# State of the Marine Ecosystems and associated Economies in the CLME+ (SOMEE)

#### ANNOTATED OUTLINE WITH SAMPLE TEXT

# **Front end**

# Title Page

State of the Marine Ecosystems and Associated Economies (SOMEE) in the CLME+ region

Logos of the ICM

#### Disclaimer

SOMEE was developed according to the outline that was presented and endorsed at the following intergovernmental meetings:

- CRFM Forum (Kingston, Jamaica, 30-31 March 2017)
- 4<sup>th</sup> Council of Ministers of the OECS (Saint George's, Grenada, 26-27 April 2017)
- 14<sup>th</sup> Session of the IOC (of UNESCO) Sub-Commission for the Caribbean and Adjacent Regions, IOCaribe (Cartagena, Colombia, 26'28 April 2017)
- 21<sup>st</sup> Ordinary Meeting of the Executive Committee of SICA/OSPEESCA (Panama City, Panama, 10-11 August 2017)

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#### Citation

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Acronyms and abbreviations

Glossary

Foreword

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Acknowledgments

Highlights; Key findings; Key facts & figures

This editor's selection of key facts and findings that should be highlighted at the beginning of the report

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# **Executive Summary**

A separate booklet of 15 illustrated pages approximately.

#### 1. Introduction

# 1.1. Global importance of the oceans

#### 1.1.1. Contributions of the ocean to socio economic development

Why it is important that ocean governance is strengthened at the global level?

# 1.1.2. An urgent need for an enhanced ocean governance

# 1.1.2.1 International instruments, agreements and commitments

Broad explanation of what are the key instruments/agreements for ocean governance at the global level.

# 1.2. Regional approaches to ocean governance

Description of the different approaches to ocean governance at the regional level.

#### 1.3. The CLME+ region

Generic description of the CLME+ region in terms of its oceanography, physical and political geography (including sub-regional integration mechanisms), cultural diversity and socio-economic dynamics.

#### 1.4. Towards a blue economy for the CLME+ region

This section will highlight the current status and future potential of ocean-based economies as drivers for socio-economic development in CLME+ countries and beyond.

#### 1.5. Regional Governance Framework

The governance of the ocean and shared living marine resources demands that a multilevel, nested Regional Governance Framework is consolidated. This section will describe progress to date and major gaps in the process of consolidation of the RGF.

#### 1.6. The 10-year CLME+ Strategic Action Programme (SAP)

How did the SAP came into being? Why was it needed? What does it focus on and how has it been structured? What is the political support for the SAP?

# 1.7. CLME+ SOMEE: purpose, mandate and approach

How, by whom and for what should SOMEE be used?

What is the added value of SOMEE? What gaps will it fill?

What methodologies have been used for the development of SOMEE?

Who and in what role has participated in the development of SOMEE?

#### 2. General state of the marine environment & associated economies

This chapter will provide a detailed description of current status, trends and probable future conditions of the marine environment, its living resources and the societies and economies associated to it. It will further describe the corresponding drivers, pressures and the responses undertaken or planned. It will also describe how current conditions compare to the past and how society would want them to be.

Note 1: where sub-chapters or other chapters exist under the SOMEE outline where certain aspects can be described in more detail, such details should not be provided here in order to avoid excessive repetition

Note 2: the scope and level of detail included under sub-chapters 2.1, 2.2, 2.3 should match the scope and level of detail of the responses described under sub-chapter 2.4

# 2.1 State of the Large Marine Ecosystems and their associated living resources

Description of the marine environment (habitats, fish stocks, key species, water quality) at the level of the two LMEs and/or existing geopolitical arrangements (OECS, CARICOM, SICA). Note: where sub-chapters or other chapters exist under the SOMEE outline where certain aspects can be described in more detail, such details should not be provided here in order to avoid excessive repetition

#### 2.2 Associated socioeconomics

Description of the socio-economic aspects associated to the marine environment (tourism, shipping, human health, livelihoods, fisheries, etc.) at the level of the two LMEs and existing geopolitical arrangements (OECS, CARICOM, SICA).

# 2.3 Drivers and pressures

Description of the drivers/root causes influencing the past, current and future state of the marine environment and associated economies, as well as the pressures/direct causes.

#### 2.4 Responses

Description of the responses that have been, are being and/or will/should be taken to close the gap between the current and the desired environmental and socio-economic conditions.

The description of responses will highlight how climate change considerations have been taken into account in their identification/implementation.

# 2.4.1 Region-wide governance arrangements and processes for the protection of the marine environment

Following the same rationale mentioned for 2.4, this section will focus on habitats, biodiversity and pollution. This section is related to SAP Strategy 1.

#### 2.4.1.1 Governance Architecture – the institutional setting

Description of the institutions with a mandate for the protection of the marine environment, including the geographic and thematic scope of their mandates, and the (inter-)institutional arrangements in place.

# 2.4.1.2 Governance Processes

How are policies, plans, legislation, capacity enhancement, public participation taking place? Do they support, and how, the institutional arrangements for the protection of the marine environment?

# 2.4.1.3 Stress Reduction measures: from planning to action

How are stress reduction and improved environmental and socioeconomic conditions being achieved in the field?

# 2.4.2 Region-wide Governance Arrangements and processes for Sustainable Fisheries

Following the same rationale mentioned for 2.4, this section will focus on fisheries. This section is related to SAP Strategy 2

# 2.4.2.1 Governance Architecture – the institutional setting

Description of the institutions with a mandate for fisheries, including the geographic and thematic scope of their mandates, and the (inter-) institutional arrangements in place.

# 2.4.2.2 Governance Processes

How are policies, plans, legislation, capacity enhancement, public participation taking place? Do they support, and how, the institutional arrangements for sustainable fisheries

#### 2.4.2.3 Stress Reduction Measures & other Status enhancement measures

How are stress reduction, sustainable fisheries and improved socioeconomic conditions achieved in the field?

#### 2.4.3 Region-wide arrangements and processes for Integrated Ocean Governance

Following the same rationale mentioned for 2.4, this section will focus on how a holistic, integrated approach to governance of the ocean and shared living marine resources can be achieved in the CLME+ region. This section is related to SAP Strategy 3.

#### 2.4.3.1 Governance Architecture – the institutional setting

Description of the institutions with a mandate related to ocean governance (which have not been described above), including the geographic and thematic scope of their mandates, and the (inter-) institutional arrangements in place.

# 2.4.3.2 Governance Processes

How are policies, plans, legislation, capacity enhancement, public participation taking place? Do they support, and how, the institutional arrangements for integrated ocean governance?

# 2.4.3.3 Stress Reduction Measures: from planning to action

How are stress reduction and improved socioeconomic conditions achieved in the field?

# 3 Sub-ecosystem: coral reefs, mangroves and seagrass beds

This chapter will provide a detailed description of status, trends and probable future conditions of the reef sub-ecosystem and its associated living resources, societies and economies. It will further describe the associated drivers and pressures and the responses undertaken or planned. It will also describe how current conditions compare to the past and how society would want them to be.

# 3.1 Ecosystem-based Management for the Reefs Sub-Ecosystem

This sub-chapter will provide a description of the past, current and projected environmental and socio-economic conditions of the reef sub-ecosystem. It will also highlight EBM responses that are currently in place and/or planned. This section is related to SAP Strategy 4.

# 3.1.1 Status and trends of the reef sub-ecosystem

Description of the environmental status in the reef sub-ecosystem under past, current and projected conditions and the socio-economic aspects related to them.

# 3.1.1.1 Status of habitats and species

Specific information on the status of the different animal and vegetal species that inhabit the reef sub-ecosystem and the threats to their survival.

#### 3.1.1.2 Associated socio-economics

Description of the economic activities directly related to the use of shared living marine resources of the reef sub-ecosystem, and their contribution to human well-being and livelihoods.

#### 3.1.2 Drivers and pressures

Description of the causes of environmental change specifically related to the reef sub-ecosystem. It will provide more detail than chapter 2.

#### 3.1.3 Responses

Description of past, current and future responses undertaken to close the gap between existing and desired environmental and socio-economic conditions in the reef sub-ecosystem. This description will highlight how climate change considerations have been taken into account in the identification/implementation of responses.

#### 3.1.3.1 Governance architecture

This section will describe the institutional setting for Ecosystem-based Management in the reef sub-ecosystem and the existing and needed governance arrangements for EBM implementation

# 3.1.3.2 Governance processes

How do policies, plans, legislation, capacity enhancement, public participation and other processes align and/or support the governance arrangements for the protection of the reef sub-ecosystem?

# 3.1.3.3 Stress Reduction Measures: from planning to action

How are governance processes implemented in the field in order to achieve visible environmental quality enhancement and improved socioeconomic conditions?

# 3.2 Ecosystem Approach to Fisheries on the reef sub-ecosystem

# 3.2.1 EAF for spiny lobster fisheries

Description of the past, current and projected conditions of the spiny lobster fisheries and related socio-economic aspects. EAF responses that are currently in place and/or planned will also be highlighted. This section is related to SAP Strategy 4A.

# 3.2.1.1 Status and Trends of Spiny Lobster fisheries

Description of the spiny lobster fisheries under past, current and projected conditions and the socio-economic aspects related to those conditions.

#### 3.2.1.1.1 Stock Status

This section will identify trends in stock status, highlighting the most recent stock assessments.

#### 3.2.1.1.2 Associated socio-economics

Description of aspects of human well-being and livelihoods directly related to the exploitation of spiny lobster fisheries

#### 3.2.1.2 Drivers and Pressures

Description of both the root and direct issues influencing the past, current and future state of spiny lobster fisheries and associated economies.

# 3.2.1.3 Responses

Description of the past, current and future responses undertaken to close the gap between existing and desired environmental and socio-economic conditions related to the spiny lobster fisheries. The description will highlight how climate change considerations have been taken into account in their identification/implementation.

#### 3.2.1.3.1 Governance Architecture

This section will list the institutions involved in the management of spiny lobster fisheries at the sub-regional and regional levels and the (inter-)institutional arrangements in place. A detailed description of some of the institutions to be mentioned here will be provided already in Chapter 2.

#### 3.2.1.3.2 Governance Processes

How do policies, plans, legislation, capacity enhancement, public participation and other processes align and/or support the governance arrangements for spiny lobster fisheries?

# 3.2.1.3.3 Stress Reduction Measures: from planning to action

This section will describe the level at which governance processes are being implemented, how stress on the spiny lobster resource is being reduced and how improved environmental and socioeconomic conditions are being achieved through its sustainable exploitation.

#### 3.2.2 EAF for Queen Conch fisheries

Description of the past, current and projected conditions of the queen conch fisheries and related socio-economic aspects. EAF responses that are currently in place and/or planned will be highlighted. This section is related to SAP Strategy 4B.

#### 3.2.2.1 Status and Trends of Queen Conch fisheries

Description of the queen conch fisheries under past, current and projected conditions and the related socio-economic aspects.

#### 3.2.2.1.1 Stock Status

This section will identify trends in stock status, highlighting the most recent stock assessments

#### 3.2.2.1.2 Associated socio-economics

Description of aspects of human well-being and livelihoods directly related to the exploitation of queen conch fisheries

#### 3.2.2.2 Drivers and Pressures

Description of the root and direct causes influencing the past, current and future state of queen conch fisheries and associated economies.

# 3.2.2.3 Responses

Description of the past, current and future responses undertaken to close the gap between existing and desired environmental and socio-economic conditions related to the queen conch fisheries.

The description will highlight how climate change considerations have been taken into account in their identification/implementation.

#### 3.2.2.3.1 Governance Architecture

This section will list the institutions involved in the management of queen conch fisheries at the sub-regional and regional levels and the (inter-) institutional arrangements in place. A detailed description of some of the institutions to be mentioned here will be provided already in Chapter 2.

#### 3.2.2.3.2 Governance Processes

How do policies, plans, legislation, capacity enhancement, public participation and other processes align and/or support the governance arrangements for queen conch fisheries?

# 3.2.2.3.3 Stress Reduction Measures: from planning to action

Description of the level at which governance processes are being implemented, how stress on the queen conch resource is being reduced and how improved environmental and socioeconomic conditions are being achieved through its sustainable exploitation.

# 4 Sub-ecosystem: Pelagic

This chapter will provide a detailed description of status, trends and probable future conditions of the pelagic sub-ecosystem and its associated living resources, societies and economies. It will further describe the causes of this conditions and the responses undertaken or planned. It will also describe how current conditions compare to the past and how society would want them to be.

# 4.1 Ecosystem Approach to Fisheries for the Pelagic Sub-Ecosystem

# 4.1.1 EAF for the pelagic fisheries

Description of the past, current and projected conditions of the pelagic fisheries and related socio-economic aspects. EAF responses that are currently in place and/or planned will be highlighted. This section is related to SAP Strategy 5.

# 4.1.1.1 Status and Trends of pelagic fisheries

Description of the pelagic fisheries under past, current and projected conditions and the socio-economic aspects related to those conditions.

#### 4.1.1.1.1 Stock status

This section will identify trends in stock status, highlighting the most recent stock assessments.

#### 4.1.1.1.2 Associated socioeconomics

Description of aspects of human well-being and livelihoods directly related to the exploitation of pelagic fisheries

# 4.1.1.2 Drivers and Pressures

Description of both the root and direct issues influencing the past, current and future state of pelagic fisheries and associated economies.

#### 4.1.1.3 Responses

Description of the past, current and future responses undertaken to close the gap between existing and desired environmental and socio-economic conditions related to the pelagic fisheries. The description will highlight how climate change considerations have been taken into account in their identification/implementation.

#### 4.1.1.3.1 Governance architecture

This section will list the institutions involved in the management of pelagic fisheries at the sub-regional and regional levels and the (inter-) institutional arrangements in place. A detailed description of some of the institutions to be mentioned here will be provided already in Chapter 2.

#### 4.1.1.3.2 Governance Processes

How do policies, plans, legislation, capacity enhancement, public participation and other processes align and/or support the governance arrangements for pelagic fisheries?

# 4.1.1.3.3 Stress reduction measures: from planning to action

Description of the level at which governance processes are being implemented, how stress on the pelagic resources is being reduced and how improved environmental and socioeconomic conditions are being achieved through its sustainable exploitation.

# 4.1.2 EAF for the Flyingfish fisheries

Description of the past, current and projected conditions of the Flyingfish fisheries and related socio-economic aspects. EAF responses that are currently in place and/or planned will be highlighted. This section is related to SAP Strategy 5A.

# 4.1.2.1 Status and Trends of the Flyingfish fisheries

Description of the Flyingfish fisheries under past, current and projected conditions and the socio-economic aspects related to those conditions.

#### 4.1.2.1.1 Stock status

This section will identify trends in stock status, highlighting the most recent stock assessments.

#### 4.1.2.1.2 Associated socioeconomics

Description of aspects of human well-being and livelihoods directly related to the exploitation of the Flyingfish resource

#### 4.1.2.2 Drivers and Pressures

Description of both the root and direct issues influencing the past, current and future state of the Flyingfish fisheries and associated economies.

## 4.1.2.3 Responses

Description of the past, current and future responses undertaken to close the gap between existing and desired environmental and socio-economic conditions related to the Flyingfish fisheries. The description will highlight how climate change considerations have been taken into account in their identification/implementation.

#### 4.1.2.3.1 Governance architecture

This section will list the institutions involved in the management of Flyingfish fisheries at the sub-regional and regional levels and the (inter-) institutional arrangements in place. A detailed description of some of the institutions to be mentioned here will be provided already in Chapter 2.

# 4.1.2.3.2 Governance processes

How do policies, plans, legislation, capacity enhancement, public participation and other processes align and/or support the governance arrangements for Flyingfish fisheries?

# 4.1.2.3.3 Stress reduction measures: from planning to action

Description of the level at which governance processes are being implemented, how stress on the Flyingfish resource is being reduced and how improved environmental and socioeconomic conditions are being achieved through its sustainable exploitation.

# 4.1.3 EAF for large pelagic fisheries

Description of the past, current and projected conditions of the large pelagic fisheries and related socio-economic aspects. EAF responses that are currently in place and/or planned will be highlighted. This section is related to SAP Strategy 5B.

#### 4.1.3.1 Status and Trends of the large pelagics fisheries

Description of the large pelagic fisheries under past, current and projected conditions and the socio-economic aspects related to those conditions.

#### 4.1.3.1.1 Stock status

This section will identify trends in stock status, highlighting the most recent stock assessments.

#### 4.1.3.1.2 Associated socioeconomics

Description of aspects of human well-being and livelihoods directly related to the exploitation of large pelagic resources.

#### 4.1.3.2 Drivers and pressures

Description of both the root and direct issues influencing the past, current and future state of the large pelagic fisheries and associated economies.

#### 4.1.3.3 Responses

Description of the past, current and future responses undertaken to close the gap between existing and desired environmental and socio-economic conditions related to the large pelagic fisheries. The description will highlight how climate change considerations have been taken into account in their identification/implementation.

#### 4.1.3.3.1 Governance architecture

This section will list the institutions involved in the management of large pelagic fisheries at the sub-regional and regional levels and the (inter-) institutional arrangements in place. A detailed description of some of the institutions to be mentioned here will be provided already in Chapter 2.

# 4.1.3.3.2 Governance processes

How do policies, plans, legislation, capacity enhancement, public participation and other processes align and/or support the governance arrangements for large pelagic fisheries?

# 4.1.3.3.3 Stress reduction measures: from planning to action

Description of the level at which governance processes are being implemented, how stress on the large pelagic resources is being reduced and how improved environmental and socioeconomic conditions are being achieved through its sustainable exploitation.

# 5 Sub-ecosystem: Continental Shelf (sandy/muddy flats)

This chapter will provide a detailed description of status, trends and possible future conditions of the state of the Continental Shelf sub-ecosystem and its associated living resources, societies and economies. It will further describe the causes of this conditions and the responses undertaken or planned. It will also describe how current conditions compare to the past and how society would want them to be. This chapter is related to SAP Strategy 6.

# 5.1 Ecosystem-based Management for the Continental Shelf Sub-Ecosystem

This sub-chapter will provide a description of the past, current and projected environmental and socio-economic conditions of the Continental Shelf sub-ecosystem. It will also highlight EBM responses that are currently in place and/or planned.

# 5.1.1 Status and Trends of the Continental Shelf sub-ecosystem

Description of the environmental status in the Continental Shelf sub-ecosystem under past, current and projected conditions and the socio-economic aspects related to them.

# 5.1.1.1 Status of habitats and species

Specific information on the status of the different animal and vegetal species that inhabit the Continental Shelf sub-ecosystem and the threats to their survival.

#### 5.1.1.2 Associated socioeconomics

Description of the economic activities directly related to the use of shared living marine resources of the Continental Shelf sub-ecosystem, and their contribution to human well-being and livelihoods.

#### 5.1.2 Drivers and pressures

Description of the causes of environmental change specifically related to the Continental Shelf sub-ecosystem. It will provide more detail than chapter 2.

# 5.1.3 Responses

Description of past, current and future responses undertaken to close the gap between existing and desired environmental and socio-economic conditions in the Continental Shelf sub-ecosystem. This description will highlight how climate change considerations have been taken into account in the identification/implementation of responses.

# 5.1.3.1 Governance architecture

This section will describe the institutional setting for Ecosystem-based Management in the Continental Shelf sub-ecosystem and the existing and needed governance arrangements for EBM implementation

# 5.1.3.2 Governance processes

How do policies, plans, legislation, capacity enhancement, public participation and other processes align and/or support the governance arrangements for the protection of the Continental Shelf sub-ecosystem?

# 5.1.3.3 Stress Reduction Measures: from planning to action

How are governance processes implemented in the field in order to achieve visible environmental quality enhancement and improved socioeconomic conditions?

# 5.2 Ecosystem Approach to Fisheries for the Continental Shelf

Description of the past, current and projected conditions of the Continental Shelf fisheries and related socio-economic aspects. EAF responses that are currently in place and/or planned will be highlighted.

# 5.2.1 EAF for Shrimp and Groundfish fisheries

Description of the past, current and projected conditions of the shrimp and groundfish fisheries and related socio-economic aspects. EAF responses that are currently in place and/or planned will be highlighted.

# 5.2.1.1 Status and Trends of Shrimp and groundfish fisheries

Description of the shrimp and groundfish fisheries under past, current and projected conditions and the socio-economic aspects related to those conditions.

#### 5.2.1.1.1 Stock Status

This section will identify trends in stock status, highlighting the most recent stock assessments.

#### 5.2.1.1.2 Associated socio-economics

Description of aspects of human well-being and livelihoods directly related to the exploitation of shrimp and groundfish resources.

#### 5.2.1.2 Drivers and Pressures

Description of both the root and direct issues influencing the past, current and future state of the shrimp and groundfish fisheries and associated economies.

#### 5.2.1.3 Responses

Description of the past, current and future responses undertaken to close the gap between existing and desired environmental and socio-economic conditions related to the shrimp and groundfish fisheries. The description will highlight how climate change considerations have been taken into account in their identification/implementation.

#### 5.2.1.3.1 Governance Architecture

This section will list the institutions involved in the management of shrimp and groundfish fisheries at the sub-regional and regional levels and the (inter-) institutional arrangements in place. A detailed description of some of the institutions to be mentioned here will be provided already in Chapter 2.

## 5.2.1.3.2 Governance Processes

How do policies, plans, legislation, capacity enhancement, public participation and other processes align and/or support the governance arrangements for shrimp and groundfish fisheries?

# 5.2.1.3.3 Stress Reduction Measures: from planning to action

Description of the level at which governance processes are being implemented, how stress on the shrimp and groundfish resources is being reduced and how improved environmental and socioeconomic conditions are being achieved through its sustainable exploitation.

# **Synthesis**

Wrap up the analysis done in previous chapters, showing what is the gap between the current state of the marine ecosystems and associated economies and the desired status according to the SAP Vision.

#### **Conclusions**

Overall recommendations on the actions needed to accelerate SAP implementation, achieve its Vision and contribute to the achievement of the Sustainable Development Goals.

References

**Annexes** 

List of Contributors