Management and Functional Review

of the

Ministry of Fisheries and Agriculture

Republic of Maldives

A Report produced as part of the
World Bank/GEF Oceans Partnerships Program
Bay of Bengal Project, 2015-2018

By
Bay of Bengal Programme Inter-Governmental
Organisation (BOBP-IGO), Chennai

June 2017

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ABBREVIATIONS AND ACRONYMS

ABNJ	Areas Beyond National Jurisdiction
BOBP-IGO	Bay of Bengal Programme Inter-Governmental Organisation
CS	Coastal States
CSC	Civil Service Commission
DWFN	Distant Water Fishing Nations
EEZ	Exclusive Economic Zone
FAO	Food and Agriculture Organization of the United Nations
FIS	Fisheries Information System
FMS	Fisheries Management System
GDP	Gross Domestic Product
GEF	Global Environment Fund
IBP	International Best Practice
IO	Indian Ocean
IOTC	Indian Ocean Tuna Commission
IPNLF	International Pole and Line Foundation
IT	Information Technology
IUU	Illegal, Unreported and Unregulated Fishing
LFA	Logical Framework Approach
MCS	Monitoring, Control and Surveillance
MEY	Maximum Sustainable Yield
MFR	Management and Functional Review
MIFCO	Maldives Industrial Fisheries Company
MMA	Maldives Monetary Authority
MNDF	Maldives National Defense Force
MoFA	Ministry of Fisheries and Agriculture, Republic of Maldives
MRC	Marine Research Centre, Maldives
MSY	Maximum Sustainable Yield
MVR	Maldives Rufiyaa
NBS	National Bureau of Statistics
OA	Open Access
OPP	Ocean Partnerships Programme
OVI	Objectively Verifiable Indicator
PIU	Project Implementation Unit
RFMO	Regional Fisheries Management Organisation
SKJ	Skipjack tuna
SWOT	Strengths, Weaknesses, Opportunities and Threats
USD	United States Dollar
WP	Work-plan
YFT	Yellowfin tuna

CURRENCY	Maldives Rufiyaa (MVR) 1 = United States Dollar (USD) 15.42 (May 2017)

EXECUTIVE SUMMARY

Management and Functional Review – Ministry of Fisheries and Agriculture (MoFA), Republic of Maldives

Background

This report presents the results of a 'Management and Functional Review (MFR)' of the Ministry of Fisheries and Agriculture (MoFA) of the Republic of Maldives (Fig.1). The opportunity to undertake this assignment was discussed, and agreed, originally with Dr Mohamed Shainee, Honourable Minister for Fisheries and Agriculture (MoFA), the Republic of Maldives, and his senior staff, during a visit to Malé, in June 2016, made by Dr Y S Yadava, Director, and a technical team, from the Bay of Bengal Programme Inter-Governmental Organisation (BOBP-IGO). The MFR was commenced in December 2016, as part of the World Bank/GEF-funded Oceans Partnership Program – Bay of Bengal (OPP-BOB) Regional Project.

Objectives

The primary objectives of the MFR were to review the current mandate, functions and processes of the MoFA, with particular reference to the fisheries sector, to identify any gaps and opportunities to enhance the current arrangements, and to propose a set of capacity-building interventions, including a road-map, for the future. Particular attention was given to the policy and legislative framework, to fisheries management at a national level, to the promotion of sustainable value chains, and to regional and international obligations.

Fig. (1). Map of Indian Ocean Region Showing Maldives

Methodology

The MFR methodology consisted of a series of phases (Fisheries Sector Review, Organisation and Structural Review, Function and Process Review, and Synthesis Report) (Table (1) and *(Annex 1)*. Relevant data and information were collected using a combination of techniques (official statistics, key interviews, group discussions), and involving staff of the MoFA, other relevant government ministries, and key stakeholders (fishermen and associated non-government organisations (NGO), public and private sector organisations and firms involved in fishing, processing and exporting) *(Annex 2)*. The design and implementation of the MFR recognised the importance of emerging international best practice

Table (1) MFR – Methodology
• Review the current mandate, functions and processes. • Sector review and analysis. • Organisational and structural review. • Function and processes review. • Production of synthesis report. • Programme/Roadmap for future institutional strengthening & capacity-building.
Source: Annex 1

in fisheries management, the experience of other countries in the region, and lessons from other small island states *(Annex 1)*.

Key Issues and Challenges

[1] What is the current status and performance of the Maldivian fisheries sector?

1.1. The fish resources of Maldives, dominated by tuna (skipjack (SKJ) and yellowfin (YFT)), have a potential economic capitalised value of at least USD 714 million, with an annual economic return of USD 50 million (@7%), based on past assessments (although the current value could be much higher and needs to be updated) (Table 2 & *Annex 6*).

The MoFA is mandated to ensure that the Maldives benefits from fisheries exploitation on a productive and sustainable basis. The national fisheries policy (Table 3) and fisheries law have both been revised in the past year, with positive changes to both documents, in line with international best practice (IBP), especially where the development of a fisheries management planning process is concerned *(Annex 4)*. Further work is now needed to complete and formalise both the policy and legal framework, to provide a sound foundation for future sectoral investment and development.

Table (2) Maldives Fisheries Sector – basic profile

Overview

- Fish stocks - Potential capitalised economic value: USD 714 million.
- Potential annual economic rent: USD 50 million.
- Current landings: 125,000 mt.
- Current annual economic rent generated: unknown.
- Main catch: skipjack, yellowfin tuna.
- Export value: USD 163 million (65,590 mt).
- GDP contribution: 1-2% total (recent decline from 2-3%).
- Fleet size: 825 (mechanised coastal vessels) + 28 longliners.
- Employment: 9,554 fishermen.

Key fisheries issues

- Fisheries is the second most important sector (after tourism) in the economy.
- Important source of employment.
- High economic value (potential).
- Recent MCS eco-labelling (pole and line fishery).
- Recent rise in yellowfin handline fishery.
- Mainly coastal fisheries, with FAD.
- No foreign operators within EEZ.
- Limited management, MCS systems, regulated open access (OA) dominates.
- Tuna (YFT, SKJ) are highly migratory, shared stocks.
- Maldives active member of the IOTC (RFMO).
- Increasing concerns over future tuna management at regional level (YFT and SKJ at/or near MSY).

Source: Annex 4

1.2. In common with many other countries, the fisheries sector in Maldives is characterised by a range of strengths and weaknesses, and a mixture of policy implementation outcomes (economic, social and environmental) (Table (2), *Annex 4 and Annex 5*). While the total tuna landings have declined in recent years (from 167,000 MT to 125, 000 MT between 2006 and 2014), the overall annual value of tuna exports has increased to USD 163 million, coinciding with Marine Stewardship Council (MSC) certification and product labelling for the pole-and-line skipjack fishery, and the growth in a valuable international trade in hand-lined yellowfin tuna, especially as fresh chilled products to Europe, Japan and North America.

Table (3) Maldives – Fisheries Policy – Objective

"To manage and develop the tuna fisheries sector of the Maldives sustainably in order to sustain and improve the overall contribution to the economy with the aim of maintaining equitable wealth distribution, creating job opportunities for the youth, and a stable domestic supply of safe animal protein".

Source: MoFA – Policy Document (2016)

Although the GDP contribution of the sector remains high (in absolute value terms), it has declined overall as a percentage of the total GDP (to 1-2%), due to further growth in the now more dominant and expanding tourism sector. Although it is recognised that the fish resources within the Maldives EEZ have a high potential economic value (under sound management and a favourable economy), the actual level of economic rent being generated at present is unknown.

However, the current operation of most fisheries, under regulated open access conditions, probably means that little or no economic rent is being realised, suggesting that the payoff to improved (or reformed) fisheries management systems could be large.

Environmental outcomes are considered to be good for the tuna fisheries – and as part of the wider Indian Ocean fisheries for skipjack and yellowfin (according to the Indian Ocean Tuna Commission, IOTC) – both stocks are exploited close to the estimated Maximum Sustainable Yield (MSY) levels. There are concerns for the status of exploitation of the reef fisheries, with increasing pressure from local fishing operations and increasing demand from tourist resorts, and also bait fish fisheries (harvested for the tuna pole-and-line operations).

In terms of social outcomes, fishing is a major source of local employment and community stability, especially in the outer islands and atolls. However, total employment in fishing has declined in recent years, while the post-harvest sector has been boosted by foreign labour *(Annex 7)*.

[2] What are the characteristics of the MoFA Functions, Processes and Structure?

2.1. The MoFA functions and processes, along with its overall structure, are largely coherent with international best practice (IBP) for a fisheries ministry (albeit the MoFA also focuses on agriculture) (Table 4) *(Annex 8 and Annex 9)*. There is a clear mandate and vision, which focuses on the development and management of productive and sustainable fisheries. It is evident that the MoFA (Fisheries Division) addresses key functions, especially fisheries management, along with supporting services such as registration, regulation, compliance,

and research. Other functions and services address infrastructure, training and extension, and administration.

The Fisheries Division is also supported by corporate services including office administration, budget and finance, policy and coordination, and human resources. The activities of all directorates and staff are guided by agreed work-plans and key performance indicators (KPI). Performance is measured using activity completion and expenditure level indicators. In terms of international relationships and commitments, senior staff of the MoFA have, in particular, been active members of the IOTC, since the Maldives became a full member (contracting party) in 2011.

2.2. While the MoFA arrangements are generally satisfactory with respect to IBP, there are a number of areas which might need attention in the future. First, there is no dedicated Fisheries Policy/Strategy Sub-Division or a Fish Quality Sub-Division. While the associated functions and services may be handled adequately within the existing arrangements at present, the demands of an expanding fisheries sector and industry, with a larger international export trade in the future, may require some further organisational development. Furthermore, the Fisheries Management and Compliance Sub-Divisions show considerable overlap, at present, exposing them to the risk of a conflict of interest in their operations. A clear separation of these functions would be advisable in the future.

Table (4): MoFA – Current organisation (2016)

Minister
State, Deputy Ministers
Permanent Secretary
Ministers Bureau

Fisheries Division:

- Fisheries management
- Fisheries Compliance
- Fisheries Logistics & Administration
- Fisheries Training, Extension & Promotion
- Fisheries Infrastructure Development
- Marine Research Centre

Administrative Division:

- Office Administration
- Budget & Finance
- Policy & Coordination
- Human Resources

Source: Annex 1, Annex 8 and Annex 9

Table (5): MoFA Budget & Financial Indicators

Overview

- Annual budget (5 year mean): USD 4.13 million
- Current budget (2016): USD 3.34 million
- Recurrent costs: 77% of total budget
- Capital costs: 23% of total budget

Ratio of cost of fisheries management: landed value (USD)

New Zealand: 17 %
Norway: 16 %
Maldives: 0.49 %

Cost of fisheries management per tonne landed fish: (USD)

New Zealand: 187
Norway: 127
Maldives: 16

Source: Annex 10; OECD (2015)

[3] What are the financing and budgetary arrangements for MoFA?

3.1. Based on information provided by the MoFA, the current annual budget of the MoFA is MVR 51.53 million (or USD 3.34 million) (total for the fisheries, agriculture and administrative divisions) including both capital and recurrent costs (Table 5) *(Annex 10)*. The average annual budget over the past five years was MVR 63.65 (or USD 4.13 million), or some 20 percent higher than the current annual level (confirmed by the Bureau of National Statistics). For the year 2015, the ratio between recurrent and capital costs (as a percentage of total expenditure) was 77 percent to 23 percent. Staff costs make up the largest single component (63%) of recurrent expenditure.

3.2. The level of annual funding for the MoFA (fisheries, agriculture and administrative) of USD 4.13 million (on average) is relatively low compared to other countries, based on

comparative data provided by the Organisation of Economic Cooperation and Development (OECD). For the Maldives, the ratio of the cost of fisheries management to landed fish value is 0.49% and the cost of fisheries management is USD 16 per tonne of landed fish. For countries such as New Zealand and Norway – with well-developed fisheries management systems and productive fisheries – the annual investment in public (economic) services for the fisheries sector is significantly larger (in relative terms), and estimated to be between 1.5 and 12 times more than Maldives. Although this is a preliminary assessment, it does indicate that investment in key public functions and services for the fisheries sector, by the government of Maldives, is relatively low.

[4] What are the current staffing arrangements and staff quality levels in the MoFA?

4.1. The MoFA has over 217 staff posts sanctioned by government, and 73 percent of the posts are filled at present (Fig.3) *(Annex 14)*. In terms of the overall level of 'vacant' posts (*i.e.* sanctioned but not filled) within the MoFA, the Fisheries Division ranks highest (20 vacant posts, or 34% of total staff vacancies).

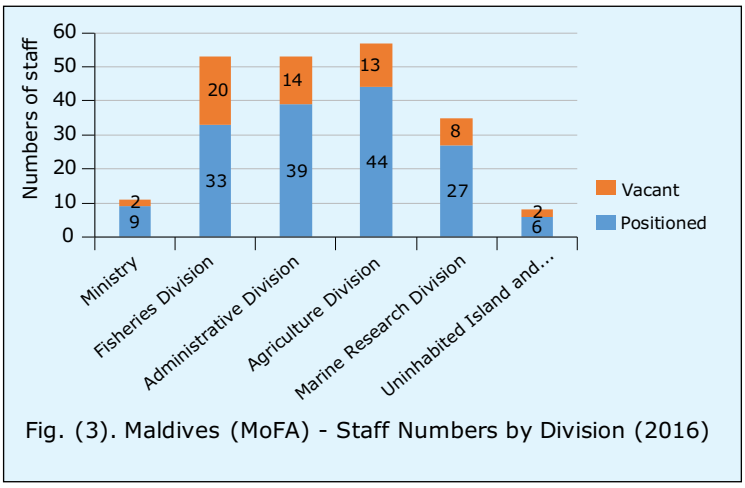


Fig. (3). Maldives (MoFA) - Staff Numbers by Division (2016)

4.2. An examination of the 61 staff in the Fisheries Division and the associated Marine Research Centre (MRC), revealed that over 55 percent of staff occupied middle (General Staff or GS) to lower posts (Support Staff or SS) (Fig. 4). The total number of staff with a first degree was 19, and the majority were research staff in the MRC. The remaining staff possessed school level qualifications (O/A levels) or diplomas. Overall, there is a lack of senior staff (at Executive Post or EX-1 level and above), with high level training in the Fisheries Division and in the MRC.

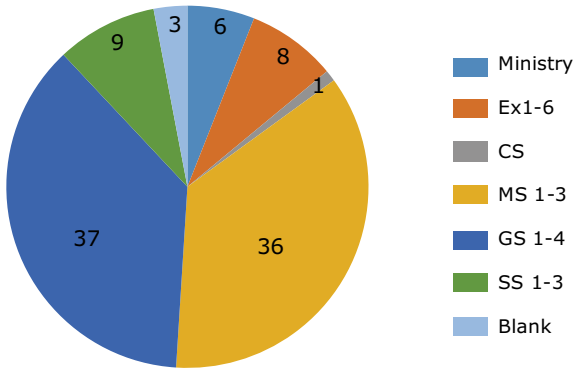


Fig. (4). Maldives - MoFA - Staff Composition (%) by Employment Grade (2016)

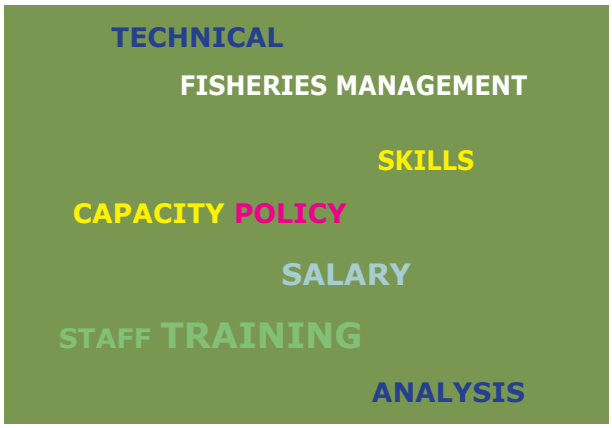
[5] What are the current opportunities for staff development and training in the MoFA?

5.1. Based on the key interviews and supporting documents, a dedicated human resources development strategy and implementation process focusing on both the specialist and non-specialist skills required by an effective public fisheries administration appears to be lacking *(Annex 11)*. The Maldives Civil Service Commission operates a very general process for all ministry staff covering recruitment, general oversight, post/grade definition, conditions of service and performance assessment. However, the arrangements appear not to be adequate for a specialist fisheries division and supporting administration dealing with an increasingly commercial and international trade-oriented production sector. The overall impact is being felt in a number of ways – many staff appear to lack a clear career development pathway, there is a lack of training opportunities at all levels, staff are concerned about salary levels (compared to the cost of living in Malé city) and the

general lack of incentives, in terms of salary increments and opportunities for promotion and training.

5.2. Interviews conducted with a wide range of the MoFA staff, as well other fisheries stakeholders, confirmed and highlighted the issues raised above *(Annex 12 and Annex 13)*. It was also concluded that some staff lack motivation in their current posts, with many lower level staff (GS and SS levels) actively seeking alternative employment opportunities.

Fig. (5) MoFA Staff Interview Results - Priorities for Institutional Strengthening – 'Word Cloud'



Source: Annex 13

At the same time, there are undoubtedly many dedicated and hard-working staff, and a number of key individuals, who are sufficiently well-qualified and experienced, to operate and maintain some of the key functions and services which the MoFA must provide for the fisheries sector. However, the current staffing and organisational arrangements, unless improved in the near future, will carry a high degree of risk for the MoFA, in terms of its ability to continue to deliver relevant and high quality services to the fisheries sector.

The results of interviews conducted with a wide range of staff in the MoFA have been used as a key input to guide the design of a proposed future institutional strengthening and capacity-building programme (below). Some of the priorities identified by staff are shown in the 'word cloud' (Fig.5). 'Training' in general was the top priority, with technical areas such as 'fisheries management', 'analysis' (skills), and 'policy' also given a high rating (the Word Cloud is built upon an analysis of the frequency of use of terms).

Recommendations for Institutional Strengthening and Capacity-Building

The results of the Management and Functional Review (MFR) conducted in the Maldives for the MoFA, with a specific focus on the fisheries sector, have helped to identify a set of key issues and challenges (above). The following recommendations are made for future institutional strengthening and capacity-building:

1. The national **fisheries policy and legal framework** should be further strengthened in line with IBP, and then formalised by the government.

2. The option of creating a **new sub-directorate** for fisheries policy and strategy development, along with one for fish quality management, within the existing MoFA structure should be considered. Furthermore, the functions and processes relating to fisheries management and compliance should be separated, and clear boundaries and lines of decision-making established.

3. A **system for the assessment of fisheries policy performance** should be established, using a standardised methodology. The results should be reported to policy-makers and managers on a regular basis to assist policy planning and decision-making.

4. An overall **strategic plan, along with an implementation plan**, for the MoFA concerning the fisheries sector, should be elaborated, with a full range of KPI. In addition to the current KPI (activities completed and budget expenditure), indicators

relating to economic, social and environmental outcomes, as defined by the national fisheries policy, should be considered.

5. The **cost of upgrading** the services provided and re-structuring the MoFA, in line with the recommendations above, will need to be further assessed in the future. The current average annual budget of USD 4 million appears to be inadequate for the existing arrangements.

6. The **'business case' for investing** in the MoFA in order to improve the productivity and performance of the fisheries sector should be examined. This could include a comparison with the experiences of other countries, and taking account of alternative funding mechanisms, such as an industry levy and a cost recovery scheme.

7. The **number of staff** required by the MoFA to adequately provide the key functions and services, in relation to policy and strategy goals, will have to be reviewed, and assessed, and included in any future plans for expanding and strengthening the organisation.

8. The overall **quality of the staff** in the MoFA should be upgraded, in order to form the basis for an effective organisation capable of delivering high quality services.

9. A **human resources development strategy** for the MoFA should be designed and implemented, including a range of relevant training options at different levels, and in key areas.

10. The MoFA human resources development strategy should consider the **basic conditions of service**, contracts, and pay-scales relative to other sectors in Malé, and aim to attract, retain and incentivise the best staff possible, in order to secure the long-term future of Maldives fisheries sector.

***

Proposed future approach to the institutional strengthening and capacity-building for the MoFA – Programme and Roadmap (Year 1- 5)

A proposed programme to address the institutional strengthening and capacity-building needs and priorities for the MoFA (above) over the next 5 years has been developed, in the form of a logical framework approach (LFA) (summary shown in Table 6). The LFA shows the relationship between the national fisheries policy, the MoFA and a proposed programme of interventions and actions to strengthen the operation of the MoFA, with regards to its core functions and services, and associated structure.

In addition, a Gantt Chart has been attached to the LFA (right-hand side) to show the proposed scheduling of key interventions over 5 years. This forms the basis of an implementation 'road-map'.

It is estimated that the implementation of this proposed programme of institutional strengthening and capacity-building, over 5 years, in the first instance, would require a budget of approximately USD 2-4 million per year.

The resulting upgrading of the MoFA – capable of operating a full range of functions and services – will also lead to an increase in the number and quality of its staff (with additional recurrent costs in the future). A preliminary assessment of staffing needs across all grades suggests that total staff numbers would need to increase by at least 49 percent (Table 7).

It is estimated that the MoFA would, therefore, need a budget of some of USD 8 million per year. This would certainly be in line, proportionately, with the cost of fisheries services, provided by other countries, based on the best available data currently available.

Clearly, as part of any future planning exercise for institutional development and capacity-building for the MoFA in the Maldives, a precise investment appraisal and budgeting exercise will be needed.

Conclusions

The MFR study has highlighted that the fish resources of the Maldives are highly valuable (with a capitalised economic value of USD 714 million) and capable of generating a significant level of economic benefits (USD 50 million per annum @7%) on a sustainable basis, with effective fisheries management systems and suitable economic conditions.

The current operation of most fisheries in the Maldives under regulated open access conditions probably means that little or none of this wealth is being generated.

The establishment of effective fisheries management systems in the Maldives would require investment in the MoFA – to strengthen the institutional arrangements and to build institutional capacity.

The MFR assessment indicates that a budget of USD 2-4 million per year over 5 years (a total of USD 10- 20 million) would be required to achieve the required institutional strengthening and capacity-building.

Therefore, overall, the potential pay-off, in terms of economic benefits, from this investment, based on the available data and information, could be large, and of great significance for the Maldives in the future.

Table (6). SUMMARY Logical Framework Approach for Institutional Strengthening and Capacity-building for the MoFA						
	Narrative	**Year**				
		1	2	3	4	5
Supra-Goal	Fisheries policy is implemented successfully.	Increased performance ⇒				
Goal	Increased effectiveness and performance of the MoFA (specifically fisheries divisions).	Increased effectiveness ⇒				
Purpose	To strengthen functions/services and structures for fisheries development and management.	Increased strength ⇒				
Inputs/ Outputs	[1] Assessment					
	[2] Strategise and plan.					
	[3] Implementation of reforms and capacity-building.					
	3.1. Fisheries Policy and Fisheries Law strengthened, aligned.					
	3.2. MoFA Vision and Mandate, Strategic Plan implemented.					
	3.3. MoFA Functions and Services – capacity building.					
	3.3.1. Fisheries Policy and Planning.					
	3.3.2. Fisheries/Aquaculture Administration.					
	3.3.3. Fisheries Services.					
	3.3.4. Corporate & Support.					
	3.4. Structural reform.					
	3.5. Finance and investment planned and secured.					
	3.6. Human resources planned and secured.					
	3.7. Infrastructure/Technical upgraded.					
	[4] Monitoring & Evaluation in operation.					
	KEY		High priority action			
			Medium			
			Standard			

Table 7. Maldives – MoFA - Comparison of Current Staff (in post) and Future Needs (By Grade)

Functions/Services	**Current**					**Future Requirements**					**Changes (+/-)**				
Staff Grade	**EX**	**MS**	**GS**	**SS**	**Total**	**EX**	**MS**	**GS**	**SS**	**Total**	**EX**	**MS**	**GS**	**SS**	**Total**
Fisheries Policy & Planning	0	0	0	0	0	2	3	7	2	14	2	3	7	2	14
Fisheries/Aquaculture Administration	1	3	9	0	13	2	4	9	1	16	1	1	0	1	3
Fisheries Services	8	15	18	7	48	12	19	23	15	69	4	4	5	8	21
Total	9	18	0	7	61	16	26	39	18	99	7	8	12	11	38
% Change															62
Corporate/Support Services					39					50					11
Grand Total					100					149					49
% Change															49

1. INTRODUCTION

The fisheries sector is an important part of the economy of the Republic of Maldives (Fig.1.1) contributing over 2 percent of national Gross Domestic Production (valued at USD 68 million, based on current prices, ADB, 2016). The current annual fish landings (125,000 tonnes) (Fig. 1.2), composed largely of skipjack (SJK) and yellowfin tuna (YFT), underpin a wide range of private sector enterprises and firms involved in fishing, fish processing and fish trade, along with ancillary services (*e.g.* equipment provisions and servicing). This ranges from small-scale operations supplying local markets, up to large-scale integrated operations using large modern fishing vessels, and state-of-the-art fish processing and export facilities.

The Maldives has a growing international export trade in tuna products (valued at USD 160 million in 2016). Fresh products, such as chilled yellowfin tuna loins, with a high unit value, are exported to markets in Europe, USA and Japan. Tuna is also exported in other processed forms, including the locally-produced traditional smoked 'Maldives Fish' (mainly to Sri Lanka), whole frozen skipjack and yellowfin (mainly to Thailand) and canned tuna (Europe, USA). More recently, the pole and line fishery for skipjack has been certified by the Marine Stewardship Council (MSC), and the use of the MSC label has helped to promote and market the associated tuna products.

Moreover, the fisheries sector in Maldives is also valued as an important source of employment, particularly in the atolls and islands, which have relatively few alternative economic activities. Fishing has always been a traditional occupation, and the growth and expansion of the sector in general, in response to international market demand for tuna, has opened up new opportunities for those involved.

However, the rapid expansion of the fisheries sector in the Maldives has also presented a range of challenges. Perhaps the most significant of these is to ensure that the tuna fisheries and the associated flow of valuable benefits (economic, social and environmental) are both productive and sustainable into the future.

Based on experiences from other parts of the world, it is well-known that fisheries are highly vulnerable to economic and biological overexploitation, leading to a significant reduction of net benefits over time. Indeed, a fisheries sector, which has not been well managed, can become a drain on national financial resources, with an implied opportunity cost for investment in other sectors of the economy.

Although yellowfin and skipjack tend to show a high degree of resilience to increasing fishing pressure, there are growing concerns about these ocean fish stocks. In the case of the Indian Ocean, tuna fisheries management is the responsibility of the Indian Ocean Tuna Commission (IOTC), with 31 contracting member-countries, including the Maldives (2011). Ultimately, the ability of the IOTC to implement a successful approach to tuna fisheries management depends on the institutional capacity of its members and their ability to participate in relevant schemes and actions.

In this context, therefore, the current study – a Management and Functional Review (MFR) - examined the status and performance of the lead public institution responsible for fisheries in the Maldives - the Ministry for Fisheries and Agriculture (MoFA) - and in light of the results, considered how it might be strengthened in the future, through appropriate reform and capacity-building.

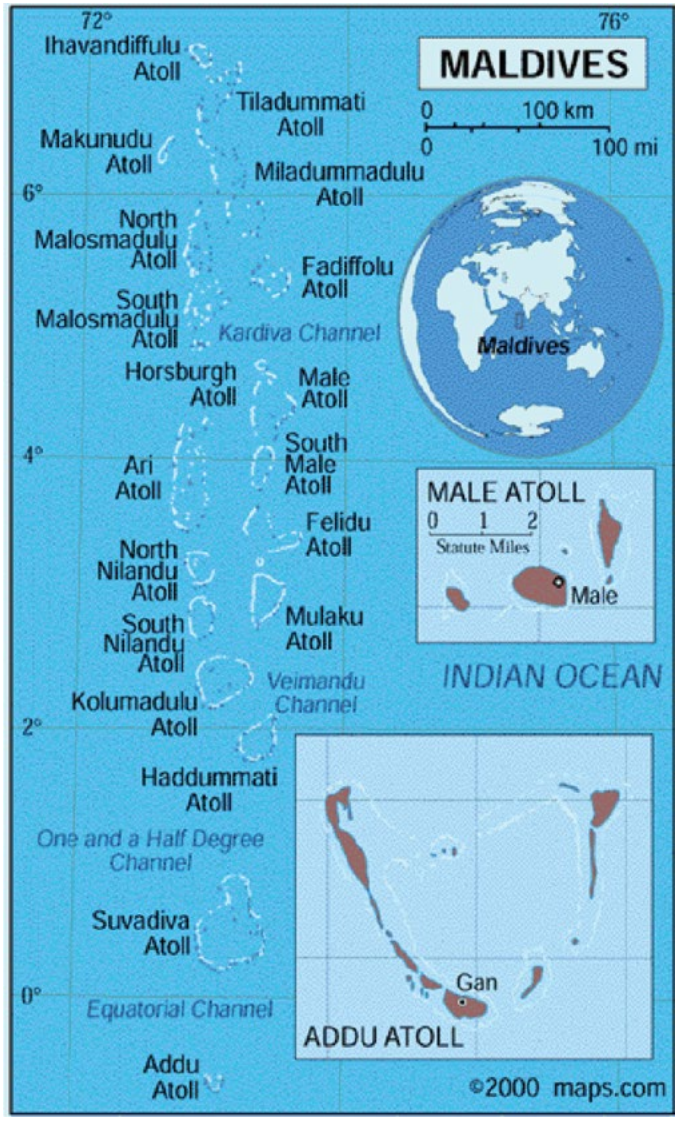


Fig.1.1. Map of the Maldives

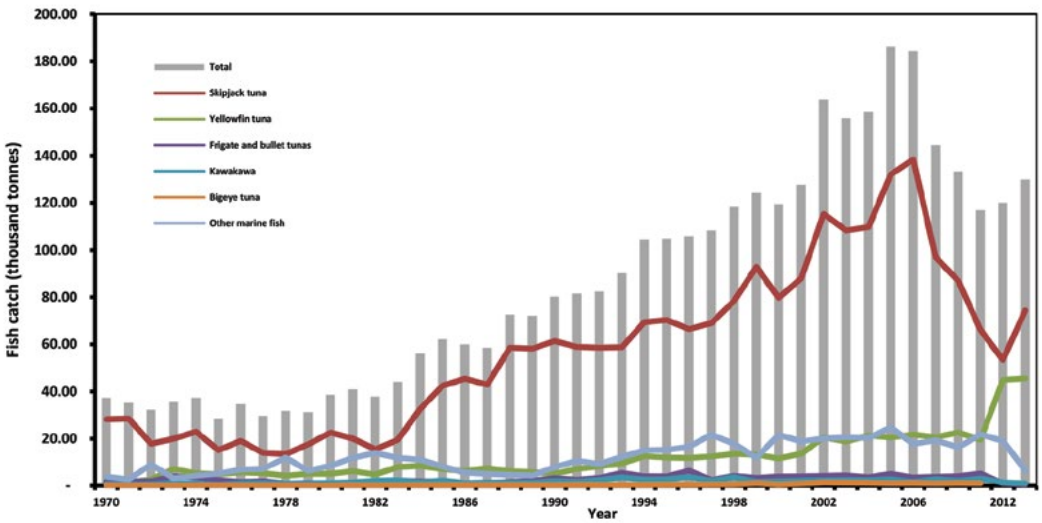


Fig. 1.2. Maldives – Fish Landings (1970 – 2014) (M0FA)

2. STUDY OBJECTIVES

The primary objectives of the MFR include:

- To review the current mandate, functions and processes of the MoFA, with particular reference to the fisheries sector, and
- To identify any gaps and opportunities to enhance the current arrangements, and
- To propose a set of capacity-building interventions, including a road-map, for the future.

Furthermore, in addressing these key objectives, the study would pay particular attention to the quality and relevance of the policy and legislative framework, to the performance of fisheries management at a national level, to the mechanisms underpinning the promotion of sustainable value chains, and to the factors affecting the attainment of regional and international obligations, with special reference to the IOTC.

3. STUDY METHODOLOGY

The MFR study methodology is presented in detail in *Annex 1*. The study commenced on 1 November 2016, with the design of the MFR methodology. The study team then travelled to the Maldives in December 2016 for an implementation phase. Following a further period of information and data analysis, and liaison with the MoFA, and then exchange of data and information, the final report was completed in June 2017.

With reference to the study objectives, the MFR methodology consisted of four phases as follows:

- Fisheries Sector Review,
- Organisation Review,
- Function and Process Review, and
- Synthesis Report.

Relevant data and information were collected using a combination of techniques (official statistics, key interviews, group discussions), involving staff of the MoFA, other relevant government ministries, and key stakeholders (fishermen and associated NGO, public and private sector organisations and firms involved in fishing, processing and exporting) *(Annex 2)*. The design and implementation of the MFR recognised the importance of fisheries management, the recent experience of other countries in the region, and lessons from small island states in general.

Emphasis was also given to international best practice in fisheries policy and management, based on increasing empirical evidence, which shows that successful fisheries are underpinned by appropriate institutional arrangements (World Bank, 2010). This means that, in the public sector, attention should be focused, in particular, on the functions and processes of the lead government ministry, along with its resultant structure, and a clear definition of roles and responsibilities in relation to other stakeholders (resource-users), with particular reference to fisheries management planning and implementation.

The MFR for the Maldives aimed, therefore, to examine the current institutional arrangements, and to identify where appropriate adjustments and strengthening could be targeted, with particular reference to the role and operation of the Ministry of Fisheries and Agriculture (MoFA)[1]. The final synthesis report (herein) presents the key findings and recommendations, with a set of supporting appendices providing relevant background information and template results concerning sector profiling, issue analysis, and organisational arrangements and performance.

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1 *The study will also draw upon an earlier report by the World Bank (2007) "Maldives Marine Fisheries – Laying a Foundation for Future Success" in order to further progress the implementation of some of the key interventions relating to institutional reforms which were identified.*

4. KEY RESULTS

4.1 Fisheries Sector Review

4.1.1 Introduction

In the following sub-section, the key features of the fisheries sector in the Maldives will be presented and reviewed, in order to provide an underpinning to the institutional analysis which follows. To start, a basic fisheries profiling template is used to summarise the multiple disciplinary characteristics. Thereafter, the policy and legislative framework is described and analysed, before examining the major issues and trends using a Strengths-Weakness-Opportunities-Threats (SWOT) analysis.

4.1.2 Sector Profile

The main features and characteristics of the fisheries sector in the Maldives are shown in *Annex 4*. The wider national context is summarised in *Annex 3*.

The Maldives extend for 840 km along the 73°E longitude, from 8°N to 1°S and have a total land area of around 300 sq. km, with an Exclusive Economic Zone (EEZ) of over 900,000 sq. km. The land area consists of a long chain of low–lying coral island atolls, along an ocean ridge. Within the EEZ, oceanic tuna (mainly skipjack and yellowfin) form part of the wider Indian Ocean (IO) stocks, along with inshore neritic tunas (*e.g.* kawakawa, frigate). Reef fisheries are important locally.

Current landings of tuna are estimated to be 125,000 MT, compared to peak landings of 167,000 MT in 2006. The catch is composed of skipjack (70,000 t, 2015, 55% total), yellowfin (52,000 t, 2015, 42% total) and some bigeye (3-4% of total). Neritic tuna (980 MT) landings are minor. Total fishing effort, measured in "fishing days", has been declining (mainly in the skipjack pole and line fishery with increasing vessel size and decreasing catch, and the recent switch to handlining operations for yellowfin).

With an increase in socio-economic benefits from the tourism sector, along with the improved air and sea transportation, reef fisheries have expanded, both for export and local consumption. At present reef-associated demersal species are heavily exploited by tourists, recreational anglers and industrial fishers targeting the export market. Although aquaculture is a well-established industry in the Asian region, the Maldivian aquaculture industry is still in its infancy. Establishment of aquaculture is now a government priority.

Four fishery types are recognised: (i) Live-bait pole and line fishery for skipjack (coastal with anchored Fish Aggregating Devices, FAD); (ii) Handline yellowfin fishery; (iii) Longline fishery (>100 miles, outer EEZ by law, highly regulated, only 28 domestic vessels); and (iv) Troll fishery for kawakawa and frigate tuna (small fishery). There are 825 domestic mechanised vessels, which undertake trips of 10-14 days. The pole and line fishery operates in the vicinity of the South atolls, whereas the North and Central atolls feature the handline fishery.

Regarding trade in commodities, Maldives exported some 65,590 MT of fish, valued at USD 163.24 million (2013). Pole and line caught tuna is certified and carries the eco-label of the Marine Stewardship Council (MSC). This has increased the demand for Maldivian tuna products and also raised the prices of these sustainable products. There are over 10 EU-certified fresh-packing facilities in the Maldives. There are two canning plants and additional pouching plants catering to the increase in demand for fisheries products.

The potential economic value of fish stocks in the Maldives has been estimated at USD 714 million *(Annex 6)*. This represents the derived capitalised value capable of generating economic rent of USD 50 million per year (assuming a return of 7% per annum). This estimation was made in 2008, and it seems likely, that today's value, could be even higher. The current economic contribution of the fisheries sector has also been estimated at between 1 and 3 percent GDP (tourism has recently emerged as the most important sector), but the true value could be much higher and needs further investigation.

In terms of economic impact, up until 1980, the tuna fishery was the mainstay of the Maldives, providing employment and food supply *(Annex 7)*. Tuna fishing is still considered to be the most important economic activity on the outer islands. There are 9,554 fishermen (2013) distributed throughout the Maldives. Apart from the fishermen who are involved in harvesting fish, women are involved in the production of dried or smoked fish (commonly known as 'Maldive Fish'), mainly for export.

With regards to policy and institutional arrangements, and key organizations, first, the Fisheries Act (Act No.: 5/87), empowers the Ministry of Fisheries and Agriculture (MoFA) to establish and administer regulations for sustainable utilization and conservation of fisheries stocks and living marine resources, including protecting threatened species and establishing conservation areas. Second, the Coast Guard section of the Maldives National Defense Force (MNDF) is in charge of the surveillance, monitoring and enforcement within the EEZ. Third, in addition, there are various other institutions involved, either directly or indirectly, in the fisheries sector. They play an important role in their respective areas of responsibility and have supportive functions in the sector. For example, the Maldives Customs Service – responsible for monitoring export fish trade and quality as well as the trans-shipments by foreign fishing vessels, and the Ministry of Health – responsible for inspection for food safety and for meeting export quality standards. Fourth, there are currently 10 privately owned export facilities, with EU certification, along with two canning factories and a number of pouching plants. Maldives Industrial Fisheries Company (MIFCO) remains the most prominent public-private enterprise, which buys, collects, processes and exports tuna.

Finally, Maldives has made important progress in establishing some of the key building blocks for establishing viable fisheries management systems in the future. At an international level - Maldives became a full member of the IOTC in 2011. It is recognised that, given the highly migratory and trans-boundary nature of tuna stocks, a regional and cooperative approach between the fishing nations involved, is required to address the management opportunities and challenges involved. Maldives is an active member within IOTC, focusing on setting up conservation and management targets. At the present time, it is estimated that skipjack stocks are underexploited, and that yellowfin stocks are at risk from overexploitation. At the national level (with reference to the international and regional linkages) – the MoFA has been re-examining the national fisheries policy and law (below), focusing on developing fisheries management plans and fisheries systems for key fisheries (with some success for the longline fishery); establishing a 'licensing' system at a national level; strengthening information, monitoring and surveillance systems, and supporting various research initiatives. Many of these areas have also been relevant and aligned to regional commitments under the IOTC, with particular reference to the IOTC Scientific Committee and IOTC Compliance requirements. It is worth noting that the MoFA has collaborated with organisations such as the MSC, the International Pole and Line Foundation (IPNLF), the Bay of Bengal Programme Inter-Governmental Organisation (BOBP-IGO), INFOFISH and a number of other NGO and foreign private sector firms, in addressing specific issues and tasks regarding fisheries management.

4.1.3 Policy and Legislative Framework

Policy

The establishment of a sound fisheries policy and an appropriate fisheries law are fundamental requirements for any country which intends to exploit its fish resources in a sustainable and productive manner, and in doing so, to contribute to national development. The website of the MoFA (http://www.fishagri.gov.mv/index.php/en/) does not currently provide an updated fisheries policy or fishery law. However, the MoFA has made available a number of recent documents, to the study team, which indicate, clearly, that these critical areas have been the subject of recent scrutiny and development work.

The current 'Fisheries Policy' document (not dated), provided recently by the MoFA, shows a clear policy objective (Table 4.1) and coverage of a full range of relevant policy areas, which are coherent with IBP (footnote above).

Table 4.1. Republic of Maldives – Fisheries Policy Objective
"To manage and develop the tuna fisheries sector of the Maldives sustainably in order to sustain and improve the overall contribution to the economy with the aim of maintaining equitable wealth distribution, creating job opportunities for the youth, and a stable domestic supply of safe animal protein".
Source: MoFA document (not dated) (received on request, December 2016)

Two other related documents have also been made available by the MoFA. The first is the 'Strategic Action Plan of the Ministry of Fisheries and Agriculture 2014-2018 (Fisheries Sector)" (not dated). The Second is entitled 'Fisheries' (not dated). Both of these documents arise from the election manifesto pledges of the current government. An overview of the specific content is provided in *Annex 4*. Once again, many of the areas covered are highly relevant to the future development of the fisheries sector in Maldives, and are coherent, to a large extent, with the main fisheries policy objective.

In summary, therefore, with regards to the status and future development of the national fisheries policy in the Maldives, three issues appear to be important, as follows:

First, a single, well-defined and appropriate policy document must be put in place to underpin the future development and management of the fisheries sector the Maldives;

Second, the recent policy documents (at least three in number), which were made available from the MoFA, could be summarised, and aligned, to make one definitive document; while the overall coverage (in line with IBP) looks adequate, the production of a single document would need to ensure that all the major policy areas, relevant to Maldives, are adequately covered;

Third, the next step would be to formalise the new fisheries policy, through appropriate government processes.

Legal Framework

The major governing regulation is the Fisheries Act (Act No.: 5/87), which empowers the MoFA to establish and administer regulations for sustainable utilization and conservation of fisheries stocks and living marine resources, including protecting threatened species and establishing conservation areas. The Fisheries Act is supplemented by regulations, rules, and presidential decrees (further details in *Annex 4*).

More recently, a new "Draft Fisheries Bill of the Maldives 2015" has been produced with the assistance of the FAO. This Bill has seventeen sections *(Annex 4)*.

In terms of IBP, a fishery law should include a set of core elements, such as – a clear purpose statement, an assertion of national sovereign rights to the EEZ, definition of a process of decision-making under designated fisheries management systems, definition of transparent processes for specifying and authorizing defined fishing units, establishment of transparent and accountable processes for defining roles and responsibilities, with regards to management and rights, a process for setting Total Allowable Catch (TAC), and defining catch quota allocation and management measures, definition of enforcement procedures and penalties, definition of foreign ownership provisions, and provision for Public-Private Partnership Agreements.

A preliminary analysis of the new draft Fisheries Law for Maldives, allows us to draw a number of conclusions. In terms of positive aspects - first, the new draft law represents an important step forward (compared to the previous legal framework). Second, a broad range of areas are covered, which relate favourably to international 'best practice' (above). Third, the purpose of the law is clearly defined (and supported by a set of key principles). Fourth, there is a strong emphasis on fishery management systems (through fishery management plans). In terms of areas which need clarification and strengthening – first, the extent to which the law is coherent with the latest national fisheries policy should be re-examined. Second, the relationship between 'long-term conservation and sustainable use' objectives and the 'wealth-based' principles, and the implicit economic development pathways indicated, need further clarification. Third, the extent to which the law provides for active and useful involvement of a wide group of stakeholders (other than the MoFA) in fisheries management and development, through co-management and delegation. Fourth, the fisheries management process (in terms of setting TAC, defining quota and allocations, and fishing rights) requires further clarification. And, fifth, a further check is needed on whether the law is enabling, in terms of how fishermen and fishing companies could pursue their fishing operations (or is the law overly restrictive in nature). Particular attention should be paid to Part XI, which outlines basic obligations on post-harvest activities and trade, but provides no detail on specific regulations.

Final Remarks

Overall, therefore, the MoFA has taken a positive step forward, in recent years, in trying to both update and modernize the national fisheries policy and the fisheries law, in line with emerging opportunities and challenges facing the sector. It is evident that the new policy and the law are in line with IBP for fisheries management and development, but that documents appear to remain as a 'work in progress', and requires formalization (further clarity is needed on the process involved). Priority should be given to completing both documents, and ensuring alignment between the two, as well as with IBP. Completion of this task will provide a much-needed formal foundation for the future development of the fisheries sector in the Maldives.

4.1.4 Major Issues and Trends

The objective of this section is analyse the fisheries sector of the Maldives within a macro-economic context. The fisheries sector has always been an important part of the Maldivian economy (Table 4.2). The rapid transformation of Maldives from a newly independent under-developed country in the 1960s to that of a modern upper middle-income economy (World Bank, 2016) runs in parallel with the development of Maldivian fisheries sector in terms of technology and business organisation.

Much of the well-being of the country depends on its environmental performance. For fisheries, especially, a strong environmental performance is a necessary condition for its sustainability. The environmental performance index of Maldives for 2016 is estimated at 57.10 (Range: Finland – 90.68; Somalia – 27.66; Rank 137) (Hsu *et al*., 2016), indicating a moderate performance and similar to other countries in the South Asia region. However, the Maldives has consistently improved its environmental performance during the last decade.

As explained earlier, skipjack tuna continues to underpin the largest fishery in the Maldives, despite a recent dip in production. The yellowfin tuna fisheries have also been developing at a fast rate. However, unlike skipjack fisheries, which are considered to be in good health at a regional and oceanic level (IOTC, 2016), yellowfin tuna is considered to be at risk from over-exploitation (IOTC, 2016). Furthermore, yellowfin tuna is also major target species in neighbouring Sri Lanka. Nearby, India is also developing its tuna fishing capacity.

Climate is considered to be a major threat facing the Maldives. According to a recent report, up to 60 percent of corals reefs in Maldives are affected by bleaching during 2016[2]. The Indian Ocean is also the hottest ocean and the western Indian Ocean is the most rapidly warming region (Roxy *et al*., 2015). While there is no conclusive evidence, there is a credible hypothesis that increasing sea surface temperature will affect the distribution and abundance of tuna fisheries in a region.

The economic performance of the fisheries sector in the Maldives is variable. It is an important contributor to national economic development, drawing its strength from the accumulated local knowledge and skill in tuna fishing. However, over the years, the fisheries sector has slowly lost its position as the major contributor to the national economy. Although this is a natural process in economic development of any country as it is generally observed that with economic development the contribution of a primary sector will decline *vis-à-vis* industries and service sectors. One impact of this process is the declining attraction of the fisheries sector in terms of employment (Fig. 4.1). The statistics show that during the last decade, the number of registered fishermen in Maldives declined from about 14,000 to about 8,000. The share of sector in the national GDP has declined from 04 percent to 01 percent during the same period.

Improved access to higher education and improved educational outcomes during the last few decades have had major developmental impacts in the Maldives. The gross enrolment ratio (GER) in higher secondary level education increased seven times from 5.6 percent in 2001 to 35 percent in 2014. Increasing GER has both positive and negative implications for fisheries. On the positive side, improving human capital within the country can help support improvements in fisheries governance and management. However, this is also likely to cause out-migration from fisheries. Currently, the Maldives has a significant reliance on foreign workers for both skilled and unskilled labour. Improving education could lead to substitution of the skilled foreign workers with local workers.

The initial response to a lack of labour seems to be increasing size of the fishing craft. Foreigner workers are also increasingly aboard the fishing vessels. In terms of technology, so far labour intensive pole and line and hand line remains the major fishing method. Only recently, there is a promotion of tuna long line operations, which are less labour intensive.

2 *https://www.theguardian.com/environment/2016/aug/08/more-than-60-of-maldives-coral-reefs-hit-by-bleaching*

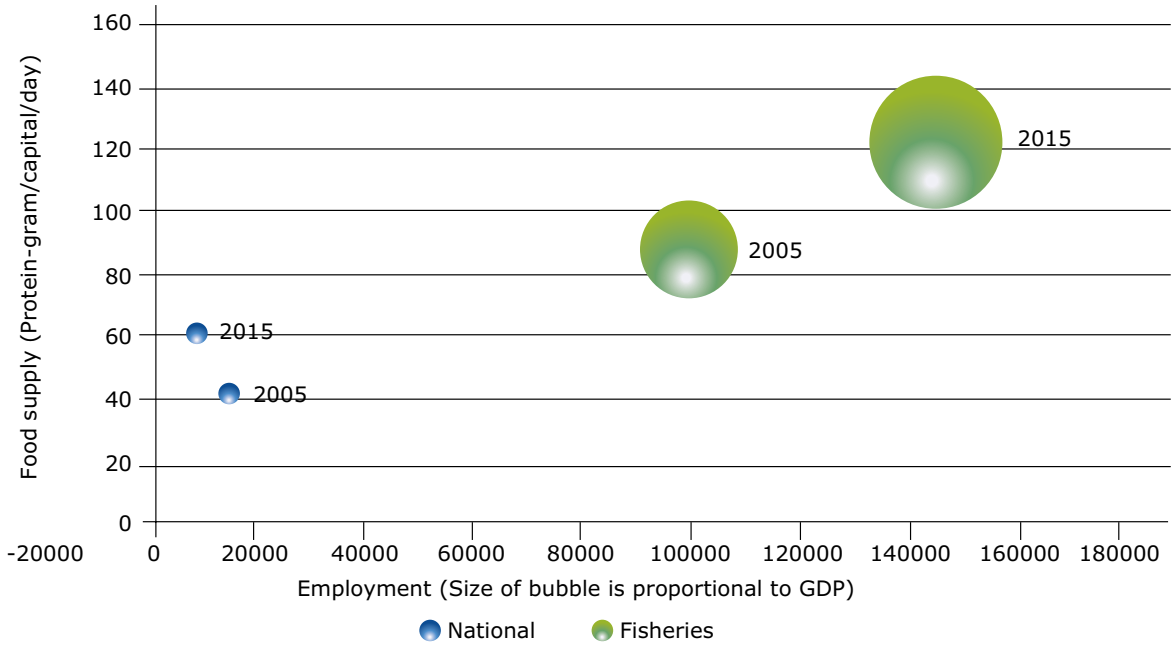


Fig. 4.1. Growing distance of fisheries sector with rest of the economy

Table 4.2 SWOT Matrix of Fisheries Sector in Maldives	
Strengths	**Weaknesses**
• Resource abundance and high economic value • Traditional knowledge with modern organization. • Growing economy – sustained domestic demand and flow of funds. • Established linkages with international market – sustained export. • Brand 'Maldives' – high international reputation. • Well-established commodity chain. • Above-average compensation – attractive. • Scope of specialization. • High awareness among the industry and senior government officials on international processes. • Comparatively small size – high level of familiarity between the government, private firms and fishermen. • Introduction of new technologies like aquaculture.	• "Brand Maldives" – pressure to main high standards • Policy process shows limitations (capacity to cope with rapid change; participatory decision-making is limited, organizational mandates overlap; implementation weaknesses). • Institutional limitations (policy and legal framework need formalising, lack of human capacity overall). • Fisheries management systems not fully developed or effective, to cope with evolving fisheries. • Emergence of export-oriented highly remunerative sub-sectors like yellowfin tuna handlining – uncertain impact on the largely egalitarian fishing community. • Bait fish problem. • Ageing fishermen population. • Lack of NGOs working in the fisheries sector
Opportunities	**Threats**
• Improving human capital – better organizational capacity. • Lack of competitive brands and growing consumer awareness in key markets for sustainable seafood. • Relaxed immigration policy – relative higher standard of living can be magnet for bringing workers from highly populated and relatively poor south Asia and SE Asia. • Increasing global norms on sustainability certification. • Affinity with multiple international governmental and non-governmental impact investors. • Large number of uninhabited islands – scope for developing aquaculture.	• Climate change – and its impact on tuna migration. • Development of tourism from resorts to home stays. • Over-exploited status of yellowfin tuna – the most valuable exported commodity in the region. • Increasing competition with neighbours over shared yellowfin stock. • IUU fishing. • Relatively low social status of fishermen. • Incorporation of non-fishery (*e.g.* political condition, working condition) conditions in fisheries trade.

Summing up, traditional labour intensive technologies are a main contributor in forming the "Brand Maldives"[3], which enjoys a high reputational status for its sustainable fishing. However, the current trend is of out-migration from fisheries. While a labour shortage can be dealt with employing foreign labour or employing less labour intensive technologies, how this will impact "Brand Maldives" is uncertain. On the other hand, continuous dependence on domestic labour also seems to be an unsustainable business strategy. A clear policy and support mechanism, which is lacking at this point, is needed to keep fisheries integrated within the larger economy.

Regarding trade, export of fresh chilled yellowfin tuna is the most valuable activity representing 33 percent of export earnings while frozen skipjack tuna contributes about 20 percent. In terms of marketing, Maldives enjoys a niche market for its yellowfin tuna (sustainability premium) in Europe while a quality premium in Japan and USA. However, the bulk of revenue (38% in 2015; 39% in 2006) is still coming from two low value markets, Thailand and Sri Lanka.

Based on the analysis in SWOT Table (Table 4.2), one of the major challenges before the sector is to develop a strategy to adapt to both climate change and internal macro-economic changes. Although the impact of climate change and the impact of developmental changes seem to be uncorrelated *prima facie*, in case of small island developing nations like Maldives, they are entwined, and likely to reinforce the negative impacts of developmental changes (*e.g.* by making a fishing trip more susceptible to weather events). Therefore, the Government needs to play a very proactive and visionary role – implying need for a well-placed high capacity agency to coordinate, plan and execute.

4.1.5 Summary of key findings

First, the fisheries policy, legal and institutional arrangements in the Maldives have been developed and strengthened recently. However, the overall framework, for these components, needs to be formalised, made coherent and complete, as an essential foundation for the sector's future prosperity. Second, the fisheries sector in Maldives is going through a process of change and transformation. Although the pole and line skipjack fishery has dominated, the growth of the handline fishery for yellowfin is also important. Both sub-sectors present opportunities and challenges. In particular, international markets offer valuable outlets, while changes in technology and labour inputs will need to be utilised carefully in the future, to avoid negative impacts on business performance and fish product reputation. Climate change is a concern for the future, and its likely impact on fisheries in the Maldives should be further examined as part of the on-going policy development efforts (above).

3 *The "Brand Maldives" is familiar in tourism sector with the tagline, 'the sunny side of life' (http://visitmaldives.com/) for its pristine natural beauty. In parallel, fisheries in Maldives also enjoyed the same goodwill in view of its traditional eco-friendly fishing method such as one-by-one pole and line and hand lining fishing methods. This notion was further strengthened by the commitment of the Government to international treaties and conventions aiming at sustainable fisheries and demonstrated effort such as ban on catching and marketing of sharks since 2010. This notion, on the positive side, helped the country in establishing itself in niche high value European market with premium on sustainably caught fish (tuna in case of Maldives). However, on the other hand, it remains to be seen how Maldives manages its ongoing issues bait fish management, de-ployments of FAD and most importantly labour shortage. Whether the country can adopt less labour intensive methods like longlining or purse-seining, otherwise prevalent in the region and allowed by the Indian Ocean Tuna Commission or whether employ foreign labour in fisheries, both may have an impact on the 'brand value' it enjoys now.*

4.2 MoFA Organisational Review

4.2.1 Introduction

In the following sub-section, a review of the MoFA (http://www.fishagri.gov.mv/index.php/en/) will be undertaken, focusing specifically on organisational features, and using information collected from both primary and secondary sources during the study team's recent visit to Malé.

To start, the organisation's mandate, vision and mission will be identified and described, followed by its structure and resourcing status (human, financial, institutional, infrastructure and materials). Thereafter, any recent trends, changes and their impacts on the organisation will be examined.

4.2.2 Mission and Vision

The Mission and Vision for the MoFA are shown in Table 4.3.

A number of observations can be made with regards to the Mission and Vision.

First, the three key concepts of sustainability, development and management of resources are emphasised in the two statements. This can be viewed as representing a progressive approach to 'sustainable development', compared to alternative approaches which focus on production, technology and expansion alone (the so-called 'production maximisation' approach, often associated with weak fisheries management and overexploitation).

Second, the development outcome of the vision is 'to secure a better socio-economic standard and future for the Maldivian people'. However, there is no further definition of what this means, and how it should be measured in order to measure its attainment, or the performance of the underlying processes (presumably fisheries management and others).

Third, the relationship to economic growth, which is widely recognised as a key development process throughout the world, is also not indicated or explained.

Table 4.3. Ministry of Fisheries and Agriculture, Republic of Maldives

Mission
To ensure development and sustainable management of marine and agricultural resources of the country.
Vision
To be the lead institution which facilitates the development of fisheries and agriculture sector, while conserving the natural resources by catalyzing, supporting and accelerating the sustainable management of these two sectors in order to secure a better socio-economic standard and future for the Maldivian people.
Source: http://www.fishagri.gov.mv/index.php/en/

4.2.3 MoFA Organisation Overview

The overall organisation of the MoFA is shown as an organo-gram (Fig. 4.2.) and *Annex 8*.

The function and services provided by the MoFA are summarised in Table 4.4, and compared with a standard fisheries ministry configuration, based on international benchmarks (Table 4.5.) (Further background information on this benchmark approach is given in *Annex 1*).

What are the key features of the MoFA as an organisation?

First, the Ministry is responsible for both the fisheries sector and the agriculture sector. This is a common arrangement in many countries. However, in some other countries, where one of the sectors is particularly significant, then the decision is often taken to designate a standalone ministry for this sector, in order to enable a clear focus on its development and management (*e.g.* Sri Lanka).

Second, the fisheries division of the MoFA is overseen by the Minister and a number of other levels of civil servant, including State and Deputy Minister, a Permanent Secretary, and a political appointee. Furthermore, a Ministers' Bureau provides a range of advisory and technical committees. This arrangement is also common to many countries, and would be considered relevant and functional. Clearly, the role of the Ministers' Bureau is important, and some involvement from other sectoral stakeholders (*e.g.* local government, industry representatives, fishers' organisations) would, normally, also be expected (this has not been confirmed or otherwise by the current study).

Third, the organisational arrangements, based on specific functions and services, for the MoFA are consistent with ministries in other parts of the world – in this case with three major Divisions – Fisheries, Administrative and Agriculture. The Fisheries Division consist of five Sub-Divisions – Fisheries Management, Compliance, Fisheries Logistics and Administration, Fisheries Training, Extension and Promotion, and Fisheries Infrastructure Development. At the same, the MoFA also includes a Marine Research Centre (MRC) and an Uninhabited Islands and Lagoon Services Sub-Division. In terms of functions and structure, the MoFA (Fisheries Division) shows strong parallels with the Fisheries Ministry presented as an 'international benchmark' example in Table 4.5. (and *Annex 1*). There are some important differences between the two arrangements – first, there is no dedicated Sub-Division (or directorate) to oversee fish quality assurance[4], and, second, a Compliance Sub-Division is usually placed outside (in parallel) to the Fisheries Division – to avoid any conflict of interest (especially with fisheries management operations) – and it usually reports to, and is overseen directly, by the Minister.

Fourth, a comparison of the MoFA functions and structure required to deliver government outcomes for fisheries and aquaculture (Table 4.4. and Table 4.5.), also reveals an important difference to the standard organisational structure (benchmark) – a Sub-Division (or directorate) for Fisheries Policy and Strategy is not included in the set-up (this will be examined further in the next section dealing with functions and processes).

Fifth, the comparison presented (Table 4.4. and Table 4.5.) also confirms that the MoFA structure is consistent with the standard arrangement (benchmark) for the Administrative Division and its constituent Sub-Divisions (Office Administration, Budget and Finance, Policy Coordination and Human Resources). The specific role of 'Policy Coordination' will be examined, below. The current unit, as configured, appears to perform basic administration and does not fulfil the pivotal and higher level function concerning policy and strategy highlighted in the fourth point (above).

4 *The fish quality assurance process in Maldives – focusing especially on exported fish products, such as canned and fresh tuna – has a number of dimensions. The Maldives Customs Service is responsible for monitoring the export fish trade and quality, and the Ministry of Health is responsible for inspection regarding food safety and export quality standards (Annex 4). Commercial companies in Maldives (e.g. Ensis http://www.ensisfisheries.com/quality-assurance/) typically adopt a 'quality assurance' approach consisting of both national and international frameworks and processes (e.g. EU certification for tuna exports, ISO Food safety standards, and HACCP).*

ORGANIZATIONAL STRUCTURE

MINISTRY OF FISHERIES & AGRICULTURE

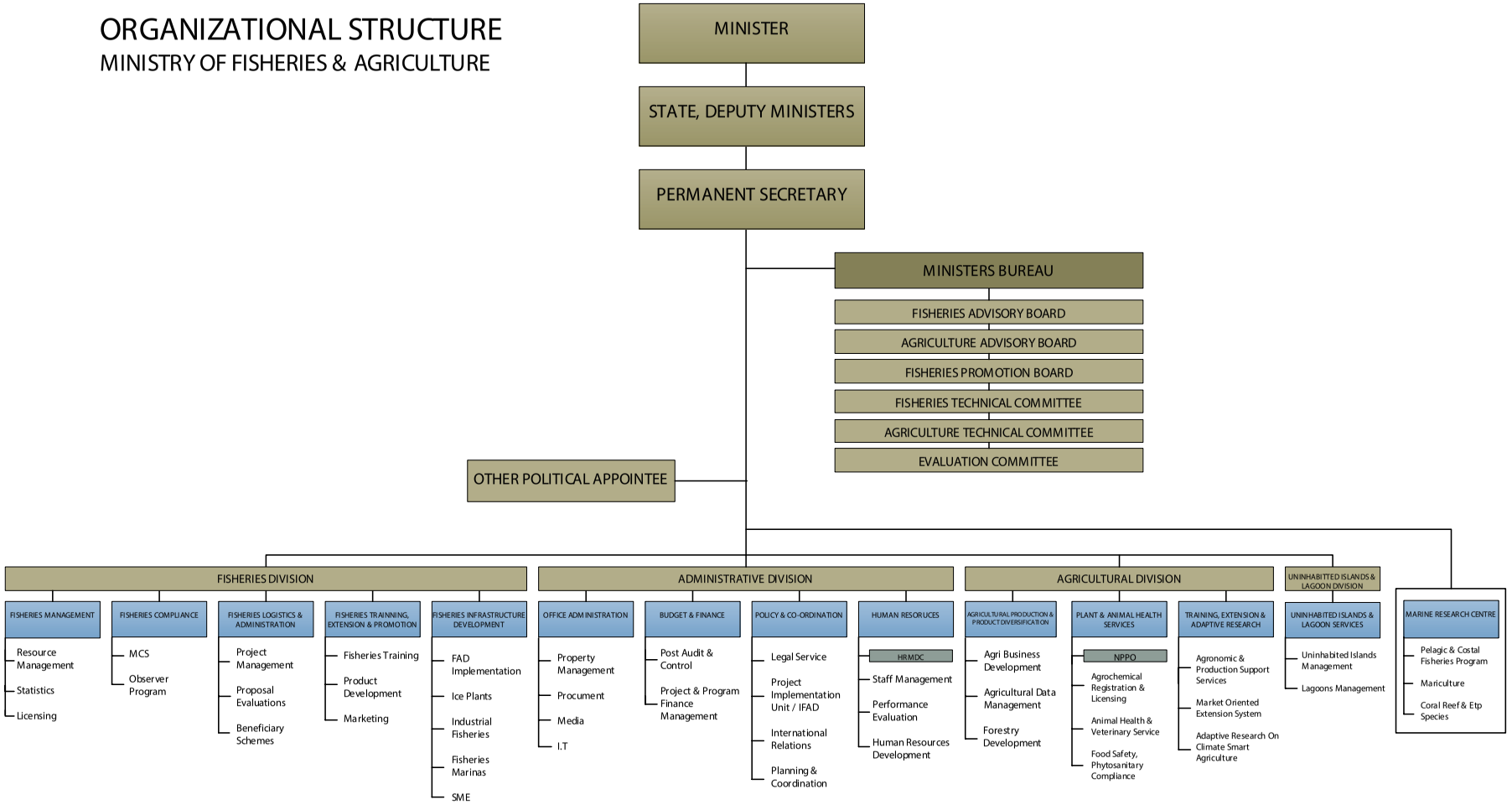


Table 4.4. Functions Required to Realise Government Outcomes for Fisheries & Aquaculture (see also ANNEX 1)			
Policy & Planning Functions	**Fisheries & Aquaculture Administration**	**Fisheries Services**	**Corporate & Support**
• Strategic Plan	• Standards and Coordination • Fisheries Management Plans (including Sharing Agreements)	• Compliance Services • Enforcement • Prosecution Support • Education	• Corporate Services • Human Resources • Financial & Business Planning • Security & Communications • ITT and Contracting
• Policy and Law	• Regulatory Services	• Observer Services	• Projects Support
• International and PPP Support	• Fisheries Intervention Plan & Specification of Services • Compliance & Monitoring • Information & Monitoring • Research, Registration • Extension	• Research Services • Stock Assessment Analysis • Scientific Advice	
• Monitoring of Policies & Standards		• Monitoring Extension Services	

Table 4.5. Maldives – Ministry of Fisheries and Agriculture (MoFA)(Fisheries Sections) (see also ANNEX 9)			
	Fisheries Management	Fisheries Logistics & Administration	Office Administration (Management Division)
	Compliance	Fisheries Training, Extension and Promotion	Budget & Finance
		Fisheries Infrastructure Development	Policy & Coordination
		Marine Research Centre (MRC)	Human Resources

4.2.4 Resourcing Status

4.2.4.1 Financial Resources

Based on data provided by the MoFA, the total expenditure by the government in the Maldives on Economic Services for Fisheries and Agriculture, through the MoFA, between 2011 and 2015 ranged between MVR 50 million (USD 3 million) and MVR 80 million (USD 5.5 million) (Fig. 4.3. and *Annex 10*). The average annual expenditure was MVR 64 million (USD 4 million).

The annual budget for the MoFA has been dominated by Recurrent

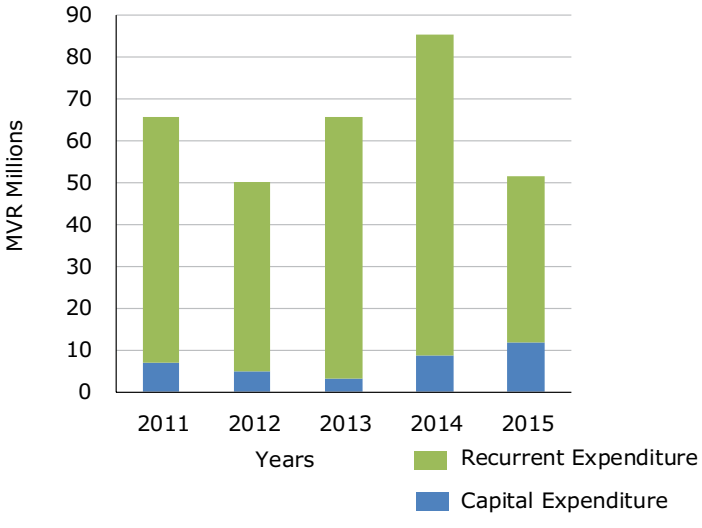


Fig. 4.3. Maldives - MoFA - Expenditure, 2011-2015

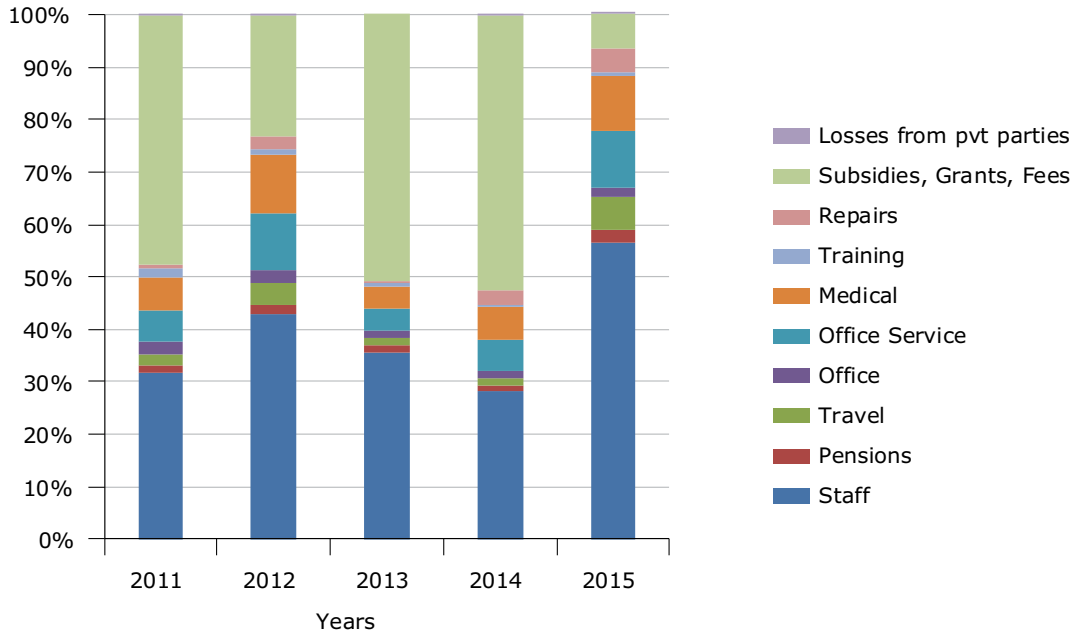


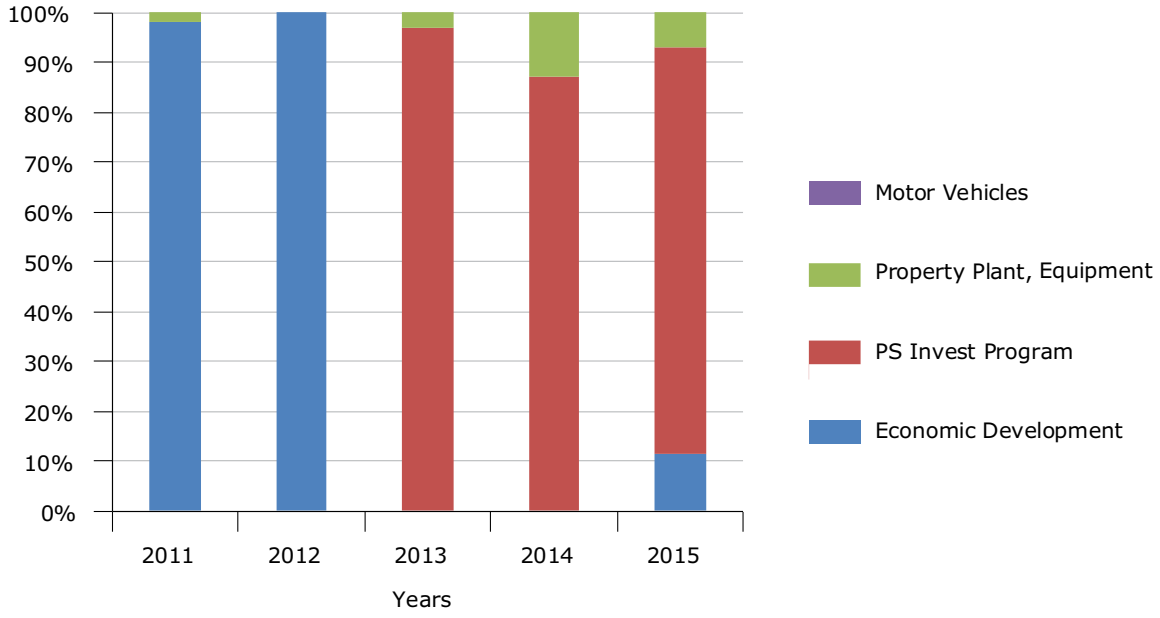
Fig. 4.4. Maldives - MoFA - Recurrent Expenditure, 2011-2015

Expenditure (> 85% of the total cost per year) compared to a relatively minor budget for capital expenditure (<15% of the total cost per year) (Fig. 4.4.).

For recurrent expenditure (2011-2015), the relative composition of cost components has varied year by year. However, both staff costs (MVR 23 million per year, on average), and grants, subsidies and fees (MVR 24 million per year, on average), made up the two largest categories (Fig. 4.4.).

Grants, subsidies and fees accounted for some 50 percent of all recurrent costs during 2011, 2013 and 2014. By contrast, staff costs dominated during 2012 and 2015 (>40% of total recurrent costs).

Fig. 4.5. Maldives - MoFA - Capital Expenditure, 2011-2015



For capital expenditure (2011-2015) (Fig. 4.5.), the first two years (2011-12) were dominated by Economic Development Expenditure (>95% of the total). More recently, the Public Sector Investment Programme accounted for the majority of costs.

The financial expenditure profile for the MoFA for 2015, for both recurrent and capital expenditure, shows a more even spread of costs across the different categories. For Recurrent Costs, the Staff Costs (MVR 25 million or 63% of the total) are the largest single category, followed by office expenses (MVR 4 million or 12% of the total). For capital costs, the Public Sector Investment Program has been the largest single category (MVR 9.6 million or 82% of the total costs). Overall, for 2015, the ratio between recurrent and capital costs (as a percentage of total expenditure) has been 77 percent to 23 percent.

To put this basic financial analysis of the total expenditure of the MoFA (that is Fisheries, Agriculture, Administration and Others) into perspective, the following two inter-related questions were addressed:

[a] What is the relative budget (or expenditure) by the Fisheries Division within MoFA?

[b] How does the annual MoFA expenditure compare with other Ministries (in other countries)?

First, the relative budget for the Fisheries Division was determined from the annual Work-Plans provided by section leaders. For 2016, the current budget is estimated to be MVR 17 million (or USD 1.1 million). However, on the basis of information provided for 2015, by the Fisheries Management and Compliance sub-divisions alone, the budget was MVR 52 million (or USD 3.4 million). ***(The National Bureau of Statistics and MMA [Public Expenditure on Economic Services, official publications] show that the annual budget for MoFA is USD 4-5 million).***

Second, it is difficult to make a comparison between the Maldives and other countries, in terms of public sector support for national fisheries services. There is a lack of data on a global basis to address the question of how much is being spent on fisheries management and development. Interestingly, the Organisation for Economic Cooperation and Development (OECD) has recently started to collect data on fisheries management costs

Table 4.6. Fisheries in the Maldives compared with other countries (for which data are available) with a focus on fish landings and cost of fisheries management services (Sources: Government of Maldives: Maldives Monetary Authority, MMA; OECD, 2015; and Wallis and Flatten, 2001)

Country (1)	Year	Fish Landings Volume (mt)	Value	GFT (4) (5) General Services	Management Cost Landed Value (%)		Management Cost/Landed metric tonne	
		(Domestic)	(USD million)	(USD million)	1997	2009-15	1997	2009-15
OECD	1997	33 610 000	38 032	2 237	6	n.a.	71.43	n.a.
EU (15 Total)	1997	6 377 000	9 324	592	6	n.a.	87.22	n.a.
Australia	2014	152 339	1 136	24	11	2.13	407.79	158.86
Belgium	2013	16 357	61	4	2	5.98	64.71	223.15
France	2009	379 814	868	8	10	0.97	206.12	22.17
Iceland	2012	1 426 520	1 432	36	2	2.51	9.26	25.24
New Zealand	2014	288 760	321	54	8	16.82	n.a.	187.01
Norway	2014	2 027 676	1 625	258	7	15.88	34.35	127.24
USA	2012	3 472 668	4 938	2354	18	47.67	142.66	677.86
Mexico	2011	1 397 598	548	4	2	0.81	13.75	3.16
Thailand	2011	1 601 320	1416	6	n.a.	0.43	n.a.	3.77
Maldives (2)	2015	127 000	517	2	n.a.	0.40	n.a.	16.30
Maldives (3)	2015	127 000	354	2	n.a.	0.58	n.a.	16.30

Notes

1. *OECD Review of Fisheries: Country Statistics (2015); Also Wallis and Flatten (2000) for 1997 data.*
2. *Government of Maldives: Ministry of Fisheries and Agriculture Statistics Plus Maldives Monetary Authority (Real Sector Statistics)*
3. *Landed value estimates based on international prices (Skipjack, Yellowfin and Bigeye tuna)*
4. *Landed value estimate based on local prices (MMA Real Sector Statistics (Skipjack, Yellowfin and Bigeye tuna) GFT or Government Financial Transfer, for General Fisheries Services (Management, Enforcement, Reseach) (no subsidies or other support)*
5. *AVERAGE ANNUAL BUDGET FOR THE MoFA (2011-2015) was USD 4.13 million (it is assumed here that Fisheries Division has 50% of total budget)*
6. *NOTE: This is a preliminary analysis - further refinement will be needed in the future as an input to planning.*

by country, and to undertake some analysis. Of course, the OECD countries tend to be North countries on the whole (some data on non-OECD countries are provided), but at least this provides some basis for comparison.

A comparison between the Maldives and other countries (for which data are available) – including [a] annual fish landings (volume and value), [b] the cost of national fisheries management services (or general services or GFT), and [c] the ratio of fisheries management cost: landed value (expressed as a percentage), and [d] fisheries management cost per landed tonne of fish – is shown in Table 4.6.

In the case of the Maldives, the annual expenditure by the MoFA on fisheries services, including fisheries management, is around USD 2 million (using the annual average, 2011-2015, above, and assuming that 50 percent of the total budget relates to fisheries, as opposed to agriculture services). The ratio of this management cost to landed fish value ranges from 0.40 – 0.58 percent and the fisheries management cost is USD 16.30 per tonne of landed fish.

The comparison between the Maldives and the other countries represents a starting point for this type of analysis – more data and more countries could be considered in the future. But even at this early stage, it is possible to draw some conclusions. Overall,

the Maldives expenditure on fisheries management services appears to be low compared to other countries. This is reflected in both the management cost: landed value ratio, and the fisheries management cost per landed tonne of fish. Table 4.6. (on pre-page) shows that countries like Iceland, New Zealand and Norway – with well-developed fisheries management systems and productive fisheries – are spending significantly more money (in relative terms) on these public services (between 1.6 and 12 times more than Maldives, in terms of cost/landed weight of fish).

4.2.4.2 Human Resources

A set of summary tables for the staffing arrangements in the MoFA are shown in *Annex 14*.

Overview of the MoFA Staffing Arrangements

A total of 217 staff posts have been sanctioned within the MoFA. At present, 158 (or 73%) posts are filled, and 59 (or 27%) posts remain vacant.

The divisions with the largest number of staff sanctioned are Agriculture (57 staff, 26% of total staff), Fisheries (53 staff, 24% of total staff) and Administrative (53 staff, 24% of total staff) (Fig. 4.6, Fig. 4.7. and Fig. 4.8.). The smallest divisions are the 'Ministry' (11 staff, 5% of the total) and the Uninhabited Island and Lagoon Division (8 staff, 4% of total staff). The Marine Research Centre (MRC) is medium-sized (35 staff, 16% of total staff).

In terms of posts filled, the Agriculture Division (44 staff, 28% of total staff) is largest. This is followed by the Administrative Division (25% of total staff), Fisheries (21%), MRC (17%), 'Ministry' (6%) and the Uninhabited Island and Lagoon Division (3%).

In terms of the overall level of 'vacant' posts (*i.e.* sanctioned but not filled), the Fisheries Division ranks highest (20 vacant posts, or 34% of total staff vacancies).

MoFA Staff - Composition by Grade

There are 17 staff grades (posts sanctioned) presented in the data supplied by the MoFA. These include:

- 'Ministry staff' (5% of the total): Minister and Senior Ministry Staff
- EX grades 1-6 (8%): Director-General and Directors
- CS Grades (<1%): Legal Staff
- MS Grades 1-3 (37%): Assistant Director, Senior Officers, Research Officers, Project Officers
- GS Grades 2-4 (39%): Administrative Officers, Assistant Officers, Field Officers
- SS Grades 1-3 (8%): Foreman, Launch drivers, Others
- Blank entries in the data supplied by the MoFA (2%)
  Total: 100%

The composition and distribution of staff by the MoFA Divisions, by Staff Grades and by Fisheries Sub-Divisions are shown in Fig. 4.9 to Fig. 4.13.

The largest categories (sanctioned) by staff numbers are the MS and GS grades (76% of all staff). These represent the middle level staff of the MoFA.

Fig. 4.6. Maldives (MoFA) - Staff Numbers by Division (2016)

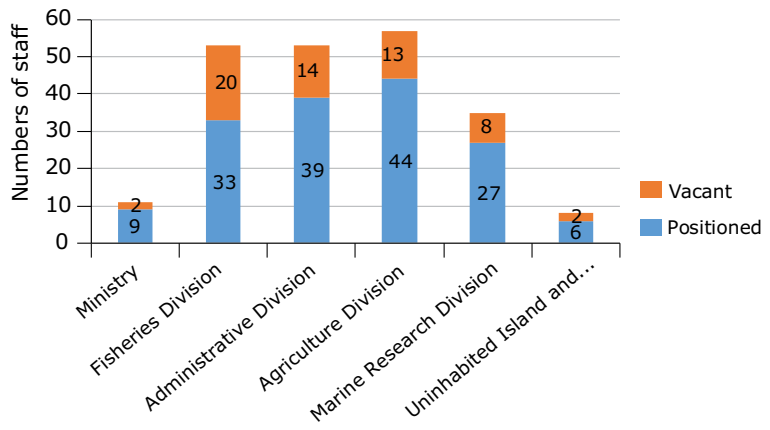


Fig. 4.7. Maldives (MoFA) - Staff within Divisions (%) (2016)

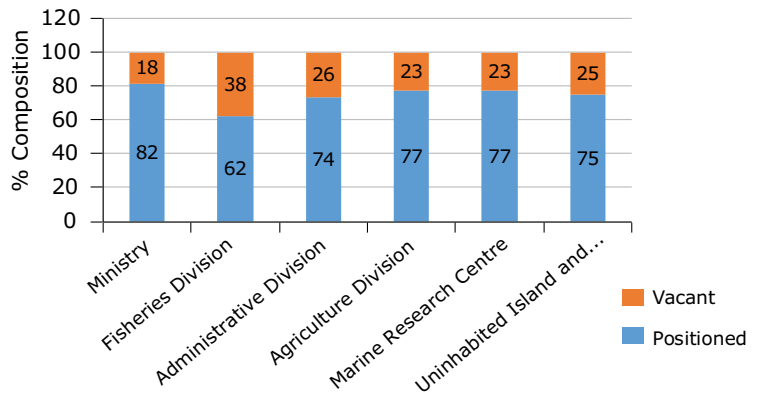
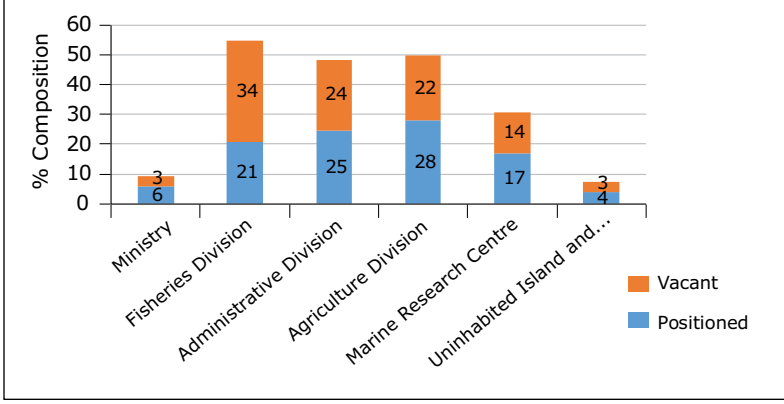


Fig. 4.8. Maldives (MoFA) - Staff across all Divisions (%) (2016)



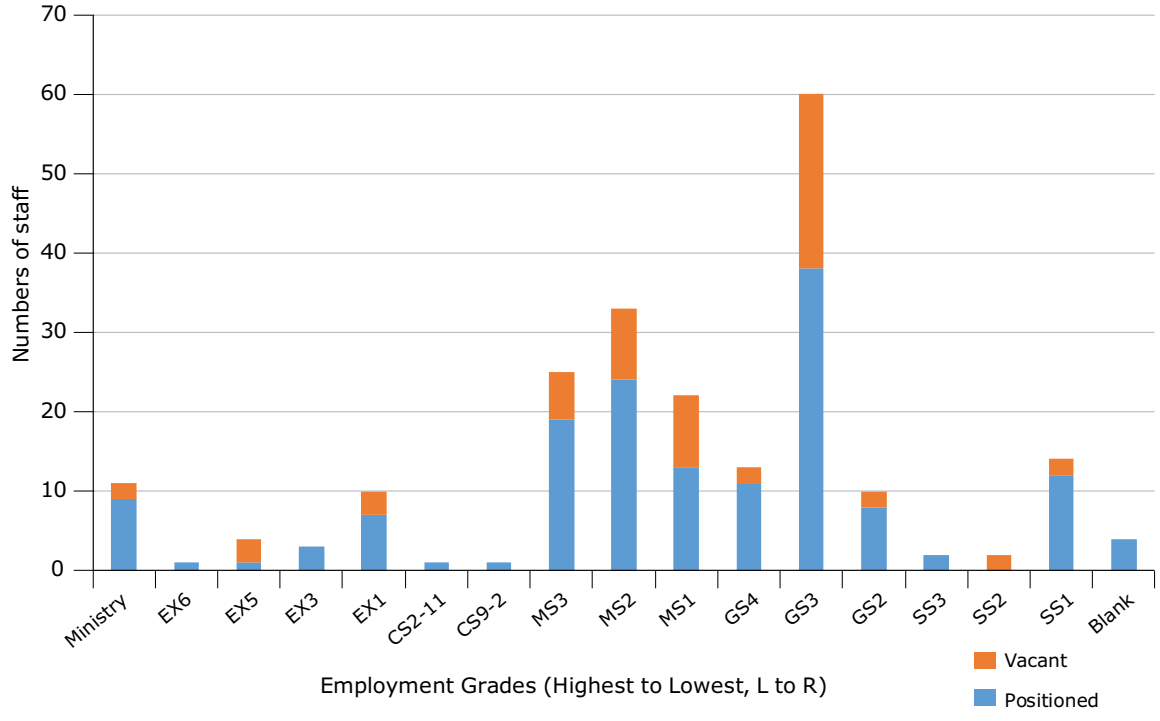


Fig. 4.9. Maldives - MoFA - Staff Distributed by Employment Grade (2016)

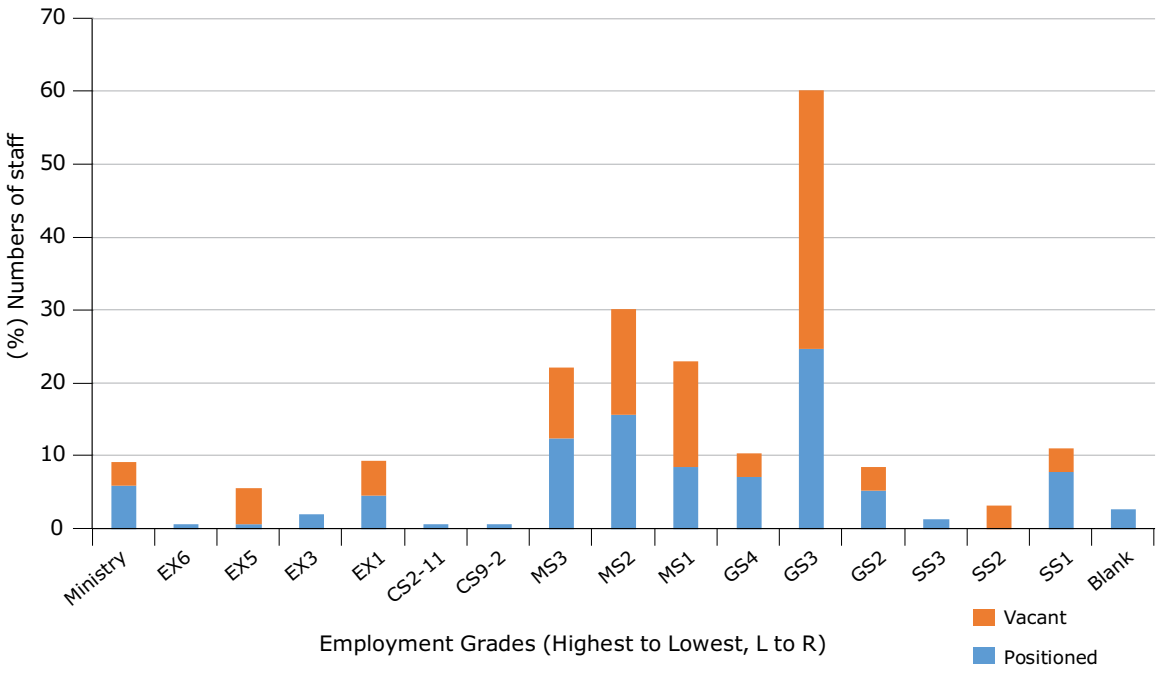


Fig. 4.10. Maldives - MoFA - % Staff Distributed by Employment Grade (2016)

In terms of the actual numbers of staff in post, the MS and GS grades are the largest (73% of all staff), but also with a significant number of vacancies (81% of all vacancies).

Overall, there also appears to be a limited number of both senior Director and technical staff (EX grades 1-6) (10%) in the MoFA.

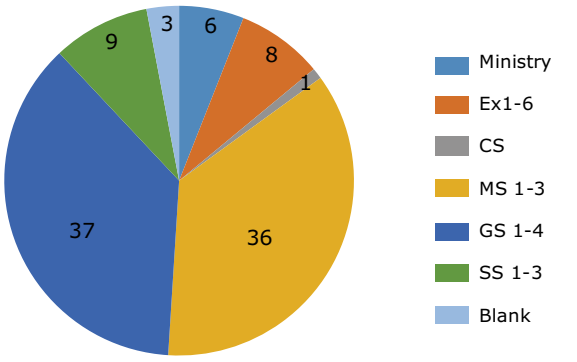


Fig. 4.11. Maldives - MoFA - Staff Composition (%) by Employment Grade(2016)

MoFA Staff Composition by Grade – Fisheries Division and MRC

The Sub-Divisions which make up the Fisheries Division, along with the MRC, currently have 60 staff in post, and 27 vacancies.

The profile of each Sub-Division is dominated by middle-level GS and MS Grades (55%).

The higher level EX Grades make up 9% of the total staffing on average.

The proportion of vacancies in each Sub-Division is 32% of the total staff posts sanctioned on average.

MoFA Staff Qualifications – Fisheries Division and MRC

A total of 19 staff (or 31% of total) in post hold a first degree or post-graduate qualification.

The degree holders hold posts in MS2 Grade and above.

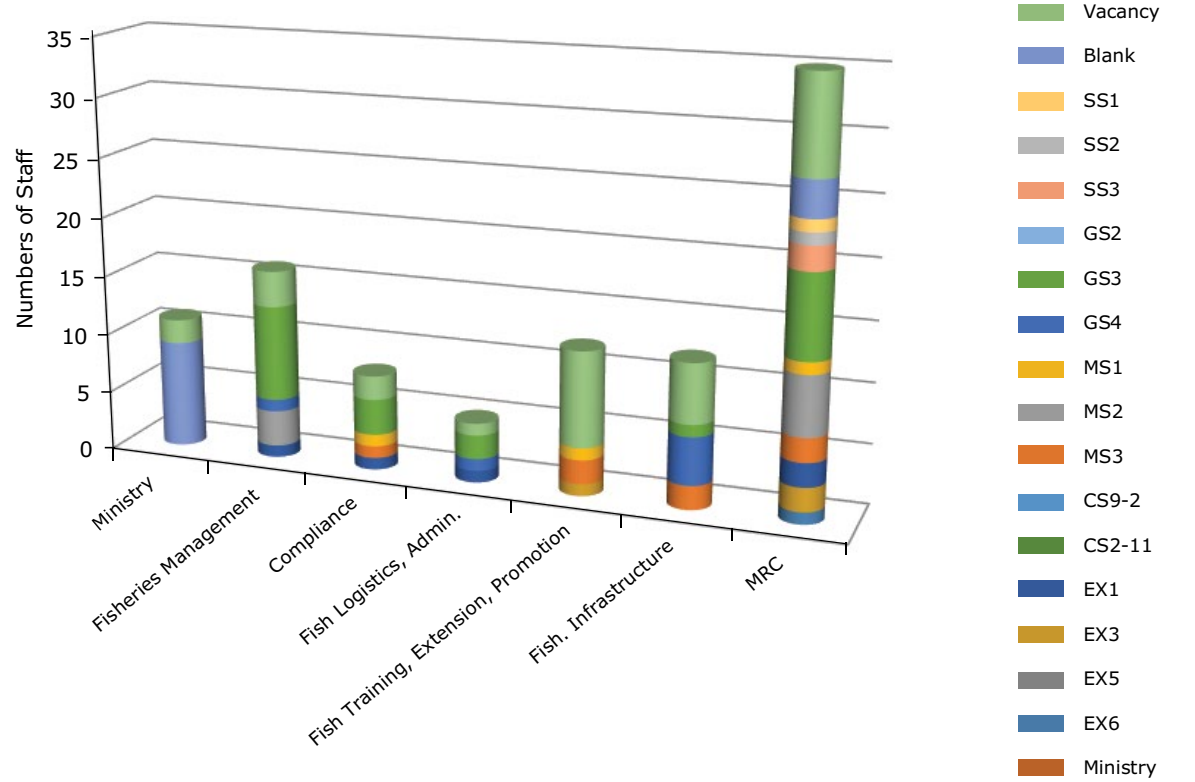


Fig. 4.12. Maldives (MoFA) - Staff Grade by Fisheries Division (2016)

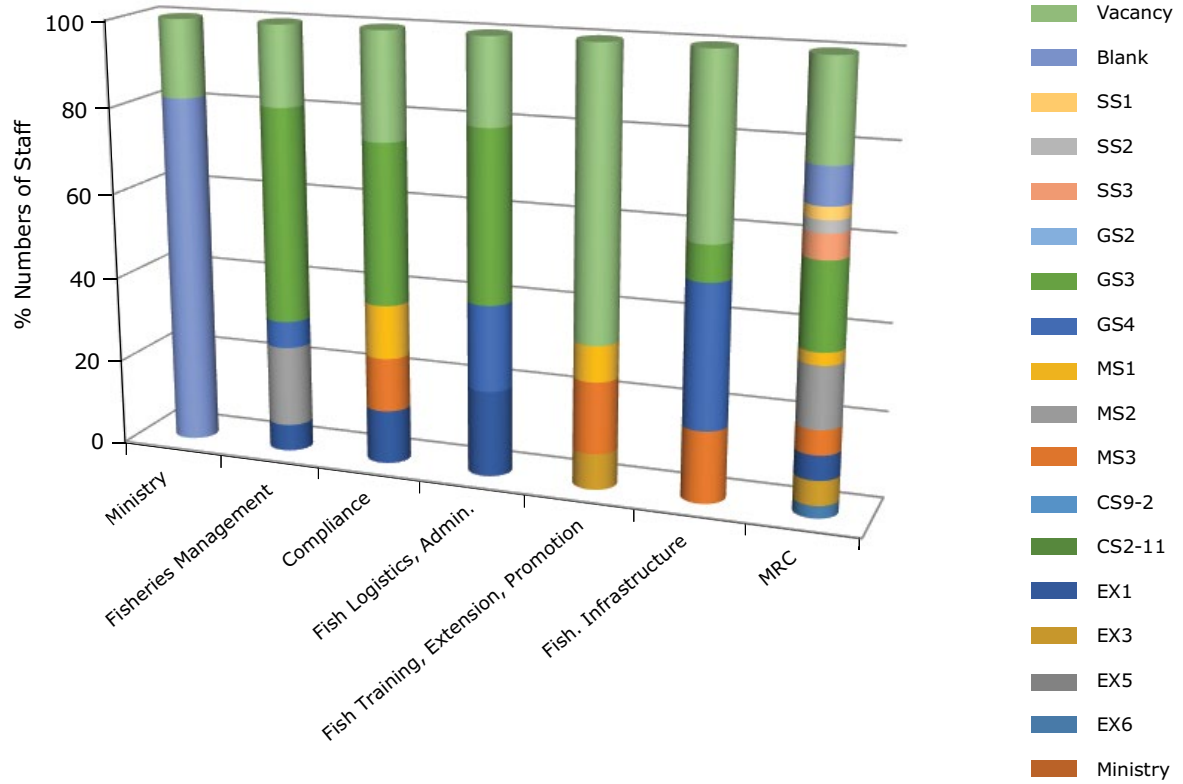


Fig. 4.13. Maldives (MoFA) - Staff Grade (%) by Fisheries Division (2016)

Almost all the higher level officers (EX1 and above) are degree holders.

The staff in post below MS 2 Grade are not degree holders on the whole, and show a mix of school level qualifications (O and A Levels) and post-school (certificates and diplomas).

The GS Grade 3 level with 21 staff has one degree holder, and any grades below this level do not include degree holders.

4.2.4.3 Infrastructure and Materials

As a result of discussions with senior staff in the MoFA (Table 4.7. and *Annex 12*), there was a good indication that, on the whole, the staff were satisfied with both the infrastructure and the materials provided by the ministry.

A majority of staff stated that both office facilities, in general, along with other facilities, such as record stores, were adequate.

Vehicles, laboratories and workshops were available to enable the activities of particular staff in their specific roles.

Overall, the one major area for concern was that of Information Technology and Computing. All the senior staff interviewed in the Fisheries Division indicated that they did not think that the IT facilities and support were adequate for their roles and functions. By comparison, the staff from the Administrative Division were satisfied with the IT facilities.

4.2.5 Summary of key findings

The key findings of this section, which focuses on the organisational arrangements of the MoFA include:

First, the Mission and Mandate of the MoFA indicate a progressive approach to fisheries development, with an emphasis on sustainability, fisheries management and benefits. However, there is no indication of how performance in this regard will be measured in the future.

Second, the organisation and functions of the MoFA are broadly consistent with international benchmark configurations. However, there are a number of inconsistencies including the absence of a strategic policy unit, the lack of a fish quality unit, and the fact that the fisheries management and compliance units are largely integrated, when in fact, these critical units usually operate separately, as a matter of best practice.

Third, regarding the MoFA budget and financial resources, the data made available by the MoFA to study team indicate that the ministry is under-resourced compared to other similar ministries in other countries. The best available comparisons show that fisheries service costs in the Maldives are not aligned with the current value of fish landings.

Fourth, regarding the MoFA human resources, while the ministry has over 217 staff posts sanctioned by government, only 73% are filled at present. Furthermore, an examination of the 61 staff in the Fisheries Division and the MRC, revealed that over 55% of staff occupied middle to lower posts, and that only 19 staff had a first degree, the rest had school level qualifications (O/A levels) or diplomas. There is a deficit of senior staff with high level training in the Fisheries Division and MRC.

Fifth, regarding infrastructure and equipment, the current staff in the MoFA reported that they were generally satisfied with the facilities provided. The main area for concern, particularly from technical staff, was the status and operation of the information technology and computing systems, which they judged as 'not adequate' to support their functions and roles.

Table 4.7. Survey of MoFA Divisions (Fisheries & Administration) – Summary Results

Summary Results		Technical Score (5 max.)	Administration Score (6 max.)	Total Score	%
Section A: Functions/Structure					
A.2.	Staff workplans (Yes)	5	3	8	73
A.2.a.	KPI (Yes)	5	3	8	73
A.2.b.	Performance (rated effective)	5	3	8	73
A.3.	Minimal major challenges (Yes)	0	0	0	0
A.5.	Collaboration (Yes)	5	6	11	100
Section B: Organisation/Operational Structure					
B.1.1.	No. staff managed (>/equal 5)(Yes)	4	1	5	45
B.1.4.	No. staff vacancies (>/equal 2) (Yes)	2	2	4	36
B.1.5.	No. staff resigned (>/equal 2) (Yes)	2	2	4	36
B.1.6.	Staff managed outside HQ (Yes)	3	1	4	36
B.3.	Major programs managed (Yes)	4	3	7	64
Section C: Performance Management/Training					
C.1.	Staff with job descriptions (Yes)	5	5	10	91
C.2.	Staff appraisal schemes used (Yes)	5	5	10	91
C.3.	Training Opportunities (Yes)	5	3	8	73
C.4.	Adequate skills in Division (Yes)	0	0	0	0
Section D: Communications					
D.1.	Range of methods used (Yes)	5	6	11	100
D.2.	No difficulties with communications (Yes)	1	3	4	36
D.3.	Record keeping is good (Yes)	5	6	11	100
Section E: Structures/Equipment					
E.1.	Office(Yes adequate)	5	6	11	100
E.1.a	IT (Yes)	0	5	5	45
E.2.	Record store (Yes)	5	6	11	100
E.3.	Vehicles (Yes)	3	1	4	36
E.4.	Lab (Yes)	2	0	2	18
E.5.	Workshop (Yes)	2	0	2	18

	Low scores highlighted
	High scores highlighted

4.3 MoFA Key Functions and Processes Review

4.3.1 Introduction

In the following sub-section, the key functions and processes of the MoFA will be examined in greater detail, in four main areas - policy and planning functions, administrative functions, service functions, and corporate and service functions. Based on information derived from both primary and secondary sources, the key features and performance will be considered.

4.3.2 Background and Assessment Approach

Background

First, by way of background, the baseline survey (conducted during the current study) indicates that the general set-up has the following features (*Annex 12* and Table 4.7).

(a) Functions and structure

In terms of annual Work-Plans (WP) and Key Performance Indicators (KPI), a majority of the senior staff interviewed (73%) confirmed that both of these elements were in place for each division.

A majority of staff (73%) also considered that they were performing well in relation to the WP and KPI.

On the other hand, all senior staff indicated that the achievement of WP/KPI faced serious challenges (or at least 0% of staff indicated that they faced no challenges).

All senior staff (100%) confirmed that collaborations with other staff and other divisions and other government departments were a major feature of their operations.

(b) Performance management and training

In terms of staff job descriptions and the operation of a staff appraisal scheme, a majority of staff interviewed (91%) confirmed that both these elements were in place within the MoFA.

Furthermore, staff (73%) confirmed that training opportunities were also available, but that these tended to be relatively of low level or short-term training courses.

However, all staff interviewed expressed the view that there was an inadequate skill base within their respective divisions (0% staff agreed that the skill base was adequate).

(c) Information flows and communications

All staff interviewed confirmed that they used a range of communication systems (telephone and internet-based), and that they considered record-keeping (paper files and electronic) to be of a good standard.

However, a majority of staff also indicated that they regularly experienced problems with communication, particularly with other Ministries, and in relation to delays in responding to emails and to phone-calls.

Assessment of key functions and processes

Second, the key functions and processes of the MoFA will be reviewed against standard operations for a fisheries ministry using a benchmark approach, with a focus on the expected main outcomes (*Annex 1* and Table 4.4. and Table 4.5.).

4.3.3 Policy and Planning Functions

The main outcomes from the policy and planning functions should include – the strategic plan for the sector, the policy and associated legal framework (fisheries law), international support and also public private partnerships, and the monitoring of policies and standards.

In many countries, the Fisheries Ministry typically includes a Policy and Strategy Directorate (overseen by a Director, Policy and Strategy) (See *Annex 1)*. The constituent processes would involve – Strategy, policy and law development, international and other partnership formation, and monitoring and evaluation (M&E) for policy (leading to the key outcomes above).

At the present time, the MoFA does not have a specific Directorate for Policy/Strategy & Planning. Instead many of these functions and processes appear to be operated under

the Fisheries Management Directorate. The WP (Fisheries Management) indicates the full range of activities which are being undertaken *(Annex 9)*.

To what extent are the required outcomes being achieved at present? Overall, the outcome is mixed. There is a Strategic Plan, and also a Policy and Law (although there appears to be room to strengthen the quality of all of these elements, as discussed above). There has been limited international support up until recently, and although there is an active private sector, there appear to be only a minimal number of PPP arrangements ***(Note: further information and clarifications are needed in both areas)***.

4.3.4 Fisheries and Aquaculture Administrative Functions

The main outcomes from the administrative functions should include – the overall coordination of appropriate standards (relating to fish resource exploitation and fish products), the development of fisheries management plans, the oversight of regulatory process, and the specification of fisheries plans and related services (*e.g.* compliance and monitoring, information and monitoring, research, registration and extension).

In many national settings, these functions would be undertaken by a Directorate of Fisheries Management (overseen by a Director of Fisheries Management) (see *Annex 1*).

At present, the MoFA has a Fisheries Management Directorate and a Director in post. The relevant WP shows the full range of activities that are being undertaken *(Annex 9)*.

To what extent are the required outcomes being achieved at present? Overall, this Directorate appears to be performing adequately. On the one hand, there is a clear focus on relevant functions and processes, especially fisheries management plans. There is also evidence, from key interviews, that industry partners *(Annex 2)* appreciate the work undertaken on relevant sector standards, along with overall coordination of activities and inputs. There is also evidence that the Maldives has actively engaged with the IOTC, and its processes, and performed well in maintaining a high degree of coherence with regulatory frameworks for tuna exploitation. However, on the other hand, it is less clear, to what extent, there is a well-defined set of national FMP, for both tunas and other resources, and the associated specification of relevant services. There is certainly good evidence that the Maldives has been cooperating with the IOTC with regards to the implementation of the Recommendations of the Scientific Committee and Resolutions of the IOTC concerning measures put in place for the conservation of specific species (*e.g.* catch and effort data, statistical reporting for stock assessment, shark management) (Ahusan *et al.* 2016). Many of the essential 'building blocks' to establish an effective fisheries management system seem to be under development, but further strengthening of the overall process appears to be needed[5].

4.3.5 Fisheries Service Functions

The main outcomes from the fisheries service functions should include – the operation of compliance services (enforcement, prosecution support and education), the provision of observer services, the operation of scientific services (stock assessment and analysis, and other scientific advice), and the monitoring of extension services.

5 *One of the most recent new developments has been the setting up of a Fisheries Information System in 2016, to monitor catch logbooks, fish purchase information, fishing vessel license information and catch certificates. The main aim is to fulfill international traceability requirements for catch and vessel reporting , http://ipnlf.org/news/fisheries-information-system-officially-launched-for-one-by-one-tuna-fisheries-in-the-maldives.*

In many national settings, a Fisheries Ministry would usually include a Directorate of Services and Research, with a Director to oversee the functions of research and information, extension services and project development. Compliance services are often organised under a dedicated directorate, to ensure that these important functions are given adequate attention (and resources), along with an appropriate level of separation from processes related to fisheries allocation and management functions (to avoid any conflict of interests concerning the operation of fisheries and the policing of fishing). In some countries, there is also a separate Directorate to handle functions and processes relating to the maintenance of fish quality standards.

At present, the MoFA has three Directorates which provide relevant functions and processes under this category. This includes a dedicated Marine Research Centre (MRC), a Directorate of Training, Extension and Promotion, and a Directorate of Fisheries Infrastructure Development. There is also a Directorate of Fisheries Logistics and Administration. There is no separate Directorate for Compliance within MoFA, but instead this function has been amalgamated with the Directorate of Fisheries Management. The relevant WP shows the full range of activities undertaken *(Annex 9)*.

To what extent are the required outcomes being achieved at present? The MRC has been active in recent years in undertaking a wide range of fisheries research. It continues to be active today, but there are indications that the research portfolio and information services may need strengthening in the future to fully service the development of new fisheries management plans, for example. The other two Directorates (Training, Extension and Promotion, and Infrastructure Development) are also active, but the extent of their activities are limited, and will also probably need to further enhanced in the future, to provide an adequate underpinning for future fisheries development and management activities.

4.3.6 Corporate and Support Functions

The main outcomes from the Corporate and Support Functions should include – effective management of human resources, adequate financial and business planning, along with effective communications and security, including information technology and telecoms, appropriate contracting and project support in general.

In most national settings, a Fisheries Ministry would include an Administrative Directorate (or Division) to operate in parallel, and to support the functions, of the technical directorates. This would consist of sub-sections for human resource management, financial management, records management, property and logistics, and communications management.

At present, the MoFA has five administrative divisions which service both the fisheries and agriculture directorates including – Office Administration (Management Division), Information Technology (IT), Budget and Finance, Policy and Coordination, and Human Resources. There is also an Executive Coordinator, which is a senior position, and focuses on project planning and coordination.

To what extent are the required outcomes being achieved at present? The MoFA appears to have an appropriate administrative division in place to support the technical directorates and the relevant implementation plans. The sub-divisions highlighted above are certainly in line with standard practice operated by most fisheries ministries throughout the world, and in line with international best practice.

However, the results of discussions held with both the technical staff, and the administrative staff themselves, revealed a wide range of issues which suggest that the current administrative support is experiencing certain challenges *(Annex 12)*. The issues appear

to fall into two main categories. First, the administrative staff, currently in post, appear to lack a critical level of training (*e.g.* many staff emphasised that there was a need for regular updating in key areas such as the use of particular information technology or administrative systems). Second, some of the units also appear to lack capacity, in terms of adequate numbers of trained staff for specific functions and processes (*e.g.* both IT and Human Resources have a low number of staff available in key areas such as computer support and pay-roll).

4.3.7 Summary of key findings

The key findings of this section, which set out to examine the main functions and processes of the MoFA, include:

First, the MoFA, like many other organisations shows a range of strengths and weaknesses with regards to functions and processes. In order to improve the performance of the MoFA in the future, a number of key weaknesses will have to be addressed in particular, as highlighted below.

Second, in general, both the functions and processes, and the structure, of the MoFA are coherent with international benchmarks. In other words, the essential activities and organisation of the MoFA are similar to Ministries for Fisheries (and Agriculture) in other countries. This represents a good starting point to build a better level of performance in the future.

Third, there are some inconsistencies, however, which may need to be addressed. There is no distinct Policy Division (to handle policy, legal and strategy issues). There is also no separate Compliance Division (*de facto*). In fact, both of these sets of functions and processes have been merged under Fisheries Management. It would be advisable, in line with international best practice, to separate these three crucial areas. It is expected that this would lead to a general improvement in organisational performance – for the simple reason that a single division (Fisheries Management) is unlikely to be able to cope with the full range of functions and processes. Furthermore, a distinct separation of fisheries management and compliance is essential (to avoid any conflict of interest within the management system).

Fourth, while both the 'Fisheries Services' and 'Fisheries Administration' arrangements appear to be adequate from the organogram and the unit descriptions, further investigation, through key interviews and discussions with senior staff, revealed that there are inherent weaknesses in the operations. In other words, the range of technical and administrative services, which support the design and implementation of national fisheries policy, through fisheries management systems, in particular, are in need of widespread strengthening. In this regards, the priorities and possible strategies for institutional capacity-building will be examined in the next section.

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5. SYNTHESIS OF KEY ISSUES AND FUTURE PRIORITIES

5.1 Introduction

This penultimate section will focus on two critical and inter-related themes. First, the key organisational issues which characterise and affect the operation of the MoFA, at present, will be identified and examined. Second, an assessment of the future institutional strengthening priorities for the MoFA will be presented, with a view to developing a strategy for appropriate capacity-building.

5.2 Key Organisational Issues

5.2.1 SWOT Analysis

The key organisational issues which characterise and affect the operation of the MoFA (with reference to the defined Mission and Mandate, above) were identified and examined on the basis of information provided by the key interviews conducted with MoFA staff, along with other stakeholders (*Annex 2* and *Annex 12*). Additional input was provided by secondary information sources, mainly published reports concerning the sector. The results were subsequently synthesized using a Strengths-Weaknesses-Opportunities-Weaknesses (SWOT) framework (Table 5.1).

5.2.2 Strengths

In terms of ***"Strengths"***, or the internal factors, which enable the achievement of the MoFA Mission/Vision, at least six key elements have been identified.

First, the organisational structure and designated unit functions of the MoFA are well-developed and largely coherent with international standards. This provides a good basis for delivering the functions and services required to achieve its Mission and Mandate goals.

Second, it is also evident that there are some highly qualified and experienced staff in certain key areas, such as fisheries research.

Third, in terms regional fisheries policy, the MoFA has good links and an effective working relationship with the RFMO (*i.e.* the IOTC). Staff attend IOTC meetings on a regular basis, and participate in various IOTC working groups.

Fourth, the MoFA shows a good level of performance with reference to IOTC criteria (*e.g.* delivery of key reports, submission of data concerning compliance).

Fifth, the MoFA has strong links and a good working relationship with the fishing industry, at the level of the private fishing and export companies (based on key interviews), and with a number of supportive international organisations such as the IPNLF.

And sixth, the MoFA also has strong links and interaction with local fishing communities, with staff making regular visits to atolls and organising an annual "Fishermen's Day"[6].

6 *http://fishagri.gov.mv/index.php/en/news-events/news/609-36th-fishermen-en*

Table 5.1. Maldives - MoFA – Key Organisational Issues	
Strengths (Internal)	**Weaknesses (Internal)**
1. Organisational structure and designated unit functions are largely coherent with international standards;	1. Some gaps in organisational structure and functions (*e.g.* policy coordination; management and compliance separation);
2. Expert and experienced staff in key areas (*e.g.* fisheries research);	2. Fisheries policy and legal framework needs further alignment with IBP;
3. Good connectivity with RFMO for tuna (IOTC);	3. Annual budget is low compared to international standards;
4. Good performance relative to RFMO functions;	4. Staff number and quality is generally low compared to international standards;
5. Strong industry links;	5. Evidence of implementation gaps in key areas (*e.g.* fisheries management);
6. Strong community links;	6. Organisational management arrangements show limitations (*e.g.* absence of Results-based Management Framework)
	7. Some staff management process deficiencies (*e.g.* definition of career pathways, salary-based incentives, training opportunities);
Opportunities (External)	**Threats (External)**
1. Capitalise on increasing value of premium internationally traded fish stocks to encourage further investment in institutional development;	1. IO fisheries are exposed to increasing risk of economic and biological overexploitation, leading to reduction of value and benefits, with knock-on impact for investment in institutional development;
2. International lesson-learning for tuna management, and aligning institutional capacity needs;	2. IOTC performance and impact is below international thresholds;
3. Accessing regional and international training opportunities;	3. Regional and international organisations change priorities for support away from IO;
4. Support from regional and international organisations;	4. Industry support for IO fisheries is reduced;
5. Support from the private sector/industry (national and external)	
6. Greater cooperation with other IO fishing nations;	

5.2.3 Weaknesses

In terms of ***"Weaknesses"***, or the internal factors which can constraint the achievement of the MoFA Mission/Vision, there are at least seven key elements.

First, there are some deficiencies and gaps in the organisational structure and its functions. In particular, there is no division with clear responsibility for policy coordination or strategic planning, and there is also no clear separation of 'fisheries management' and 'compliance' (in order to avoid any conflict of interest). Both of these elements, if corrected, would enable a greater degree of compliance with IBP.

Second, both the national fisheries policy and the legal framework show particular weaknesses (*e.g.* the status of the key documents requirements further clarification) which also need to be addressed in order to align them with IBP.

Third, overall, the MoFA annual budget (capital and operational) is low compared to international standards (above). Clearly, this will limit any future reforms or upgrading of functions and services, unless it is addressed.

Fourth, in general, the total number of staff, especially at a senior and experienced level is relatively low, compared to many other national administrations. Further, staff qualifications in many cases need further upgrading and strengthening.

Fifth, there appears to be some evidence of implementation gaps in key areas (*e.g.* fisheries management), based on evidence from key interviews.

Sixth, in terms of the general organisation and management of key functions and services, there is a system in place of setting KPI (*e.g.* deliveries and associated budgets), but there appears to be a need to have this strengthened (putting in place a results-based management [RBM] framework).

Seventh, there appears to be a lack of a human resources strategy and implementation process. The impact is being felt in a number of ways – many staff appear to lack a clear career development pathway, there are a lack of training opportunities at all levels, staff are concerned about the salary levels (compared to cost of living in Malé), and the general lack of incentives, in terms of salary increments and opportunities for promotion and training. Based on information from key interviews, many staff are lacking motivation, and seeking alternative employment opportunities. There appear to be real concerns, therefore, for the long-term future of the MoFA, and its ability to deliver relevant and high quality services to the fisheries sector.

5.2.4 Opportunities

In terms of ***"Opportunities"***, or the external factors, which could enable the realisation of the MoFA Mission/Vision in the future, there are at least six key elements to be considered.

First, the potentially high value of economic benefits which the Maldives could generate, into the future, from high quality tuna exports (from sustainably managed and certified sources) could be used to justify further investment in the development and enhancement of the MoFA, and the services which it provides (it could be argued that unless such an investment is made then the generation of these benefits will be put at risk).

Second, any future development of the MoFA could be usefully informed by international lesson-learning on tuna fisheries management and trade development, and the relationship to institutional capacity needs and training methods and approaches, along with setting up organisational management arrangements. The opportunity for South-South knowledge exchange, particularly with the Pacific Islands, might prove to be very beneficial.

Third, there are options for accessing training opportunities at different levels, provided by both regional and international organisations. Many training providers are also willing to set up dedicated capacity-building mechanisms (*e.g.* ranging from short courses to long-term postgraduate training, or in-house technical mentoring), depending on the demand.

Fourth, there are also opportunities to access support for training and capacity-building from regional and international organisations. At the same time, there is a significant level of competition for funding, and therefore a concerted strategy would need to be developed and implemented to secure external funding.

Fifth, there are also opportunities for capacity-building, training and support from the private sector (national, regional and international). The type and level of support will often reflect the nature of the self-interest by the firms and organisations concerned (*e.g.* if firms trading in tuna can benefit from an intervention such as building government agency technical capacity for fish quality assurance and export licence and certification, then they are likely to support appropriate capacity-building). There is also growth in return-seeking

and impact investment from private sector sources, which may benefit Maldives in the future.

Sixth, greater cooperation between IO fishing nations in the future, either through IOTC, or through other arrangements (*e.g.* the Bay of Bengal Programme Inter-Governmental Organisation), offers many possibilities for institutional development and enhancement of the MoFA. For a start, an increased level of knowledge-sharing on both fisheries issues and data, along with new approaches and experiences concerning fisheries management, development and trade, in the context of relevant institutional capacity, can be greatly facilitated by new information technology and platforms.

5.2.5. Threats

In terms of ***"Threats"***, or the external factors, which could limit the realisation of the MoFA Mission/Vision in the future, there are at least four key elements to be considered.

First, if IO tuna fisheries are exposed to an increasing threat of economic and biological overexploitation (through weak management at national level and international levels) in the future, the likely loss of benefits (financial, economic, trade and employment) may have a knock-on impact for investment in institutional development and organisation functions/services. Unless the potential return from investing in fisheries management and development, through organisations like the MoFA, constituted with appropriate capacity to provide relevant functions/services, are made explicit, then decision-makers are unlikely to support the MoFA, in terms of adequate funding resources.

Second, if government and political support for the fisheries sector declines, there is a risk that the MoFA will not be able to improve its performance or even maintain existing services/functions. Other sectors in the Maldives are increasingly prioritised, especially tourism and urban development and related services, as the national population is centralised around the capital city, Malé.

Third, the perception that fisheries in the Maldives could decline in the future, unless fisheries management improves (as one scenario), could lead to a reduction in support from both international organisations and private sector companies. The upholding of the 'certified status' of Maldives tuna fisheries is critical for the sector and the industry in this context. The international market for tuna is both highly competitive and segmented. The possibility that seafood companies and markets might utilise supplies from other competitors to the Maldives must always to be considered, and efforts made to reduce this risk.

Fourth, the further development of the Maldivian economy in the future, along with new opportunities outside the country, could create further competition for trained and skilled staff. The MoFA will have to consider how to retain good staff in the future, in order to maintain its operational capacity.

5.3 Future Priorities for Institutional Strengthening

5.3.1 Three Perspectives on Future Priorities

The identification of future priorities for the institutional strengthening of the MoFA will draw on three perspectives.

First, the review of functions and processes, and organisational arrangements (Section 4, above) has identified a number of key areas which could be addressed in the future, in order to improve the performance of the MoFA, in line with IBP.

Second, the SWOT analysis (above) provides a synthesis of key issues from a range of sources (both primary and secondary) relating to the current and future operation of the MoFA in realising its stated Vision/Mandate.

Third, additional perspectives on future priorities for capacity-building have been provided by the information collated and synthesised from interviews with key staff *(Annex 12)* and stakeholders *(Annex 2)*. Particular attention will be given to the 'priorities' identified by MoFA staff (the 'insider viewpoint') *(Annex 13)*. Interestingly, when a 'word cloud' (Fig. 5.1.) was developed on the basis of the responses from the MoFA staff interviewed – the importance of 'training' in general was emphasised, along with a focus on 'fisheries management', 'management' in general, 'technical' and 'analysis' skills, along with the provision of 'courses' linked to 'career' development. A linkage between 'skills', 'capacity' and 'policy' was also made. The issue of 'salary' was also central to staff priorities.

Fig. 5.1. Maldives – MoFA – Priorities raised by staff interviews on future priorities: "Word Cloud" prepared using http:\\www.worditout.com

5.3.2. List of Key Priority Areas

On the basis of the three sets of perspectives (above), a list of seven priority areas, concerning the MoFA, where institutional strengthening is required, with particular reference to the fisheries sector, have been identified. In the follow-on section, this list will be further developed into a proposed programme and 'road-map' for institutional development and capacity-building, showing how these key areas could be addressed through appropriate and sequenced reforms and capacity-building interventions over time.

[1] Policy and Legal Setting

- the Fisheries Policy and the Fisheries Law for Maldives should be further strengthened in a number of key areas, and aligned with international best practice;
- the Fisheries Law should also be aligned with the Fisheries Policy, at a national level, once this has been finalised and formalised through appropriate government processes;
- the Fisheries Policy should consider alignment also with international commitments, and specifically with the regional RFMO, the IOTC, while at the same time, providing guidance on possible collaboration with the IOTC and neighbouring coastal states to make progress on improvements in fisheries development and fisheries management outcomes;

[2] MoFA Vision and Mandate, and Strategic Plan

- the Vision and Mandate, which are well-developed already, will probably require further alignment with the Fisheries Policy (above), once this has been formalised;

[3] MoFA Functions/Services/Processes

[3a] Fisheries Policy and Planning

- Policy and Planning functions and services (which are not operating as a distinctive set of processes) will need to be developed further;

[3b] Fisheries/Aquaculture Administration

- Fisheries Management function should be strengthened to focus on the development of Fisheries Management Plans (FMP);

[3c] Fisheries Services

- general strengthening (staff numbers and quality) regarding Compliance, Fisheries Logistics
- Fisheries Administration
- set-up a new results-based management system for all divisions
- upgrade capacity in Salaries/Payroll
- upgrade capacity in specific areas *e.g.* information technology and communications

[4] Structure

- establish a policy/strategy division
- establish a clear separation between 'fisheries management' and 'compliance'
- 'compliance' should report directly to the Minister
- consider a new division on 'fish quality'

[5] Financial Resources

- increase the level of funding in line with international standards
- the case will have to be made on the basis of the return of this investment in relation to benefits generated for the Maldives (Benefits-Cost-Analysis)
- consider sources and mechanisms for funding and investment (*e.g.* public-private arrangements, international impact investors, cost-recovery schemes, industry/trade levy)

[6] Human Resources

- develop an in-house human resource strategy
- establish a set of defined career pathways (posts, salaries, promotion criteria, etc)
- establish a defined training commitment (short, medium, L/T)
- consider increasing the number and quality of staff sooner rather than later (especially at senior level)

[7] Infrastructure and Technical

- upgrade the computer system in certain areas (laptop access)
- provision of technical support in computing should be upgraded

5.4 Summary

Overall. a number of key issues and themes have been highlighted in this section as follows:

First, the existing organisation of the MoFA (functions, services, structure) are largely coherent with international best practice, and provide a sound foundation on which to build further appropriate processes and mechanisms for fisheries development and management in the Maldives.

Second, at the same time, there are some fundamental interventions and changes needed including strengthening the fisheries governance framework (policy, law, institutions). The core of these reforms should aim to build suitable fisheries management systems for the future, for the Maldives, but set in the wider IO context.

Third, a set of seven priority areas for institutional strengthening have been identified, based on the results of the MFR. The relationship between establishing better governance arrangements and processes to capitalise on the Maldives fisheries wealth, and the need for appropriate investment mechanisms to fund the actions and interventions needed is also critical. An early investment appraisal will be essential, and considering the role of both public and private funding sources, and domestic and international.

6. PROPOSED PROGRAMME AND ROAD-MAP FOR INSTITUTIONAL STRENGTHENING AND CAPACITY-BUILIDNG

6.1 Introduction

In this final section, a programme to address the institutional strengthening and capacity-building priorities for the MoFA identified by this MFR will be proposed.

First, a brief overview of the conceptual approach will be presented.

Second, a Logical Framework Approach (LFA) will be used to set out a programme of institutional strengthening, and capacity-building.

Third, a Gantt chart will outline the schedule of proposed activities, and incorporated into the LFA.

Fourth, the proposed interventions will also be prioritised (high, medium and low), and shown (colour-coded) within the LFA.

Fifth, on the basis of the prioritisation of the proposed interventions, a 'road-map' (interventions sequenced over time will be presented).

Sixth, and finally, an indication of the budgetary implications of the proposed institutional strengthening and capacity-building for the MoFA will be provided.

6.2 Conceptual approach

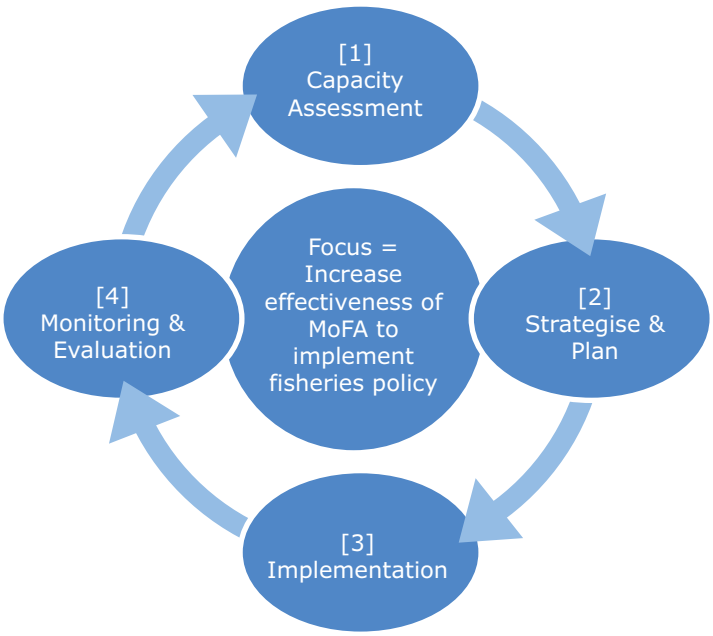
The conceptual approach used for institutional strengthening and capacity-building is summarised in Fig. 6.1. below.

The overall focus is to increase the effectiveness of the MoFA in order to successfully implement fisheries policy.

The first step is to undertake a 'capacity assessment' – in this case a MFR methodology has been applied in the Maldives – to examine the functions, services and organisational arrangements of the MoFA in relation to national fisheries policy. A set of priority areas for intervention have been identified.

The second step is strategise and plan in order to develop a programme of institutional strengthening and capacity-building (the Programme outlined in the Logframe).

Fig. 6.1. Conceptual Approach – Institutional Strengthening and Capacity-Building



The third step is to implement the programme over time, with specific inputs leading to desired outputs (the Gantt Chart).

The fourth step is to monitor and evaluate the implementation programme, and determine to what extent the desired outputs, and longer term outcomes (*i.e.* the increased effectiveness of the MoFA in relation to overarching policy goals) have been achieved.

Finally, to complete the cycle, the results of the M&E (above) can be fed back into the process, to better inform and target future interventions.

6.3 Logical Framework Approach

The LFA (Table 6.2.) presents the relationship between the national fisheries policy, the MoFA and a proposed programme of interventions and actions to strengthen the operation of the MoFA, with regards to its core functions and services, and associated structure.

In addition, a Gantt Chart has been attached to the LFA (right-hand side) to show the proposed scheduling of key interventions over 5 years. The interventions have been coloured coded (red = priority, orange = medium level, and grey/green = standard level). The sequencing of the interventions in this way forms the basis of an initial 'road-map' to guide planning and further programme development.

The ***SUPRA-GOAL*** is shown as "Fisheries Policy is implemented successfully". The objectively viable indicators (OVI) focus on well-managed, productive and sustainable fisheries (*e.g.* catch stabilised at 120Kt, economic rent at USD 50 million/year and employment at 10,000 persons).

The ***GOAL*** is shown as "Increased effectiveness and performance of the MoFA (specifically the fisheries divisions)". The OVI will focus on the delivery of core functions and services, based on standard M&E data, and audited by appropriate independent (external) experts. Achievement of the Goal will in turn provide a basis for the achievement of the Supra-Goal.

The ***PURPOSE*** of the programme is "To strengthen the MoFA functions/services, and structure, for fisheries development and management". The OVI will compare the before/after institutional arrangements for MoFA, in terms of breadth and quality of delivery, using M&E data, and validated by independent experts. The 'Purpose' will provide the foundation for the achievement of the Goal and Supra-Goal.

The ***INPUTS/OUTPUTS*** of the programme are organised to reflect the conceptual approach for institutional strengthening and capacity-building (Fig. 6.1. above).

Component [1] Assessment – focuses on the baseline assessment of the target institution (in this case the MoFA in Maldives). A Management and Functional Review (MFR) methodology was used to examine the functions, services and structure/organisation involved, to assess the existing capacity and overall performance, and to identify priority areas for future interventions in order to strengthening the institution and build capacity, with reference to policy implementation. The OVI is the completion of the MFR report (this stage has been completed for the MoFA in Maldives)

Component [2] Strategise and Planning – this component will utilise the results of the MFR to build a future strategy and plan for institutional strengthening and capacity-building. Key inputs and outputs, with appropriate methodology and delivery agents, will be identified, scheduled and costed over a given time period (5-10 years) to achieve a target outcome (*e.g.* improved level or coverage of functions/services with reference to policy implementation, and possibly associated institutional reforms and restructuring). The

OVI will be a new Strategy and Plan for Institutional Strengthening and Capacity-building (a preliminary outline plan has been proposed for MoFA as part of the MFR report – this could form the basis of future discussions and planning in the future for MoFA). (Priority Rating = High).

Component [3] Implementation – addresses the six key priority areas identified in the MFR report for the future institutional strengthening and capacity-building of MoFA.

[3.1.] Fisheries Policy and Fisheries Law – focuses on the review, consultation over, revision and formalisation of these two key elements – which form the foundation of a successful fisheries sector. (Priority Rating = High)

[3.2.] MoFA Vision, Mandate and Strategic Plan – focuses on the review, revision and alignment of these areas, with reference to national policy, plus the production of an appropriate strategic plan with key targets and milestones (Priority Rating = High).

Table 6.1. MoFA – Comparison of Current Staff and Future Needs (By Grade)

Functions/Services	Current					Future Requirements					Changes (+/-)				
Staff Grade	EX	MS	GS	SS	Total	EX	MS	GS	SS	Total	EX	MS	GS	SS	Total
Fisheries Policy & Planning	0	0	0	0	0	2	3	7	2	14	2	3	7	2	14
Fisheries/Aquaculture Administration	1	3	9	0	13	2	4	9	1	16	1	1	0	1	3
Fisheries Services	8	15	18	7	48	12	19	23	15	69	4	4	5	8	21
Total	9	18	0	7	61	16	26	39	18	99	7	8	12	11	38
% Change															62
Corporate/Support Services					39					50					11
Grand Total					100					149					49
% Change															49

[3.3.] MoFA Functions and Services – under each of the key service areas, a strategy will be implemented to match service demand with staff capacity needs (in terms of numbers and quality). The existing staff complement (profiled in terms of staff grades *e.g.* EX, MS, GS and SS) will be compared with a target profile (to be achieved after 5 years). A combination of staff recruitment and staff training will be used to build capacity as appropriate. Staff training will be accomplished through a combination of 4 approaches – short courses (S/T), first degree training, post-graduate training, and in-house expert mentoring (on the job training). The precise subject areas for training will have to be worked out in due course, but the suggestions included in the logframe reflect the results of the MFR and the interviews with key staff and other stakeholders (re: needs assessment). (Priority Rating = Medium/Standard).

[3.4.] Structure – to address the need to review the MoFA structure (in relation to functions, services). Attention should be focused on the options of creating a new policy and strategy directorate, also a new fish quality directorate, and ensuring that there is a clear separation between fisheries management and compliance functions. The top priority will be to produce a review report in Year 1, which will be used as a basis to guide and implement subsequent changes. (Priority Rating = Red/Standard).

[3.5.] Finance – to consider the finance and investment issues relating to the future development of the MoFA. The starting point will be a 'budget review' to examine the current

financial arrangements and recent trends, in the light of government policy. Thereafter, work will be conducted to investigate the cost of various development scenarios and phasing for MoFA reforms and capacity-building, along with possible investment options (*e.g.* sources of funding such as a fisheries levy), and the benefit-cost analysis of investment (relative to fisheries services supporting sectoral upgrading and expansion). In the end, a 'business case' for future investment will be developed. The OVI will be a series of report on each of these key topics. (Priority Rating = Red).

[3.6.] Human Resources – to address the need for a MoFA human resources strategy. This will focus on staff capacity and quality needs, along with a review and development of a range of elements including salaries structures, conditions of service, promotions, staff development, and training opportunities. The role of recruitment within a 5-year development plan, alongside training, will be examined carefully. (Priority Rating = Red).

[3.7.] Infra-structure/Technical – to examine future infrastructure/technical needs, and with particular reference to information technology and communications. (Priority Rating = Standard)

Component [4] Monitoring and Evaluation (M&E) – this final component will design and implement an M&E system relevant to the institutional inputs which make up the proposed programme for MoFA. The results will be incorporated into future decision-making to guide and adjust the overall implementation process. OVI will be the regular M&E reports. (Priority Rating = Standard)

6.4. Road-map for MoFA Institutional Strengthening and Capacity-Building

The Programme Logframe and Gantt Chart (Table 6.2.) provide an indicative implementation schedule for the proposed actions and interventions. However, close attention should also be paid to the 'prioritisation' of the interventions as indicated by the colour coding – there is an importance sequence which should be recognised – and this essentially provides the simple but crucially important 'road-map' for the future, as shown in Table 6.3.

6.5. Budget

It is estimated that the implementation of this proposed programme of institutional strengthening and capacity-building, over 5 years, in the first instance, would require a budget of approximately USD 2-4 million per year.

The resulting upgrading of the MoFA – capable of operating a full range of functions and services – will lead to an associated increase in the number and quality of its staff. A preliminary assessment of staffing needs across all grades suggests that total staff numbers would need to increase by at least 49% (Table 6.1.).

The proposed development of the MoFA in the future, with appropriate capacity capable of providing all the necessary functions and services for the fisheries sector, would also imply an increase in its annual costs.

It is estimated that the MoFA would, therefore, need a budget of some of USD 8 million per year. This would certainly be in line with the cost of fisheries services, provided by other countries, based on the best available data currently available.

Clearly, as part of any future planning exercise for institutional development and capacity-building for the MoFA in the Maldives, a precise investment and budgeting exercise will be needed.

Table 6.2. Logical Framework Approach – Institutional Strengthening and Capacity-Building: Maldives - Ministry of Fisheries and Agriculture (MoFA) – Fisheries and Administrative Divisions – Years 1 - 5							
	KEY- Priority Actions	Highest					
		Medium					
		Standard					
	Narrative	Objectively Verifiable Indicators (OVI)	Year				
			1	2	3	4	5
Supra-Goal	Fisheries policy is implemented successfully	Well-managed, productive and sustainable fisheries					
Goal	Increased effectiveness and performance of the MoFA (specifically fisheries divisions)	Delivery of MoFA Functions/Services are rated above average by independent assessment (using M&E data)					
Purpose	To strengthen functions/services and structures for fisheries development and management	MoFA functions/services have been expanded and quality has been improved, along with new structure (based on a before/after assessment by independent experts)					
Inputs/Outputs	[1] Assessment						
	1.1. Contextual						
	1.2. Organisational						
	1.3. Individual						
	1.4. Overall Assessment	MFR study completed					
	[2] Strategise and plan						
	2.1. Policy and legal reform						
	2.2. Functions, processes						
	2.3. Structure						
	2.4. Capacity-building (general) in-house, external, mentoring						
	2.5. Capacity-building (specific)						
	2.6. Final Plan	Strategy/Plan completed					
	[3] Implementation						
	3.1. Fisheries Policy and Fisheries Law						
	Policy Review, Consultation, Revision, Approvals, Formalise	New fisheries policy formalised					

	Legal Review, Consultation, Revision, Approvals, Formalise	New fisheries law formalised					
	Review/Revise International Commitments, Approvals	International commitments complete and formalised					
	3.2. MoFA Vision and Mandate, Strategic Plan						
	Revise and align Vision/Mandate with new Policy, with approvals	Vision and mandate aligned with policy					
	Design 5 and 10 Year Strategic Plans, aligned with policy	New strategic plans in place					
	3.3. MoFA Functions and Services						
	3.3.1. Fisheries Policy and Planning	Functions/services: Policy and Planning					
	Staff in Post (Sanctioned)	0					
	Current vacancies	0					
	No. staff with degrees	0					
	Target Profile by Yr. 5	EX (2) MS (3) GS (7) SS (2) Total (14)					
	Recruitment proposed	EX (1) MS (3) GS (8) SS (2) Total (14)					
	Key promotions to higher grade (after training)	EX (1) MS (1) GS (0) SS (0) Total (2)					
	Training proposed						
	S/T Training Course in Strategic Planning, M&E	10 staff trained in strategic planning in Yr 1					
	First Degree Training in Fisheries Policy	1 staff complete degree in fisheries policy by Yr 4 end					
	Postgraduate Training in Fisheries Policy	2 staff complete Masters in fisheries policy by year 4 end					
	Mentoring by External Expert (Embedded)	Mentor completes 8 x 1 month assignments by Yr.4 end					
	3.3.2. Fisheries/Aquaculture Administration	Functions/services: Fisheries Management					
	Staff in Post (Sanctioned)	EX (1) MS (3) GS (9) SS (0) Total (13)					
	Current vacancies	3					
	No. staff with degrees	3					
	Target Profile by Yr.5	EX (2) MS (4) GS (9) SS (1) Total (16)					
	Recruitment proposed	EX (0) MS (1) GS (1) SS (1) Total (3)					
	Key promotions to higher grade (after training)	EX (1) MS (1) GS (0) SS (0) Total (2)					
	Training proposed						

	S/T Training in Fisheries/Aquaculture Management	10 staff trained in fisheries/aquaculture management in Yr. 1					
	First Degree Training in Fisheries/Aquaculture Management	1 staff trained completes degree by Yr. 4 end					
	Postgraduate Training in Fisheries/Aquaculture Management	2 staff complete Masters by Yr.4					
	Mentoring by External Expert (Embedded)	Mentor completes 8 x 1 month assignments by Yr.4 end					
	3.3.3. Fisheries Services	Functions/services: Compliance, Fisheries Logistics and Administration Fisheries Training, Extension and Promotion Fisheries Infrastructure Development Marine Research Centre (MRC)					
	Staff in Post	EX (8) MS (15) GS (18) SS (7) Total (48)					
	Current vacancies	24					
	No. staff with degrees	16					
	Target Profile by Yr.5	EX (12) MS (19) GS (23) SS (15) Total (69)					
	Recruitment proposed	EX (2) MS (2) GS (3) SS (8) Total (15)					
	Key promotions to higher grade (after training)	EX (2) MS (2) GS (0) SS (0) Total (4)					
	Training proposed						
	S/T Training in Compliance Services	30 staff trained in compliance services by Yr.5 end					
	Mentoring in Compliance Services (Expert Embedded)	Mentor completes 4 x 1 month assignments by Yr.2 end					
	S/T Training in Research Methods	30 staff trained in research methods by Yr.5 end					
	First Degree Training in Fisheries Science	1 staff completes degree by Yr.4 end					
	First Degree Training in NR Economics	1 staff completes degree by Yr.4 end					
	Postgraduate Training in Fisheries Science	2 staff complete Masters by Yr.5 end					
	Postgraduate Training in NR Economics	2 staff complete Masters by Yr.5 end					
	Mentoring by External Expert in Fisheries Science	Mentor completes 4 x 1 month assignments by Yr.2 end					

	Mentoring by External Expert in Fisheries Economics	Mentor completes 4 x 1 month assignments by Yr.2. end					
	S/T Training in Extension Services	30 staff trained in extension services by Yr.5 end					
	Mentoring by External Expert in Extension Services	Mentor completes 4 x 1 month assignments by Yr.2 end					
	S/T Training in Fisheries Administration	30 staff trained in fisheries administration by Yr.5 end					
	S/T Training in Project Appraisal, M&E	30 staff trained in project appraisal by Yr.5 end					
	S/T Training in Industry Promotion	30 staff trained in promotion by Yr. 5 end					
	S/T Training in Infrastructure Development	30 staff trained in infrastructure development by Yr.5 end					
	3.3.4. Corporate & Support	Functions/Services: Office Administration, IT, Budget and Finance, Policy and Coordination, Human Resources					
	Staff in Post	39					
	Current vacancies	14					
	No. staff with degrees	n.a.					
	Target Profile at Yr.5	50					
	Recruitment proposed	To be determined (10?)					
	Key promotions to higher grade (after training)	To be determined (10?)					
	Training proposed						
	S/T Training in Office Administration	10 staff trained in office administration by Yr.1 end					
	S/T Training in Project Management	10 staff trained in project management by Yr. 1 end					
	S/T Training in Financial & Business Planning	10 staff trained in financial/business planning by Yr.1. end					
	S/T Training in Information Technology and Comms	10 staff trained in Information Tech/Comms by Yr. 1 end					
	S/T Training in Human Resources Management	10 staff trained in HR management by Yr.1 end					

	First Degree Training in Business Administration	1 staff completes degree by Yr.4 end					
	First Degree Training in Information Technology	1 staff completes degree by Yr.4. end					
	Post-graduate Training in Business Administration	2 staff complete Masters by yr.4 end					
	Mentoring in Administration / Services (General)	Mentor completes 4 x 1 month assignments by Yr. 2 end					
	Mentoring in Administration / Services (Specific)	Mentor completes 4 x 1 month assignments by Yr. 2 end					
	3.4. Structure						
	Review of MoFA structure (in relation to functions, services)	Review report completed by Yr.1. end					
	Approvals for new structural reforms	Government approvals					
	Creation of new policy/strategy directorate (option)	New Policy Directorate operational by Yr.2. end					
	Creation of fish quality directorate (option)	New Fish Quality Directorate operational by Yr. 2 end					
	Separation of Fisheries Management and Compliance	Compliance Directorate operating separately by Yr.2 end					
	Creation of Compliance / Minister comms pathway	New comms pathway (with reports) by Yr. 2 end					
	3.5. Finance						
	Undertake Budget Review	Report on Budget Review completed by Yr.1. end					
	Review scenarios for institutional change and costs	Report on institutional changes/cost options by Yr.1. end					
	Benefit-cost analysis of investment in MoFA	Report on BCA of MoFA investment by Yr. 1 end					
	Review options for investment sources	Report on investment in MoFA (Finance sources) by Yr.1. end					
	Produce 'business case' for investment in MoFA	Report on Business Case for MoFA Investment by Yr.1 end					
	Approvals for new investments and spending plans	Spending plan approvals from government					

	3.6. Human Resources						
	Audit and review capacity needs	Audit report on capacity needs assessment by Yr.1 end					
	Design human resource strategy (capacity and quality)	Human Resource Strategy completed by Yr.1 end					
	Review Posts, salaries, conditions of service	Staff Conditions of Service Review completed by Yr.1. end					
	Define career pathways, post criteria, promotion criteria	New Conditions of Service/Career Pathways defined Yr.1. end					
	Establish training commitments (S/T, medium, L/T)	Training Schedule defined by Yr.1. end					
	Approvals for new human resource strategy implementation	Official approvals					
	Prioritise and action recruitment	Staff Recruitment in Priority areas completed by Yr.1. end					
	3.7. Infrastructure/Technical						
	Review information technology status	IT Review completed by Yr.1. end					
	Approvals for technological improvements	Official approvals					
	3.7.2. Upgrade IT equipment and systems	IT upgrade completed by Yr.2. end					
	3.7.3. S/T Training in IT	30 staff trained in IT per year for 5 years					
	3.7.3. L/T Training in IT	1 staff completes degree in IT by Yr.4 end					
	3.7.4. Mentoring by External Export (Embedded)	Mentor completes 4 x 1 month assignments by Yr.2 end					
	[4] Monitoring & Evaluation						
	4.1. Design/Pilot M&E system relevant to institutional inputs	M&E Pilot system completed by Yr.1 end					
	4.2. Implement M&E System	M&E Results included in CB decisions by Yr. 2 end					
	4.3. Incorporate M&E results into future decision-making	M&E system operational by Yr.2 end					

Table 6.3. "Road-map" – MoFA – Institutional Strengthening and Capacity-building		
Priority Level	**Component/Intervention**	**Year**
High	Institutional Assessment	1
	Strategy for Institutional Strengthening and Capacity-building	1
	Fisheries Policy and Legal Review	1
	Fisheries Policy and Law Formalisation	1
	Finance and Investment Assessment	1
	Finance and Investment Proposals, Business Case	1
	Human Resource Strategy and Assessments	1
	Structure Review and Reform Proposal	1
	Government Approvals for Policy and Law Formalisation	1-2
	Government Approvals for Investment and Spending Plans	1-2
	Government Approvals for Human Resource Plans	1-2
	New Staff Recruitment	1-2
Medium	Strategic Plan Finalised	1-2
	Re-structuring with New Directorates Created (policy/planning, fish quality)	2
	S/T Courses in Fisheries Policy and Strategic Planning	1-2
	Mentoring Input on Fisheries Policy and Strategic Planning	1-2
	S/T Courses in Fisheries/Aquaculture Administration	1-2
	Mentoring Input on Fisheries/Aquaculture Administration	1-2
	S/T Training in Fisheries Services	1-2
	Mentoring in Fisheries Services	1-2
	S/T Training in Corporate and Support Services	1-2
	Mentoring in Corporate and Support Services	1-2
	Assessment, Planning and S/T, Mentoring in Infrastructure/Tech	1-2
Standard	Degree Training in Policy and Planning	2-5
	Mentoring in Policy and Planning	2-5
	Degree Training in Fisheries/Aquaculture Administration	2-5
	Mentoring in Fisheries/Aquaculture Administration	2-5
	Degree Training in Fisheries Services	2-5
	Mentoring in Fisheries Services	2-5
	Degree Training in Corporate and Support Services	2-5
	IT Upgrade, S/T and Mentoring	2-5
	M/E System Designed and Implemented	1-5

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LIST OF ANNEXES

Annex-1: MANAGEMENT AND FUNCTIONAL REVIEW (MFR) INTRODUCTION AND METHODOLOGY (POWERPOINT)

World Bank/GEF Oceans Partnerships Program
Bay of Bengal Project, 2015-2018

Republic of Maldives - Ministry of Fisheries and Agriculture:

Management and Functional Review (MFR)

Introduction and Methodology

Implemented by the

Bay of Bengal Programme Inter-Governmental Organisation (BOBP-IGO)

Overview

[1] Presentation Objectives
[2] Background to OPP and OPP-BOB Project
[3] Framework for MFR
[4] MFR Purpose
[5] MFR Methodology – Key components
[6] MFR Implementation – Protocol and data sources/collection
[7] MFR – Data analysis and synthesis
[8] MFR – Reporting and Follow-up plans
[9] Summary
[10] Appendix - Importance of international best practice 'benchmarks' in fisheries policy and management
[11] Survey questionnaire - example

[1] Presentation Objectives

- To provide a brief introduction to the OPP-BOB project and the link to the MFR;
- To review the MFR Framework
- To outline and explain the MFR (purpose, methodology, outputs)
- To highlight the importance and use of international benchmarks for best practices in fisheries policy and management

[2] Background to OPP and OPP-BOB Project

- Ocean Partnerships for Sustainable Fisheries and Biodiversity Conservation-Models for Innovation & Reform – Bay of Bengal Project (TF 018233) (or OPP-BOB) - Funded by World Bank/GEF, 2015-2018
- Focus on the Management of Highly Migratory Species (tuna mainly) and Operating globally (Atlantic, Pacific, Indian Oceans)
- Regional Perspective (*e.g.* for OPP-BOB - India, Sri Lanka, Maldives, Bangladesh) and implementation (Executing Agency-BOBP-IGO)
- Output – Proposals for future investment in projects (activities), which will contribute to improved fisheries management (so-called "Bankable Business Cases")
- Institutional capacity-building is a recognised priority area for future investment and development by World Bank (link to MFR as starting point)

[3] Scope and Extent of MFR - Overview

[A] To design and develop a methodology for the assessment of the roles, functions and capacities of a fisheries management organisation, otherwise known as a "**Management and Functional Review (MFR)**", appropriate to Maldives, and focusing specifically on the lead government organisation (or Ministry) in the sector;

[B] To implement the MFR methodology in the Maldives, and to use the results generated to advice and guide future institutional capacity-building strategies and plans, with reference to government fisheries policy; other countries may also be analysed in later phases of the project as part of the capacity-building work components;

[3] Scope and Extent of MFR – Overview (cont.)

[C] to ensure technical collaboration with National Experts, with respect to mentoring and support for the development and implementation of the MFR methodology; and

[D] To produce and finalise relevant key outputs from the design and implementation of the MFR, mainly a **technical report** setting out institutional capacity-building needs and priorities; including a roadmap for institutional capacity-building, with reference to government fisheries policy.

[3 A] Scope and Extent of MFR – Details

(i) Appraisal of the current mandate, and current sets of policies that govern management of fisheries in Maldives;

(ii) Based on the above, identify the following: (i) current capacity gaps appropriate management of the country-level fisheries activities; (ii) current capacity gaps managing and promoting sustainable value chains in fisheries; and, (iii) current capacity gaps managing and responding to regional and international obligations;

(iii) Suggest the priority institutional capacity building actions, to be able to address the identified capacity gaps;

[3 A] Scope and Extent of MFR – Details (cont.)

(iv) Identify the policy and legislative gaps (in comparison with international best practices, and with reference to other BOBP-IGO countries, and if possible with similar island countries elsewhere);

(v) Suggest what needs to be done, to close the above policy gaps (or what should be the outline of the future policy framework); and

(VI) Suggest what capacity gaps will need to be addressed in near and in short-term (both in future) to be able to deliver and institutionalize the enhanced policy framework (whenever in future the enhanced policy framework comes in force).

[4] MFR Purpose

- Maldives is committed to strengthen the performance of its public institutions for efficient service delivery;
- In many countries in the region and elsewhere, Public Sector Reform Programmes have been developed with help from development partners;
- Primary objectives include the restructuring and capacitating of Ministries;
- Process includes conducting Management and Functional Reviews (MFR) – to examine the mandate, vision, mission, structures, and processes used in each Ministry and to make recommendations for the future.

[5] MFR Methodology – Key components

Phase 1: Fisheries Sector Review

1.1. Undertake characterisation of sector (profiling)
1.2. Describe sector timeline and key issues (since 1965)
1.3. Produce SWOT analysis (plus key issues)
1.4. Summarise current policy and law
1.5. Summarise key development projects
1.6. Summarise past sector performance reviews

Phase 2: Key Fisheries Organisation and Structural Review

2.1. Confirm Mandate, Vision, Mission
2.2. Describe organisational structure
2.3. Summarise human resource status
2.4. Confirm budget and other material resources

[5] MFR Methodology – Key components (Cont.)

Phase 3: Function and Process review

3.1. Define key functions and associated processes
3.2. Focus on policy and planning functions (*e.g.* policy design)
3.3. Focus on administrative functions (*e.g.* fisheries planning)
3.4. Focus on fisheries service functions (*e.g.* compliance)
3.5. Focus on corporate and service functions (*e.g.* human resources)
3.6. Confirm status and performance of each function, factors involved

Phase 4: Synthesis and Reporting

4.1. Overview of Organisational Structure, Function and Processes
4.2. Confirmation of performance, issues, drivers and gaps
4.3. Proposed options for institutional strengthening (actions, inputs)
4.4. Road-map for institutional strengthening (phases, schedule)

[6] MFR Implementation – Protocol and data sources/collection – Key points

- Discuss the Framework and methodology with the Minister and senior staff;
- Agree the implementation steps, process, timing, collaborative arrangements with key staff;
- Source key documents:
  - Policy and law
  - Sector overviews and reviews, key statistics
  - Organisation Mandates, Plans and Organogram
  - Lists of staff, budgets, materials, infrastructure
  - Recent performance reviews, project lists and key reports
- Agree the use of a simple questionnaire for data collection (see below)
- Option of stakeholder meeting
- Option of sector visits (along value chain- industry)
- Confirm date of wrap-up meeting

[7] MFR – Data analysis and synthesis – Key Points

- A combination of primary and secondary information and data will be collected, collated and synthesized;
- Questionnaire-based surveys of key staff will be used to identify, confirm and cross-reference information collected from secondary sources, and from group meetings;
- Preliminary results will be validated and refined in discussion with key staff, primarily to check facts and issues;
- The interpretation and analysis of the key findings (above), focusing primarily on structure, function, processes and performance will be undertaken with reference to international benchmarks (concerning 'best practice' for fisheries policy and management – see below);
- The MFR results will be used to underpin the development of an institutional strengthening and capacity-building 'roadmap'.

[8] MFR – Reporting and Follow-up plans

- A Report on the results of the implementation of the MFR in the Maldives, generated using the MFR methodology (above), including the identification of future institutional capacity needs and a roadmap for institutional capacity-building, with reference to government fisheries policy by end of January 2017.
- Ministry of Fisheries of the Republic of Maldives will continue to be linked with the programme of activities under the OPP-BOB; the Minister and staff will be informed of any future opportunities for collaboration and information-sharing.

[9] Summary

- International 'best practice' in fisheries policy and management, based on increasing empirical evidence, shows that successful fisheries are underpinned by appropriate institutional arrangements;
- This includes the structure, function and processes of the lead government ministry, and a clear definition of roles and responsibilities in relation to other stakeholders (resource-users), with particular reference to fisheries management planning and implementation;
- The MFR for the Maldives aims to examine the current institutional arrangements for fisheries, and identify where appropriate adjustments and strengthening could be targeted, with particular reference to the role of the Ministry of Fisheries.
- The current presentation outlines the proposed methodology with reference to key 'best practice' issues.

[10] Appendix - Importance of international best practice 'benchmarks' in fisheries policy and management – Some key points

[i] In most countries, the prevailing ***fisheries management approach*** sees government relying on command-and-control regulation (*e.g.* restrictions on vessels, gear, seasons, and catch characteristics) – there is almost no attention given to economic objectives or incentives (Cunningham *et al.*, 2009).

[ii] The evidence is now overwhelming that this approach has not produced reasonable economic, social, or biologically sustainable outcomes over the past 40 years. The World Bank / FAO estimates that over US$ 50 billion/year is lost from ***inefficient use*** of fisheries resources ("Sunken Billions" Report, Willmann and Kelleher, 2009))

[iii] In recent years, knowledge of ***best practice*** in fisheries development and management has increased based on empirical experiences worldwide – with success stories reported from New Zealand, Australia, Iceland, Norway, Namibia and others (World Bank Policy Brief No. 2)

[10] Importance of international 'benchmarks' for best practice in fisheries policy and management – Some key points (Cont.)

[iv] The factors which will determine ***successful policy*** including - the choice of objectives, appropriate incentives for fishers and effective institutions – can be identified from IBP. These factors are examined in a series of World Bank Policy Briefs (see http://www.worldbank.org/en/topic/environment/brief/global-program-on-fisheries-profish-publications "Fisheries Factsheets").

[v] A key empirical finding is that the key driver for fisheries exploitation (and overexploitation in particular) is the ***resource rent*** inherent in all fisheries. The primary reason why the simple fisheries science paradigm has been unsuccessful – is that it focuses on 'symptoms' and 'constraints' concerning fisheries exploitation.

[10] Importance of international 'benchmarks' for best practice in fisheries policy and management – Some key points (Cont.)

[vi] Further analysis of 'successful fisheries' reveals that the associated management systems focus on the resource rent issue through the ***allocation of rights*** of harvest to fishers or communities. This helps to align the incentives facing fishers with the objective sought by the management authorities (World Bank Policy Brief No.2).

[vii] It is widely recognised that different forms of ***co-management*** connected with well-defined fishery management units can present options for further development. Co-management is generally defined as an approach to management where the responsibility and function of managing fisheries is shared between the government and resource users or the community (The World Bank Policy Briefs provide some examples of co-management arrangements).

[10] Importance of international 'benchmarks' for best practice in fisheries policy and management – Some key points (Cont.)

[viii] Co-management is also about the sharing the control over the allocation and use of fisheries resources (and the rent generated). The **role of government and other stakeholders (or *user groups)*** can therefore vary widely depending on the level of responsibility for management and control of the resource that is held by each group.

[ix] ***Government*** can usefully establish and support the co-management framework that, in turn, enables (and incentivizes) the other ***stakeholders (fishers)*** to take greater responsibility for management. This requires government to set the appropriate policy framework, and specify, allocate, protect and legitimize the harvesting and management rights to be taken up and used by the other stakeholders (fishers).

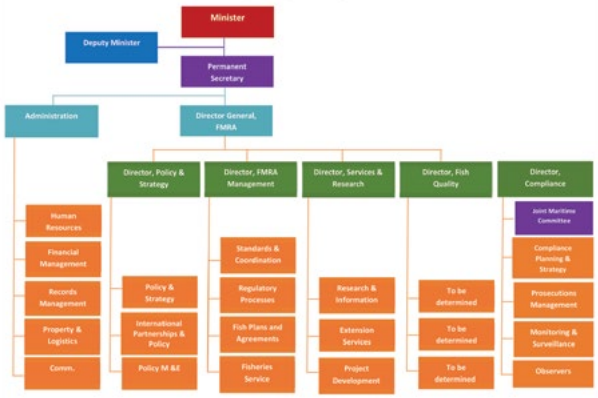
[x] The Diagram below illustrates the ***range of functions*** required to deliver fisheries policy outcomes, in most settings. The delivery of these functions (and associated processes) between government and other stakeholders will have to be worked out for each country; the follow-on diagram provides one illustration of a Ministry set-up with functions shown by unit.

Functions required to realize Government outcomes for Fisheries and Aquaculture (Courtesy: M. Arbuckle)

Policy & Planning	Fisheries & Aqua Administration	Fisheries Services	Corporate & Support
Strategic Plan Policy (including law) International / PPP support Monitoring of policies and standards	Fisheries Plans / Sharing Agreements Regulatory services Fish Intervention Plan and specific. of Services • Compliance & monitoring • Information (monitoring) • Research • Registration •Extension	Compliance services •Enforcement Research services •Stock assessment analysis Monitoring Extension services	Corporate services •Human Resources Projects support

Example of a Fisheries Ministry Structure – with Functions Identified

(Courtesy: M. Arbuckle)



[10] Importance of international 'benchmarks' for best practice in fisheries policy and management – Some key points (Cont.)

Two final contextual points (MFR analysis) and follow-on actions:

[xi] 'Success' in fisheries development and management requires that policy is specified correctly from the beginning. Proposed improvements in institutional arrangements (as a result of a MFR) almost certainly will not achieve the 'right' outcomes if the policy framework is mis-specified (and this will also need to be addressed through appropriate reform) (see - World Bank Policy Brief No. 1, 2004);

[xii] Follow-on interventions from a MFR must take account of the issue of 'sequencing' of investments. For example, new capacity for MCS must be underpinned by appropriate legal frameworks (which may need to be established first) (see Neiland *et al.*, 2016)

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[11] EXAMPLE OF QUESTIONNAIRE FUNCTIONAL AND MANAGEMENT REVIEW OF MINISTRY

- MANAGEMENT AND STRATEGY QUESTIONNAIRE

Source: GoSL/DFID (2005) MFR, Ministry of Mineral Resources.

The purpose of this questionnaire is to determine the nature of the overall strategy and structure of the ministry / department/ division/ agency/ unit to enable the MFR team to identify key issues, and to guide follow-up research and interviews. Please complete all 10 questions and table 1 and 2 as far as you can. A member of the team will be pleased to assist with any difficulty.

MINISTRY: .....

NAME OF POST HOLDER: .....

DEPT/ DIV/ AGENCY/ UNIT: .....

JOB TITLE: .....

LOCATION: .....

SECTION A: FUNCTIONS/ STRUCTURE

1. Please list the main functions of the ministry/ department/ division/ agency/ unit for which you are responsible.

2. Are there agreed work plans to implement the functions/ activities of your ministry/ department/ division/ agency/ unit? If not, how is work organised, coordinated and monitored?

3. Please state any problem (s) encountered in carrying out these functions. What procedures/processes could be improved?

4. Does your ministry/ department/ division/ agency/ unit collaborate with other ministries/ departments/ divisions/ agencies/ units in the performance of functions? If any, please indicate.

SECTION B: ORGANISATION/ OPERATIONAL STRUCTURE

5. Please indicate the number of staff for whom you have managerial/ supervisory responsibility within the ministry/ department/ division/ agency/ unit. Do you have responsibility for staff elsewhere?

6. Are you in charge of any donor-supported programme? (Yes / No). If yes, what are the programmes and outline the budget, purpose and your own or / department/ division/ agency/ unit role.

SECTION C: PERFORMANCE MANAGEMENT AND TRAINING

7a. Are staff provided with job descriptions? (Yes / No)

b. Is a staff performance appraisal scheme in place and operating? (Yes/No)

8. Are training opportunities available for staff? (Yes / No) If yes, what type and how frequent do they take place?

9. What skills and competencies are lacking in your ministry/ department/ division/ agency/ unit

SECTION D: COMMUNICATION

10. What are the methods of communication between your ministry/ department/ division/ agency/ unit and the following:

(i) Staff:

(ii) Departments:

(iii) Provincial offices:

(iv) Public:

(v) Other MDAs:

What difficulties arise in these communications?

Please complete Table 1 and 2 with any information you hold

Table 1. Please complete for staff under your command

***(by grade)**

No. Staff	Status			No. Vacancies
	Permanent	Temporary	Casual	

Table 2 Please fill in the following information on equipment in the table below:

Available equipment		Status (tick)			Comments (no. required?)
Type	No.	Good	Require service	Obsolete	

If there is any additional information which you would like to draw to the Review Team's attention please make a note here or discuss it with the Review Team directly during the research and interview phase.

ADDITIONAL COMMENTS

Thank you very much for your cooperation!

Annex-2: LIST OF KEY PERSONS CONSULTED

List of Key Persons Interviewed during the Management & Functional Review of the Ministry of Fisheries and Agriculture, Government of the Republic of Maldives
21- 30 December 2016

SL. No	NAME	POSITION & ADDRESS	TEL, FAX, MOBILE, EMAIL
Ministry of Fisheries and Agriculture, Government of Maldives			
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Annex-3: MALDIVES – NATIONAL PROFILE

Year of Independence	***1965***
Location	Southern Asia, group of atolls in the Indian Ocean, south-southwest of India
Surface area (2014) (sq. km.)	298
Climate	Tropical monsoon climate (2 monsoons)
Capital City	Malé
Administrative Set up	Parliamentary Form of Government
Administrative Units	19 atolls
Currency	Rufiyaa (MRF) 1 US Dollar equals 15.36 MRF
Population growth rate; average annual % (2010-15)	1.8
Population (proj., 000) (2016)	370
Population density (per sq. km) (2016)	1232.7
Sex ratio (total) (2014)	1.34 male(s)/female
Total dependency ratio (2015)	47
Population aged 0-14 & 65+ per 100	21.21%; 4.38%
*Total adult literacy rate (%) 2008-2012**	98.4
Life expectancy at birth (females/male,) 2010-2015	77.4/75.4
Underweight (%) 2008-2012, moderate & severe*	17.3
GDP: Gross domestic product (million current US$) (2014)	3032
GDP growth rate (annual %, const. 2005 prices) (2014)	8.5
GDP per capita (current US$) (2014)	8483.8
Economy: Agriculture (% of GVA) (2014)	3.5
Employment: Agriculture (% of employed) (2010)	14.6
Unemployment (% of labour force) (2014)	11.6
Labour force participation (female/male pop. %) (2014)	57.0/78.4
CPI: Consumer price index (2000=100) (2014)	196
Agricultural production index (2004-2006=100) (2014)	64
Exports (million US$) (2015)	144.2
Roadways (km) (2014)	88 km
Mobile cellular (subscriptions per 100 inhabitants) (2014)	189.4
Internet users (pop. %) (2014)	49.3
Human Development Index (2014)	0.706 (104th)
Political Risk Index (2015) (Regional average = 67; USA = 84)	NA
Economic Freedom Index (2016)	50.3 (Mostly Unfree)
Global Competitiveness Index (2016)(USA = 5.70 Rank 3)	NA
Environmental Performance Index (2016) (USA = 84.72 Rank 26)	57.10 (Rank 137)

Compiled from: http://data.un.org/CountryProfile.aspx?crName=Maldives; https://www.cia.gov/library/publications/the-world-factbook/geos/mv.html; https://www.prsgroup.com/category/risk-index; http://www.heritage.org/index; http://reports.weforum.org/global-competitiveness-index/competitiveness-rankings/; http://epi.yale.edu/country-rankings; http://report.hdr.undp.org/ ; http://data.unicef.org/resources/2016-global-nutrition-report/

Annex-4: SECTOR PROFILE

Maldives : Marine Fisheries Sector – Summary	
1. Environment and major fish stocks	*Geography and environment* The Maldives comprises 26 atolls and approximately 1190 islands, about 200 of which are permanently inhabited and a further 80 have been developed into tourist resorts. The Maldives stretch for 840 km along the 73°E longitude, from 8°N to 1°S and have a total land area of only around 300 km^2, but an Exclusive Economic Zone (EEZ) of over 900,000 km^2. The Maldives consist of a long chain of low–lying coral island atolls, along an ocean ridge. *Fish stocks* Within the EEZ, oceanic tuna (skipjack, yellowfin and bigeye) form part of the wider IO stocks, along with neritic tunas (kawakawa, frigate). Inshore and reef fisheries are important locally. *Environmental impacts* (Government of the Republic of Maldives (2016) Maldives National Report Submitted to the Indian Ocean Tuna Commission's Scientific Committee) Maldives has a highly selective form of fishing (almost no by-catch or discards); All turtles are also protected; Livebait is critical for the tuna pole-and-line fishery. It is not considered easy to overexploit (high regeneration), there is monitoring and management plan. Shark fishing is also banned in EEZ (although there are some concerns about new longline fishery)
2. Production and landings	*Tuna fisheries* (Government of the Republic of Maldives (2016) Maldives National Report Submitted to the Indian Ocean Tuna Commission's Scientific Committee) Total landings of tuna: 167,000 Mt (2006); Total landings of tuna: 125,000 MT (2015); (decline due to skipjack catch decrease) Skipjack (70Kt, 2015, 75% total) (+ 2.5% increase from 2014); Yellowfin (52Kt, 2015, 42% total)(+6% increase from 2014); some Bigeye (3-4% of total or maybe larger)(230 MT longline fishery); Neritic tuna (980 MT) is mainly taken by pole-and-line operations; *Fishing effort* Fishing effort is measured in "fishing days" (this will have to be standardised in the future, as technology and operational factors change, to allow CPUE data analysis); Overall, total number of fishing days has been declining (mainly in pole-and-line fishing with increasing vessel size and decreased catch, and switching to handlining); *Reef fisheries* With the increase in socio-economic benefits from the tourism sector together with the improved air and sea transportation, reef fisheries have developed significantly for export and local consumption. At present reef-associated demersal species are heavily exploited by tourists, recreational anglers and industrial fishers targeting the export market. *Aquaculture* Although aquaculture is a well-established industry in the Asian region, the Maldivian aquaculture industry is still in its infancy. Establishment of aquaculture in the country has been given priority in the recent years. It is seen as a means of diversifying the fisheries sector as well as an activity to enhance livelihoods. Government has carried out pilot-scale projects over the past decade on the culture of pearl oysters (*Pteria penguin*), Maldivian clownfish (*Amphiprion nigripes*) and brown marbled groupers (*Epinephelus fuscoguttatus*), with the aim of transferring culture technology to interested groups as well as demonstrating and educating the general public on the technical aspects of aquaculture.

3. Fishing craft, technology & infrastructure	Tuna fisheries (Government of the Republic of Maldives (2016) Maldives National Report Submitted to the Indian Ocean Tuna Commission's Scientific Committee) • *Live-bait pole-and-line fishery* for skipjack is most important (also small amounts of yellowfin, 15-17%) and bigeye (5-10%); Fishery restricted to coastal areas (60-70 miles from atolls); with highest fishing effort around anchored FADs (12-15 miles offshore); • *Handline yellowfin fishery* has increased recently; • *Longline fishery* (>100 miles, outer EEZ by law) has started again since 2015, with Maldivian vessels (up until 2010, 30-40 foreign vessels were licensed to operate, but reporting/monitoring were sub-optimal); TAC (under fleet development plan to IOTC) is 12,500 MT; to date, quota purchased is 2,280 MT (June – May, 12 month duration); fishery is highly regulated (mandatory VMS, licensing, logbook for catch and bycatch reporting); • *Trolling fishery for kawakawa and frigate tuna* (catch has declined substantially since 2009, 5,200MT to 220 MT (frigate) and 3,000 MT to 220 MT (kawakawa) (probably due to under-reporting and decline in effort for low economic value species). *Fishing fleet technology* Fishing fleet mechanisation started in 1974, with phased changes since then; Fleet is now a mixture of wooden and FRP vessels; Vessels typically have long, open deck at stern, and high-rise superstructure forward; Yellow-fin handline wooden vessels carry FRP ice-boxes (two rows) on open deck; Some vessels also have insulated fish holds (fish in ice or ice slurry, RSW); Pole-and-line and handline fishing uses identical vessels (switching at no extra cost); Vessels have multiple live bait wells; Handline vessels carry large ice-boxes (0.5-1.8 t capacity) (up to 6) on open platforms; Newer vessels have insulated fish holds; *Fishing grounds and fishing trips* Both type of vessels undertake trips of 10-14 days; South atolls – mainly pole-and-line fishery North and central atolls – mainly handline fishery *Fleet segments* In 2015, mechanised masdhoni (7.5 – 37.5 m) were 825 in total (largest segment 302 vessels, 22.5-27.5 LoA, meters) Longliners numbered 28 vessels (12.5-27.5 LOA, meters)
4. Post-harvest, trade and markets	*Trade Products and Statistics* Fish Exports 2009: 69,320 MT (USD 74.28 million) 2010: 59,360 MT (USD 59.22 million) 2011: 57,480 MT (USD 111.36 million) 2012: 65,340 MT (USD 158.14 million) 2013: 65,590 MT (USD 163.24 million) 70% Yellowfin catch is exported; *Export certification* Pole-and-line caught tuna is certified and carries the eco-label of the Marine Stewardship Council (MSC). The MSC is an internationally respected environmental sustainability standard providing a third party confirmation that the Maldivian pole-and-line fishery is well managed and that it adheres to sustainable practices. This has increased the demand of Maldivian tuna products and also raised the prices of these sustainable products. *Export Companies and Facilities* The fishery products exported from the Maldives are of premium quality and carry the MSC logos. There are over 10 EU-certified fresh-packing facilities in the Maldives. There are two canning plants and additional pouching plants catering to the increase in demand for fisheries products. Additional shore-based infrastructure (ice plants, collection facilities and freezing plant) are being developed to accommodate the government's policy of value-addition without putting pressure on harvesting. Tuna caught in pole-and-line is now cut into chunks, steaks, slivers, and steaks and soaked in oil, brine, or freeze dried and vacuum packed. These are the many forms in which the tuna from the seas caught in the Maldives are available on store shelves around the world.

5. Economic aspects	*Economic valuation* The potential economic value of fish stocks in the Maldives has been estimated at USD 714 million. This represents the derived capital value capable of generating economic rent of USD 50 million per year, assuming a return of 7% (Sinan and Whitmarsh, 2009) *Exports and GDP* Tuna is single most important export commodity (USD 160 million per year); Fisheries sector contributes 2-3% GDP (Tourism has recently emerged as the most important); *Socio-economic impacts* Until 1980s tuna fishery was the mainstay, providing employment and protein; tuna fishing is still most important economic activity on outer islands.
6. People, social aspects & human capacity	*Employment statistics* (Government of Maldives (2013) Basic Fisheries Statistics. Malé: Ministry of Fisheries and Agriculture) There are 9,554 fishermen (2013) distributed throughout the Maldives. A total of 15,100 persons were employed in Agriculture, Forestry and Fishing (10% national total) *Gender aspects* Apart from the fishermen who are involved in harvesting fish, women are heavily involved in the production of dried or smoked fish (commonly known as 'Maldive Fish'). Dried fish exported to Sri Lanka by the cottage industry is vital for export earnings.
7. Fisheries Policy and Strategic Action Plan and Vision and Major Policies	**[A] Fisheries Policy** (Government of Maldives, MoFA, not dated) ***Objective:*** *"To manage and develop the tuna fisheries sector of the Maldives sustainably in order to sustain and improve the overall contribution to the economy with the aim of maintaining equitable wealth distribution, creating job opportunities for the youth, and a stable domestic supply of safe animal protein".* ***Key policy areas:*** *[1] On management of fisheries resources* *All commercial fisheries should be managed through fisheries management plans. These fisheries management plans shall be based on best scientific evidence and should take into account the socio-economic status of the fishing communities, and the impacts of management interventions on the livelihoods of fishermen and wider public;* *Acknowledging the fact that more than 90% of the total harvests from the Maldivian fishing fleet is tuna and tuna like species, and considering the migratory nature of these species, Maldives will seek to establish a sound Indian Ocean wide management framework for such resources through the Indian Ocean Tuna Commission (IOTC);* *[2] On developing fleet capacity* *[3] On licensing foreign fishing vessels* *[4] On the use of Fish Aggregating Devices (FADs)* *[5] On use of fishing gears* *[6] On foreign investment in fisheries and aquaculture sector* *[7] On development and management of aquaculture* *[8] On introduction of alien species* *[9] On promoting 'one by one' fishing methods* *[10] On fisheries sector diversification and value addition* *[11] On government-led marine scientific research* *[12] Regional fisheries cooperation* ***[B] Strategic Action Plan of Ministry of Fisheries and Agriculture 2014-2018 Fisheries Sector (not dated)*** 1. *Manifesto Pledge: Secured regular income regardless of catch levels* *Vision: As fisheries is a seasonal activity, return from fishing activities might not be able to cover the daily expenses of families. Hence this might cause the fishermen to change their career to another field other than fisheries. And thus the number of fishermen and fisheries products would decrease. Hence, this facilitates income security for fisher folk families during times of low returns from fishing and increase the annual catch.*

Policy 1: Ensured and facilitated income security for fisher families during times of low returns from fishing.
Strategy 1: Establish insurance schemes
Activity 1: Establish an insurance scheme for fishermen "Beyas nubeyas scheme" and open for public participation.
Activity 2: Establish and publicly open a financial insurance scheme for risk (Physical and Work environment) associated works to fishermen.
Activity 3: Attain public awareness for insurance schemes collated by Ministry.

2. Manifesto Pledge: Established fisheries marina
3. Manifesto Pledge: Increased youth fishermen and boat owners
4. Manifesto Pledge: Increase gains from mariculture industry
5. Manifesto Pledge: Fishermen's involvement in setting a buying price for fish

[C] Fisheries (MoFA, not dated)

Vision
Efficiently manage and sustainably develop the use of marine resources in Maldivian waters for a better social and economic future.

Major Policies and Programs

- *The government will implement insurance scheme to help secure the livelihoods of fisher folk during poor fishing seasons and to help reduce the impacts of climate change. This conforms to the Manifesto pledge of secured regular income regardless of catch levels.*
- *The government will establish the required infrastructure to provide access to services and the facilities required by fisher folk to improve fish quality so that they may secure increased returns.....The main vision of this Manifesto pledge is to establish the basic inputs and services for fisher folk.*
- *The government will increase youth participation in the fisheries sector by creating new fisheries employment opportunities and by creating entrepreneurial opportunities through assisted investment in new fishing vessels. The vision of this pledge is to expand fisheries industry, and sustain a modern fisheries industry.*
- *The government aims to sustainably manage the marine resources in the country's maritime zones and promote sustainable fisheries management in the Indian Ocean for highly migratory and straddling fish stocks through international forums. It is vital that we utilise the resources from the seas and lagoons up to maximum possible. Again the vision of this pledge is to diversify into other areas of fishery.*
- *The government will ensure that fishermen receive the best return possible based on market prices in international markets. The vision of this pledge is to secure participation of fisher folk.*

Government support to the Fisheries sector over the Medium-Term

(Maldivian Rufiyaa million)

FY	2015	2016	2017
Fisheries and Agricultural Diversification	8121434.08	4004159	
Programme (FADiP)			
Mariculture Enterprises	5156840.03	3880021	3880021
Development Project (MEDEP)			
FAD Installation	5000000		
Establishment of Maniyafushi	500000		
Field Station (hatchery)			
Establishment of Maniyafushi	700000	700000	
Field Station (Phase 2- Electricity)			
Establishment of Marinas	10500000		10500000
Establishment of Ice plants	3600000.18		
Total	3,35,78,274.29	85,84,180	14380021
USD	21,80,407.42	5,57,414.29	9,33,767.60

8. Fisheries Law	*[A] Current Arrangements:* According to FAO (2009), the legal framework for the present fisheries management system is constituted by: 1. the Constitution of the Republic of Maldives; 2. official mandates of relevant government agencies, and 3. relevant laws, regulations, decrees and guidelines. The major governing regulation is the Fisheries Act (Act no: 5/87), which empowers the Ministry of Fisheries and Agriculture (MoFA) to establish and administer regulations for sustainable utilization and conservation of fisheries stocks and living marine resources, including protecting threatened species and establishing conservation areas. Other applicable laws include the Ocean Territories Act (Act No. 6/96), Environment Protection and Preservation Act (Act No. 4/93), and other laws, decrees, and regulations relating to the use of the Exclusive Economic Zone (EEZ), fisheries, environment, business, foreign investment, and so on. The Fisheries Act (5/87) is primarily an act that unequivocally provides the MoFA with the mandate to oversee all fisheries activities in the country. In addition, it describes the conditions for the licensing of foreign vessels or joint ventures in the EEZ, provides for apprehension of vessels, arrest, and penalties, and describes the Coastal Fishery Zone (CFZ). The Fisheries Act is supplemented by regulations, rules, and presidential decrees. Various MoFA regulations include those on: fishing in lagoons; prohibitions in fishing; banned fishing gear and methods; protected marine life; protection of certain species from harvest, prior permission required for non-traditional gear; reporting violations of the Fisheries Act and regulations; reporting of all fish catch and effort; issuing of licences to fish in the Maldivian EEZ; describes licence issuance by the Ministry of Trade and Industries (MTI) and requirements for the vessels licensed to fish in the EEZ; marine scientific research in Maldivian waters; sets out requirements for vessel-based research operations and a required application form; catch and export of yellowfin/bigeye tuna; installation of fish cages and culture in fishing lagoons; and installation of FADs on fishing grounds. Other relevant regulations under other laws and decrees include protection of species by banning export; declaration of marine protected areas and export quotas of selected species. The Environment Protection and Preservation Act of the Maldives (Act No. 4/93) and its supporting regulations provide a second tier in the management of marine resources. The Act recognizes that protection and preservation of land and water resources, flora and fauna, and all natural habitats are important for the country's sustainable development. *[B]Draft Fisheries Bill of the Maldives 2015* A new draft Fisheries Bill of the Maldives was prepared in 2015 (with assistance from FAO). Final approval by the Government of Maldives is awaited. There are 17 parts to the draft Fisheries Bill, as follows: [I] General [II] Mandate of the Ministry and Scope [III] Administration [IV] Fishery Conservation and Management Measure [V] Fishing and Related Activities in the Maritime Zones of Maldives [VI] Fishing Beyond the Maritime Zones of the Maldives [VII] Implementation of International Conservation and Management Obligations and Commitments [VIII] Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing [IX] Fishing and Related Activities by Foreign Vessels in the Maritime Zone of the Maldives [X] Aquaculture [XI] Post-Harvest Activities and Fish Trade [XII] Monitoring, Control, Surveillance and Enforcement [XIII] Prohibitions, Penalties, Offences

	[XIV] Jurisdictions and Presumptions [XV] General Regulations Power [XVI] Amended or Repealed Laws and Regulations [XVII] Interpretation In terms of international best practice, a fishery law should include a set of core elements as follows—a clear purpose statement, an assertion of national sovereign rights to the Exclusive Economic Zone (EEZ), definition of a process of decision-making under designated fisheries management systems, definition of transparent processes for specifying and authorising defined fishing units, establishment of transparent and accountable processes for defining roles and responsibilities, with regards to management and rights, a process for setting Total Allowable Catch (TAC), and defining catch quota allocation and management measures, definition of enforcement procedures and penalties, definition of foreign ownership provisions, and provision for Public-Private Partnership Agreements. From a preliminary analysis of the new draft Fisheries Law for Maldives, a number of conclusions can be drawn. In terms of positive aspects - first, the new law represents an important step forward (compared to the previous legal framework). Second, a broad range of areas are covered, which relate favourably to international 'best practice' (above). Third, the purpose of the law is clearly defined (and supported by a set of key principles). Fourth, there is a strong emphasis on fishery management systems (through fishery management plans). In terms of areas which need clarification and strengthening – First, the extent to which the law is coherent with the latest national fisheries policy. Second, the relationship between 'long-term conservation and sustainable use' and 'wealth-based' principles and economic development need further clarification. Third, the extent to which the law provides for active and useful involvement of a wide group of stakeholders (other than the MoFA) in fisheries management and development, through co-management and delegation. Fourth, the fisheries management process (in terms of setting TAC, defining quota and allocations, and fishing rights) requires further clarification. And, fifth, a further check is needed on whether the law is enabling, in terms of how fishermen and fishing companies could pursue their fishing operations (or is the law overly restrictive in nature). Particular attention should be paid to Part XI, which outlines basic obligations on post-harvest activities and trade, but provides no detail on specific regulations.

9. Institutional Arrangements and Organisations	[A] MoFA According to FAO (2009), the major governing regulation is the Fisheries Act (Act No: 5/87), which empowers the Ministry of Fisheries and Agriculture (MoFA) to establish and administer regulations for sustainable utilization and conservation of fisheries stocks and living marine resources, including protecting threatened species and establishing conservation areas. Other applicable laws include the Ocean Territories Act (Act No. 6/96), Environment Protection and Preservation Act (Act No. 4/93), and other laws, decrees, and regulations relating to the use of the Exclusive Economic Zone (EEZ), fisheries, environment, business, foreign investment, and so on. Therefore, the Ministry of Fisheries and Agriculture (MoFA) is the lead agency tasked with fisheries management and development. [B] MNDF To provide a credible dissuasion for violations of laws and regulations, the Coast Guard section of the Maldives National Defense Force (MNDF) is in charge of the surveillance, monitoring and enforcement. The purpose is to ensure the observance of agreed measures for both locals and foreigners. An additional role is to collect information on fishing agreements, decide on national policies and advise on strategic and tactical decisions about enforcement. The modes of enforcement are air patrol, sea patrol and inspection in harbours. The enforcement modes used depend on the resources available, the nature of the regulations and the characteristics of the fishery. [C] Other responsible bodies In addition to the above there are various other institutions involved either directly or indirectly in the fisheries sector. They play an important role in their respective areas of responsibility and have supportive functions in the sector, as follows: • Ministry of Economic Development (MED) – responsible for the licensing of all commercial fishing vessels including foreign fishing vessels and for the determination of the number of licences to be issued, the negotiations and other dealings with licensees. The Ministry also issues export permits for the local tuna and reef fish trade. • Ministry of Tourism, Arts and Culture (MTAC) – responsible for ensuring the marine-related interests of the tourism industry. • Ministry of Defence and National Security Service – Coast Guard – responsible for the monitoring of vessel positions and enforcement of EEZ laws and regulations. • Ministry of Home Affairs – responsible for the collection of fisheries related data and to ensure compliance with the regulations and fisheries laws at Island and Atoll levels. • Ministry of Housing, Transport and Environment- Transport Division- responsible for the registration of fishing vessels and for safety checks and training of officers and crew. • Maldives Customs Service – responsible for monitoring export fish trade and quality as well as the transhipments by foreign fishing vessels. • Ministry of Health – responsible for inspection for food safety and for meeting export quality standards. • Environmental Protection Agency - Environment Division- responsible for the enforcement of the Environment Act of 4/93 and for establishing marine protected areas and reserved diving sites. [D] Private and Public-Private Enterprises There are currently 10 private companies exporting tuna from Maldives. The Maldives Industrial Fisheries Company Limited (MIFCO) is a company operated on a public-private partnership arrangement (with Government of Maldives). Previously, it had a monopoly on the purchase and collection of skipjack tuna throughout the Maldives. This arrangement was closed in 2006.

10. Fisheries Management	*Tuna Fisheries Management* Tuna are highly mobile and are distributed throughout the ocean. Tuna management is therefore addressed at the regional level. Maldives is a full member of the Indian Ocean Tuna Commission (IOTC), the Regional Fisheries Management Organization mandated to manage tuna stocks in the Indian Ocean. With the skipjack tuna fishery MSC certified and the increasing need for sustainable management of Indian Ocean tunas, Maldives is leading the IOTC's work in setting up conservation and management targets. The 2014 skipjack tuna stock assessments carried out by the Indian Ocean Tuna Commission's Scientific Committee revealed that the average catch in the Indian Ocean remained below Maximum Sustainable Yield (MSY); the stock is not overfished and is not subject to overfishing. *Fisheries Management in the Maldives* (Government of the Republic of Maldives (2016) Annual Compliance Report) A modern day fisheries management concept was almost non-existent in the management of fisheries resources in the Maldives until 2009. As a result monitoring of fish stocks and fishing activities was not adequate and rigid management measures were always preferred to counter any indications of a depleting fish stock or a detrimental fishing practice. "Total bans" and "strict no-take reserves" were common fisheries management options at the time. In 2010, as a result of the new European Union requirements on the import of fish caught from third parties to the EU, a "Licensing Regulation" was established and implemented. This was a major mile-stone in the management of fisheries resources in the Maldives as this piece of regulation has proven to have played an important role in establishing sound fisheries management measures for commercially important fish stocks of the Maldives. Over the past few years since the implementation of the 'Licensing Regulation', several other key regulations have been put in place to strengthen fisheries management. Furthermore, significant amendments have been brought to some of these regulations to address the evolving fishing activities. In April 2015, the Fisheries Management Section of the Ministry of Fisheries and Agriculture was split into a Fisheries Management and Fisheries Compliance Section to strengthen fisheries management and monitoring and enforcement of fishing activities. However, both sections closely collaborate towards fulfillment mandate to improve efficiency and make better use of its resources. *Fisheries data and analysis* Fisheries data has been long based on total enumeration of catch (plus species and effort, fishing days), through the Island Council Offices (they converted to weight and aggregated by vessel by month). A new logbook system is being introduced (from 2010) (enumerated system to be phased out by 2017). A new Fisheries Information System (FIS) is now fully functional, web-enabled, and all catch data is now recorded, and analysed here. The system is one stop shop for vessel registration, issuing fishing licenses & fish processing licenses, data entry of fish purchase (by the commercial companies) and logbook data to provide a comprehensive system of compilation and reporting. The system is also designed to computerize the process of issuance of catch certificates required for the exports of all frozen, fresh or canned tuna from the Maldives. Logbook data could be verified through different mechanisms. The observer data collected by the Marine Research Centre, with donor funding, will allow verification of all aspects of logbook reported data. Further, landings data, obtained through the tuna exporting companies is used to verify and used in situations of non-reporting. Further, the FLS allows near real-time tracking of landings and purchases as well as licensing. *VMS and Observer Programme* Maldives implements a VMS system on 100% of the longline vessels and a number of PL/HL vessels. At the time of writing, 149 vessels are equipped with VMS.

	The Observer program that was established in 2015 is defunct due to various reasons. The program has proven to be costly and due to high staff turn-over, it has been problematic to train and deploy observers on board fishing vessels. To overcome these difficulties the focus is now to shift to an electronic observer system to comply with the requirements of the relevant resolutions of the IOTC. A World Bank funded project is being developed and is expected to be in implementation from next year. The initial focus will be to assess the effectiveness and feasibility of the use of such systems in Maldivian fishing vessels. Furthermore, Marine Research Centre conducts regular scientific observation on pole-and-line and handline fishing trips. These observations are consistent with the IOTC observer requirements. To date, observer data has been collected from over 100 fishing trips in 2015 and 2016 and the information collected has proven to be very useful to cross verify the information provided by the fishermen and the other information regarding fishing activities. *Port sampling programme* A systematic port-sampling programme to monitor artisanal landings is not in place yet. However, size sampling of catch landed at the ports are conducted regularly through samplers at the three main tuna landing ports, fishermen samplers, a scientific observer and the MRC staff. It should also be noted that under the implementation of EU – IUU instruments, fresh fish collectors (fish buyers) are required to record the details of catch and report to the Ministry, which is being used as part of the issuance of catch certificate and to corroborate with the fishermen reported logbooks. *Transhipments* At-sea transhipments are banned in Maldivian waters and Maldivian-flagged vessels do not tranship at sea in the IOTC Convention Area. *National Research Programme* The major components of the national fisheries research program are primarily geared towards improving national reporting and compliance to IOTC conservation and management measures, including: [1] Maldives catch and effort data standardization (6 months Starting Date: September 2016)(USD 3,500)(IPNLF & World Wise Foods); [2] Investigation of biodegradability of material to be used on eco-FADs (12 months Starting Date: June 2016) (Maldives – US$ 1,500 ISSF – US$ 5,500) (ISSF and MoFA/MRC (in kind contribution); [3] FAD Research in the Maldives - Using Maldives Anchored Fish Aggregating Devices as Research Platforms (36 months, starting date: October 2016) (US$ 500,000) (IPNLF, Marks & Spencer (UK), MARBEC (IRD, France). MRC/MoFA; [4] Development of Fishery Information System (FIS) web-enabled database (2012-2018) (US$ 81,000) (IPNLF & Marks & Spencer , UK); [5] Bycatch sampling Programme (2014-2017) (US$ 100,000) (IPNLF); [6] Port Sampling Programme (2015-2016) (US$ 30,000 WWF – Pakistan). *Addressing IOTC Resolutions* Maldives has made progress in addressing the recommendations of the IOTC Scientific Committee and Specific Resolutions relevant to the work of the Scientific Committee in the following areas: Resolution No. 15/01 On the recording of catch and effort by fishing vessels in the IOTC area of competence; 15/02 Mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non Contracting Parties; 15/05 On the conservation for striped marlin, black marlin and blue marlin; 13/04 On the conservation of cetaceans; 13/05 On the conservation of whale sharks (*Rhincodon typus*); 13/06 On a scientific and management framework on the conservation of shark species caught in association with IOTC managed fisheries; 12/09 On the conservation of thresher sharks (family Alopiidae) caught in association with fisheries in the IOTC area of competence; 12/06 On reducing incidental bycatch of seabirds in longline fisheries; 12/04 On the conservation of marine turtles; 11/04 On a regional observer scheme; and 05/05 Concerning the conservation of Paragraphs 1-12 Shark fishing is prohibited in Maldives waters.

Sources of Information: FAO (2009); Government of Maldives (2014-16) (see Reference List above) Government of Maldives (not dated); Sinan and Whitmarsh (2009)

Annex-5: MALDIVES – FISHERIES SECTOR - SWOT

SWOT Matrix of Fisheries Sector in Maldives	
Strengths	**Weaknesses**
• Resource abundance and high economic value. • Traditional knowledge with modern organization. • Growing economy – sustained domestic demand and flow of fund. • Established linkages with international market – sustained export. • Brand 'Maldives' – international goodwill. • Well-established commodity chain. • Above-average compensation – attractive. • Scope of specialization. • High awareness among the industry and senior government officials on international processes. • Comparatively small size – high level of familiarity between the government, private houses and fishermen. • Introduction of new technologies like aquaculture.	• Brand Maldives – prisoner of own reputation? • Policy process shows limitations (capacity to cope with rapid change; participatory decision-making is limited and organizational mandates overlap; implementation is weak). • Institutional limitations (policy, legal framework, lack of human capacity overall). • Fisheries management systems not fully developed or effective, to cope with evolving fisheries. • Emergence of export-oriented highly remunerative sub-sectors like yellowfin tuna hand lining – uncertain impact on the largely egalitarian fishing community. • Bait fish problem. • Ageing fishermen population.
Opportunities	**Threats**
• Improving human capital – better organizational capacity. • Lack of competitive brands and growing consumer awareness in key markets for sustainable seafood. • Easy migration policy – relative higher standard of living can be magnet for bringing workers from highly populated and relatively poor south Asia and Southeast Asia. • Increasing global norms on sustainability certification. • Affinity with multiple international governmental and non-governmental impact investors. • Large number of uninhabited Islands – scope for developing aquaculture.	• Climate change – global warming and its impact on tuna migration. • Development of tourism from resorts to home stays. • Over-exploited status of yellowfin tuna – the most valuable exported commodity in the region. • Increasing competition with neighbours over shared yellowfin stock. • IUU fishing. • Relatively low social status of fishermen. • Incorporation of non-fishery (*e.g.* political condition, working condition) conditions in fisheries trade.

Annex-6: ECONOMIC VALUATION OF MALDIVES TUNA STOCKS

6.0 Summary

The potential economic value of fish stocks in the Maldives has been estimated at USD 714 million.

This represents the derived capital value capable of generating economic rent of USD 50 million per year, assuming a return of 7 percent (based on Sinan and Whitmarsh, 2009). There have been relatively few economic assessments of fisheries in the Maldives, and the 2009 study represents the most up-to-date.

There are concerns that the fisheries in Maldives are vulnerable to both economic and biological over-exploitation. The 2009 study concluded that there was no economic wealth being generated, given the weak status of fisheries management, leading to a situation of *de facto* open access.

Given the overall size of the Maldivian economy, and the increasing demands of a growing population, a well-managed and productive fisheries sector could make an important contribution to national development.

6.1. Introduction

The value of the fisheries sector in any country can be defined in a number of ways.

The most common approach focuses on the economic impact of fishing and associated activities using a range of indicators including fish production (or landings), fish production gross value (based on market prices), fish export gross value (based on export market prices) and employment (jobs in both fishing and onshore activities such as fish processing).

There is no doubt that economic impact indicators provide a useful starting point for characterising a fisheries sector, as shown in *Annex 3*. However, it can be argued that a focus strictly on activity-based indicators will lead to an underestimation of the true economic value of fisheries.

Fish stocks represent a form of renewable natural capital. Under suitable economic conditions (*e.g.* a well-functioning national economy) and with appropriate fisheries management, the exploitation of such resources can lead to the generation of economic rent, which represents a return to the enterprises involved over and above normal operating profit and taking into account all costs, including labour and management, and which is also termed 'super-profit'.

The generation of this economic rent, within specific fisheries, and aggregated for all the operators involved, also represents a measure of the inherent economic wealth of the resources.

6.2. Fisheries wealth and economic growth

The generation of economic wealth from fish resources can make an important contribution to economic growth, which can benefit all members of society, including both fishery participants, such as fishers, as well as other citizens. In other words, citizens do not necessarily have to be involved in fisheries activities to benefit from fish resources.

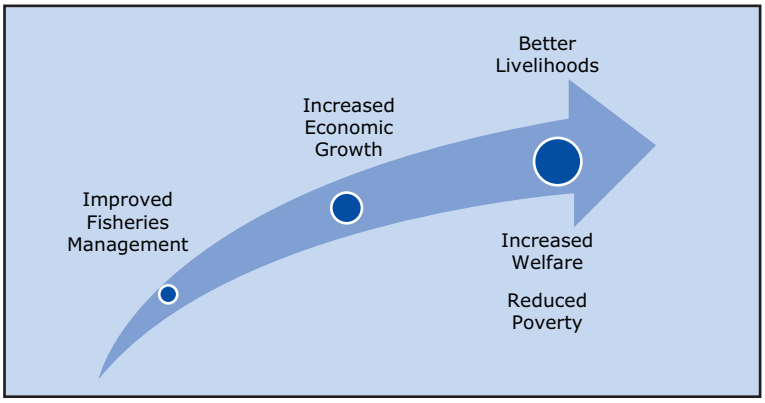
Overall, therefore, the policy objectives and choices made by a national government really matter concerning the role and use of natural resources such as fish stocks. A focus on activity-based benefits alone (*e.g.* fishing and fishing livelihoods) will tend to undervalue the potential contribution of fisheries to economic development. A more broad-based policy approach, which also considers the macro-contribution of fisheries, and in relation to the performance of other sectors, is likely to have a greater long-term positive impact on economic growth and development.

In terms of economic growth, the fisheries sector should be considered in relation to other sectors at the level of the macro-economy. More effective fisheries management may result in a reduction of overcapitalisation, and re-direction and use of scarce capital in other sectors, leading to efficiency gains.

Furthermore, an effective system of fisheries management will help to underpin the key process by which fisheries wealth is (i) generated through efficient fishing operations, then, (ii) grown (through price increases, or cost reductions), then, (iii) captured (and shared between private operators and government, via taxes), and eventually, then, (iv) re-invested in the local and national economy, in both other sectoral and non-sectoral (public and private) activities and schemes.

In many developing countries, harnessing the inherent wealth of fish stocks for economic growth can represent an alternative approach to poverty reduction (Fig. 4.1.), as opposed to a narrow focus on fishing activities and fishing livelihoods.

Fig. 6.1. Improved fisheries management as the "engine" for growth and poverty reduction



6.3. Estimating fisheries economic value in the Maldives

Based on a study by Sinan and Whitmarsh (2009), the potential economic rent which could be generated by fisheries in the Maldives is USD 50 million per annum.

This represents 27 percent of the gross financial value of current landings (141,074 mt).

However, the study also concluded that there is no economic rent generation, at present, due to economic over-exploitation. The fisheries operate under weak management conditions, leading to *de facto* open access conditions.

The estimated economic value covers the major fisheries, including tuna (yellowfin and skipjack) and reef fisheries.

The methodology employed a modelling approach (Threshold production function), to estimate optimum economic fishing effort, and key fisheries management reference points.

6.4. Future considerations

There is a need to update the economic valuation of fisheries in the Maldives.

The 2009 estimate above can also be used to determine the asset value of the marine fish stocks of Maldives. Assuming a return of at least 7 percent p.a., the capitalised value would be USD 714 million.

While Maldives has made a concerted effort to improve its fisheries management system, there is still a need for further improvement, particularly focused on institutional strengthening and capacity-building.

The extent to which further investment is made to address the current weaknesses should be viewed in the context of the economic value of the asset concerned (above), the potential return from this asset and the context and relative size of the Maldivian economy (GDP USD 3.44 billion, World Bank, 2015) (fisheries economic rent equivalent to 1% GDP, or capitalised value 21% of GDP).

References

Sinan, H., and Whitmarsh, D. (2009) Wealth-based Fisheries Management and Resource Rent Capture: An Application to the Maldives Marine Fisheries. Marine Policy (2009).

World Bank (2015) Maldives Country Data (http://data.worldbank.org/country/maldives).

Annex-7: TIMELINE OF THE DEVELOPMENT OF MALDIVIAN FISHERIES INDUSTRY

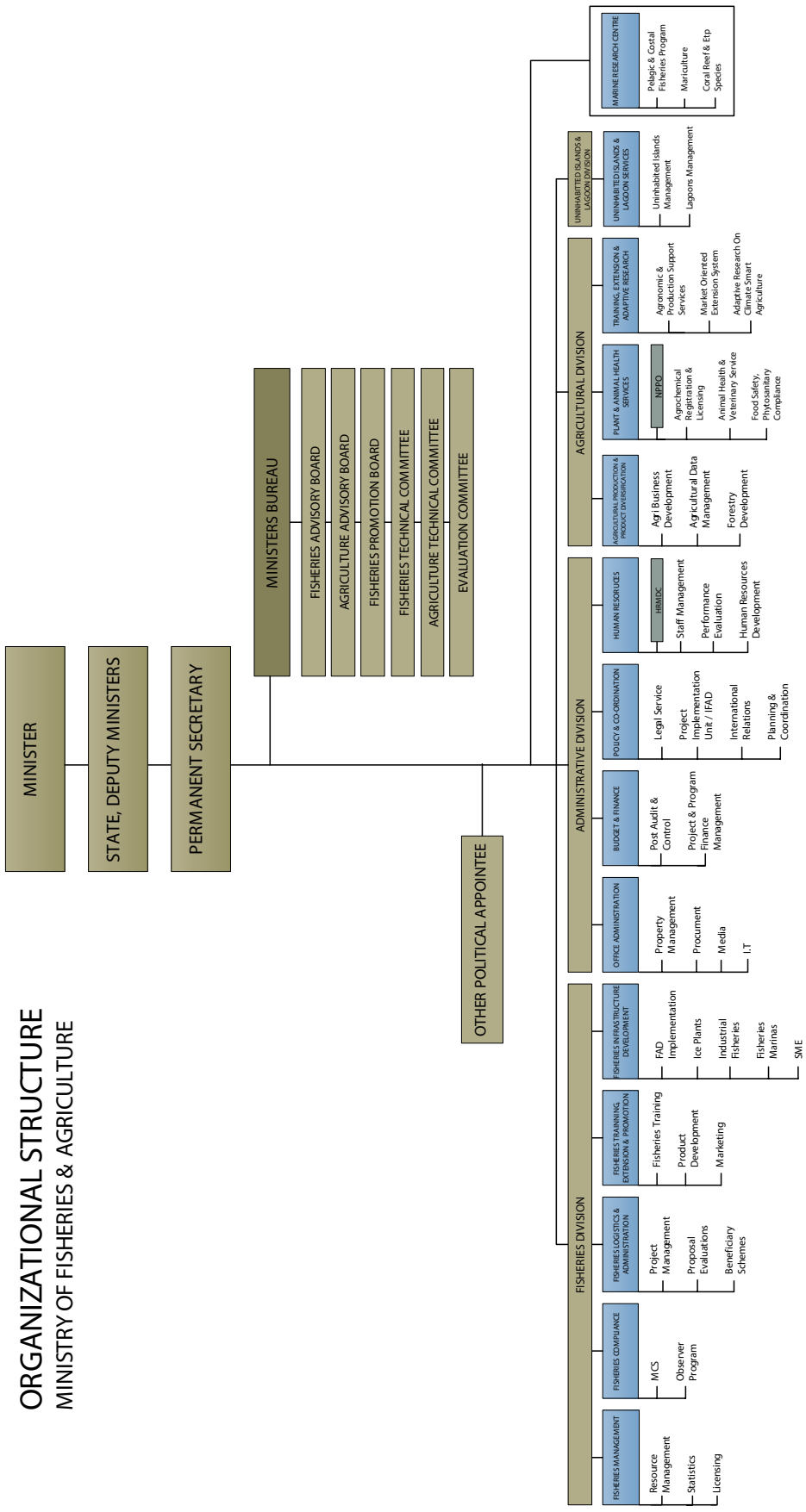
Year	Changes	Notes
1900	Maldivian fisheries trade sector was controlled by foreign traders from India (Bohra Traders).	Initially, foreign business houses largely controlled the Maldivian fisheries.
1942	A store named " Rayyithunge Bodu Store" was opened on 10 December 1942 where government started to buy Maldives fish from Maldivian fishers and processors.	Till foreigners bought fish from here and exported.
1952	First ever fisheries exhibition to promote Maldivian fishery products was held in Sri Lanka.	The exhibition was initiated by the Government of Maldives
1956	Government established a special committee for the development of Maldives fisheries sector.	--
1960	Government imported foreign fishing boats, which were given to fishermen on loan basis.	Maldivian fishermen were not in favour of the design of the vessels, thus the project didn't work out well.
1963	First ever fisheries research vessel named "Mullet" from Japan was brought and started research work related to fishing in the Maldives. Two Japanese Fisheries and Marine Biology experts worked on this research project.	--
1964	Government started building fishing vessels in Hulhulé Island and started building fishing vessels. It also started building vessels for logline fishing.	Fishermen were not very familiar with long line fishing and were not ready to move to a different type of fishing at the time.
26 July 1965: Maldives gained Independence from United Kingdom		
1972	Sri Lanka informed Maldives that they will stop importing Maldives fish from Maldives.	--
1972	The Maldivian Government and the Government of Japan signed an agreement on 06 April 1972 to sell Maldivian fishes raw. Under this agreement Marubeni Corporation's fish collecting vessels were brought.	Collector boats were introduced. However, fish weighing on-spot increased the offload time leading to long queues.
1974	Mechanization of fishing vessels started (The project was funded through Japanese aid)	Government started with a trial vessel named "Rinmmas" from Lhaviyani Atoll Naifaru to introduce mechanization. But the fishermen rejected the development saying that the sound created by the engine made fishes run away from them. Later Government took the initiative and bought the vessel and renamed it to "Ummeedhu" (meaning HOPE) and successfully conducted trial programs and demonstrated its importance.
1977	Feasibility research done on development of fishing and opportunities using aid from Kuwait funds.	--
1978	Sri Lanka stopped buying SMOKED fish from Maldives from 24 July 1978, which led to selling of most of the fish to Japan.	--
1977	Fish canning factory was established in Maldives with a Japanese company.	--

1978	Report of the feasibility research conducted in 1977 was released in February 1978. This research mainly focused on the status of Maldivian fishery at that time and how to enrich/develop it.	--
1980	Started building dhonis at Alifushi Boatyard.	--
1981	Introduced the second generation fishing vessels (45 footer), which were distributed to fishermen on loan basis.	--
1981	Started using FADs, with technical inputs from the Food and Agriculture Organization (FAO) of the United Nations.	--
1981	Decided to have a special day for fishermen 'Fishermen's Day' on 10 December every year. First ever fishermen's day was celebrated on this date.	--
1982	Government took over the operation of Canning factory in Felivaru in Lhaviyani Atoll.	--
1984	Marine Research Centre (MRC) was set up.	MRC is mandated to undertake research on living marine resources and to provide scientific advice on marine resource management and on the state of the marine environment.
1984	Mechanised Dhonis were introduced	--
1984	Maldives joins the Bay of Bengal Programme of the Food and Agriculture Organization of the United Nations.	--
1985	Foreign Fishing Vessels allowed longlining for yellowfin in Maldivian EEZ (beyond 75 miles).	These foreign vessels operated under a license agreement between Government authorities. The vessels had VMS, which was maintained at the Coast Guard Centre. The vessels were about 50-60 GT (18-22 m LOA). Records show about 20-30 vessels operated and by 2007 many left due to poor fishing and rising fuel prices.
1987	Fisheries Act (Act No: 5/87) was enacted	The Act empowers the Ministry of Fisheries and Agriculture (MoFA) to establish and administer regulations for sustainable utilization and conservation of fisheries stocks and living marine resources, including protecting threatened species and establishing conservation areas.
1989	In July 1989, Maldives became the founding member of INFOFISH (the Intergovernmental Organization for Marketing Information and Technical Advisory Services for Fishery Products in the Asian and Pacific Region).	--
1993	Environment Protection and Preservation Act – Law No. 4/93.	--
1993	The Maldives Industrial Fisheries company, MIFCO was established.	While MIFCO was established in 1993, in 1986 the Government had a company named Maldives Fisheries Cooperation to dispose local fish catch.

1996	Maritime Zones of Maldives Act (Act No. 6/96).	This Act makes provision in respect of the internal waters, territorial sea and contiguous zone and the Exclusive Economic Zone of Maldives and repelled the Law No. 30/76 (Law relating to the Exclusive Economic Zone of Maldives) and Law No. 32/76 (Law relating to the navigation and passage by foreign ships and aircraft through the airspace, territorial waters and the Exclusive Economic Zone of the Republic of Maldives) shall be repealed upon this Act taking effect.
1997	Introduced GPS for navigation.	--
1998	Introduction of fish finder.	--
Late 1990	Export oriented Yellowfin tuna hand lining flourished.	The fishery targeted surface-dwelling larger individuals (> 80-100 cm FL), primarily from dolphin-associated schools. The fishery continued to grow largely due to high demand by the exporters. Large yellowfin tuna were exported in various fresh forms to lucrative markets of Europe and elsewhere. Total recorded yellowfin catches registered an all-time record of approximately 50,000 MT in 2014, which represents about 40% of the total recorded tuna landings –some 60% of this catch was from the hand line fishery only.
2000	Started using fibre in the boat building process.	--
	Commercialisation of hand lining fishery for Yellowfin Tuna (YFT) started.	Investment in YFT Dhonis reached its peak during 2004. One YFT trip lasted about 3-5 days and landed 5 tonnes of YFT, which was marketed in Malé.
2002	Privatization of Maldivian fishing Industry	Government privatized buying of skipjack tuna to private companies and signed contract with two private companies.
	First private yellowfin tuna processing plant was established.	Big Fish Yellowfin Processing Plant inaugurated.
2003	Started using improved handling of fresh fish.	Introduction of ice plants and on board refrigeration system was introduced.
2003	Maldives signed the Agreement for setting up of the Regional Fisheries Body, the Bay of Bengal Programme Inter-Governmental Organisation.	May 2003.
2004	Indian Ocean Tsunami in 26 December 2004.	As many as 120 fishing vessels severely damaged or lost and about 50 vessels partially damaged. This equated to approximately 10% of the registered fleet. The artisanal processing sector was also affected. Approximately 10% of the Maldives fish cottage-based processing units were lost (37 of the 333 commercial processing units).
2004	"Potential Fisheries Zones" introduced after research (satellite imagery), which reduced the negative impact caused by rise of oil price on fishermen.	--
2007	Skipjack catches dropped alarmingly.	Catches of skipjack declined to a level of less than 50% of their 2006 level.
2010	Ban on shark fishing throughout Maldives from 15th March 2010 (MoFA Iu'laan 30-D2/29/2010/32).	--
2010	In May 2010, longlining for yellowfin tuna by foreign fishing vessels stopped.	--
2011	Maldives became a contracting party in Indian Ocean Tuna Commission (IOTC).	--

2011	Ban on capture, keeping, trade or harming sharks (Ministry of Housing and Environment Iu'laan138/1/2011/42).	--
2012	Domestic yellowfin longline fishing vessels started operating (vessels were licensed in 2011).	--
2012	Pole and Line skipjack tuna fisheries received MSC Certification.	--
2013	Maldives became member of the Network of Aquaculture centres in Asia-Pacific in December 2013.	--
2014	'Beyas Nubeyas' Fisherman Insurance Scheme.	--
2016	New online Fisheries Information System is launched with support from International Pole and Line Foundation.	This database will allow the Maldives' one-by-one tuna fisheries to fulfil all the latest international traceability requirements with regards to catch and vessel reporting.
2016	Maldives plays a key role in the acceptance of the Harvest Control Rules for skipjack tuna at the 20th Meeting of the Indian Ocean Tuna Commission.	--
2017	Horizon Fishery received dual MSC and Fair Trade Certification.	The fishery, which encompasses fishing communities from four islands, includes a fleet of 25 family-owned pole-and-line vessels that are based in the Laam Atoll in the Southern part of the Maldives, has been MSC certified since 2012 and has now also met the social criteria for Fair Trade Certification.

Annex-8: MoFA ORGANISATIONAL STRUCTURE



Annex-9: MoFA WORKPLAN SUMMARY

Table A. Functions Required to Realise Government Outcomes for Fisheries & Aquaculture (Annex 1)			
Policy & Planning Functions	**Fisheries & Aquaculture Administration**	**Fisheries Services**	**Corporate & Support**
• Strategic Plan	• Standards and Coordination • Fisheries Management Plans (including Sharing Agreements)	• Compliance Services • Enforcement • Prosecution Support • Education	• Corporate Services • Human Resources • Financial & Business Planning • Security & Communications • ITT • Contracting
• Policy and Law	• Regulatory Services	• Observer Services	• Projects Support
• International and PPP support	• Fisheries Intervention Plan & Specification of Services • Compliance & monitoring • Information & monitoring • Research • Registration • Extension	• Research Services • Stock Assessment Analysis • Scientific Advice	
• Monitoring of policies & standards		• Monitoring Extension Services	

Table X. Maldives – Ministry of Fisheries and Agriculture (MoFA)(Fisheries Sections) (Annex 11)			
	Fisheries Management	Fisheries Logistics & Administration	Office Administration (Management Division)
	Compliance	Fisheries Training, Extension and Promotion	Budget & Finance
		Fisheries Infrastructure Development	Policy & Coordination
		Marine Research Centre (MRC)	Human Resources

Table B1. Functions Required to Realise Government Outcomes for Fisheries & Aquaculture			
Policy & Planning Functions	**Fisheries & Aquaculture Administration**	**Fisheries Services**	**Corporate & Support**
• Strategic Plan	• Standards and Coordination • Fisheries Management Plans (including Sharing Agreements)	• Compliance Services • Enforcement • Prosecution Support • Education	• Corporate Services • Human Resources • Financial & Business Planning • Security & Communications • ITT • Contracting
• Policy and Law	• Regulatory Services	• Observer Services	• Projects Support
• International and PPP support	• Fisheries Intervention Plan & Specification of Services • Compliance & monitoring • Information & monitoring • Research • Registration • Extension	• Research Services • Stock Assessment Analysis • Scientific Advice	
• Monitoring of policies & standards		• Monitoring Extension Services	

Table B2. Maldives – Ministry of Fisheries and Agriculture (MoFA)(Fisheries Sections) DESIGNATED OFFICIAL FUNCTIONS			
	Fisheries Management • Resource Management • Statistics • Licensing	Fisheries Logistics & Administration • Project Management • Proposal Evaluations • Beneficiary Schemes	Office Administration (Management Division) • Property Management • Procurement • Media • I.T.
	Compliance • MCS • Observer Program	Fisheries Training, Extension and Promotion • Fisheries Training • Product Developmen Marketing	Budget & Finance • Post Audit & Control • Project & Program Finance Management
		Fisheries Infrastructure Development • FAD implementation • Ice Plants • Industrial Fisheries • Fisheries Marinas • SME	Policy & Coordination • Legal Service • Project Implementation Unit / IFAD • International Relations • Planning & Coordination
		Marine Research Centre (MRC) • Pelagic & Coastal Fisheries Program • Mariculture • Coral Reefs	Human Resources • Staff Management • Performance Evaluation • Human Resources Development

Table C1. Functions Required to Realise Government Outcomes for Fisheries & Aquaculture			
Policy & Planning Functions	**Fisheries & Aquaculture Administration**	**Fisheries Services**	**Corporate & Support**
• Strategic Plan	• Standards and Coordination • Fisheries Management Plans (including Sharing Agreements)	• Compliance Services • Enforcement • Prosecution Support • Education	• Corporate Services • Human Resources • Financial & Business Planning • Security & Communications • ITT • Contracting
• Policy and Law	• Regulatory Services	• Observer Services	• Projects Support
• International and PPP support	• Fisheries Intervention Plan & Specification of Services • Compliance & monitoring • Information & monitoring • Research • Registration • Extension	• Research Services • Stock Assessment Analysis • Scientific Advice	
• Monitoring of policies & standards		• Monitoring Extension Services	
Table C2. Maldives – Ministry of Fisheries and Agriculture (MoFA)(Fisheries Sections) INTERVIEW OF KEY PERSONNEL RESULTS			
	Fisheries Management • To prepare FMP • To oversee fisheries management interventions • Technical assistance for legal framework • Prepare policy, administration and international partner liaison • To fulfil obligations (IOTC)	Fisheries Logistics & Administration (information to follow)	Office Administration (Management Division) • Procurement • General management • IT Executive Coordinator • Involvement in a range of areas: • Masterplan execution (JICA) • World Bank project planning (implementation approach)
	Compliance • Ensure rules & regulations followed in industry • International relations (observer scheme) to stop illegal fishing • VMS implementation • Electronic monitoring (real time) to replace observers • Overlap with FM functions	Fisheries Training, Extension and Promotion • Training fishers and industry (*e.g.* long-lining) • Provide Secretariat (Promotion Board) • Organise participation in international trade fairs (*e.g.* Brussels)	IT • Routine IT tasks • Server management & admin • LAN • Applications • Tel infrastructure &E-gov comms • Website • In-house IT training

		Fisheries Infrastructure Development • Deploy FADS (54) • Ice plant installation (location assessment) • Fish processing plants (permits) • Collector vessels (permits) Marina development (harbour and leisure facilities)	Budget & Finance • Vouchers • Reporting • Recording income/ expenditure • Audit • Software (SAP) • Budgeting • Financial Statements
		Marine Research Centre (MRC) • Conduct research and monitoring • Assess fish stock status and expert advice • Support policy development and provide fisheries management advice	Policy & Coordination • International (travel, logistics, workshops, MoU) • Programmes and Projects (funding, monitoring) • Coordination (arrange internal meetings, SAP monitoring)
			Human Resources • Recruitment (interview panel) • Appointments/ Termination (software) • Job status (update job structure/function) • Staff training • Pay-roll, pension and remuneration

Table D1. Functions Required to Realise Government Outcomes for Fisheries & Aquaculture

Policy & Planning Functions	Fisheries & Aquaculture Administration	Fisheries Services	Corporate & Support
• Strategic Plan	• Standards and Coordination • Fisheries Management Plans (including Sharing Agreements)	• Compliance Services • Enforcement • Prosecution Support • Education	• Corporate Services • Human Resources • Financial & Business Planning • Security & Communications • ITT • Contracting
• Policy and Law	• Regulatory Services	• Observer Services	• Projects Support
• International and PPP support	• Fisheries Intervention Plan & Specification of Services • Compliance & monitoring • Information & monitoring • Research • Registration • Extension	• Research Services • Stock Assessment Analysis • Scientific Advice	
• Monitoring of policies & standards		• Monitoring Extension Services	

Table D2. Maldives – Ministry of Fisheries and Agriculture (MoFA)(Fisheries Sections) ANNUAL WORKPLANS (2016) – SOME EXAMPLES			
	Fisheries Management & Compliance • Insurance Scheme • Awareness on Insurance Scheme • Formulating Management Plans • Awareness Raising on MP • Awareness Raising Fisheries Law • Establishing Observer Program • Training Fisheries Observers • Awareness Raising on VMS • Improving Fisheries Data Collection • Disseminating Information on International Fisheries Markets • IOTC Deadlines • Routine Work (Catch Certification Office, Licensing, Registration, Data Entry/Analysis	Fisheries Logistics & Administration • Monitoring of leased lagoons, aquaculture lease Islands • Fishermen's Day • Check status MoFA vessel • Check status of vessel loans, engine loans, ice plant loans, value addition loans, • Check status fisheries equipments • Check status of duty exemptions • Fisheries Technical Committee	Office Administration (Management Division)
			Executive Coordinator
		Fisheries Training, Extension and Promotion • Seafood Fairs (Boston, Brussels, Bangkok, Paris) • Training/Awareness (Handline Pilot, MASPLAN product sample, Longline fishing, Fish Camp, Career Program for Schools, Aquaculture Awareness Program, Radio Program)	IT
		Fisheries Infrastructure Development • Construction, monitoring of FADs • Monitoring Trips (Skipjack Development Program)	Budget & Finance
		Marine Research Centre (MRC)	Policy & Coordination
			Human Resources

Annex-10: MoFA - BUDGET ANALYSIS

BUDGET SUMMARY FOR MoFA (2011-2015) *(PROVIDED BY MoFA)*					
MVR					
ITEMS	**2011**	**2012**	**2013**	**2014**	**2015**
RECURRENT EXPENDITURE	5,87,84,902.00	4,49,02,394.00	6,24,56,360.00	7,62,67,560.00	3,97,95,545.17
CAPITAL EXPENDITURE	69,64,363.00	51,13,400.00	33,11,267.00	89,26,820.00	1,17,34,162.82
TOTAL	6,57,49,265.00	5,00,15,794.00	6,57,67,627.00	8,51,94,380.00	5,15,29,707.99
USD					
ITEMS	**2011**	**2012**	**2013**	**2014**	**2015**
RECURRENT EXPENDITURE	38,12,250.45	29,11,958.11	40,50,347.60	49,46,015.56	25,80,774.65
CAPITAL EXPENDITURE	4,51,644.81	3,31,608.30	2,14,738.46	5,78,911.80	7,60,970.35
TOTAL	42,63,895.27	32,43,566.41	42,65,086.06	55,24,927.37	33,41,745.01

BUDGET ALLOCATIONS FROM WORK-PLANS PROVIDED BY MoFA STAFF				
Division	**2015**		**2016**	
	MVR	**USD**	**MVR**	**USD**
Fisheries Management plus				
Fisheries Compliance	5,23,79,709	33,96,868.29	24,78,700.00	1,60,745.78
Fisheries Logistics and Administration			22,33,699.00	1,44,857.26
Fisheries Training, Extension and Promotion			1,18,18,240.00	7,66,422.83
Fisheries Infrastructure Development			5,00,000.00	32,425.42
Marine Research Centre			0	0
Total	5,23,79,709	33,96,868.29	1,70,30,639.00	11,04,451.30
				USD 1= MVR 15.42

		2011	2012	2013	2014	2015
	ITEMS					
	RECURRENT EXPENDITURE	5,87,84,902.00	4,49,02,394.00	6,24,56,360.00	7,62,67,560.00	3,97,95,545.17
	CAPITAL EXPENDITURE	69,64,363.00	51,13,400.00	33,11,267.00	89,26,820.00	1,17,34,162.82
	TOTAL	6,57,49,265.00	5,00,15,794.00	6,57,67,627.00	8,51,94,380.00	5,15,29,707.99
	RECURRENT EXPENDITURE					
210	Staff related expenditure	1,98,51,041.00	2,16,28,101.00	2,32,30,822.00	2,28,83,768.00	2,51,52,595.92
213	Pensions and retirement	8,89,626.00	8,83,160.00	9,44,350.00	9,67,558.00	10,20,591.22
221	Travelling expense	12,90,517.00	21,72,415.00	8,81,413.00	11,77,678.00	28,11,380.42
222	Office related expense	14,73,562.00	11,19,944.00	8,65,835.00	10,54,204.00	8,66,950.50
223	Office related service expense	38,38,634.00	55,32,852.00	27,90,542.00	48,84,545.00	47,27,194.90
224	Medical and other consumables	13,329.00	-	-	-	-
225	Scholarships and training	11,04,500.00	6,05,357.00	3,10,757.00	4,05,375.00	3,50,389.29
226	Repairs	5,05,501.00	12,77,195.00	2,11,927.00	21,19,103.00	20,53,302.06
228	Subsidies, frants and fees	2,97,63,192.00	1,16,16,770.00	3,32,20,714.00	4,25,44,669.00	28,06,540.86
281	Losses from private parties	55,000.00	66,600.00	-	2,30,660.00	6,600.00
	TOTAL	5,87,84,902.00	4,49,02,394.00	6,24,56,360.00	7,62,67,560.00	3,97,95,545.17
	CAPITAL EXPENDITURE					
291	Economic development expenditure from Govt. budget	68,20,798.00	51,13,400.00	-	-	13,39,981.14
421	Public sector investment program	-	-	32,06,827.00	77,90,262.00	95,81,361.88
423	Property, plant and equipment	1,43,565.00	-	1,04,440.00	11,36,558.00	8,10,644.80
424	Motor vehicles	-	-	-	-	2,175.00
	TOTAL	69,64,363.00	51,13,400.00	33,11,267.00	89,26,820.00	1,17,34,162.82
210	**STAFF RELATED EXPENDITURE**					
211	Salary and wages	1,39,57,352.00	1,49,15,221.00	1,61,96,414.00	1,50,93,440.00	1,51,49,933.57
212	Allowances	58,93,689.00	67,12,880.00	70,34,408.00	77,90,328.00	1,00,02,662.35
	TOTAL	1,98,51,041.00	2,16,28,101.00	2,32,30,822.00	2,28,83,768.00	2,51,52,595.92
211	**PAYROLL**	1,40,12,058.00	1,49,89,808.00			
211001	Salaries and wages			1,58,54,402.00	1,43,11,106.00	1,45,94,321.05
	Late fine	-54,706.00	-74,587.00	-2,82,249.00	-1,95,538.00	
211002	Overtime pay			6,24,261.00	9,77,872.00	5,55,612.52
	TOTAL	1,39,57,352.00	1,49,15,221.00	1,61,96,414.00	1,50,93,440.00	1,51,49,933.57
212	**STAFF RELATED ALLOWANCE**	58,93,689.00	67,12,880.00			

212005	Ramazan allowance			4,14,645.00	4,03,615.00	5,06,800.00
212009	Special allowance for the post			80,500.00	40,250.00	90,000.00
212010	Food allowance			11,85,025.00	11,07,720.00	9,44,200.00
212012	Allowance for local non-residents			29,876.00	212	
212013	Commuting allowance for local non-residents			1,05,960.00	1,11,081.00	1,44,218.50
212014	Dependants' allowance			11,05,300.00	10,90,183.00	11,08,083.28
212015	Holiday allowance			91,230.00	1,94,756.00	1,48,572.94
212017	Annual leave cancellation allowance			15,928.00	12,030.00	63,959.17
212019						2,720.00
212021	Shift duty allowance			68,725.00	82,802.00	82,697.80
212022	Hardship allowance			72,720.00	83,820.00	55,620.00
212023	Exclusive job allowance				8,45,756.00	32,86,285.57
212024	Phone allowance			1,40,515.00	1,48,135.00	1,69,565.06
212025	Risk allowance			2,03,700.00	2,85,400.00	2,51,225.00
212027	Service allowance			35,20,284.00	32,01,050.00	29,80,554.01
212999	Other allowances				1,83,518.00	1,68,161.02
	TOTAL	58,93,689.00	67,12,880.00	70,34,408.00	77,90,328.00	1,00,02,662.35
213	**PENSIONS AND RETIREMENT**					
213001		8,89,626.00	8,83,160.00	9,44,350.00	9,67,558.00	
213006	Pensions					10,20,591.22
	TOTAL	8,89,626.00	8,83,160.00	9,44,350.00	9,67,558.00	10,20,591.22
221	**TRAVELLING EXPENSE**					
221001	Travelling expenses - local sea travel	7,64,139.00	11,58,416.00	3,13,586.00	3,69,419.00	13,45,025.55
221002	Travelling expenses - local land travel	16,691.00	3,88,830.00			
221003	Travelling expenses - local air travel	1,83,585.00	6,05,724.00	1,28,841.00	2,25,031.00	10,53,322.98
221004	Travelling expenses - Overseas	2,80,654.00	19,445.00	4,15,846.00	5,62,807.00	4,01,865.33
221005	Travelling expenses for foreigners	29,845.00		23,140.00	20,421.00	11,166.56
221999	Other travelling expenses	15,603.00				
	TOTAL	12,90,517.00	21,72,415.00	8,81,413.00	11,77,678.00	28,11,380.42
222	**OFFICE RELATED EXPENSE**					
222001	Stationery and office requisites	6,56,233.00	4,82,669.00	3,57,330.00	5,36,344.00	4,71,520.23
222002	IT related materials	28,931.00	52,039.00	5,996.00	60,159.00	32,202.29

222003	Fuel and lubricants	6,87,160.00	4,72,970.00	4,36,996.00	3,64,061.00	3,14,787.67
222004	Meals for employees during office hours	5,333.00	5,082.00	1,113.00	3,623.00	1,229.00
222005	Electrical items	23,334.00	33,736.00	30,181.00	37,244.00	12,415.10
222006	Spare parts	16,647.00	24,521.00	9,718.00	10,719.00	1,983.79
222008	Supplies for office cleaning	27,020.00	33,184.00	21,315.00	25,619.00	21,512.03
222009	Utensils and accessories	13,205.00	15,743.00	3,186.00	13,104.00	11,300.39
222010	Office decoration materials	465			1,252.00	
222011	Curtains, table cloths Etc	850			1,000.00	
222999	Other administrative supplies	14,384.00			1,079.00	
	TOTAL	14,73,562.00	11,19,944.00	8,65,835.00	10,54,204.00	8,66,950.50
223	**OFFICE RELATED SERVICE EXPENSE**					
223001	Telephone, fax and telex	5,41,304.00	4,10,825.00	3,35,387.00	3,98,558.00	3,34,389.81
223002	Electricity	8,49,465.00	7,79,080.00	6,28,351.00	7,00,475.00	6,08,340.49
223003	Water and sanitation services	31,893.00	79,848.00	32,319.00	46,170.00	89,122.04
223004	Leased line and internet	6,17,344.00	5,69,062.00	5,22,256.00	6,86,658.00	7,95,457.29
223005	Building rent and land rent	1,86,953.00	2,30,183.00	5,23,153.00	2,20,053.00	1,86,952.68
223006	Hire charges				2,686.00	
223007	Security and safeguarding services	3,01,684.00	4,11,085.00	3,68,239.00	3,93,605.00	3,43,174.00
223008	Cleaning services and waste disposal	1,31,716.00	1,60,720.00	94,975.00	1,17,364.00	1,29,917.14
223009	Postage and message	17,780.00	5,622.00	3,144.00	7,137.00	6,010.38
223010		13,700.00	6,000.00			3,529.80
223011	Carriage and conveyance	1,21,926.00	1,48,044.00	83,635.00	1,55,684.00	1,25,587.53
223012	Meeting or seminar related expenses	1,08,348.00	59,868.00			5,82,393.61
223013	National competitions and ceremonies	7,00,438.00	14,78,480.00	29,638.00	1,04,780.00	67,674.00
223014						2,790.00
223016	Consultancy, translation & other related services	30,900.00	23,424.00	100		1,24,190.00
223017	Expenses on foreign dignitaries	25,873.00	8,231.00		19,695.00	5,975.00
223018	Visa, workpermit fees of expatriate staff	27,952.00	22,300.00	15,100.00	12,790.00	25,090.26
223019	Annual fees to government	56,201.00	22,937.00	17,453.00	52,079.00	35,507.88
223020	Printing services	44,235.00	46,553.00		7,502.00	1,75,860.31
223021		700				

223022	Staff medical expenses	2,443.00	10,140.00	4,406.00	5,392.00	
223023	Expenses on international & local fairs		8,02,149.00		18,40,594.00	10,12,714.68
223024	Bank charges and commission				64,104.00	38,091.26
223025	Insurance	7,792.00	4,500.00	9,631.00	3,775.00	
223999	Other administrative services	19,987.00	2,53,801.00	1,22,755.00	45,444.00	34,426.74
	TOTAL	38,38,634.00	55,32,852.00	27,90,542.00	48,84,545.00	47,27,194.90
224	Medical and other consumables					
224001	Medical consumables	13,329.00				
224999	Other operational consumables					
	TOTAL	13,329.00	-	-	-	-
225	**SCHOLARSHIPS AND TRAINING**					
225001	Scholarship and fellowship assistance	6,63,094.00	2,05,974.00	1,06,720.00	1,03,860.00	1,35,653.97
225004	Course fees & related expenses - local training	13,240.00	-12,138.00		29,440.00	339.2
225005	Conducting training courses	4,28,166.00	4,08,268.00	2,04,037.00	2,72,075.00	2,14,396.12
225006			3,253.00			
	TOTAL	11,04,500.00	6,05,357.00	3,10,757.00	4,05,375.00	3,50,389.29
226	**REPAIRS**					
226001	Repairs - residential buildings			24,984.00	30,983.00	6,70,693.03
226002	Repairs - non-residential buildings	1,76,407.00	1,25,459.00	4,853.00	5,75,518.00	3,85,775.60
226006	Repairs - water & sanitation systems	2,021.00	29,750.00		3,41,862.00	38,991.12
226007	Repairs - electricity systems		5,051.00		1,78,637.00	36,211.60
226008	Repairs - other infrastructure		1,19,279.00	7,167.00	2,21,528.00	1,31,742.60
226009	Repairs - furniture & fittings		52,291.00	1,990.00	62,549.00	59,363.14
226010	Repairs - machinery and equipment	1,23,499.00	1,94,641.00	32,693.00	2,28,761.00	3,41,982.78
226011	Repairs - vehicular equipment		442			
226013	Repairs - computer software		2,684.00			78,800.00
226014	Repairs - IT related hardware			47,681.00	90,893.00	1,77,858.61
226016	Repairs - motor vehicles	10,690.00	28,002.00	6,654.00	6,474.00	41,942.17

226017	Repairs - ships and boats	1,92,884.00	7,19,596.00	85,905.00	3,81,898.00	89,941.41
	TOTAL	5,05,501.00	12,77,195.00	2,11,927.00	21,19,103.00	20,53,302.06
228	**SUBSIDIES, GRANTS AND FEES**					
228001	Subsidies	2,88,14,918.00	1,09,65,304.00	3,13,22,127.00	3,79,99,662.00	
228004	Awards		1,000.00		1,000.00	
228005	Indemnities and relief against natural calamities			12,00,338.00		
228007	Subscriptions & fees to international org.	9,48,274.00	6,50,466.00	6,98,249.00	25,44,007.00	28,06,540.86
228020	Fisheries subsidies				20,00,000.00	
228021	Agriculture subsidies					
	TOTAL	2,97,63,192.00	1,16,16,770.00	3,32,20,714.00	4,25,44,669.00	28,06,540.86
281	**LOSSES FROM PRIVATE PARTIES**					
281002	Losses from private parties	55,000.00	66,600.00		2,30,660.00	6,600.00
	TOTAL	55,000.00	66,600.00	-	2,30,660.00	6,600.00
291	**ECONOMIC DEVELOPMENT EXPENDITURE FROM GOVT. BUDGET**					
291001	Local components for foreign assisted projects	20,50,698.00	28,85,469.00			
291003	Other economic development expenditure from Govt. budget	47,70,100.00	22,27,931.00			13,39,981.14
	TOTAL	68,20,798.00	51,13,400.00	-	-	13,39,981.14
421	**PUBLIC SECTOR INVESTMENT PROGRAM**					
421003	Project cost-non-residential buildings			1,12,364.00	6,90,468.00	16,68,446.31
422005	Electricity systems			10,000.00	1,52,103.00	6,39,890.07
422999	Other infrastructure	-		30,84,463.00	69,47,691.00	72,73,025.50
	TOTAL	-	-	32,06,827.00	77,90,262.00	95,81,361.88
423	**PROPERTY PLANT AND EQUIPMENT**					
423001	Furniture & fittings	57,317.00			1,27,914.00	1,22,102.91
423002	Machinery and equipment	8,950.00		21,293.00	1,74,538.00	2,33,029.65
423004	Tools, instruments, apparatus	1,454.00			9,618.00	
423006	Communication infrastructure	2,034.00		1,363.00	29,871.00	2,120.00

423007	Computer software				31,500.00	1,86,539.44
423008	IT-related hardware	73,810.00		81,784.00	7,37,629.00	2,65,347.60
423999	Other equipment				25,488.00	1,505.20
	TOTAL	1,43,565.00	-	1,04,440.00	11,36,558.00	8,10,644.80
424	**Motor vehicles**					
424001	Motor vehicles					2,175.00
	TOTAL	-	-	-	-	2,175.00
	ALLOCATED BUDGET	20,87,67,268.00	15,30,89,322.00	20,40,35,829.75	15,49,12,654.00	16,59,19,213.00
	RECURRENT EXPENDITURE	20,59,94,642.00	15,18,34,226.00	18,38,80,236.00	13,35,63,870.00	13,42,88,560.00
	CAPITAL EXPENDITURE	27,72,626.00	12,55,096.00	2,01,55,593.75	2,13,48,784.00	3,16,30,653.00

Annex-11: MoFA SWOT

Maldives - MoFA – Key Organisational Issues	
Strengths (Internal)	**Weaknesses (Internal)**
1. Organisational structure and designated unit functions are largely coherent with international standards;	1. Some gaps in organisational structure and functions (*e.g.* policy coordination; management and compliance separation);
2. Expert and experienced staff in key areas (*e.g.* fisheries research);	2. Fisheries policy and legal framework needs further alignment with IBP;
3. Good connectivity with RFMO for tuna (IOTC);	3. Annual budget is low compared to international standards;
4. Good performance relative to RFMO functions;	4. Staff number and quality is generally low compared to international standards;
5. Strong industry links;	5. Evidence of implementation gaps in key areas (*e.g.* fisheries management);
6. Strong community links;	5. Evidence of implementation gaps in key areas (*e.g.* fisheries management);
	6. Organisational management arrangements show limitations (absence of Results Based Management framework)
	7. Some staff management process deficiencies (*e.g.* definition of career pathways, salary-based incentives, training opportunities);
Opportunities (External)	**Threats (External)**
1. Capitalise on increasing value of premium internationally traded fish stocks to encourage further investment in institutional development;	1. IO fisheries are exposed to increasing risk of economic and biological overexploitation, leading to reduction of value and benefits, with knock-on impact for investment in institutional development;
2. International lesson-learning for tuna management, and aligning institutional capacity needs;	2. IOTC performance and impact is below international thresholds;
3. Accessing regional and international training opportunities;	3. Regional and international organisations change priorities for support away from IO;
4. Support from regional and international organisations;	4. Industry support for IO fisheries is reduced;
5. Support from the private sector/industry (national and external)	
6. Greater cooperation with other IO fishing nations;	

	Fisheries Management	Fisheries Compliance	Fisheries Logistics & Administration	Fisheries Training, Extension & promotion	Fisheries Infrastructure Development	Marine Research Centre (MRC)	Total score
Section A: Functions / Structure							
A. 1. Main functions	• To prepare FMP • To oversee fisheries management interventions • Technical assistance for legal framework • Prepare policy, administration and international partner liaison; • To fulfil obligations (IOTC)	• Ensure rules & regulations followed in industry • International relations (observer scheme), stop illegal fishing • VMS implementation • Electronic monitoring (real time) to replace observers • Overlap with FM functions	NOT AVAILABLE DURING SURVEY (ON HOLIDAY)	• Training fishers and industry (*e.g.* long-lining) • Provide Secretariat (Promotion Board) • Organise participation in international trade fairs (Brussels)	• Deploy FADS (54) • Ice plant installation (location assessment) • Fish processing plants (permits) • Collector vessels (permits) • Marina development (harbour and leisure facilities)	• Conduct research and monitoring • Assess fish stock status and expert advice • Support policy development and provide fisheries management advice	
A. 2. Work-plans (Yes/No)	Yes	Yes		Yes	Yes	Yes	5/5
A. 2.a.. Defined KPI (Yes/No)	Yes	Yes		Yes	Yes	Yes	5/5
A.2.b. Level of performance of unit	Good	Good		Good	Good	Good	5/5
Notes:	WP prepared each year, within budget limits set by MoF; closely linked to 'Compliance' Division; Minister has oversight; Annual Report produced;	WP prepared each year, schedule and costings; budget passed to MoF; timeline agreed with colleagues; Performance measured (check activities completed, budget spent);		Activities checked against WP; Senior Management Meeting also checks progress; Budget spend is important (should complete by Oct, Finance Section will check)	Activities checked against WP; Senior Management Meeting also checks progress; Check expenditure every 3 months;	Work-plans are agreed each year, along with budget (initial guidance provided by the Minister). MRC also participates in international programmes funded externally.	

A.3. Any challenges for implementation (Yes/No)	Yes	Yes		Yes	Yes	Yes	5/5
	Fisheries management • Research capacity base is low • Science is questioned by fishers • Lack of technical staff (only 1 for FMP) • Recruitment problems • Statistics • Lack of staff • Retaining staff • Low salaries (entry level is MVR 300/month) • No career development pathway	• Lack of capacity (trained staff) • High turnover of staff • International obligations (staff, budget problems) • Linkage between sections is limited (some overlaps)		• Government Manifesto pledges may be inappropriate • Uncertainties over 'higher level' management (stability and political appointees)	• Lack of skilled workers • Lack of key equipment (trucks, lifting equipment)	• Staff numbers have reduced (from 64 to 24) • Lack of technical capacity in key areas (data analysis) • Lack of experienced staff	
A.3.a. Possible improvements, solutions?	• Use of international funds (top-ups) • Audit, re-structure Ministry (re-allocate staff) • CSC frameworks maybe inappropriate, need changing	• Improved strategic action plan; • Greater higher level oversight (policy level); • Further capacity-building (staff training) • Use of international funds (to reward extra work)		• Careful translation of Government Manifesto Pledges into policy and strategic action plan	• Up to 2 extra workers; and 1 truck and lifting equipment)	• Further capacity-building (should be ongoing); • Increased mentoring and 'hand-holding' for junior staff (time allowance for senior staff)	
A. 5. Collaboration (Yes/No)	Yes	Yes		Yes	Yes	Yes	5/5

Notes:	• Within MoFA (*e.g.* Compliance) • Other Ministries (Environment) (there is Ministerial Coordination) • Coastguard, Customs • Transport (although ideas conflict)	• Within MoFA (especially FM) • Plus other MoFA sections (but also work independently, incoherent at certain levels – despite regular Tuesday section heads' meeting) • Outside MoFA – Coastguard (Regular meetings with FM, Infrastructure, Extension also)		• With FM and MRC especially • FDA (joint audits to ensure EU compliance) • Foreign Affairs • Private Companies (Standardization of Fish and Fishery Products, Chair)	• Arrangements for loans over ice-plants • FM section (deploy collector vessels) • Licence for fish processing plants • Coastguard (FADS)	• Widespread collaboration with other government departments, for example, Ministry of Environment (MoE) and Environmental Protection Organisation (EPO) over climate change monitoring and coral reef monitoring.	
Section B: Organisation / Operational Structure							
B.1. No. staff managed by the section head in Ministry	10	5		2	6	24	-
B.1.1. No. staff managed > or equal 5	Yes	Yes		No	Yes	Yes	4/5
B.1.2. No. senior staff	3	1		1	0	-	-
B.1.3. No. junior staff	7	4		1	6	-	-
B.1.4. No. vacancies > or equal 2	Yes (2)	No (0)		No (1)	No (1)	Yes (3)	2/5
B.1.5. No. staff exited > or equal 2	Yes (2)	Yes (3) (but re-recruited)		No (1)	No	No	2/5
B.1.6. No. staff managed elsewhere >1	Yes	0		0	Yes (4)	Yes (6) (part of 24) (mariculture field station)	3/5

Notes:	• Staff in Malé (5) • Staff in Airport (5)	Malé (5)		Malé (2)	• Malé (2) • Hulamale (4)	• Malé (18) • Field station (6)	
B.3. Responsibility for major programmes (Yes/No)	Yes	No		Yes	Yes	Yes	4/5
Notes:	• IPLF (External programme) • RFS (small commitment) • Liaison with International Consultants generally	n.a.		• Masterplan (JICA) – Group Leader Post-Harvest (2 year programme, to improve quality, with Japanese expert); • Radio Programme also used to communicate information and questions-answers session (with fishers)	• Masterplan (JICA) – Deep-sea squid (Diamond squid), experimental fishing (20i5-2018)	• IOTC (Scientific Committee) • International Pole and Line Foundation	
Section C: Performance Management / Training							
C.1. Staff have job descriptions (Yes/No)	Yes	Yes		Yes	Yes	Yes	5/5
C.2. Staff performance appraisal schemes (Yes/No)	Yes	Yes		Yes	Yes	Yes	5/5

Notes:	• CSC Appraisal form is considered too general • No coherence with WP	• CSC Appraisal form is considered too general • WP KPI inserted (*e.g.* vessels boarded each year)		• CSC Appraisal form is considered too general	• CSC Appraisal form is considered too general • Staff also checked (to note job performance)	• Job descriptions are reviewed each year • CSC Appraisal form is considered too general • Staff also checked (to note job performance against tasks assigned)	
C.3. Training opportunities for staff (Yes/No)	Yes	Yes		Yes	Yes	Yes	5/5
Notes:	• *Ad hoc* frequency • S/T (external funding, useful, 1 week – 3 months, foreign locations) • No L/T (policy)	• S/T (*e.g.* Observer training, Malé, IOTC, 1 week x 2 rounds)(*e.g.* LoS training, Wollongo, AusAid, 2 weeks) (*e.g.* BOBP, CCRF/EBFM) • L/T (this is lacking)		• S/T (Yes) • L/T (No)	• Short courses (yes) • External support (*e.g.* JICA, SEAFDEC – marine engine maintenance, fishing gear technology, 3-6 months in Japan)	• Ad hoc short courses mainly (Japan/China) • Masters/PhD opportunities less available	
C.4. Skills/ Competencies lacking (Yes/No)	Yes	Yes		Yes	Yes	Yes	5/5
Notes:	• Statistical analysis • Report writing • FM in general	• Two staff (at FM degree level) • Electronic/ advanced communications		• Modern fish processing techniques (*e.g.* value-added products)	• English report writing • Refrigeration engineering	• English report writing • Research "mindset" • Analytical mindset (numerical)	
Section D: Communication							
D.1. Range of methods used (Yes/No)	Yes	Yes		Yes	Yes	Yes	5/5

Notes:	• Section heads meeting (every Tuesday, chair Minister) • Monthly meeting (section staff) • Regular 'face-to-face' meetings, email, phone, Viba group • Meetings with fishermen (issue-based) plus follow-up phone, emails etc	• Section heads meeting (every Tuesday, chair Minister) • Also need-based staff meetings • Informal 'face-to-face' meetings, email, phone, Viba group • FM & Compliance Sections have good and regular comms • Coastguard (formally must arrange through MoD)		• Permanent Secretary Meeting (every week) • Section heads meeting (every Tuesday, chair Minister) • Informal 'face-to-face' meetings, email, phone, Viba group	• Section heads meeting (every Tuesday, chair Minister) • Informal 'face-to-face' meetings, email, phone, Viba group	• Section head meetings (every week, Ministry) • Face-to-face (start of week) • Some scheduled staff meetings • Electronic (Viba, emails, phone as required)	
D.2. Difficulties with comms. (Yes/No)	Yes	Yes		Yes	Yes	No	4/5
Notes:	• Website is out of date • IT problems (few staff and lack of expertise)	• Other sections (limited connectivity)		• Fishers (often out of range by mobile)	• Hulamale (no email) • IT section needs upgrading, few staff	n.a.	
D.3. Record keeping standard is good (Yes/No)	Yes	Yes		Yes	Yes	Yes	5/5
Notes:	• Key meetings are documented and stored (Minister, Secretariat) • Other files (both paper and electronic)	• Documentation system is adequate (including record recovery) • Electronic/hard copy (*e.g.* vessel records) • Documentation is shared online (GEMS system)		n.a.	n.a.	n.a.	

Section E: Adequate Structures/Equipment							
E.1. Office (Yes/ No)	Yes	Yes		Yes	Yes	Yes	5/5
E.1.A. Computers/IT	No	No		No	No	No	0/5
E.2. Data/records centre (Yes/No)	Yes	Yes		Yes	Yes	Yes	5/5
E.3. Vehicles (Yes/No)	n.a.	n.a.		Yes	Yes (boat)	Yes (boats x 2)	3/5
E.4. Laboratory (Yes/No)	n.a.	n.a.		Yes	No	Yes (algal)	2/5
E.5. Workshop (Yes/No)	n.a.	n.a.		Yes	Yes	No	2/5
ADDITIONAL COMMENTS							
	• Staff shortage and capacity is serious • 'Market' access is key to Maldives (whole status/ process issue, not just food safety/quality)	• Computers are outdated, requested upgrade • Internet speed is slow		• Computers plus projectors, screens and printers used in field need upgrading	• Civil servants – no incentives to stay in jobs in future (no increments or adequate salary), compared to private sector. Male also very expensive.	• Fishing industry is more mature now, and there is a need for more support (by good standard government officers) • The IPLF has opened up some good capacity-building routes	

	Office Administration (Management Division)	IT	Budget & Finance	Policy & Coordination	Human Resources	Executive Coordinator	Total score
Section A: Functions / Structure							
A. 1. Main functions	• Procurement • General management • IT	• Routine IT tasks • Server management & admin • LAN • Applications • Tel infrastructure • E-gov comms • Website • In-house IT training	• Vouchers • Reporting • Recording income/ expenditure • Audit • Software (SAP) • Budgeting • Financial Statements	• International (travel, logistics, workshops, MoU) • Programmes and Projects (funding, monitoring) • Coordination (arrange internal meetings, SAP monitoring)	• Recruitment (interview panel) • Appointments/ Termination (software) • Job status (update job structure/ function) • Staff training • Pay-roll, pension and remuneration	• Involvement in a range of areas: • Masterplan execution (JICA) • World Bank project planning (implementation approach)	
A. 2. Work-plans (Yes/No)	No (demand driven)	Yes	Yes	No (follow others)	Yes	No	3/6
A. 2.a. Defined KPI (Yes/No)	No	Yes	Yes	No (support others)	Yes	No	3/6
A.2.b. Level of performance of unit	?	Medium	Moderate	Good	?	n.a.	3/6
Notes:	• Demand-driven services • Buy in (cleaning, security, assets) • No formal performance measurement (Tuesday review meeting with Minister)	• Annual budget with task breakdown	• Appraisal by CSC	• Play a supporting role to other units (for example, follow up on list of workshops to be attended)	n.a.	• Activities are demand-driven • Deadlines set by programmes (above) • Line manager is Minister	
A.3. Any challenges for implementation (Yes/No)	Yes	Yes	Yes	Yes	Yes	Yes	6/6

Notes:	• Limited capacity • Lack of training (nothing specific for administrative management) • Financial procurement (very strict, no flexibility)	• Low number staff (x2) • Work not finished on time • Staff lack training(upgrade and updating) in IT	• Much work is done under pressure (last minute) • Ministry of Finance (also short-staffed) and cannot always respond or work quickly • More layers MoFA/MinFin/ MMA	• Short of staff (previously 7) • Some distractions because shared functions • Computer systems could be better	• High staff turnover (looking for other posts) • Payroll (only one staff)(problem with leave, time available) • Lack of commitment by staff to training • Inappropriate training	• Not enough supporting capacity (technical level) • Few staff now being trained externally • High turnover of staff	
A.3.a. Possible improvements, solutions?	• More training • Appreciation/ recognition of work	• More training (upgrade and updating) • More staff	• More staff in MoFin	• More staff	• More staff • Better training	• More staff • Better training	
A. 5. Collaboration (Yes/No)	Yes	Yes	Yes	Yes	Yes	Yes	6/6
Notes:	• Work across Ministry • Outstations in Ministry • PIU • MoFinance (approvals)	• IT for all Fish and Agric sections; • Coordination with wider administration also • Coordinate with national information technology centre (email management, HR system)	• Mostly work with MoFin and Maldives Monetary Authority	• Across all Ministries • Arrange meetings and share documents	• Between Fisheries and Agriculture • CSC and Finance (vacancy announcements)	• There is interaction between Ministries, but it varies (some relations stronger than others, varies with time, should be reviewed) • Also within the MoFA, generally good	
Section B: Organisation / Operational Structure							
B.1. No. staff managed by the section head in Ministry	15	1	4	3	4	0	
B.1.1. No. staff managed > 5	Yes	No	No (4)	No (3)	No (4)	n.a.	1/6

B.1.2. No. senior staff	3	1	1	3	2	n.a.	
B.1.3. No. junior staff	12	1	3	0	2	n.a.	
B.1.4. No. vacancies >2	Yes (2)	No (0)	0	0	Yes (2)	n.a.	2/6
B.1.5. No. staff exited >2	No (0)	Yes (2)	No (0)	Yes (7)	No(0)	n.a.	2/6
B.1.6. No. staff managed elsewhere >1	No	No (0)	No (0)	0	Yes (1) (training)	n.a.	1/6
Notes:	• One senior staff has a degree (others have O levels or diploma) • Admin officers (9) have O levels	• Senior officer has attended s/t overseas training courses; • Assistant computer technician is self-taught	• Senior accounts officer (degree) • Accounts officers (x2) (degrees) • Cashier (O Levels)	• All three staff have Masters degrees (Business, Commerce)	• Two staff have degrees • One with A levels (studying degree level) • One with school level qualifications	n.a.	
B.3. Responsibility for major programmes (Yes/No)	No	Yes	No	No	Yes	Yes	3/6
Notes:	n.a.	• HR system implementation • Website for the Ministry	n.a.	n.a.	• CSC (HR Audit) (President's Office)	• World Bank and JICA programmes	
Section C: Performance Management / Training							
C.1. Staff have job descriptions (Yes/No)	Yes	Yes	Yes	Yes	Yes	No	5/6
C.2. Staff performance appraisal schemes (Yes/No)	Yes	Yes	Yes	Yes	Yes	No	5/6

Notes:	• Standard appraisal by CSC	• Standard appraisal by CSC	• Standard appraisal by CSC	• Standard appraisal by CSC	• Standard appraisal by CSC	n.a.	
C.3. Training opportunities for staff (Yes/No)	Yes	No	Yes	Yes	No	No	3/6
Notes:	• Training provided is too general *e.g.* leadership, presentation skills, communication and report writing	n.a.	• Few training courses • CSC courses low level • External (past 5 years, just one, preparation of financial statements)	• Basic training offered by CSC • Limited opportunity for further admin training	• Basic training offered by CSC (only local) • External programmes aimed at technical staff only	n.a.	
C.4. Skills/ Competencies lacking (Yes/No)	Yes	Yes	Yes	Yes	Yes	Yes	6/6
Notes:	• Skills lacking include IT (web development), procurement (supply management, contract negotiation, leadership, HR management and project support)	• Technical website development • Server administration • IT trends (ITTL) • Short courses can be useful	• IT training needed • IT problems exist in MoFA (lack of support) • Regular and routine training is required for all staff	• Enhancement of exiting skills would be welcomed	• Further training needed in HR development, payroll, HRM, budgeting and IT.	• Writing skills • Civil Service good practice approaches (*e.g.* handover documents, systems management, record-keeping) • Journal access (knowledge access)	
Section D: Communication							
D.1. Range of methods used (Yes/No)	Yes	Yes	Yes	Yes	Yes	Yes	6/6

Notes:	• Wide range (face-to-face, emails, phone, Viba group)	• Wide range (face-to-face, emails, phone, Viba group) • Visits to NTIC	• Wide range (face-to-face, emails, phone, Viba group) • Section heads meeting (Tuesdays) • Min of Fin meeting (every 2 weeks)	• Wide range (face-to-face, emails, phone, Viba group) • GEMS (computer based internal government email system)	• Wide range (face-to-face, emails, phone, Viba group) • Min Finance (few meetings)	• Face-to-face • Emails • Island Council (face-to-face is important)	
D.2. Difficulties with comms. (Yes/No)	No	No	Yes	Yes	Yes	No	3/6
Notes:	n.a.	n.a.	• Telephone to Min of Finance is time-consuming (low response)	• Some IT problems • Server erratic at times • Generally satisfactory	• Slowness of response by other ministries by phone • Email response better	n.a.	
D.3. Record keeping standard is good (Yes/No)	Yes	Yes	Yes	Yes	Yes	Yes	6/6
Notes:	• Recording keeping includes weekly, soft/hard copies, annual review, ad use of server in Ministry	n.a.	• Office records (7 years) • MRC (after 3 years) • Need more space • Soft copies (at least 5 years) • Most records (15 years) • Anti-corruption office can make requests • Pre-audit records • Activity based budget records available for Fisheries and Agric (recurrent and capital, separate)	• Electronic and hard-copies • Backups • Good retrieval possible	• Electronic and hard-copies • Updating and Backups • Server not always working well	n.a.	

Section E: Adequate Structures/Equipment							
E.1. Office (Yes/No)	Yes	Yes	Yes	Yes	Yes	Yes	6/6
E.1.A. Computers/IT	Yes	No	Yes	Yes	Yes	Yes	5/6
E.2. Data/records centre (Yes/No)	Yes	Yes	Yes	Yes	Yes	Yes	6/6
E.3. Vehicles (Yes/ No)	No	No	No	No	Yes (motorcycle)	No	1/6
E.4. Laboratory (Yes/No)	No	No	No	No	No	No	0/6
E.5. Workshop (Yes/ No)	No	No	No	No	No	No	0/6
ADDITIONAL COMMENTS							
	• No annual salary increment for staff • No merit scheme • Some staff studying after work for higher degrees (Malé University)	• IT faults are recorded by email • Hardware is aging, software is better • About 88 systems to manage (desk-tops, laptops mainly) • Microsoft windows • Some power-cuts (not all users have UPS) • 5-6 call-outs per day average • Training provided is limited	• More space needed for records and filing	n.a.	n.a.	• Review needed of resourcing and activities of the different divisions (to improve efficiency) • Director of Fisheries post is still vacant	

Summary Results		Survey of MoFA Divisons 2016			
		Technical Score (5 max.)	Adminis-tration Score (6 max.)	Total Score	%
Section A: Functions/Structure					
A.2.	Staff workplans (Yes)	5	3	8	73
A.2.a.	KPI (Yes)	5	3	8	73
A.2.b.	Performance (rated effective)	5	3	8	73
A.3.	Minimal major challenges (Yes)	0	0	0	0
A.5.	Collaboration (Yes)	5	6	11	100
Section B: Organisation/Operational Structure					
B.1.1.	No. staff managed (>/equal 5)(Yes)	4	1	5	45
B.1.4.	No. staff vacancies (>/equal 2) (Yes)	2	2	4	36
B.1.5.	No. staff resigned (>/equal 2) (Yes)	2	2	4	36
B.1.6.	Staff managed outside HQ (Yes)	3	1	4	36
B.3.	Major programs managed (Yes)	4	3	7	64
Section C: Performance Management/Training					
C.1.	Staff with job descriptions (Yes)	5	5	10	91
C.2.	Staff appraisal schemes used (Yes)	5	5	10	91
C.3.	Training Opportunities (Yes)	5	3	8	73
C.4.	Adequate skills in Division (Yes)	0	0	0	0
Section D: Communications					
D.1.	Range of methods used (Yes)	5	6	11	100
D.2.	No difficulties with comms (Yes)	1	3	4	36
D.3.	Record keeping is good (Yes)	5	6	11	100
Section E: Structures/Equipment					
E.1.	Office(Yes adequate)	5	6	11	100
E.1.a	IT (Yes)	0	5	5	45
E.2.	Record store (Yes)	5	6	11	100
E.3.	Vehicles (Yes)	3	1	4	36
E.4.	Lab (Yes)	2	0	2	18
E.5.	Workshop (Yes)	2	0	2	18
	Low scores highlighted				
	High scores highlighted				

Annex-13: CAPACITY-BUILDING – PRIORITIES LISTED AND COLLATED

1. Re-enforce industry links
2. Define career pathways
3. Ensure coherence between work of MoFA divisions
4. More training abroad
5. Refresher/updating courses (HR, payroll, other key functions)
6. New ways to motivate staff
7. Better salaries
8. More opportunities with 'potential'
9. Career development pathways and designations better defined
10. Training in financial reporting
11. Upgrade of IT system
12. Provide salary increments or bonus
13. Short courses in technical service functions (IT upgrade skills)
14. Recruit extra staff in key technical areas (*e.g.* IT)
15. Focus on strategic plan for function and processes development
16. Establish transparent and equitable system for staff promotion and benefits
17. Ensure system demonstrates that staff are appreciated
18. Focused short-courses in key areas (*e.g.* Procurement, IT, personnel management)
19. More training in general
20. Training on modern fishing approaches and sectoral organisation
21. Skills required by fishers with a focus on the 'young' (next generation)
22. Build capacity in Island Councils
23. Build capacity on policy coherence
24. Revise laws relevant to fisheries sector and others (*e.g.* environment) (strengthen, coherent)
25. Training courses on data collection and reporting
26. Training course on basic statistical analysis
27. Training courses on report writing
28. Training on numerical/quantitative analysis for NR systems
29. Training on communication in science
30. Development of strategy for future research on reef fisheries
31. Building trust with fishermen (and Ministry)
32. Training in technical aspects (Refrigeration)
33. Salary increment to incentivise staff
34. Training in key skills (*e.g.* use of fibreglass)
35. Recruitment of additional technical staff in fisheries management
36. Establishment of career development pathway in general
37. Training on generation, analysis and use of data, information and knowledge
38. More degree training for junior staff
39. Increase number of staff (especially in areas such as fishing technology and fish processing)
40. Short-course training in fish processing, fishing technology and extension
41. Revise the SAP (change the process)
42. Build capacity to implement policy and strategies (fisheries management, MCS, aquaculture)
43. Decentralise ministry staff (liaise with fishermen on Islands, engage in fisheries management)

Maldives - Fisheries Sector - Survey Results - Key Priorities for Future Capacity-Building
(based on key interviews of senior staff, Ministry of Fisheries and Agriculture (MoFA) and sector experts, 2016

[1] General refoms	
[1.1] Career pathways	More career opportunities with 'potential'
	Career development pathways and designations better defined
	Establishment of career development pathway in general
	Define career pathways
[1.2.] Incentives	Establish transparent and equitable system for staff promotion and benefits
	Ensure system demonstrates staff are appreciated
	New ways to motivate staff
[1.3.] Strategic issues	Revise the SAP (change the process)
	Focus on strategic plan for function and processes development
	Decentralise ministry staff (liaise with fishermen on islands, engage in fisheries management)
	Re-enforce industry links
	Ensure coherence between work of MoFA divisions
[2] Specific reforms	
[2.1.] IT systems	Upgrade of IT system
[2.2.] Salaries	Provide salary increments or bonus
	Salary increment to incentivise staff
	Better salaries
[2.3.] Staff	Increase number of staff (especially in areas such as fishing technology and fish processing)
	Recruit extra staff in key technical areas (*e.g.* IT)
	Recruitment of additional technical staff in fisheries management
[2.4.] Law	Revise laws relevant to fisheries sector and others (*e.g.* environment) (strengthen, coherent)
[2.5.] Fishermen	Building trust with fishermen (and Ministry)
[2.6.] Reef fisheries	Development of strategy for future research on reef fisheries
[3] General training	
[3.1.] More training	More training abroad
	More training in general
[3.2.] Skills, Capacity	Skills required by fishers with a focus on the 'young' (next generation)
	Build capacity to implement policy and strategies (fisheries management, MCS, aquaculture)
[4] Specific training	
[4.1.] Administration	Refresher/updating courses (HR, payroll, other key functions)
	Training in financial reporting
	Short courses in technical service functions (IT upgrade skills)
	Focused short-courses in key areas (*e.g.* Procurement, IT, personnel management)
[4.2.] Technical	Training on modern fishing approaches and sectoral organisation
	Short-course training in fish processing, fishing technology and extension
	Training in technical aspects (*e.g.* Refrigeration)
	Training in key skills (*e.g.* use of fibreglass)
[4.3.] Institutions	Build capacity in Island councils
	Build capacity on policy coherence
[4.4.] Data analysis, reporting	Training courses on data collection and reporting
	Training course on basic statistical analysis
	Training courses on report writing
	Training on generation, analysis and use of data, information and knowledge
	Training on numerical/quantitative analysis for NR systems
	Training on communication in science

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Madives - Ministry of Agriculture and Fisheries (MoFA) - Staff Positions (2016)										
		Numbers			Percentage within Divisions (%)			Overall Percentage (%)		
#	Division Name	Total Position Sanctioned	Positioned	Vacant	Total Position Sanctioned (%)	Positioned	Vacant	Total Position Sanctioned (%)	Positioned	Vacant
1	Ministry	11	9	2	100	82	18	5	6	3
2.	Fisheries Division	53	33	20	100	62	38	24	21	34
3.	Administrative Division	53	39	14	100	74	26	24	25	24
4.	Agriculture Division	57	44	13	100	77	23	26	28	22
5.	Marine Research Centre	35	27	8	100	77	23	16	17	14
6.	Uninhabited Island and Lagoon Division	8	6	2	100	75	25	4	4	3
	Total	**217**	**158**	**59**	**100**	**73**	**27**	**100**	**100**	**100**
	Percenatge (%)		**73**	**27**						
	Mean					**75**	**25**			

Source: MoFA (2016)

Maldives (MoFA) - Staff Distributed by Employment Grade (2016)				
Grade Title	**Grade Name**	**Total Position Sanctioned**	**Positioned**	**Vacant**
Minister and Ministry Staff (High Level)	Ministry	11	9	2
Director General	EX6	1	1	0
Director General	EX5	4	1	3
Senior Scientist	EX3	3	3	0
Director/Senior Scientific Officer	EX1	10	7	3
Senior Legal Officer	CS2-11	1	1	0
Legal Officer	CS9-2	1	1	0
Assist. Director/Senior Project Officer/Senior Research Officer/Senior Agric. Officer	MS3	25	19	6
Senior Admin Officer/Research Officer/Senior Project Officer/Legal Oficer/ Agriculture Officer/Senior Research Officer	MS2	33	24	9
Project Officer/Program Officer/Accounts Officer/Agric. Officer	MS1	22	13	9
Administrative Officer/Technician/Assist. Agric. Officer/S. Supervisor/Assist. Project Officer	GS4	13	11	2
Admin.Officer/Assist. Data Processing Officer/Assist. Research Officer/Assist. Project Officer/Assist. Policy Officer/Senior Field Officer/Cashier/Mechanic	GS3	60	38	22
Assist. Admin. Officer/Inspector/Field Officer	GS2	10	8	2
Launch Driver, Foreman	SS3	2	2	0
Other	SS2	2	0	2
Watcher, Others	SS1	14	12	2
Other staff	Blank	4	4	0
		216	154	62
Source : MoFA (2016)				

Maldives (MoFA) - Staff Distributed (%) by Employment Grade (2016)				
Grade Title	**Grade Name**	**Total Position Sanctioned**	**Positioned**	**Vacant**
Minister and Ministry Staff (High Level)	Ministry	5	6	3
Director General	EX6	0	1	0
Director General	EX5	2	1	5
Senior Scientist	EX3	1	2	0
Director/Senior Scientific Officer	EX1	5	5	5
Senior Legal Officer	CS2-11	0	1	0
Legal Officer	CS9-2	0	1	0
Assist. Director/Senior Project Officer/Senior Research Officer/Senior Agric. Officer	MS3	12	12	10
Senior Admin Officer/Research Officer/Senior Project Officer/Legal Oficer/Agriculture Officer/ Senior Research Officer	MS2	15	16	15
Project Officer/Program Officer/Accounts Officer/ Agric. Officer	MS1	10	8	15
Administrative Officer/Technician/Assist. Agric. Officer/S. Supervisor/Assist. Project Officer	GS4	6	7	3
Admin.Officer/Assist. Data Processing Officer/ Assist. Research Officer/Assist. Project Officer/ Assist. Policy Officer/Senior Field Officer/Cashier/ Mechanic	GS3	28	25	35
Assist. Admin. Officer/Inspector/Field Officer/	GS2	5	5	3
Launch Driver, Foreman	SS3	1	1	0
Other	SS2	1	0	3
Watcher, Others	SS1	6	8	3
Other staff	Blank	2	3	0
		100	100	100
Source : MoFA (2016)				

Maldives (MoFA) - Staff Grades Distributed by Sub-Divisions (2016)										
Grade Name	**Ministry**	**Fisheries Management**	**Compliance**	**Fish Logistics, Admin.**	**Fish Training, Extension, Promotion**	**Fish. Infrastructure**	**MRC**	**Total**	**Degrees total**	**Degrees %**
Ministry	0	0	0	0	0	0	0	0	n.a.	n.a.
EX6	0	0	0	0	0	0	1	1	1	100
EX5	0	0	0	0	0	0	0	0	0	0
EX3	0	0	0	0	1	0	2	3	3	100
EX1	0	1	1	1	0	0	2	5	4	80
CS2-11	0	0	0	0	0	0	0	0	0	0
CS9-2	0	0	0	0	0	0	0	0	0	0
MS3	0	0	1	0	2	2	2	7	4	57
MS2	0	3	0	0	0	0	5	8	6	75
MS1	0	0	1	0	1	0	1	3	0	0
GS4	0	1	0	1	0	4	0	6	0	0
GS3	0	8	3	2	0	1	7	21	1	5
GS2	0	0	0	0	0	0	0	0	0	0
SS3	0	0	0	0	0	0	2	2	0	0
SS2	0	0	0	0	0	0	1	1	0	0
SS1	0	0	0	0	0	0	1	1	0	0
Blank	9	0	0	0	0	0	3	3	0	0
Vacancy	2	3	2	1	8	5	8	27	0	0
Total	11	16	8	5	12	12	35	88	0	0
In Post	9	13	6	4	4	7	27	61	19	31
Degree (No)	n.a.	3	2	0	3	0	11	19		
Degree (%)	n.a.	23	33	0	75	0	41	25		

Maldives (MoFA) - % Staff Grades Distributed by Sub-Divisions (2016)								
Grade Name	**Ministry**	**Fisheries Management**	**Compliance**	**Fish Logistics, Admin.**	**Fish Training, Extension, Promotion**	**Fish. Infrastructure**	**MRC**	**Mean**
Ministry	0	0	0	0	0	0	0	0
EX6	0	0	0	0	0	0	3	0
EX5	0	0	0	0	0	0	0	0
EX3	0	0	0	0	8	0	6	2
EX1	0	6	13	20	0	0	6	7
CS2-11	0	0	0	0	0	0	0	0
CS9-2	0	0	0	0	0	0	0	0
MS3	0	0	13	0	17	17	6	9
MS2	0	19	0	0	0	0	14	6
MS1	0	0	13	0	8	0	3	4
GS4	0	6	0	20	0	33	0	10
GS3	0	50	38	40	0	8	20	26
GS2	0	0	0	0	0	0	0	0
SS3	0	0	0	0	0	0	6	1
SS2	0	0	0	0	0	0	3	0
SS1	0	0	0	0	0	0	3	0
Blank	82	0	0	0	0	0	9	1
Vacancy	18	19	25	20	67	42	23	32
Total	100	100	100	100	100	100	100	100
In Post	82	81	75	80	33	58	77	68
Degree (No)	n.a.	3	2	0	3	0	11	3

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