.00		

Component 2. Strengthening capacities for priority fisheries management			
Cost category	USD million	National benefit	Global Benefit
Baseline	15.20	Capacity improved of public sector to manage priority fisheries and on the basis of timely, transparent and accurate information (FIS / dashboard)	Public sector capacity development on basis of shared experiences and common regional standards (Comoros, Mozambique and Tanzania)
With GEF Alternative	21.62	Baseline data collection and analysis and surveillance capacity also strengthened	Improved data collection and reporting for coastal fisheries catch and effort, esp. juveniles of large pelagic species in all countries; EAF management plans are better developed/ updated/ implemented; law enforced; regional coordination and agreed approach (component 1) implemented at national level based on the subsidiarity principle
Incremental	6.42		



Component 3. Strengthening capacities for engagement in alternative fishing practices and livelihoods activities			
Cost category	USD million	National benefit	Global Benefit
Baseline	44.80	Better acceptance and adherence to the fisheries management plans by targeted communities and private sector operators. Their technical and business development capacities are improved	EAF management plans are better implemented and more effective.
With GEF Alternative	44.80		
Incremental	0.0		

Component 4. Project management and coordination			
Cost category	USD million	National benefit	Global Benefit
Baseline	6.80	Efficient project management	Coordinated implementation
With GEF Alternative	6.80		
Incremental	0.00		