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Framework for integrating socio-economic analysis in the marine protected areas designation process

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Canada 

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Northern Bottlenose Whale

Cover photo courtesy of Whitehead Lab

The northern bottlenose whale is endemic to the North Atlantic Ocean and is found in cool and subarctic waters. They prefer deep waters. The total population is unknown but likely to be in the order of 10,000. In Canada, the Gully – a huge submarine canyon east of Nova Scotia – has a year round population of around 160 whale. The Gully is home to a rich diversity of marine habitats and species, including the endangered northern bottlenose whales and cold-water corals (also known as deep-water corals). Located off Nova Scotia near Sable Island, the area is globally acknowledged as an important and exceptional marine habitat. In 2004 and was designated as the Gully Marine Protected Area (MPA) in 2004.

Source: Fisheries and Oceans Canada

FOREWORD

The *Framework for Integrating Socio-Economic Analysis in the Marine Protected Areas Designation Process* outlines the national guidance for assessing the socio-economic impact of designating *Oceans Act* Marine Protected Areas (MPAs). It is based on the Marine Planning and Conservation (MPC) directorate's process for establishing new Marine Protected Areas¹ and incorporates regional experiences in conducting such analyses. In addition, the Framework also draws on experiences implementing regulatory initiatives under other *Acts* administered by Fisheries and Oceans Canada (DFO). Every effort was made to develop a Framework that is consistent across the Department and adheres to the basic principles of Cost-Benefit Analysis (CBA).

The Framework has been aligned with the federal regulatory policy encapsulated in the *Cabinet Directive on Regulations* (CDR) and the accompanying policy and guidance documents developed by Treasury Board of Canada Secretariat (TBS). This is a living document and will be updated as necessary by DFO to incorporate any significant changes that may be needed as the MPA designation process is updated. Finally, as work progresses on MPA network design and the associated socio-economic analysis, appropriate updates will be undertaken.

This Framework was developed in collaboration with all the DFO regional economic analysis groups² responsible for departmental economic analyses.

¹ For information see: [Establishing new Marine Protected Areas](#)

² This refers to the economics units within the Policy and Economics, Policy and Economic Analysis, or Strategic Services Branches in DFO regions.

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Acronyms

AOI(s)	Area(s) of Interest
AV	Annualized Value
CBA	Cost-Benefit Analysis
CDR	Cabinet Directive on Regulation
DFO	Fisheries and Oceans Canada
EGS	Ecosystem Goods and Services
GDP	Gross Domestic Product
GIC	Governor in Council
HOTO	Health of the Oceans
MPC	Marine Planning and Conservation Directorate
LQ	Location Quotient
MA	Millennium Ecosystem Assessment
MO(s)	Ministerial Order(s)
MPA(s)	Marine Protected Area(s)
OAP	Oceans Action Plan
PV	Present Value
RIAS	Regulatory Impact Analysis Statement
SA(s)	Study Area(s)
SEOA-AOI	Socio-Economic Overview and Assessment of the Area of Interest
TBS	Treasury Board of Canada Secretariat
TEEB	The Economics of Ecosystem and Biodiversity
UK NEA	United Kingdom National Ecosystem Assessment
UNEP-WCMC	United Nations Environment Program's World Conservation Monitoring Centre

Framework for integrating socio-economic analysis in the marine protected areas designation process

1.0 Introduction

In 1997 the *Oceans Act* came into force, giving authority to the Minister of Fisheries and Oceans to establish by regulation Marine Protected Areas (MPAs) for the conservation and protection of one or more of the following:

- Commercial and non-commercial fishery resources, including marine mammals, and their habitats;
- Endangered or threatened marine species, and their habitats;
- Unique habitats;
- Marine areas of high biodiversity or biological productivity;
- Any other marine resource or habitat as is necessary to fulfil the mandate of the Minister; and,
- Marine areas for the purpose of maintaining ecological integrity.

The *Oceans Act* was followed by the comprehensive Canada's Oceans Strategy in 2002. As part of the implementation of the Oceans Strategy, the Government of Canada launched the Oceans Action Plan (OAP) in 2005 in an effort to coordinate and implement oceans activities, and to provide for the sustainable development and management of Canadian oceans. One of the key elements of the OAP is the Health of the Oceans (HOTO) initiative, which identifies several activities to maintain healthy and productive ocean ecosystems and allow Canadians and Indigenous communities to realize the full economic, environmental, cultural, and recreational benefits that oceans have to offer. Under HOTO, key initiatives included the development of a Federal Marine Protected Areas Strategy, and development of the *National Framework for Canada's Network of Marine Protected Areas* (2011). The national MPA Network Framework provides strategic direction for the design of a national network of MPAs that will be composed of a number of bioregional networks. The Framework was approved in principle by the Canadian Council of Fisheries and Aquaculture Ministers in 2011.

Marine Protected Areas have since been established through Governor in Council (GiC) regulations – hereinafter referred to as 'MPA regulations'. However, as part of its plan to meet Canada's marine conservation targets, in 2017 the Minister of Fisheries and Oceans tabled a Bill to amend the *Oceans Act*. The Bill received Royal Assent in 2019, introducing, amongst other amendments, a new way for establishing MPAs through Ministerial Order (MO) – hereinafter referred to as MO MPAs.

Recognizing that achieving sustainability in the harvest of living ocean resources ultimately depends on healthy, productive ecosystems, the Government of Canada works with other countries to address concerns about the marine environment.

Internationally, Canada made a commitment to establish a network of MPAs at the 2002 World Summit on Sustainable Development, and in the 2004 United Nations Convention on Biological Diversity Program on protected areas. In addition, the Government of Canada has demonstrated its commitment by endorsing conventions that pursue the goals of conservation and protection, including the Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities.

1.1 Scope of the Framework

The establishment of an MPA requires a cost benefit analysis (CBA) as part of the federal regulatory analysis process set out by the Treasury Board of Canada Secretariat (TBS). This process applies both to MPA regulations and MO. Meeting this requirement is the primary focus of this *Framework for Integrating Socio-Economic Analysis in the Marine Protected Areas Designation Process* (henceforth referred to as the Framework). The process to establish new MPAs³ identifies the stages in the development of MPA regulations where socio-economic analysis is particularly useful to inform the process. In order to address client needs in a consistent and efficient manner, the Framework identifies three key points in the MPA designation process where economic information may be required:

- Identification of the Areas of Interest (AOIs) (referred to when a site is advancing under Governor-in-Council (GiC) regulations) or Study Areas (SAs) (referred to when a site is advancing as an MO)⁴;
- Development of the SE analysis for the selected AOI during the regulatory design process; and
- Drafting of the regulatory intent⁵ for the proposed MPA regulations.

The Framework then describes the scope and content of the following socio-economic reports corresponding to each stage. While there may be some variation in scope, the reports are common to both MPA regulations and MO processes. As the content of the socio-economic analysis for the AOIs and the SAs would be similar, the framework does not differentiate between the guidance for the AOIs and SAs.

- **Socio-Economic Overview and Assessment of the AOI (SEOA-AOI)** provides an overview of the economic activities of key interested parties⁶ (including regulatory

³ For information see: [Establishing new Marine Protected Areas](#)

⁴ For the purpose of this framework we refer to both types of areas as AOIs

⁵ The regulatory intent for the proposed MPA regulations is assumed to contain a general outline of the MPA boundaries, zones, the prohibitions and exemptions that would be applicable within the MPA (see Figures 1a and 1b).

⁶ Throughout this framework the term “interested parties” is defined as per section 2.4 of the *Draft National Conservation Plan – Performance Management Strategy* (2015) and includes:

- Regulatory authorities: federal, provincial/territorial, municipal and Indigenous jurisdictions;
- Stakeholders: users of coastal and oceans space and resources including industry (fishing, fish processing, shipping, aquaculture, oil & gas, etc.), non-governmental organizations (NGOs) and environmental non-governmental organizations (ENGOs), the public and others (including academia and international bodies); and

authorities, stakeholders, and Indigenous organizations) linked to the larger geographic area within which the AOI is located. Where relevant, the document will also provide an overview of ecosystem services present in the AOI. This document will be developed early in the MPA designation process and will serve to inform: the identification of the AOIs, discussions with the interested parties, the regulatory development and design of the MPA, and subsequent decisions;

- **Cost-Benefit Analysis of the Proposed Regulation or Ministerial Order of the Marine Protected Area** (referred to as CBA-MPA report), evaluates the incremental impacts (costs and benefits) of the regulatory intent for the proposed MPA regulations on the interested parties. The CBA-MPA report will be developed after the regulatory intent for the proposed MPA regulations or MO has been finalized (see section 2.1 below) and will inform the development of the Regulatory Impact Analysis Statement (RIAS)⁷ for publication in the *Canada Gazette* Part I and II.

The socio-economic reports mentioned above required as part of either an internal or external process. The CBA-MPA report is a required product for establishment of the regulation, and its content is driven by TBS policy and guidance on regulations. It cannot be completed until the final boundaries of the MPA and regulatory management measures are known. The SEOA-AOI report is more flexible and it is optional from a regulatory point of view. However, it is important to note that the flexibility for this report relates more to the decision to undertake the assessment and the time required to complete the report rather than the scope and purpose of this document as outlined above. The decision of whether the SEOA-AOI report will be developed or not will be taken in consultation between the MPC directorate and the regional economic analysis group. The structure and timing suggested in the framework for this document should serve as the default approach, which will be assumed throughout this document. However, the regional MPC and the regional economic analysis group may negotiate alternative work plans as appropriate in any given case.

The structure and scope of the socio-economic documents suggested in this Framework was developed in consultation with MPC in order to:

- Address the need for socio-economic information earlier in the MPA designation process, to support the refinement of geographic boundaries, the assessment of regulatory options for cost-effectiveness, and consultations;
- Identify key points (in what is often a protracted process) where socio-economic information can be assembled and will meet client needs without requiring constant minor updates or revisions; and,

• Indigenous organizations: those who have a legal title as well as other Indigenous peoples or individuals who are users of coastal/ocean space and resources and are affected by ocean-related decisions

⁷ Timing of the CDR Triage may vary from case to case, and any/all of these documents may also support the Triage.

- Manage expectations and establish a common understanding of the kind of socio-economic information that can be provided at the interim stages of AOI identification and selection, and designation of the MPA either through a GiC regulation or a MO under the *Oceans Act*.

The SEOA-AOI report provides background information to conduct the incremental impact assessment in the CBA-MPA report⁸ once the regulatory intent for the proposed MPA GiC Regulations or MO has been developed. Furthermore, the CBA-MPA report provides information to fulfil the *Cabinet Directive on Regulation (CDR)*⁹ requirements for the RIAs. The CBA-MPA report represents one part of the advice to inform decision makers during the MPA designation process, along with the ecological assessments and results of the consultations with stakeholders and other interested and affected parties, including Indigenous peoples.

It is important to emphasize that the term socio-economic analysis¹⁰ is used in this Framework to refer to the analysis of incremental costs and benefits of regulatory requirements that affect the economic welfare of Canadians and Canada's economic activity and the potential distributional impacts of these policies.

1.2 Purpose of the Framework

The Framework has been developed in order to support integrated decision making and reporting within DFO, with a nationally-consistent analytical approach. It presents guidelines and principles for conducting socio-economic analysis to support the MPA designation process and meet the requirements of the CDR. The Framework is intended for use by economists, and provides guidance on processes for developing an analysis (including roles and responsibilities) as well as specific technical guidance for the socio-economic analysis required for MPA designation. To the extent that it represents a companion piece to the process for establishing new, or amending existing, MPAs, its contents are also of interest to MPA program staff.

In this framework, economists are provided with the following guidance materials:

- A description of the points of entry and scope of the socio-economic analysis throughout the MPA designation process; and
- Methodological guidance to support the national standardization of socio-economic analyses for MPAs.

1.3 Structure of the Framework

Section 1 outlined the purpose and scope of the Framework. Section 2 provides procedural guidance, illustrating how and where socio-economic analysis fits into the

⁸ This document may need to be updated before it can be used to support the CBA-MPA report to ensure it is based on up to date information.

⁹ Treasury Board of Canada Secretariat (2018) Cabinet Directive on Regulation

¹⁰ "Socio-economic analysis" is a general term. Cost-benefit analysis is one type of socio-economic analysis.

MPA designation process. This section begins by outlining the MPA designation process for both GiC MPA regulations and MOs, while highlighting the linkages to socio-economic analysis throughout. This is followed by outlining the role socio-economic analysis plays in policy analysis and highlights the usefulness of the information generated through the socio-economic analysis for decision making. Next, a description is provided of the guiding principles for socio-economic analysis that influenced the development of the Framework. Section 3 provides a description of the socio-economic documents that will be developed in support of the MPA designation, including the socio-economic components of the regulatory documents required under the CDR; followed by a discussion of the review and publication of the socio-economic reports. Finally, section 4 focuses on the more technical aspects, based on TBS requirements for conducting the socio-economic analyses in support of the regulatory MPA designation process.

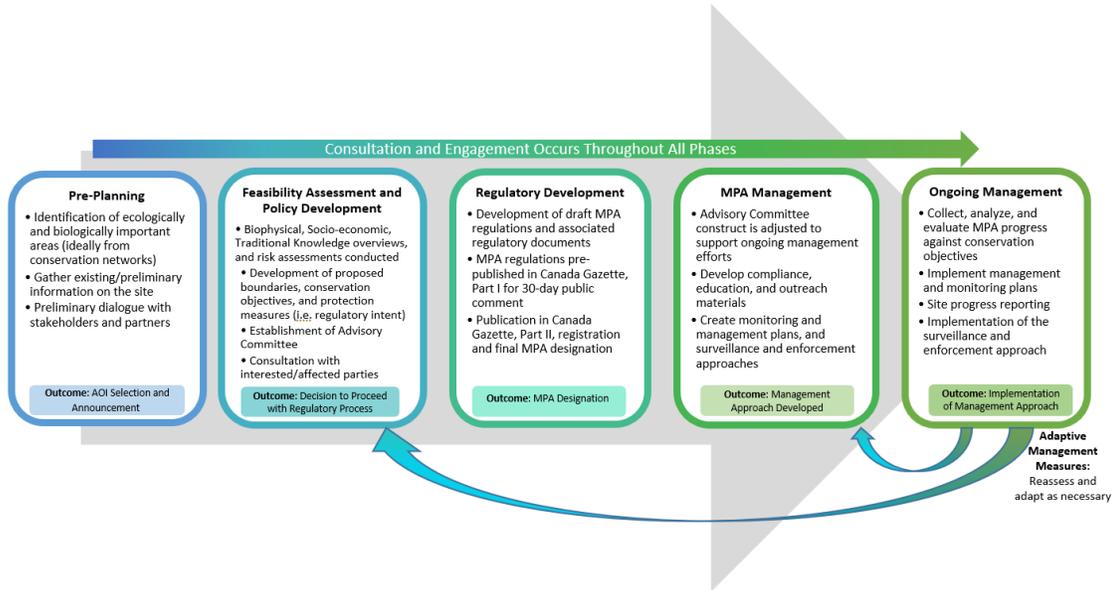
2.0 Context and Principles of Analysis

This section describes the MPA designation processes, both for MPA GiC regulations and MOs. The aim of this section is to illustrate the relevance of socio-economic analysis and to highlight the required inputs to the analysis that depend on the work of scientists and MPA managers/practitioners. Principles to guide overall scope and approach are also presented.

2.1 Overview of MPA Designation and Management Process

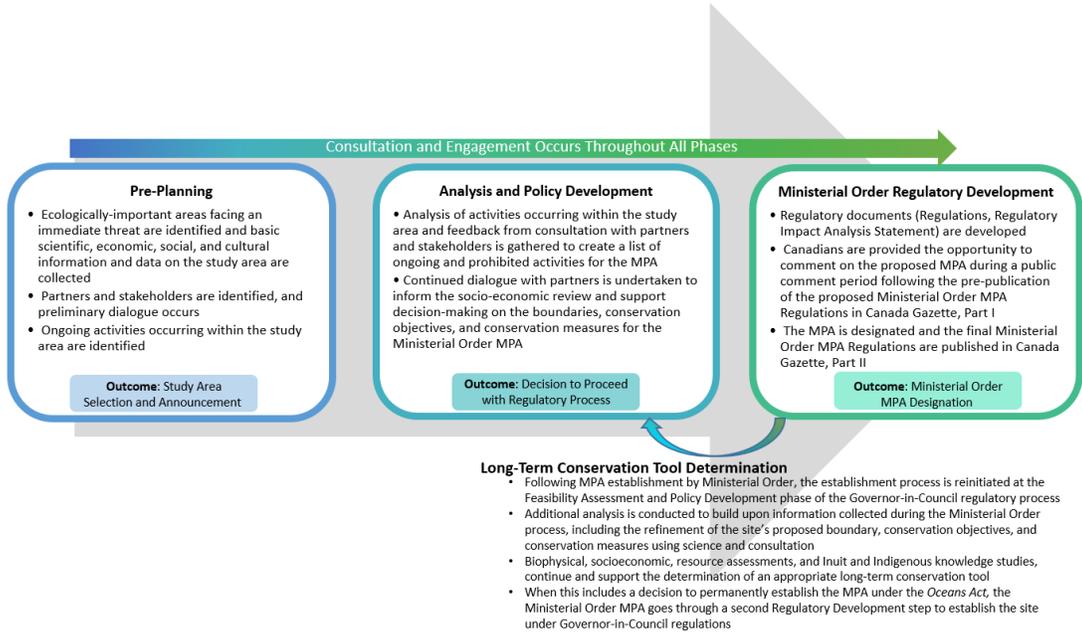
The amendments to the *Ocean Act* in 2019 allow for the establishment of MPAs either through GiC regulations or MO. The purpose of establishing a MPA by MO is to allow for interim protection of an area until a more permanent measure, such as a GiC regulation, is implemented. This process is often referred to as “freezing the footprint”. The designation of an MPA by MO can (but does not have to) precede a GiC regulation, however, this is not a mandatory requirement for the establishment of an MPA through GiC regulations. Further, as the validity of the MO is five years, the MO will need to either be replaced by a GiC MPA regulation or repealed. Figure 1a outlines the steps of a MPA designation and management process through GiC regulations, whereas Figure 1b outlines the steps of a MPA designation process through a MO. Based on information provided by MPC, five steps are followed throughout a GiC MPA designation process (Figure 1a), and three steps are followed for a MO MPA (Figure 1b).

Figure 1a: Process to Establish and Manage *Oceans Act* MPAs by GiC Regulations



Source: Marine Planning and Conservation Directorate

Figure 1b: Process to Establish *Oceans Act* MPAs by MO



Source: Marine Planning and Conservation Directorate

The need for socio-economic analysis described in the Framework stems primarily from the requirement to fulfill the regulatory development process as outlined under the

CDR. However, the requirement for socio-economic analysis is highlighted throughout the MPA designation process, for both the GiC MPA regulations and the MO. Further, as shown in Figure 1a and 1b, consultation and engagement occurs throughout the MPA designation and management process.

MPAs established by GiC regulations go through a five step establishment and adaptive management process (Figure 1a). As such, in the regulatory process for GiC MPA establishment, consideration is given not only to regulatory development, but also to the implementation, monitoring, evaluation, and review of regulations. The five steps of the MPA establishment and management process are described below and represented in Figure 1a:

- **Step 1: Pre-Planning.** The objective of this step is to identify ecologically and biologically important areas, to gather preliminary information on them, and to initiate preliminary dialogues with potential partners and stakeholders. The outcome of this step is the selection and announcement of the AOI/SA.
- **Step 2: Feasibility Assessment and Policy Development.** The purpose of this step is to conduct an overview of the biophysical, socio-economic, and traditional knowledge elements of the AOI/SA, and to further conduct a risk assessment. Once these elements are available, the regulatory intent can be developed (i.e., development boundaries, conservation objectives, and protection measures) and an Advisory Committee is established. The outcome of this step is the decision to proceed with the regulatory process.
- **Step 3: Regulatory Development.** This step can be further subdivided into three steps. First the MPA regulations and associated regulatory documents are drafted. Second, once approved, the MPA regulations are pre-published in *Canada Gazette*, Part I for public comment for a period of 30 days. Third, after public comments have been addressed, the MPA regulations are published in *Canada Gazette*, Part II. The outcome of this step is the designation of the MPA through regulations.
- **Step 4: MPA Management.** The aim of this step is to establish the MPA management plan. As such, under this step the Advisory Committee supports ongoing management effort; development of compliance, education, and outreach materials, and creation of plans for management, surveillance, and enforcement. The outcome of this step is the development of a management approach for the MPA.
- **Step 5: Ongoing Management.** The purpose of this step is to collect, analyze, and evaluate MPA progress against its conservation objectives. This consists of implementing management and monitoring plans, reporting on the site progress,

and reporting on the surveillance and enforcement approaches. The outcome of the step is implementing the management approach.

The adaptive management approach creates a responsive environment that improves the effectiveness, efficiency, and accountability of the regulatory system to support the government's commitment to protect 30 per cent of the ocean by 2030.

Marine Protected Areas designation through MO follows a three step approach (Figure 1b), similar to the one outlined above. While management efforts for MO MPAs would be undertaken to ensure that the conservation objectives are met, these efforts would be high level and would not require any economic analysis. Therefore, the framework does not discuss them any further. In addition, unlike GiC MPA regulations, MO MPAs have a sunset clause of five years – that is they are only enforceable for a period of five years after the coming into force date. After this period, when the MO MPAs are either repealed or replaced by a GiC MPA regulation and would need to follow the MPA designation process outlined in Figure 1a.

2.2 Socio-Economic Linkages with the MPA Designation Process

The SEOA-AOI report is developed between Step 1 and 2 of the MPA designation process for both GiC MPA regulations and MOs. The report contextualizes the socio-economic analysis, while also summarizing information from the biophysical, and traditional knowledge overview documents (along with risk assessments, which are completed for MPAs advancing by GiC regulations).

Once the draft regulatory text for the MPA regulation or MO have been drafted (during Step 3), the economic analysis for the CBA-MPA report can be initiated. The regulatory measures that prohibit or restrict human activities define the scope of the CBA required for the regulatory process. It is important to note here that because MO MPAs are focused on freezing the footprint, all activities that had been occurring before the MO MPA designation would be allowed to continue once the MO MPA is established (except for activities that have been assessed as compromising the achievement of the conservation objectives).

The CBA-MPA report is finalized during Step 3 of the GiC MPA regulations and MO designation process, in order to provide the necessary information required for regulatory documents, such as the triage and RIAS for publication in Canada Gazette, Part I and Part II.

The Triage statement, can be completed early in the process and it is informed by Step 2 of the GiC MPA regulations and MO designation process, as well as by the outcomes of the SEOA-AOI report. The final CBA-MPA report is not essential for completing the triage statement. Preliminary analysis is sufficient to inform the triage as the purpose of this document is to set up the level of analysis and serve to

indicate the level of detail that would be required for the CBA-MPA report. Therefore, a full CBA is not required for completing the triage statement. The CBA is designed to satisfy the requirements of federal regulatory process, particularly the requirements set out in the [TBS' Cost-Benefit Analysis Guide for Regulatory Proposals](#) and the information required for the RIAS.

MPA management plans are intended to describe the implications of the MPA designation and responsibilities of regulators and non-regulators in managing the MPA, including planning, monitoring and reporting. These MPA management plans may include socio-economic indicators for monitoring and evaluation purposes, thus requiring some socio-economic analysis at this stage¹¹ to be determined in collaboration with MPC. Finally, ongoing management consists of collecting, analysing, and evaluating MPA progress against the conservation objectives previously established. These management measures are adaptive, meaning that they can and will be reassessed as necessary.

2.3 Socio-Economic Analysis and Decision-Making

The socio-economic analysis of MPAs takes economic and social aspects into consideration either qualitatively or quantitatively. In this framework, the term economic is used to refer to the costs and benefits that will affect economic welfare and economic growth. The term social refers to the potential distributional impacts of policies being evaluated.

The value of socio-economic input when establishing a MPA goes beyond the fact that federal regulatory policy requires an assessment of net benefits (benefits minus costs) and distributional impacts of the MPA designation within a RIAS. Establishing an MPA is about achieving the conservation objectives, and there are a number of reasons why economic analysis can provide useful information for MPA decision-making, including but not limited to:

- **MPA implementation is about managing human activity to achieve the conservation objectives.** Economic activity and human uses of natural areas contribute to ecosystem impacts, and increasing concentrations of human activity generally increase the degree of impact on ecosystem services. Understanding how the intensity and pattern of human use of natural areas may shift over time and may influence the magnitude of the impacts, can aid with designing policies that achieve MPA conservation objectives. Moreover, understanding the shifts in human use as a result of the MPA designation will also be useful in developing policies that promote the MPA conservation objectives.
- **Controversy and opposition might occur.** The AOI identification, selection and MPA designation may trigger opposition due to the real or perceived losses to interested

¹¹ As previously noted, MPA management is currently beyond the scope of this document, but may be included in future revisions.

parties potentially affected by use exclusions, possibly including economic losses. In these cases, socio-economic analysis and information can aid in designing the proposed MPA regulations and management plans/strategies that lessen these impacts. This helps demonstrate that economic impacts may be less severe than is commonly perceived, thereby alleviating fears on the part of the interested parties active in the area. Indeed, a primary focus of economics is to better understand the economic trade-offs associated with public policy.

- **Monitoring and evaluation can be supported.** A well-founded economic analysis requires a careful articulation of the existing (pre-MPA) state and clarity on the associated economic and ecological outcomes¹². This requires the collection of supporting data which can contribute to tracking and reporting on performance relative to the conservation objectives of the MPA.

In a nutshell, socio-economic analysis has more to offer than a simple check mark in the regulatory process for MPA designation. Integrating basic economic principles throughout the MPA planning process can increase stakeholder acceptance and the probability of conservation success as it allows the fundamental relationship between the environment and the economy to be taken into account.

2.4 Guiding Principles for Socio-Economic Analysis

The following five principles guide the approach to socio-economic analyses presented here:

1. **The scope and level of detail in socio-economic analysis should align with the magnitude of expected impacts.** Resources allocated to conducting the socio-economic analysis should be commensurate with the economic activities and expected impacts of the proposed regulatory management measures (i.e. the principle of proportionality). For this purpose TBS developed the “[triage statement](#)”¹³ to assess regulatory proposals at an early stage to determine where resources should be focused and where federal regulatory approval processes can be streamlined. The triage statement may indicate a low impact, in which case the analysis may not need to quantify or monetize all benefits and costs. Even in the case of high expected impacts, it may not be possible to monetize all costs and benefits, and some level of qualitative assessment of the magnitude and importance of the impacts will be necessary.
2. **Analysis should be defensible, understandable, and practical.** This means that technical information will need to be assembled in a format that is easy to communicate. The underlying data and analytical assumptions used in developing the expected outcomes must also be presented in a clear and concise format.

¹² Ecological outcomes refer to the impact of regulatory change on final ecosystem goods and services that are valued by people.

¹³ Treasury Board Of Canada Secretariat (2024), The Triage Statement ([RIAS and Triage Templates - wiki](#))

3. **Analysis should consider both the quantitative and qualitative aspects.** The analysis should identify all expected benefits and costs using an appropriate mix of qualitative and quantitative information. The focus of the analysis is not solely on developing economic information that monetizes costs and benefits, but is instead on presenting a mix of information to illustrate expected ecological, economic, and social outcomes.
4. **Identify important uncertainties.** Uncertainties dominate any analytical effort to forecast future impacts, and effort should therefore be made to identify the major uncertainties and how they affect outcomes. Notably, the net benefit rule in the CDR that requires that benefits exceed costs is an example where major uncertainties may change an important outcome, and these should be identified. The cost impacts are generally easier to estimate given the availability of information with respect to the regulatory management measures. Benefits on the other hand are usually more difficult to evaluate due to the lack of scientific data and appropriate economic information with respect to ecosystem goods and services (EGS) being targeted by the proposed regulations. Therefore, for quantified or monetized costs and benefits, the key variables such as the expected ecological outcomes, levels of human uses and subsequent costs and benefits should be examined for uncertainty and subjected to sensitivity analysis.
5. **Adopt an open and inclusive approach, including elements of external and internal review and input where appropriate.** Analytical effort is always improved when others have a chance to review and provide comments. Soliciting input early in the scoping of the analysis allows for major drivers and relationships to be identified and included in the analysis. If this input comes after the analysis is prepared, there may not be sufficient resources left to adequately address the gaps or concerns. Comments provided early in scoping the analysis help to avoid surprises at later stages of the analytical process. Whenever input is solicited, it is important to clearly communicate to reviewers the purpose and scope of the document under review so that the review and comments are appropriately focused.
6. **Adopt an Innovative Approach.** The methodologies and practices for cost-benefit analyses are evolving continuously. Socio-economic analysis should allow for the adoption of such innovative approaches. Efforts are being made at DFO for continuous improvement in methods, and in particular, in efforts to measure the benefits of ecological protection for maintaining biodiversity and associated ecosystem goods and services (EGS).

2.5 Foundations of the Socio-Economic Analysis and Interdisciplinary Linkages

Socio-economic analysis, in its broad sense, is relevant throughout the MPA designation process from AOI identification to development of the regulatory approach for the MPA.

Cost-benefit analysis is a specific type of socio-economic analysis, conducted primarily in support of the TBS regulatory analysis process for MPA designation. The different types of socio-economic analysis discussed in this framework require communication among disciplines (science, economics, management), but the CBA requires very specific and refined interdisciplinary inputs in order to assess the level of impact of the specific regulatory proposal.¹⁴ This requires that:

- a) the regulatory proposal is developed, such that the new regulatory management measures are described in detail; and,
- b) the expected socio-economic and ecological outcomes of the new regulatory management measures are described, such that the level of impacts can be assessed.

In other words, while the MPA designation process requires socio-economic input at several stages, the CBA itself cannot be initiated until such time as the required regulatory and ecological information – the foundation of the CBA - is available. Once the information has been collected, it is the analytical needs of the regulatory process (i.e., either MPA regulations or MO) that will dictate the level of effort and the scope of socio-economic analysis.

To quantify and monetize incremental costs, information is required primarily on regulatory management measures that may prohibit some economic activities, or require modifications to current practices. Estimating incremental benefits primarily requires the determination of the effects of regulatory management measures on biological and ecological outcomes. The assessment of both the incremental costs and benefits is undertaken as comparison between the baseline and regulatory management scenarios¹⁵. In general, information required for estimating the incremental costs is straightforward and well understood. However, benefits valuation is more complex and requires an assessment of the impacts of regulatory management measures on biological outcomes linked to ecosystem services. Although demand is placed on economists to assess these benefits, it must be recognized that the assessment of ecological outcomes is a necessary prerequisite to the economic work. Ideally, the ecological and economic outcomes of the proposed MPA regulations would be hypothesized through formal modeling efforts and reflected in the “regulatory management scenario”. However, a variety of methods may be used according to the availability of resources.

In addition, the CBA of a proposed MPA designation must be conducted in comparison to a situation in the absence of the proposed MPA regulations/MO referred to as

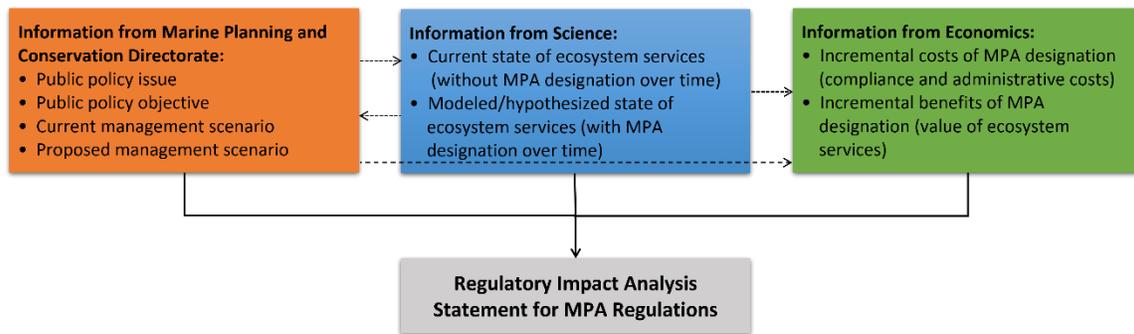
¹⁴ Treasury Board of Canada Secretariat (2007), Guide to the Federal Regulatory Development Process

¹⁵ In the context of cost-benefit analysis, a scenario (baseline or regulatory management scenario) is a presentation of possible future events or projection of ecological and economic outcomes based on existing or proposed regulatory management measures, respectively. It is not simply a list of the existing management measures or the regulatory management measures.

“baseline scenario”. Cost-benefit analysis embodies the concept of incrementality by comparing the “with (regulatory management scenario)” and “without (baseline scenario)” the proposed MPA regulations. The outcomes of biological and economic models for these two scenarios provide the basis for economic valuation.

The proposed regulatory management measures, plus the expected ecological and economic outcomes together provide the information needed to estimate the incremental costs and benefits of the proposed MPA regulations. Figure 2 provides a general overview of the relevant pieces of information that combine to produce a coherent socio-economic analysis for decision making purposes.

Figure 2: Interdisciplinary Bridging



Economic valuation of an ecosystem service is entirely dependent on the availability of interdisciplinary data and information as outlined in Figure 2. In the absence of such information, economic impact analysis – whether in qualitative or quantitative metrics – may not be possible.

2.6 Valuing Ecosystem Services

Benefits valuation of final ecosystem services (ES) is a challenging aspect of CBAs. As such, before delving into the next sections, it would be useful to develop some understanding of ES, in order to provide a basis for the information requirements for benefits analysis.

Ecosystem services are the benefits that humans derive from natural ecosystems. These can include, for instance, provisioning services like food and water; regulating services, such as climate regulation and flood control; cultural services including recreational and spiritual benefits; and supporting services like nutrient cycling.

There are numerous definitions for ES, for example the United States Environmental Protection Agency (US EPA) Office of Research and Development (ORD) has adopted the

concept of “Final Ecosystem Goods and Services”¹⁶ which comprises of the “components of nature, directly enjoyed, consumed or used to yield human well-being”. Similarly, the UK National Ecosystem Assessment¹⁷ (UK NEA) defines EGS as “the outputs of ecosystems from which people derive benefits” and further states that “The final ecosystem services are the outcomes from ecosystems that directly lead to good(s) that are valued by people. The full value is not just from the ecosystem, but depends on the additions of inputs from society (other capital inputs) and the value is often context dependent. The final value of the good(s) is, therefore, attributable to both the ecosystem and human inputs. For a fair valuation of ecosystem services, both the separation of final ecosystem services from underpinning processes and the accounting for other capital inputs is necessary”.

The Millennium Ecosystem Assessment¹⁸ (MA), The Economics of Ecosystems and Biodiversity¹⁹ (TEEB), and the UK NEA, outline the basic framework for identifying EGS for purposes of benefits valuation. Figure 3 below reproduces the conceptual framework for ecosystem benefits valuation outlined in the UK NEA, which provides “a schematic diagram of a small selection of ecosystem processes and services to illustrate how ecosystem services are linked to final ecosystem services and the goods and values they generate for people”.²⁰

¹⁶ D. H. Landers and Nahlik A. M (2013), Final Ecosystem Goods and Services Classification System (FEGS-CS) U.S. Environmental Protection Agency, Office of Research and Development, Washington, D.C.

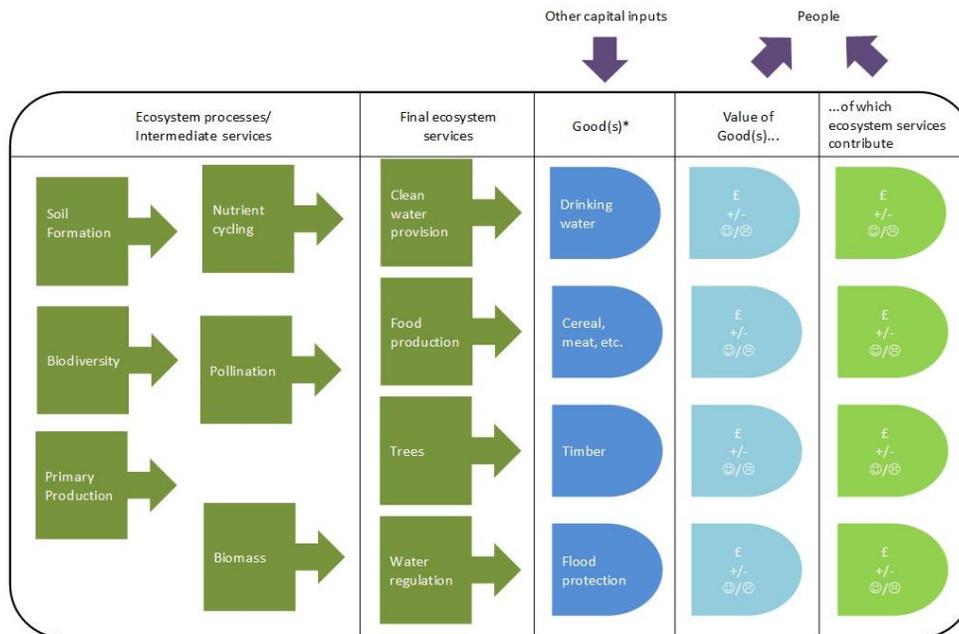
¹⁷ UK National Ecosystem Assessment (2011), The UK National Ecosystem Assessment Technical Report. UNEP-WCMC, Cambridge

¹⁸ Millennium Ecosystem Assessment (2005) Ecosystems and Human Well-being: A Framework for Assessment. World Resources Institute, Washington, DC.

¹⁹ TEEB (2010), The Economics of Ecosystems and Biodiversity: Mainstreaming the Economics of Nature: A Synthesis of the Approach, Conclusions and Recommendations of TEEB

²⁰ *ibid*

Figure 3: UK NEA Conceptual Framework for Ecosystem Services Valuation



Source: UK NEA Chapter 2: Conceptual Framework and Methodology

Notes:

*: The term “good(s)” includes all use and non-use, material and non-material outputs from ecosystems that have value for people.

£: Represents monetary values of the EGS.

+/-: Represents a quantitative assessment of the EGS in non-monetary metrics.

☺/☹: Represents a qualitative evaluation of the EGS.

This approach distinguishes between:

- Ecosystem processes and intermediate services, and the final ecosystem service that result in welfare gains/losses to avoid double counting; and
- Total value of final ecosystem services and the portion that is attributable to human interventions.

Another aspect of this approach is that it provides flexibility to represent EGS values in both monetary and non-monetary metrics.

In the MPA context, it is the impact of designating an MPA on final EGS (as depicted in Figure 3 above) that is the focus of benefits valuation in this framework. Thus, economic assessment of EGS would begin at the final service(s) stage and end with estimating the value that is attributable to the designation of the MPA. Once the biological outcomes have been estimated, the relevant EGS can be valued through established benefits valuation methodologies (such as revealed preference, stated preference, and benefits transfer methods).

3.0 Procedural Guidance

This section further elaborates when the socio-economic products are developed and how they address the clients' needs at each stage of the MPA designation process outlined in Figure 1a (GiC MPA regulations process) and Figure 1b (MO MPA process), Section 2.1.

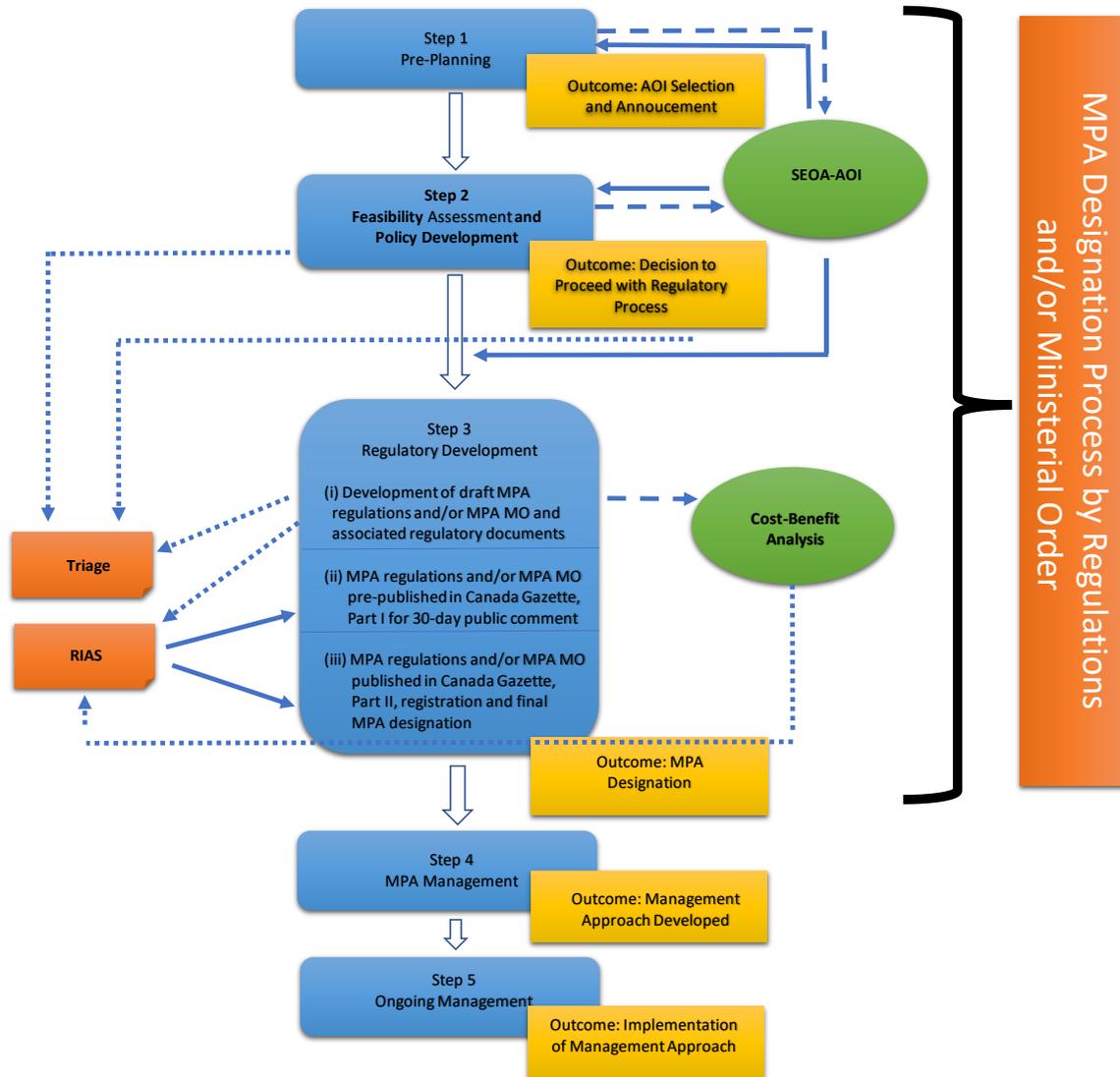
The time and other resources required for socio-economic analysis should be integrated into all forward planning related to development of the regulation, to ensure that the necessary inputs are available and that the socio-economic products are ready when required. To this end, ongoing communication and work planning between MPC and the regional economic analysis group is essential.

3.1 Documents Supporting the MPA Designation Process

As part of the MPA designation process, a number of regulatory and socio-economic analysis documents will be developed. Figure 4 highlights the outcomes resulting from the MPA designation processes. Importantly, Figure 4 identifies when socio-economic analysis is undertaken as well as the links to the regulatory development process. Regulatory documents developed in the regulatory process (Triage and RIAS) draw on the outputs and documents developed as part of the MPA regulatory development phase of the designation process, including ecological assessments, stakeholder consultations, regulatory intent for the proposed MPA regulations, and socio-economic analyses.

A brief description of the main socio-economic and regulatory documents is provided in this section to highlight the points at which the socio-economic analysis is undertaken to inform the MPA designation and the regulatory analysis processes. It is important that each of these socio-economic documents be appropriately identified and titled to clearly communicate the scope and intent of each document, manage expectations about the level of analysis, and avoid confusion.

Figure 4: Socio-Economic Input into the MPA Designation Process



3.1.1 Socio-Economic Documents

As illustrated in Figure 4 and as described below, socio-economic analysis is undertaken at two distinct stages of the MPA designation process. Each socio-economic analysis is driven by the need to inform consultations and decisions, but the scope of the analysis varies as per the requirements of each stage of the MPA designation process, the regulatory requirements and the federal regulatory process.

i) Socio-Economic Overview and Assessment of the Areas of Interest (SEOA-AOI)

The selection of the area to be designated as an MPA from amongst a number of potential candidate sites is based primarily on ecological and feasibility criteria.²¹ The purpose of the SEOA-AOI report is to supplement the ecological information and inform the consultations with the interested parties. The report may be used in some instances for the selection of the AOI, in conjunction with the ecological and other relevant information.

The scope of the SEOA-AOI report is to provide a profile of the key interested parties, information on the socio-economic activities that are currently taking place or are dependent on the resources in the geographic area within which the candidate MPA may be located, and economic activities that are linked to ecosystem services. The data and information is detailed and, where possible, quantitative and it describes key economic indicators such as GDP, fishing landed value, employment, number of establishment or other entities, revenue, trade, demographic profile of the area, etc. at the appropriate geographical scale for the selected boundaries of the AOI.

Regarding future potential economic activities, economists should only include those for which business plans are in place and for which evidence of intent (e.g. leases, permits, submission of plans for approvals, etc.) to undertake the activity can be established. This information must be included both for MPAs established by GiC regulations and by MO. It is important to note that in the case of the latter (i.e., MO MPAs), only ongoing activities and activities for which a license to carry out such activities has been issued within the one year prior to establishment of the MO MPA, will be allowed to continue. However, such activities may be prohibited or regulated once a more permanent measure, such as a GiC MPA regulation, is enacted.

The SEOA-AOI report should also include a brief summary of the unique ecological characteristics of the AOI and the reason for conservation; an outline of the existing threats and the protections currently in place; and a discussion of the existing national and international commitments. The bulk of the ecological information would draw primarily on the Biophysical and Ecological Overview of the AOI or other documents prepared by MPC in support of the MPA designation. The SEOA-AOI report, in conjunction with the Ecosystem Overview, serves as the policy and economic baseline for the CBA and for informing the triage statement in the subsequent steps of the MPA designation process.

It should be noted that at this juncture an assessment of the potential costs and benefits of MPA designation will not be undertaken as part of this analysis.

As the process for finalizing the MPA is iterative; the socio-economic analysis also needs to be flexible to accommodate the process. However, due to resource constraints, socio-

²¹ For information see: [Establishing new Marine Protected Areas](#)

economic analyses cannot be carried out for each iteration of the AOI boundary. Therefore, the AOI for which the socio-economic overview and assessment is conducted needs to be determined in consultation with MPC prior to conducting the analysis. The geographic boundary of the selected AOI should be formally communicated to the regional economic analysis group by MPC at the Director level. In the event that it is not possible to finalize the geographic boundary for the AOI, MPC could develop two or three potential AOI boundary scenarios for socio-economic assessment to facilitate the finalization of AOI geographic boundary during consultations with the interested parties.

ii) Draft and Final Cost-Benefit Analysis of the Proposed MPA Regulations

The CBA is a mandatory requirement of the federal regulatory process and is one of the key documents prepared in support of the decision to enact regulations of the MPA designation process. The purpose of the CBA-MPA report is to serve as a key background document for the RIAS (discussed below) which summarizes the results of the CBA conducted for the proposed MPA regulations (developed in Step 3 of the MPA designation). The scope of the CBA-MPA report, as outlined in the CDR, is to assess the incremental impacts on the interested parties (identified in the SEOA-AOI report) as a consequence of the proposed regulatory management measures. The focus of CBA-MPA report will be on evaluating the net incremental benefits (benefits minus costs) and distributional impacts of the MPA regulations. The scope of the CBA-MPA report will differ depending on the level of expected incremental costs of the proposed MPA regulations as assessed through the triage statement (see section 3.1.2 below). If low incremental costs are expected the depth of the analysis is of a qualitative nature, while a more quantitative analysis will be undertaken if the incremental costs are expected to be significant. Treasury Board Secretariat specifies these differences in their guidelines for the triage statement and developing the RIAS (see Section 3.1.2 below).

The CBA will be carried out after the draft regulatory intent for the proposed MPA regulations (Step 3 of the MPA designation) have been developed and communicated to the regional economic analysis group in writing at the Regional Director level.

Subsequent to the publication of the RIAS in *Canada Gazette*, Part I, the CBA may need to be revised to account for any significant changes made to the proposed regulatory management measures in response to public comments received, which would then inform the revisions to the RIAS for publication in *Canada Gazette*, Part II.

3.1.2 Regulatory Documents

The regulatory documents (namely the triage statement and the RIAS) inform the regulatory process and are mandatory under the CDR. These documents are required at two key points of the regulatory process:

- the triage statement: is developed early in the process and determines the scope of the socio-economic analysis; and

- the RIAS: is developed to inform the decision making process and serves as a consultation piece for Canadians in general.

Both these regulatory documents draw on a number of other documents including the Biophysical and Ecological Overview, consultations, and the socio-economic documents as illustrated in Figure 4.

i) Triage Statement

Once the AOI has been selected and the draft regulatory intent for the proposed MPA regulations is available, the triage statement can be completed and submitted to TBS²² for preliminary review and approval. The triage statement can be completed subsequent to the identification of the regulatory management measures (these are identified and outlined at the end of Step 2 of the MPA designation process).

One of the main purposes of the triage process is to facilitate early involvement of TBS and assess the level of effort to be expended for the CBA. The triage statement is based on readily available information and does not require detailed information to be collected at this stage. The information on stakeholders needed to complete the triage statement can in part be gleaned from the SEOA-AOI report. However, preliminary estimates of incremental costs and benefits – which are not part of the SEOA-AOI report – would need to be estimated by the regional economic analysis group separately. These preliminary estimates would be back of envelop type calculations based on readily available information and do not require a full CBA. As such, the triage for the proposed MPA regulations will be based on the overview documents (ecological and socio-economic), draft regulatory intent, consultations, and preliminary estimates of incremental costs and benefits.

The triage statement facilitates an early assessment of the expected impacts of regulatory proposals and determines where analytical resources should be focused. The assessment of the impact level (i.e. no cost, low cost, or significant cost) in the triage statement is based primarily on incremental cost impacts of the regulation under consideration. Once the regulatory impact level is determined and agreed upon in consultation with TBS, the more detailed regulatory CBA may be undertaken. In keeping with the principle of proportionality, a quantitative analysis is only carried out for proposals that are assessed in the triage statement as having significant cost impacts on businesses, government and/or Canadians, including Indigenous peoples. For low cost impact proposals a qualitative analysis will be conducted.

²² For MO MPAs proposals, however, Regulatory Affairs would play the challenging role on the Triage and RIAS, except in cases where the proposal would trigger the One-for-One rule, in which case TBS would be engaged to challenge any increase in administrative burden.

ii) Regulatory Impact Analysis Statement

After the decision has been taken to propose the MPA regulations, work on writing the RIAS is initiated and finalized in Step 3 of the MPA designation process. The RIAS summarizes the results of the MPA-CBA report and other supporting documents. It provides a concise, non-technical synthesis of information that allows the various RIAS audiences to understand the reason for the regulation, the government's objectives, the costs and benefits of the regulation, who will be affected, who was consulted in developing the regulation, and how the government will evaluate and measure the performance of the regulation against its stated objectives. The RIAS is, in effect, a public accounting of the rationale for regulations.

3.1.3 Review and Publication

The review of the SEOA-AOI report and of the CBA-MPA report can be undertaken through multiple means, including stakeholder, academia and/or internal or inter-departmental review. The purpose of the review is to ensure the information is accurate and the methodology used is appropriate given the scope of the analysis. A review of these reports, especially significant impact CBAs, would be particularly useful if a new approach or methodology is adopted.

Academic or peer review and departmental review of the socio-economic analysis ensures that the analysis follows a sound methodology, analytical techniques and uses valid data, and provides a set of clearly articulated conclusions and their associated caveats that inform the decision-making process. Through such reviews, the analysis is subjected to rigorous scrutiny by those who, on the basis of their knowledge and experience in the relevant field, can perform an impartial review of the reports.

Review of the socio-economic analysis can also be undertaken as part of the AOI and MPA consultation processes. However, it is important to note that the review of socio-economic analysis is a quality control process and should not be construed as formal consultation for meeting the regulatory requirement.

It should also be noted that the CBA-MPA report presents the incremental impacts without making any recommendations with respect to decisions.

The publication of the SEOA-AOI report is not required. However, by TBS directive, the publication of the CBA-MPA report is required for significant impact proposals but not for low impacts proposals. If published, all publications will need to meet the *Official Languages Act* as well as the accessibility requirements.

4.0 The Socio-Economic Analytical Framework

This section develops the analytical framework to be used to conduct the socio-economic analysis throughout the designation process for both GiC MPA regulations and

MOs and includes guidance on the scope of the SEOA-AOI report and the CBA-MPA report.

Although two distinct socio-economic reports will be developed as part of the MPA designation process, this section provides high level guidance on the scope of the socio-economic analysis in its entirety. The SEOA-AOI and CBA reports should be viewed as iterations of one document that is developed and updated as the MPA designation process moves through the various stages of development and economic analysis work progresses from a high level overview to a detailed CBA.

The analysis will be developed in a manner such that the focus becomes specific to a more refined geographic area as the MPA designation process progresses from the identification to selection of the AOI to MPA designation.

4.1 Analytical Guidance

The sections presented below closely follow the TBS Cost-Benefit Analysis Guide but have been tailored to meet the particular needs for MPA decision-making. The Marine Planning and Conservation program would determine the roles and responsibilities of other DFO programs (such as Science, Compliance, Promotion and Enforcement) and engage them accordingly to ensure the information required to undertake the socio-economic analysis is provided to the economists on the agreed schedule.

4.1.1 Ecological Characteristics, Associated Risks and the Objectives

This section should provide a summary overview of the ecosystem services that are of interest and the risks posed to these by natural processes and human interaction related to the conservation objectives of the MPA. This information can be summarized from existing documents such as the Biophysical and Ecological Overview report. Some of the key questions that would be addressed could include, but are not limited to:

- What is the spatial boundary of the proposed MPA?
- What are the marine habitats, species and final EGS of importance to society in the AOI or MPA?
- What is the extent of the threats to these habitats, species and/or final EGS?
- What is to be achieved with respect to habitat, species and/or final EGS protection?

4.1.2 Socio-Economic Overview and Assessment of the Area of Interest

This section should describes the socio-economic activities of the relevant parties that are linked to the use or management of the ecosystem goods and services (section 4.1.1) within the AOI or MPA. This provides insight into the regional distribution of the economic activities and ecosystem goods and services within the AOI or MPA. Responding to the following helps in identifying the key socio-economic activities being undertaken:

- What are the main human activities in the AOI or MPA?
- What are the main socio-economic activities that are linked to the final EGS in the AOI or MPA?
- What are the socio-economic activities that may need to be balanced with the MPA objectives without compromising the conservation objective, such as maintaining local livelihoods?

4.1.3 Baseline Management Measures

This section, for clarity, is divided into two parts to: (i) describe the existing or baseline management measures in place; and (ii) describe the ecological and economic outcomes as they relate to the baseline conditions.

- (i) **Baseline Management Measures:** outline the regulatory and non-regulatory management measures that are currently in place, or are proposed and approved for implementation. A description of international commitments should also be included if the MPA designation helps meet those obligations. The following helps in clarifying the scope of this section:

- What management measures (federal, provincial and territorial) are already in place or are proposed and approved for implementation in the MPA?
- Is Canada part of any international agreements and conventions that relate to Canada's commitments for MPA designation or any other commitment with respect to habitats or species to be found in the MPA?

- (ii) **Baseline Scenario:** describe the ecological and economic outcomes, starting with the year in which the MPA regulation is proposed to come into force. The baseline scenario is a projection of the state of ecological and economic outcomes in the absence of the proposed MPA regulations. Ideally, the ecological and economic outcomes should be estimated for a minimum period of 10 years for GiC MPA regulations and a minimum period of 5 years for MOs. It is recognized that due to data and modeling constraints, it may not always be possible to provide quantitative estimates of the ecological and economic outcomes. In these instances, a qualitative description should be included to facilitate the assessment of incremental impacts. Where possible, the impacts of existing and potential management measures (outlined in section 4.1.3(i)) that have high likelihood of being implemented should be accounted for in the baseline forecasts of ecological outcomes. The baseline would also include the implication of likely changes to economic activity on the ecosystem goods and services. The timeframe for the baseline and management (see 4.1.4 below) scenarios has to be similar so that the incremental impacts can be evaluated. The following questions help develop the baseline outcomes:

- What is start and end date of the timeframe?

- Are there any economic or technological trends/developments that could impact on-going economic activity or natural resources of interest?
- What are the expected ecological outcomes under the baseline scenario without the MPA?
- What will be the level of economic activities without the MPA, including those that depend on the ecosystem goods and services?

4.1.4 Proposed MPA Regulations and Ministerial Order

This section is divided into two parts to: (i) describe the proposed regulatory management scenario; and (ii) describe the ecological and economic outcomes as they relate to such regulatory management scenario.

(i) **Regulatory Management Scenario:** outline the regulatory management measures under the proposed MPA regulations or MO. The following helps in clarifying the scope of this section:

- What is the date on which the proposed MPA regulations or MO come into force?
- What management zones are proposed to be established within the MPA?
- What are the prohibitions and exceptions for each of these management zones?

(ii) **Outcomes of Regulatory Management Scenario:** outline the ecological and economic outcomes, starting with the year in which the proposed MPA regulations or MO come into force. The ecological and economic outcomes are estimated for a minimum period of 10 years (similar to the baseline scenario) for MPA regulations and a minimum period of 5 years for MOs. The timeframe for the baseline and management scenarios needs to start and end at the same point in time so that the incremental impacts can be evaluated. The regulatory management scenario is described in response to the following questions:

- What is start and end date of the timeframe?
- What are the expected ecological outcomes under the regulatory management scenario?
- How do the ecological outcomes compare with the proposed conservation objective to be achieved?

The regulatory management scenario and the associated ecological outcomes will be used by the regional economic analysis group to estimate the incremental costs and benefits (see section 4.1.6 below). This information is essential for developing the rationale for the proposed MPA regulations.

As mentioned earlier, it is important to remember that for MPAs established by MO, pre-existing economic activities are allowed to continue, until a more permanent measure such as an MPA regulation is enacted. In these cases, there would be no impact on these activities from the establishment of an MPA. However, there could be cases where MOs would prohibit certain fishing activities. In those instances, those costs would need to be accounted for.

4.1.5 Incremental Costs and Benefits

This section identifies, quantifies and monetizes, or qualitatively assesses, the incremental costs and benefits that are attributable to the change resulting from the management scenarios (GiC MPA regulations or MO) over and above the baseline scenario. The response to the following questions would help assess the incremental impacts of the proposed GiC MPA regulations or MOs:

- What is the scope and scale of the incremental costs and benefits?
- What are the incremental costs and benefits of the prohibitions identified for the regulatory management scenario (section 4.1.4(i))?
- What are the incremental costs and benefits of the exemptions identified for the regulatory management scenario (section 4.1.4(ii))?

It should be noted that as per TBS guidance, the estimate of incremental costs should not include the cost of developing the regulatory proposal. Similarly, developing regulatory proposal to fulfil international commitments, meeting international or national commitments, or avoiding corporate risks do not constitute incremental benefits.

The regional economic analysis group is primarily responsible for evaluating the incremental costs and benefits of the proposed MPA designation. The estimates of the incremental costs and benefits are based on the baseline and on the regulatory management scenarios. In the absence of the requisite information on regulatory management measures and the ecological and economic outcomes, it will not be possible to conduct a comprehensive CBA of the proposed MPA designation.

4.1.6 Distributional Impacts

A number of diverse interested parties will be impacted by the proposed MPA GiC regulations or MO. The distributional analysis attempts to identify the degree to which the interested parties would be impacted by the incremental costs and benefits and how much they stand to gain or lose as a result of the proposed MPA GiC Regulations or MO. For example, while an industry may bear the incremental costs up front, they may be able to pass a portion of these on to consumers in the form of price increases, such that the impact may also be felt by consumers. Similarly, the incremental benefits of knowing that an ecosystem service will continue to exist accrues not only to current but to future generations and not just within the region in which it is found.

Response to the following can help identify the associated distributional impacts on the interested parties:

- How are the costs and benefits distributed amongst these interested parties, i.e. which group benefits from the proposed MPA GiC regulations or MOs and which ones bear the bulk of the costs?
- What regulatory management measures have been included to minimize the regulatory burden and to what extent have the negative impacts on firms/entities and sector competitiveness been minimized?

The distributional analysis is carried out by the regional economic analysis group and will be based on the incremental costs and benefits assessed in section 4.1.5.

4.1.7 Net Benefit Statement

Establish if incremental benefits exceed incremental costs, quantitatively or qualitatively, as a response to the following question:

- Does the regulatory proposal result in overall net benefits?

This section does not only require a net benefit statement (i.e. benefits minus costs), but the rationale to demonstrate how the costs and benefits balance. The responsibility for this section lies with the regional economic analysis group.