Sustainability roadmaps as a mechanism towards Marine Stewardship Council certification in African fisheries

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Outline

- Introduction
- African fisheries and certification
- MSC Standard as a sustainability roadmap
- Case studies
- Conclusion

Introduction

- Importance of the fisheries sector in Africa
  - 12 million jobs
  - $ 24 billion to African economy
  - 1.3% of GDP

Challenges

  - Overfishing
  - Illegal Unreported Unregulated fish
  - Habitat damage

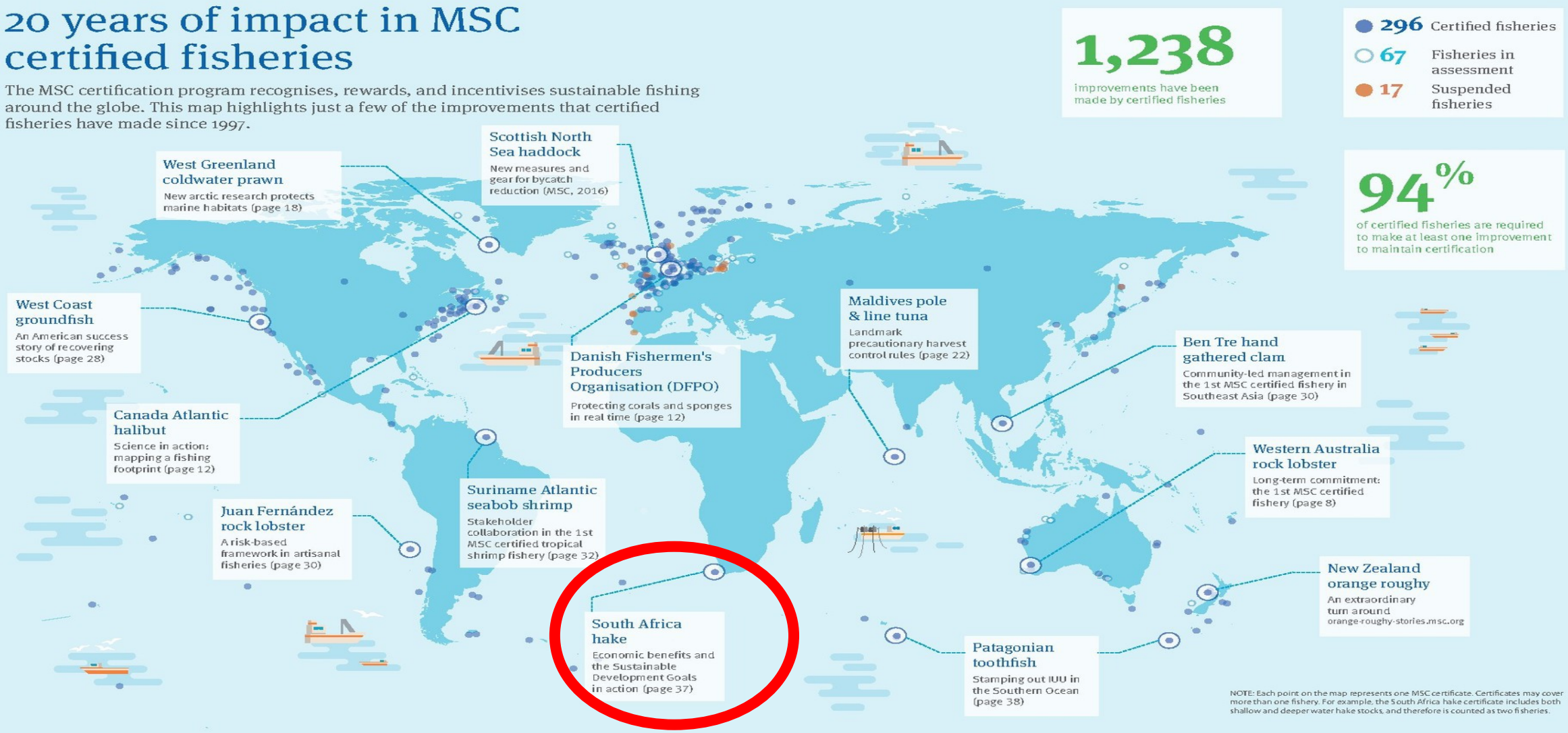
Role of certification and ecolabelling

- Ecological benefits
- Economic and social benefits

Introduction: The Marine Stewardship Council

- **International standard setting organisation**
- **Promote sustainability in the marketplace**
- **Independent, third party, certification program**

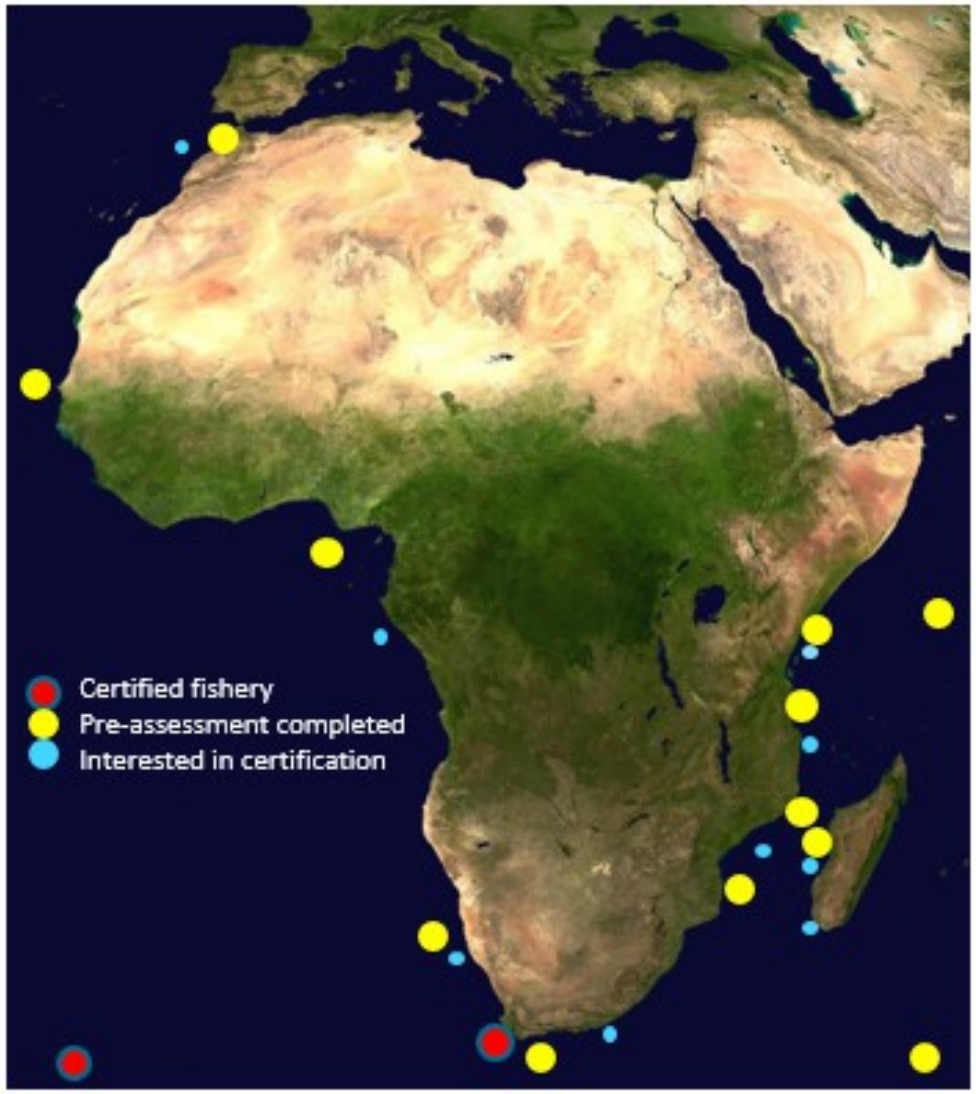
African fisheries and MSC certification



African fisheries and MSC certification

- Challenges
- Low number of certified fisheries
- Constraints due to data limitations; governance challenges; capacity issues; institutional arrangements
- Opportunities
- Growing interest in sustainability in the market place
- Tools to support fisheries

African fisheries and MSC certification

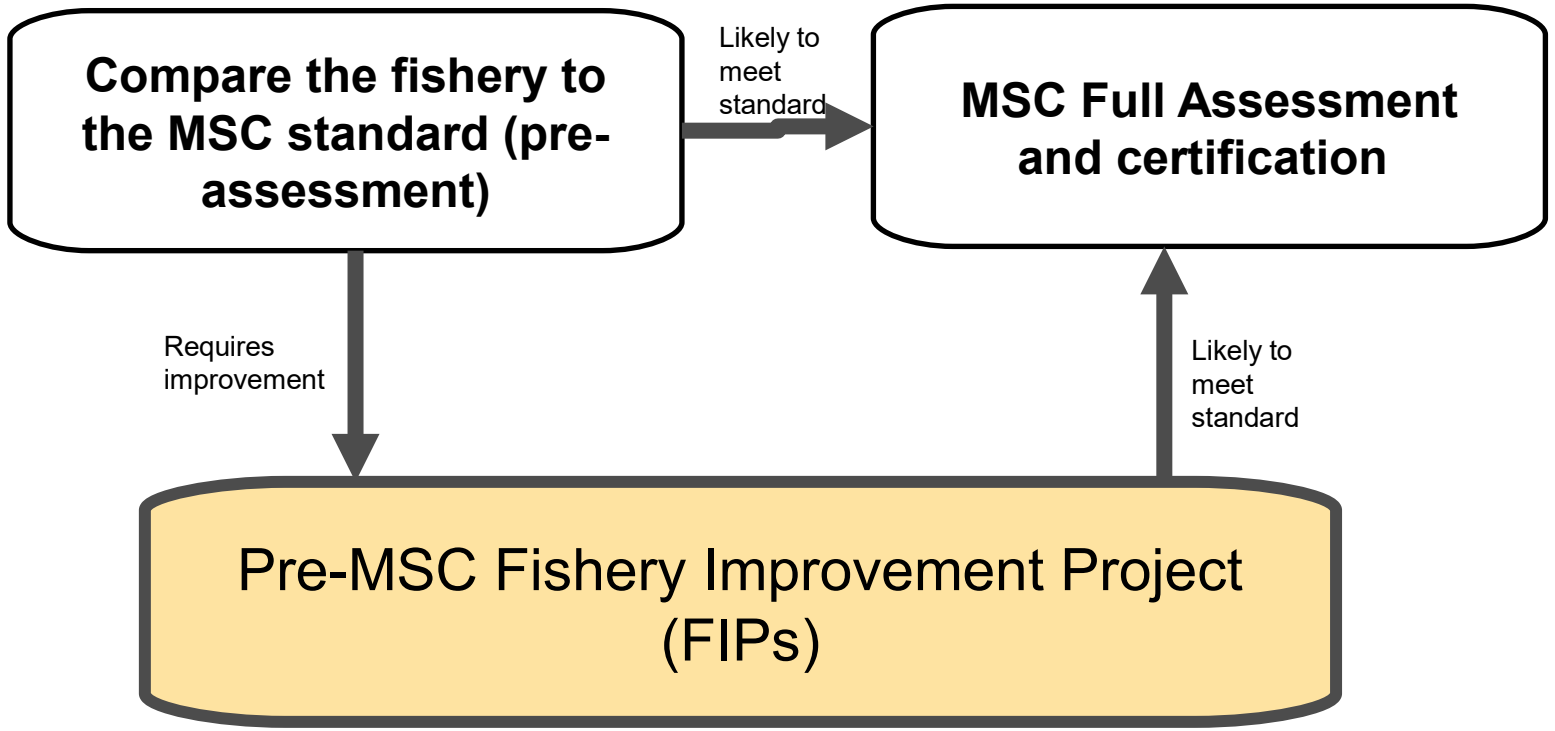


- Certified
- *South Africa hake*

- Full assessment
- *Namibia hake*

- Pre-MSC Improvement projects
- *Mozambique deep-water shrimp*
- *Tanzanian octopus*
- *Kenyan rock lobster*
- *South West Indian ocean octopus*
- *Indian Ocean tuna*
- *Morocco sardine*

MSC Standard and sustainability roadmaps for fisheries



Fishery Improvement Projects

- **A deliberate, managed and sustained effort to improve the environmental performance of a fishery towards sustainability and ultimately certification**
- **Involves partnerships**
- **Initial feasibility review against MSC standard**
- **Intended for fisheries that currently do not meet full requirements for certification**

The MSC Fisheries Standard

- The sustainability of the stock
- Ecosystem impact
- Effective management

The MSC Fisheries Standard

1. Target stock
2. Ecosystem Impact
3. Management system

Principle	Component	Performance Indicator
1	Outcome	1.1.1 Stock status
		1.1.2 Stock rebuilding
	Harvest Strategy (management)	1.2.1 Harvest strategy
		1.2.2 Harvest control rules and tools
		1.2.3 Information and monitoring
		1.2.4 Assessment of stock status
2	Primary species	2.1.1 Outcome status
		2.1.2 Management strategy
		2.1.3 Information and monitoring
	Secondary species	2.2.1 Outcome status
		2.2.2 Management strategy
		2.2.3 Information and monitoring
	Endangered, Threatened and Protected (ETP) species	2.3.1 Outcome status
		2.3.2 Management strategy
		2.3.3 Information and monitoring
	Habitats	2.4.1 Outcome status
		2.4.2 Management strategy
		2.4.3 Information and monitoring
	Ecosystem	2.5.1 Outcome status
		2.5.2 Management strategy
		2.5.3 Information and monitoring
3	Governance and policy	3.1.1 Legal and customary framework
		3.1.2 Consultation, roles and responsibilities
		3.1.3 Long term objectives
	Fishery specific management system	3.2.1 Fishery specific objectives
		3.2.2 Decision-making processes
		3.2.3 Compliance and enforcement
		3.2.4 Monitoring and management performance evaluation

Scoring against the MSC fisheries standard

Component	PI	Scoring issues	SG60	SG80	SG100
Outcome	Stock status 1.1.1 The stock is at a level which maintains high productivity and has a low probability of recruitment overfishing.	(a) Stock status relative to recruitment impairment.	It is **likely** that the stock is above the point where recruitment would be impaired (PRI).	It is **highly likely** that the stock is above the PRI.	There is a **high degree of certainty** that the stock is above the PRI
		(b) Stock status in relation to achievement of Maximum Sustainable Yield (MSY).		The stock is at or fluctuating around a level consistent with MSY.	There is a **high degree of certainty** that the stock has been fluctuating around a level consistent with MSY or has been above this level over recent years.

Each PI broken down into three scoring guideposts (SGs) – 60, 80, and 100 – which are benchmark levels of performance.

Principle	Component	Performance Indicator	Score
Principle 1	Outcome	1.1.1 Stock status	60-79
		1.1.2 Reference points	---
	Management	1.2.1 Harvest Strategy	60-79
		1.2.2 Harvest control rules and tools	60-79
		1.2.3 Information and monitoring	60-79
		1.2.4 Assessment of stock status	<60
Principle 2	Primary species	2.1.1 Outcome	>80
		2.1.2 Management	>80
		2.1.3 Information	>80
	Secondary species	2.2.1 Outcome	>80
		2.2.2 Management	>80
		2.2.3 Information	60-79
	ETP species	2.3.1 Outcome	60-79
		2.3.2 Management	60-79
		2.3.3 Information	60-79
	Habitats	2.4.1 Outcome	60-79
		2.4.2 Management	<60
		2.4.3 Information	<60
	Ecosystem	2.5.1 Outcome	60-79
		2.5.2 Management	60-79
		2.5.3 Information	60-79
Principle 3	Governance and Policy	3.1.1 Legal and customary framework	>80
		3.1.2 Consultation, roles and responsibilities	>80
		3.1.3 Long term objectives	60-79
	Fishery specific management system	3.2.1 Fishery specific objectives	>80
		3.2.2 Decision making processes	>80
		3.2.3 Compliance and enforcement	>80
		3.2.4 Management performance evaluation	60-79

Action plan to improve scores

ACTIONS/MILESTONES	Lead stakeholder	Responsible	Budget	Start date	End Date	Status
	[Insert the stakeholders that are responsible for leading the delivery of the action]	[Insert a list of stakeholders that are responsible for delivering the action]	[Insert resources that are required]	[Insert date that the action will commence]	[Insert date that the final milestone that makes up an action will be reached]	[Insert status - future, on track, behind, ahead, complete]
BMT						
1. [*insert high level issue i.e. Target species*]						
1.1 [Insert action title to improve the fishery]	WWF	MPDI, AP2HI, IPNLF		Jan-16	Jul-17	Jul-17
Outcome [Insert outcome that will be achieved upon completion of the action]						
1.1.1 [Insert milestone name]						
1.1.2 [Insert milestone name]						
1.2 [Insert Action name]						
Outcome [Insert outcome that will be achieved upon completion of the action]						
1.2.1 [Insert milestone name]						
1.2.2 [Insert milestone name]						
1.3 [Insert Action name]						
Outcome [Insert outcome that will be achieved upon completion of the action]						
1.3.1 [Insert milestone name]						
1.3.2 [Insert milestone name]						
2. Habitats and Ecosystems						
2.1 [Insert Action name]						
Outcome [Insert outcome that will be achieved upon completion of the action]						
2.1.1 [Insert milestone name]						
2.1.2 [Insert milestone name]						
3. Enforcement (MCS)						
4. [*insert high level issue*]						

Links to MSC Performance Indicators

P1. Target stocks: 1.1.1 Stock status; 1.1.2 Stock rebuilding; 1.2.1 Harvest Strategy; 1.2.2 Harvest control rules and tools; 1.2.3 Information and monitoring; 1.2.4 Assessment

P2. Ecosystem components: 2.1.1 Retained spp. status; 2.1.2 Retained spp. management; 2.1.3 Retained spp: Information &; 2.2.1 Bycatch spp. status; 2.2.2 Bycatch spp. management; 2.2.3. Bycatch spp: Information &; 2.3.1 ETP spp. status; 2.3.2 ETP spp. management; 2.3.3 ETP spp: Information & monitoring; 2.4.1 Habitat status; 2.4.2 Habitat strategy; 2.4.3 Habitat: information & monitoring; 2.5.1 Ecosystem: status; 2.5.2 Ecosystem: strategy; 2.5.3 Ecosystem: information & monitoring

P3. Management system: 3.1.1 Legal or customary framework; 3.1.2 Consultation, roles & responsibilities; 3.1.3 Long-term objectives; 3.2.1 Fishery-specific objectives; 3.2.2 Decision-making processes; 3.2.3 Compliance & enforcement; 3.2.4 Research plan; 3.2.5 Management performance evaluation

Sustainability road map

Full assessment stage

Maintenance

- Surveillance
- science

Certified fishery

- Market benefits
- Healthy stocks
- Indirect benefits

Pre-MSC Fishery Improvement

Improvement

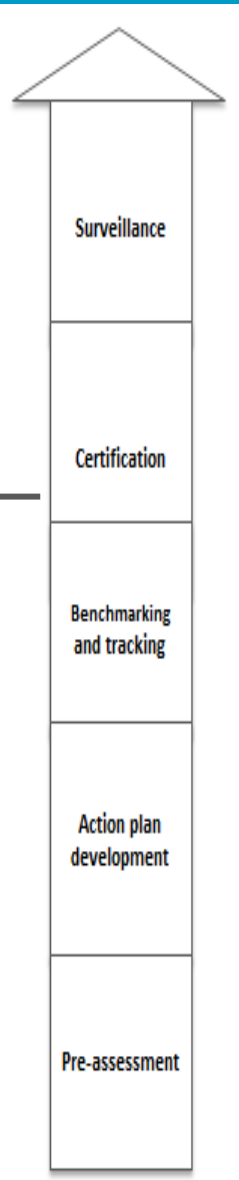
- Funding
- Implementation
- Research & Management,
- Monitoring and tracking

Feasibility/planning

- Action plan
- Milestones
- Timelines
- Forecast performance

Gap Analysis

- Feasibility assessment
- Standardised sustainability indicators



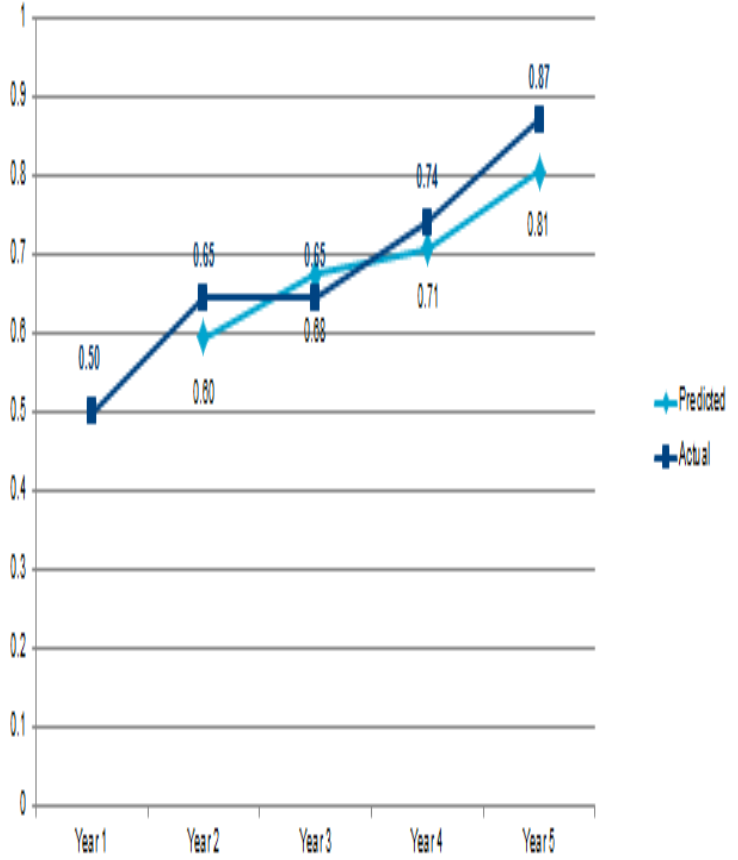
Tracking performance in the Pre-MSC phase

BMT index (0.38)

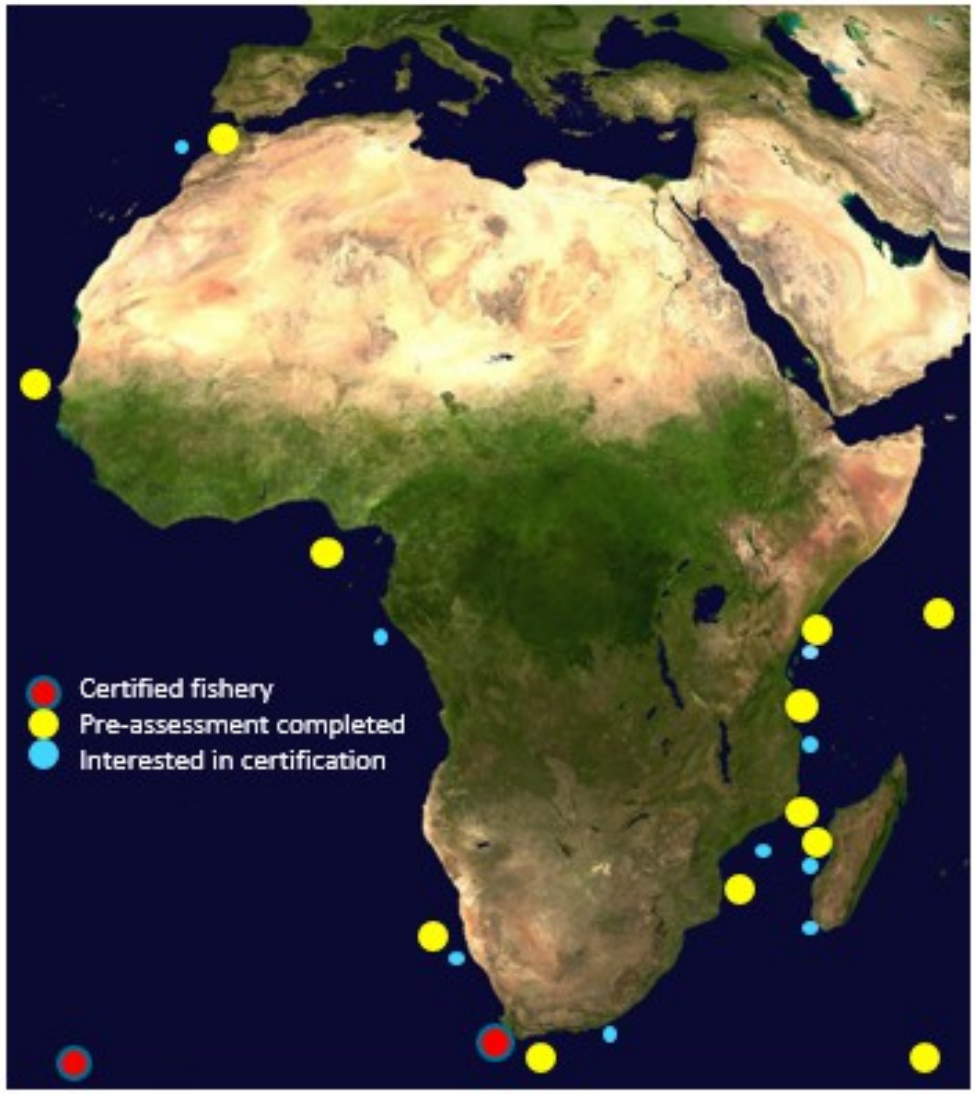
Principle	Component	PI	Performance Indicator	Expected Scoring Category: Actual Year 3
1	Outcome	1.1.1	Stock status	<60
		1.1.2	Reference points	60-79
		1.1.3	Stock rebuilding	60-79
	Management	1.2.1	Harvest Strategy	60-79
		1.2.2	Harvest control rules and tools	60-79
		1.2.3	Information and monitoring	60-79
		1.2.4	Assessment of stock status	60-79
2	Retained species	2.1.1	Outcome	<60
		2.1.2	Management	<60
		2.1.3	Information	60-79
	Bycatch species	2.2.1	Outcome	≥80
		2.2.2	Management	≥80
		2.2.3	Information	≥80
	ETP species	2.3.1	Outcome	<60
		2.3.2	Management	<60
		2.3.3	Information	<60
	Habitats	2.4.1	Outcome	<60
		2.4.2	Management	<60
		2.4.3	Information	<60
	Ecosystem	2.5.1	Outcome	<60
		2.5.2	Management	<60
		2.5.3	Information	<60
3	Governance and Policy	3.1.1	Legal and customary framework	≥80
		3.1.2	Consultation, roles and responsibilities	≥80
		3.1.3	Long term objectives	≥80
		3.1.4	Incentives for sustainable fishing	---
	Fishery specific management system	3.2.1	Fishery specific objectives	≥80
		3.2.2	Decision making processes	≥80
		3.2.3	Compliance and enforcement	<60
		3.2.4	Research plan	<60
		3.2.5	Management performance evaluation	<60
	Total number of PIs less than 60			15
	Total number of PIs 60-79			7
	Total number of PIs equal to or greater than 80			8
	Overall BMT Index			0.38

Benchmarking and Tracking tool

Principle	Component	Performance Indicator	Pre-assess-ment 2014	Expected end 2015	Expected end 2016	Expected end 2017	Expected end 2018	Actual end 2015	Status	Actual Year 3	Status	Actual Year 4	Status	Actual Year 5	Status
1	Outcome	1.1.1 Stock status	60-79	60-79	≥80	≥80	---	≥80	Ahead	---		---		---	
		1.1.2 Stock rebuilding	---	60-79	≥80	≥80	---	---		---		---		---	
	Management	1.2.1 Harvest Strategy	≥80	≥80	≥80	≥80	---	≥80	On Target	---		---		---	
		1.2.2 Harvest control rules and tools	<60	60-79	≥80	≥80	---	<60	Behind	---		---		---	
		1.2.3 Information and monitoring	≥80	≥80	≥80	≥80	---	≥80	On Target	---		---		---	
		1.2.4 Assessment of stock status	≥80	≥80	≥80	≥80	---	≥80	On Target	---		---		---	
2	Primary species	2.1.1 Outcome	<60	60-79	≥80	≥80	---	60-79	On Target	---		---		---	
		2.1.2 Management	<60	60-79	≥80	≥80	---	60-79	On Target	---		---		---	
		2.1.3 Information	≥80	≥80	≥80	≥80	---	≥80	On Target	---		---		---	
	Secondary species	2.2.1 Outcome	<60	<60	60-79	≥80	---	60-79	Ahead	---		---		---	
		2.2.2 Management	<60	<60	60-79	≥80	---	60-79	Ahead	---		---		---	
		2.2.3 Information	<60	60-79	≥80	≥80	---	60-79	On Target	---		---		---	
	ETP species	2.3.1 Outcome	<60	<60	60-79	≥80	---	60-79	Ahead	---		---		---	
		2.3.2 Management	60-79	60-79	60-79	≥80	---	60-79	On Target	---		---		---	
		2.3.3 Information	<60	60-79	≥80	≥80	---	60-79	On Target	---		---		---	
	Habitats	2.4.1 Outcome	≥80	≥80	≥80	≥80	---	≥80	On Target	---		---		---	
		2.4.2 Management	≥80	≥80	≥80	≥80	---	≥80	On Target	---		---		---	
		2.4.3 Information	≥80	≥80	≥80	≥80	---	≥80	On Target	---		---		---	
	Ecosystem	2.5.1 Outcome	60-79	60-79	≥80	≥80	---	60-79	On Target	---		---		---	
		2.5.2 Management	60-79	60-79	≥80	≥80	---	60-79	On Target	---		---		---	
		2.5.3 Information	≥80	≥80	≥80	≥80	---	≥80	On Target	---		---		---	
3	Governance and Policy	3.1.1 Legal and customary framework	60-79	60-79	≥80	≥80	---	60-79	On Target	---		---		---	
		3.1.2 Consultation, roles and responsibilities	≥80	≥80	≥80	≥80	---	≥80	On Target	---		---		---	
		3.1.3 Long term objectives	≥80	≥80	≥80	≥80	---	≥80	On Target	---		---		---	
	Fishery specific management system	3.2.1 Fishery specific objectives	≥80	≥80	≥80	≥80	---	≥80	On Target	---		---		---	
		3.2.2 Decision making processes	60-79	60-79	≥80	≥80	---	60-79	On Target	---		---		---	
		3.2.3 Compliance and enforcement	≥80	≥80	≥80	≥80	---	≥80	On Target	---		---		---	
		3.2.4 Management performance evaluation	≥80	≥80	≥80	≥80	---	≥80	On Target	---		---		---	
Total number of PIs equal to or greater than 80			13	13	24	28	28	14							
Total number of PIs 60-79			6	12	4	0	0	12							
Total number of PIs less than 60			8	3	0	0	0	1							
Overall BMT Index			**0.59**	**0.68**	**0.93**	**1.00**	**1.00**	**0.74**							



African fisheries and MSC certification



- Pre-MSC Improvement projects
- *Mozambique deep-water shrimp*
- *Tanzanian octopus*
- *Kenyan rock lobster*
- *South West Indian ocean octopus*
- *Indian Ocean tuna*
- *Morocco sardine*
- *Mauritania octopus*
- *Gambia sole*
- *Senegal shrimp*

Case studies

Morocco sardine	0.52	0.70	6	Institut National de Recherche Halieutique Ministry Exporters and retailers	Evaluation of key low trophic level status Improvement of data availability and transparency
Mozambique shrimp	0.42	0.52	5	National Administration for Fisheries National Institute for Fisheries Research WWF Deep water shrimp industry	Stock assessment of two main species Draft management plan Spatial and temporal analysis of effort Vessel Monitoring Systems
Gambia sole		0.75		Government. National sole fishery co-management committee. USAID. University of Rhode Island Coastal Resources Centre.	Data collection. Set up of sole management committee. Closed area set up and enforcement. Bycatch survey to characterise bycatch species
Kenya lobster	0.6	0.79	4	Kenya Marine Fisheries Institute Pwani University, NEPAD	Stock assessment Habitat survey
Tanzania octopus	0.24	0.48	4	WWF; NEPAD Tanzania Fisheries Research Institute	Draft management plan Spatial and temporal catch data

Key observations

- What the MSC sustainability roadmap brings
- Diagnosis of fishery based on a structured framework.
- Diversity of stakeholder engagement and participation
- Framework for cooperation across different stakeholders
- Focus of efforts and consolidation of resources
- Transparency and accountability
- Basis for cost benefit analysis
- Catalyses measurable progress towards target over time
- Governance and management improvement overtime
- Capacity building
- Attract financial assistance

Summary and conclusion

- Challenges to certification of African fisheries
- Intent and action towards sustainability is a positive signal
- Experience to date shows impact of this approach and is evidence of MSC's theory of change
- Engagement in Pre-MSC certification improvement projects can play a significant role in regional efforts to improve sustainability and profitability of fisheries in Africa.

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