



Fisheries and Oceans
Canada

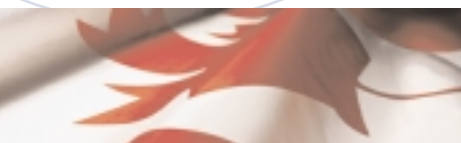
Pêches et Océans
Canada

SUSTAINABLE DEVELOPMENT STRATEGY

Progress Report on 2001-2003 Strategy



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Canada 

Sustainable Development Strategy

Progress Report on 2001-2003 Strategy

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Minister's Message

Canadians rely on Canada's oceans and freshwater aquatic resources and count on their conservation for the benefit of future generations. My department, Fisheries and Oceans Canada (DFO), is committed to meeting this expectation and to helping Canadians make the most of these resources.



DFO strives to integrate environmental, social and economic considerations into its decision making, operations and resource management activities. This balanced approach is known as sustainable development and is central to the business of my department. This means managing our oceans in an integrated and consultative fashion. It means ensuring that our own operations are environmentally sustainable. It means applying the precautionary approach, both domestically and internationally, to better understand and respect the limits and risks of fish harvesting. It means working with provinces to address freshwater issues. It means developing and drawing on scientific excellence to ensure we have a sound understanding of aquatic ecosystems. And it means encouraging an innovative marine sector.

Today, striking the sustainable development balance is more important than ever. The environment in which DFO operates has shifted dramatically in recent years. Our mandate has evolved with the emergence of the *Oceans Act* and the *Species at Risk Act*, as well as with Canada's Oceans Strategy. Legal developments related to Aboriginal and treaty rights, a rapidly expanding aquaculture industry and the need to play a more active role in issues related to fish-habitat management have also affected the Department.

In October 2002, the Commissioner for the Environment and Sustainable Development released a report that recognized the significant progress DFO has made in integrating sustainable development principles across its mandate. The report also outlined the challenges the Department faces and pointed the way forward for meeting these challenges.

We are striving to meet these and other challenges, including increased demands for new and more specialized knowledge and a need to ensure that departmental resources are put to the best possible use to meet

the needs of Canadians. DFO is in the midst of a comprehensive review — the Departmental Assessment and Alignment Project (DAAP) — that is aimed at securing DFO's financial stability for the future, strengthening our management practices and renewing our policies and programs. Ensuring that sustainable development principles are an integral part of strengthening what we do as a department has been at the heart of our review.

As this process to revitalize DFO is still under way, this report provides a summary of progress to date against commitments in our 2001-2003 Sustainable Development Strategy (SDS). Following the completion of the DAAP, a comprehensive SDS will be developed and tabled in Parliament in 2004-2005. This new strategy will both fully reflect the DAAP and other change initiatives being proposed to meet our internal and external challenges and ensure that sustainable development principles are a part of everything we do as a department. Indeed, DFO's next strategy will raise the bar higher by focusing the Department on sustainability outcomes for a broader range of activities.

Both my Parliamentary Secretary, the Honourable Shawn Murphy, and I are committed to working with Parliamentarians and Canadians across the country to make this commitment a reality by encouraging the sustainable development of our aquatic resources for the benefit of present and future generations of Canadians.

A handwritten signature in black ink that reads "Geoff Regan". The signature is written in a cursive style with a large initial "G".

The Honourable Geoff Regan, P.C., M.P.
Minister of Fisheries and Oceans

Executive Summary

DFO plays a leading role in ensuring the sustainable development and safe use of Canadian waters for the benefit of all Canadians. This means that environmental, economic and social considerations are integral parts of departmental decision making.

Recognizing that aquatic resource development must be undertaken carefully to safeguard the ability of future generations to meet their needs, DFO works with others to derive economic and social benefits from Canada's oceans and freshwater resources while conserving the ecological integrity of those resources. For example, through its regional offices and various consultation mechanisms, DFO works closely with other federal government departments, provincial and territorial governments, Aboriginal groups, the national and international scientific community and other stakeholders.

In 2001, DFO released its second SDS. This strategy, entitled *Building Awareness and Capacity: An Action Plan for Continued Sustainable Development 2001-2003*, had five goals:

- ensuring the sustainable use of marine and freshwater resources and ecosystems through new forms of governance and shared stewardship;
- supporting improved decision making through better knowledge of the nature and use of marine and freshwater resources and ecosystems;
- improving the application of knowledge and new technologies to support the sustainable and safe use of marine and freshwater resources;
- reducing negative physical environmental impacts associated with departmental operations; and
- developing a management system to track progress and performance of the SDS.

Associated with these goals are 41 planned activities, each specifying what DFO intends to do, deliver or produce. Since the release of this strategy, DFO has made significant progress on these planned activities: 36 have been achieved or are on their way to being achieved. Highlights of DFO's progress include the following:

- Establishing co-management agreements in 31 fisheries. This exceeded the planned target of 25. In these agreements, DFO and stakeholders work together to achieve collaborative fisheries management.

DFO plays a leading role in ensuring the sustainable development and safe use of Canadian waters for the benefit of all Canadians. This means that environmental, economic and social considerations are integral parts of departmental decision making.

DAAP

The overarching objective of the DAAP is “to strengthen the Department’s ability to work with Canadians to ensure the sustainable development and safe use of Canadian waters.” The DAAP has therefore been guided by principles that support sustainable development: integrated resource management, partnerships, the concept of the public good, and risk management and precaution.

- Purchasing and deploying 91 oceanographic floats. This was accomplished with support from the Climate Change Action Plan 2000 fund and was part of an international initiative to improve understanding of the ocean/atmosphere climate system and the role of oceans in climate change.
- Providing leadership in the development of a national system of Marine Protected Areas (MPAs) in Canada. This included designating the Endeavour Hydrothermal Vents as an MPA to strengthen the conservation and protection of oceans ecosystems.
- Increasing stakeholder involvement in the delivery of marine services. Over 200 new partnerships were created in areas such as aids to navigation and boating safety.

In November 2002, DFO initiated a comprehensive departmental review called the Departmental Assessment and Alignment Project, or DAAP. The purpose of this review is to secure DFO’s financial stability for the future, strengthen the Department’s management practices and renew its policies and programs.

The overarching objective of the DAAP is “to strengthen the Department’s ability to work with Canadians to ensure the sustainable development and safe use of Canadian waters.” The DAAP has therefore been guided by principles that support sustainable development: integrated resource management, partnerships, the concept of the public good, and risk management and precaution. Throughout the DAAP, DFO has reconfirmed and strengthened its commitment to sustainable development as a core underpinning of all its programs and services. The DAAP will set the stage for the renewal of DFO’s Strategic Plan, its new Planning, Reporting and Accountability Structure (PRAS) and the Department’s next SDS.

In the normal course of events, DFO would now be tabling its third SDS. However, mainly because of the DAAP, DFO has decided to issue a progress report on its 2001-2003 SDS at this time. Following the completion of the DAAP, DFO’s Strategic Plan and PRAS will be renewed, and a comprehensive new SDS will be developed and tabled in 2004-2005. This decision, made in consultation with the Office of the Commissioner of the Environment and Sustainable Development (CESD), ensures that DFO’s new SDS will be fully aligned with the Department’s change agenda, its new Strategic Plan and its renewed PRAS.

Strengthened by DFO’s renewed policy and program direction, the next SDS will set forth commitments that are consistent with DFO’s vision to “work with Canadians to ensure the sustainable development and safe use of Canadian waters.”

Introduction

Canada is a maritime nation. Surrounded by the Arctic, Atlantic, and Pacific oceans, the country has some of the largest bodies of water and inland waterways in the world, such as the St. Lawrence River and Hudson Bay. Millions of Canadians live in coastal areas, and marine and freshwater resources are among the country's greatest natural assets.

DFO plays a leading role in ensuring the sustainable development and safe use of Canadian waters for the benefit of all Canadians. As a result of its mandate, DFO's actions directly affect the livelihoods of thousands of Canadians and influence the economic, social and cultural fabric of Canada. DFO's key areas of responsibility include the following:

- protecting the marine and freshwater environment;
- managing and protecting fisheries resources and fish habitat;
- understanding the oceans and aquatic resources;
- maintaining maritime safety;
- engaging Aboriginal people in the management of aquatic resources; and
- facilitating maritime commerce and ocean development.

DFO's Mandate

Sustainable development is fundamental to DFO's mandate, policies and programs. In co-operation with other federal government departments, other levels of government, Aboriginal groups and private and voluntary sector stakeholders, DFO is responsible to Parliament and the people of Canada for —

- policies and programs in support of Canada's economic, ecological and scientific interests in oceans and inland waters;
- the conservation and sustainable utilization of Canada's fisheries resources in marine and inland waters;
- leading and facilitating federal policies and programs on oceans; and
- safe, effective and environmentally sound marine services responsive to the needs of Canadians in a global economy.



Sustainable Development at DFO

Sustainable development is fundamental to DFO's mandate, policies and programs, and the Department is called upon daily to integrate environmental, economic and social considerations into its decision making.

Recognizing that aquatic resource development must be undertaken carefully to safeguard the ability of future generations to meet their needs, DFO works with others to derive economic and social benefits from Canada's oceans and freshwater resources while conserving the ecological integrity of those resources. For example, through its regional offices and various consultation mechanisms, DFO works closely with other federal government departments, provincial and territorial governments, Aboriginal groups, the national and international scientific community and other stakeholders.

In 2001, DFO released its second SDS. This strategy, entitled *Building Awareness and Capacity: An Action Plan for Continued Sustainable Development 2001-2003*, was based on principles regarding integrated decision making, accountability and science and knowledge (see Annex A for a full discussion of these principles). *Building Awareness and Capacity* had five goals:

- ensuring the sustainable use of marine and freshwater resources and ecosystems through new forms of governance and shared stewardship;
- supporting improved decision making through better knowledge of the nature and use of marine and freshwater resources and ecosystems;
- improving the application of knowledge and new technologies to support the sustainable and safe use of marine and freshwater resources;
- reducing negative physical environmental impacts associated with departmental operations; and
- developing a management system to track progress and performance of the SDS.

Associated with these goals were 41 planned activities, each specifying what DFO intended to do, deliver or produce. DFO has made significant progress on these planned activities: 36 have been achieved or are on their way to being achieved. During this same time period, DFO has evolved in a number of fundamental ways that support sustainable development. For example, the Department is shifting:

- from a primary focus on fisheries to broader oceans management responsibilities;

- from centralized decision making to a more transparent and participatory approach to engaging stakeholders and partners;
- from the making of short-term environmental, social and economic trade-offs to a focus on longer term environmental sustainability and economic viability; and
- from traditional regulation to innovative risk-based approaches that enable sustainable development.

DFO continues to make progress toward deriving economic and social benefits from aquatic resources while protecting and restoring the aquatic environment. Sustainable development principles and concepts are fundamental to DFO's policy and program agenda, and the Department's approach is to provide an overall planning framework that integrates and reflects sustainable development principles and objectives.

Evolving Context

Oceans and freshwater are under increasing threat from pollution and activities that can harm or alter fish habitat and overall aquatic ecosystems. Demands on Canada's oceans are increasing, with aquaculture, offshore oil and gas exploration and development and eco-tourism joining traditional fishing and marine transportation as significant industries. The same is occurring with Canada's freshwater, with increases in recreational use and increased demands for development projects, such as land-based oil and gas, mining and hydro-electricity. Furthermore, an increase in the intensity of land use is threatening freshwater, estuarine and marine resources.

Cumulative human impacts also continue to take their toll on the environment: consumption and population pressures; challenges of socio-economic viability and diversification in coastal communities; industrial pollution from forestry, mining and transportation; and urban sprawl.

In recent years, the Department's mandate has evolved with the adoption of the *Oceans Act* and the *Species at Risk Act*, as well as with the introduction of Canada's Oceans Strategy. Legal developments related to Aboriginal and treaty rights and issues regarding aquaculture and the need to play a more active role in fish-habitat management have also affected the Department.

These developments have raised client and citizen expectations that DFO will be more involved in processes for managing risks and reconciling competing interests. In addition, interconnected program

In recent years, the Department's mandate has evolved with the adoption of the *Oceans Act* and the *Species at Risk Act*, as well as with the introduction of Canada's Oceans Strategy. Legal developments related to Aboriginal and treaty rights and issues regarding aquaculture and the need to play a more active role in fish-habitat management have also affected the Department.

challenges have led to a greater emphasis on horizontal management and stronger links to other government departments and programs.

DFO is also facing a number of pressures in both the external and internal environment:

- Aquaculture development is facing complex regulatory regimes and increasing public concerns about environmental sustainability and use of oceans spaces;
- Rapid advances in technology, including biotechnology, information and communication technologies, continue to transform the way the Department conducts its business. For example, in the areas of navigation and hydrographic charting, traditional products and services are being updated to meet the changing needs of clients;
- New information technology is increasing and changing public expectations. DFO's challenge will be to fully integrate information into departmental strategic decision making and policy development processes;
- Increased demands for new and more specialized scientific knowledge continue to challenge the ability of the Department's science program to provide the breadth and depth of scientific advice necessary for internal decision making on mandated responsibilities and in emerging areas arising from legislation and other drivers;
- The number of Environmental Petitions on issues of concern to the public and environmental organizations is expected to continue to increase; and
- The recent entry into force of the *Species at Risk Act* will make new and significant demands on the Department. For example, DFO will be required to increase its efforts to assess the status of species at risk, develop and implement recovery strategies and identify critical habitats necessary for the survival and recovery of such species.

EMR

Also taking place at this time is an Expenditure and Management Review (EMR). This is part of an initiative announced in the February 2003 Budget to review the mandates and programs of each department every five years. These reviews will be led by the Treasury Board Secretariat, and their purpose is to ensure that expenditures continue to contribute to results that are relevant for Canadians. In May 2003, DFO was identified as one of the first four departments to participate in an EMR.

These and other pressures, combined with limited financial resources, have compelled DFO to re-examine its priorities and realign its activities. In November 2002, DFO launched a comprehensive review called the Departmental Assessment and Alignment Project, or DAAP. The review is designed to secure the Department's financial stability for the future, strengthen its management practices and renew departmental policies and programs. The DAAP was also a response to the Government of Canada's direction in the September 2002 Speech from the Throne to reallocate resources from lower priorities to higher priorities.

The overarching objective of the DAAP is "to strengthen the Department's ability to work with Canadians to ensure the sustainable

development and safe use of Canadian waters.” The DAAP has involved all DFO sectors and regions, and it has been guided by principles that support sustainable development: integrated resource management, partnerships, the concept of the public good, and risk management and precaution. Throughout the DAAP, DFO has reconfirmed and strengthened its commitment to sustainable development as a core underpinning of all its programs and services. The DAAP has also built on a number of reform initiatives undertaken in recent years, including the Atlantic Fisheries Policy Review, Canada’s Oceans Strategy, Canadian Coast Guard (CCG) Modernization and the Department’s Aquaculture Policy Framework.

The DAAP will set the stage for the renewal of DFO’s Strategic Plan, its new Planning, Reporting and Accountability Structure (PRAS) and the Department’s next SDS. The DAAP will bring forward options to do the following:

- renew DFO policies and programs to ensure the ongoing relevance of DFO services to Canadians;
- strengthen management practices to improve the effectiveness and efficiency of DFO services; and
- secure financial stability to support DFO programs and services.

In considering options for changing the way the Department does business, it remains vital that DFO programs respond to the needs of Canadians and be affordable within the resources currently at the Department’s disposal.

Rationale for Issuing a Progress Report

In the normal course of events, DFO would now be tabling its third SDS. However, mainly because of the DAAP, DFO, in consultation with the Office of the CESD, has decided to issue a progress report on its 2001-2003 SDS at this time.

Following the completion of the DAAP, DFO’s Strategic Plan and PRAS will be renewed, and a comprehensive new SDS will be developed and tabled. DFO is committed to ensuring that these key corporate planning tools are fully aligned with DFO’s renewed direction in support of sustainable development.

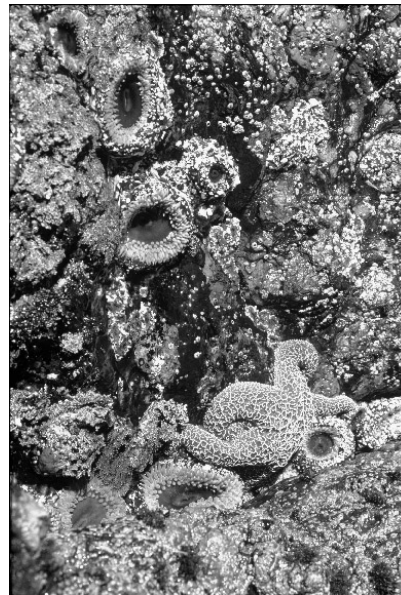
This decision regarding the progress report has several significant advantages:

- It allows Members of Parliament and stakeholders to view DFO’s progress to date on existing SDS commitments;



- It ensures that the departmental change agenda will be fully aligned with future sustainable development commitments;
- It ensures alignment between the new SDS and the Department's renewed PRAS; and
- It ensures proper alignment of the new SDS with DFO's new Strategic Plan.

The next section describes the progress DFO has made on its 2001-2003 SDS. Following this, the section on DFO's next SDS points the way toward DFO's new SDS, discussing the factors and emerging pressures that DFO's third SDS must reflect.



Progress on the 2001-2003 SDS

This section outlines the progress DFO has made on its 2001-2003 SDS. This progress is discussed in terms of the following six elements:

- **Themes** are the key directions of the Department's 2001-2003 SDS.
- **Goals** are long term, strategic and high level. They establish an overall sense of direction and scope.
- **Objectives** are also long term and comprehensive, but they constitute intermediate steps in the direction of goals.
- **Outcomes** are the results the Department is seeking or the specific areas it intends to focus on.
- **Planned activities** identify what DFO intends to do, deliver or produce. These activities represent targets, and progress on each is described in terms of the measures defined in Annex B.
- **Ultimate impacts** are the high-level, positive effects on sustainable development that DFO hopes will follow from the implementation of its Strategy.

The themes, goals and objectives of the 2001-2003 SDS are shown in the figure below. All six elements are presented in Annex C, along with performance measures/indicators; a summary table of progress on planned activities appears in Annex D.

Action Plan Table, 2001-2003

DFO Vision
Safe, healthy, productive waters and aquatic ecosystems, for the benefit of present and future generations, by maintaining the highest possible standards of service to Canadians

Mandate Renewal
Organizational Effectiveness
Restored Confidence and Credibility

Themes

Theme 1: New Forms of Governance and Shared Stewardship
Theme 2: Knowledge and Technology for Sustainable Development
Theme 3: Sustainable Operations
Theme 4: Managing for Progress and Performance

Goals

Goal 1: Sustainable use of marine and freshwater resources and ecosystems through new forms of governance and shared stewardship
Goal 2A: Better knowledge of the nature and use of marine and freshwater resources and ecosystems to support decision making
Goal 2B: Effective application of knowledge and new technologies to support the sustainable and safe use of marine and freshwater resources
Goal 3: Reduction of negative physical environmental impacts of departmental operations
Goal 4: A management system to track progress and performance of the Sustainable Development Strategy

Objectives

Objective 1.1: Collaborative, integrated approaches to management and use of marine and freshwater resources
Objective 2A.1: Better understanding and more timely scientific information and other knowledge to support decision making
Objective 2B.1: Application of navigation and marine communication technologies for safe use of Canadian waterways
Objective 2B.2: Application of science, socio-economic analysis and new technologies for the sustainable use of marine and freshwater resources
Objective 3.1: Departmental operations consistent with recognized Canadian and international environmental management standards
Objective 4.1: Sustainable Development commitments incorporated into departmental integrated planning initiative

Expected Outcomes Supporting Objectives
Planned Activities Supporting Expected Outcomes

Theme 1: New Forms of Governance and Shared Stewardship

DFO recognizes that sustainable development requires integration across environmental, social and economic spheres. Integrated decision making also recognizes the need to involve all parties that will be affected by a decision or will participate in its implementation.

Public expectations of being more involved in decision making and sharing responsibility for decisions are increasingly a force for change in the management and use of aquatic resources and environments. This trend is facilitated by new technologies that enhance citizen awareness and the ability to participate in decision making. New forms of governance are also inspired by the need to find more effective, less costly ways of delivering government services and programs.

Goal 1
Sustainable use of marine and freshwater resources and ecosystems through new forms of governance and shared stewardship

Objective 1.1
Collaborative, integrated approaches to management and use of marine and freshwater resources

Outcome 1.1.1
Improved stakeholder involvement in shared stewardship of estuarine, coastal and marine ecosystems and resources

Outcome 1.1.2
Increased stakeholder involvement in delivery of marine services

Outcome 1.1.3
Expanded arrangements for DFO and stakeholders to work together to achieve mutual fisheries management objectives

Outcome 1.1.4
Enhanced stakeholder involvement in delivery of fish habitat management program

**ULTIMATE IMPACT,
OUTCOME 1.1.1**

- Realization of economic potential and social benefits from oceans

Outcome 1.1.1

Improved stakeholder involvement in shared stewardship of estuarine, coastal and marine ecosystems and resources.

Planned Activity

Develop and implement Integrated Management Plans (IMPs) and complete demonstration projects in three coastal regions by end of 2002: Eastern Scotian Shelf, Western Arctic and Gulf of St. Lawrence.

Progress

Progress toward target continues.

In July 2002, DFO released the document *Policy and Operational Framework for Integrated Management of Estuarine, Coastal and Marine Environments in Canada*. This framework explains how DFO is addressing its responsibilities for Integrated Management (IM) under the *Oceans Act* and Canada's Oceans Strategy. It outlines a domestic policy framework and operational guidelines so that governments, community groups and others can be guided in their efforts to work together to better advance both sustainable development and the conservation and protection of oceans. Work is now under way to ensure that regional program delivery is consistent with this framework and to enhance the integration of related programs, including Marine Protected Areas (MPAs) and Marine Environmental Quality (MEQ) programs.

DFO has initiated IM planning processes for four Large Ocean Management Areas and 21 Coastal Management Areas. Related ecological, technical and socio-economic assessment reports have been prepared to guide sound decision making in future multi-stakeholder advisory processes. Multi-stakeholder meetings serve to engage stakeholders in the IM process.

IM processes have been initiated in three coastal areas, namely, the Eastern Scotian Shelf, the Western Arctic and the Gulf of St. Lawrence. Progress is also being made in initiating these processes in the Central Coast IM initiative, in the Pacific region.

The **Eastern Scotian Shelf** IM initiative covers an offshore ecozone with major oceanographic and bathymetric features that encompasses approximately 325,000 square kilometers. The initiative is using an intergovernmental and multi-stakeholder planning process to develop and implement an integrated oceans management plan for this large offshore area.

In the **Western Arctic**, the Beaufort Sea IM planning initiative seeks to do the following:

- develop a co-management and governance model appropriate to the Inuvialuit Settlement Region;
- conduct analyses for planning and decision making relevant to hydrocarbon exploration and development;
- develop a common understanding and application of the principles of IM in a co-management environment; and
- assess marine protection in areas where the Beaufort Sea Beluga Management Plan is applied.

The **Gulf of St. Lawrence** IM initiative was initiated by DFO in the fall of 2000 to achieve more cohesiveness with respect to the planning of current and future oceans-related activities in the Gulf of St. Lawrence area. This IM project is led by a core team of representatives from the Quebec, Gulf and Newfoundland and Labrador regions, as well as Headquarters. While early efforts have been spent gathering information and compiling overview documents, a cohesive gulf-wide ecosystem overview report is currently being developed to guide future consultations on the IM process.



Located along the north-west coast of British Columbia, the **Central Coast** IM initiative focuses on conservation, based on an ecosystem approach, for the purposes of maintaining the biological diversity and productivity of coastal environments and preserving ecosystem health. This goal is coupled with the aim of fostering the sustainable use of coastal resources and the economic diversification and generation of wealth for all Canadians, and for coastal communities in particular.

The development of these IMPs has increased both stakeholder involvement and shared stewardship. For example:

- Eastern Scotian Shelf IM initiative — multi-stakeholder fora were held in 2002 and 2003;
- Central Coast IM initiative — external engagement has been ongoing throughout 2003 and is expected to continue into 2004;
- Gulf of St. Lawrence IM initiative — an ecosystem overview report is being prepared and will guide future consultations; and
- Beaufort Sea IM planning initiative — ecological, technical and socio-economic assessment reports have been completed.

In addition, the Department is seeking opportunities to expand IM to include key program areas. For instance, DFO's Fish Habitat Management Program is involved in IM, notably in the Pacific Region, where the Department has collaborated with the Province of British Columbia, BC Hydro and other key stakeholders in the development of

22 water use plans. Nineteen have been completed, and the remaining three are expected to be completed shortly.

Planned Activity

Establish Minister's Advisory Council on Oceans (MACO).

Progress

Target has been achieved.

MACO was established on September 17, 2000.

Nine members, drawn from coastal communities, Aboriginal organizations, academia, industry and non-governmental organizations, were appointed by the Minister for a three-year term.

The Council provided advice to the Minister on the development of Canada's Oceans Strategy, released by the Government of Canada in July 2002, and participated in consultations with Canadians on the Oceans Strategy.

ULTIMATE IMPACT, OUTCOME 1.1.2

- Improved marine safety
- Decreased risk of environmental pollution
- Increased awareness of environmental aspects by stakeholders

Outcome 1.1.2

Increased stakeholder involvement in delivery of marine services.

Planned Activity

Initiate and test new CCG partnerships with private and voluntary sector stakeholders in delivery of marine services by end of 2003.

Progress

Target has been achieved.

Since the release of the 2001-2003 SDS, 205 new partnerships have been created.

Testing of CCG partnerships has occurred mainly through pleasure craft operator requirements, which are being phased in over a ten-year period (1999-2009).

Engaging with a wide array of Canadians, CCG has forged partnerships with private sector stakeholders, voluntary sector stakeholders, DFO employees, industry and private citizens. The majority of the contracts that CCG established have been with aids to navigation contractors and providers of boating safety courses.

Outcome 1.1.3

Expanded arrangements for DFO and stakeholders to work together to achieve mutual fisheries management objectives.

Planned Activity

Initiate co-management arrangements, with one or two fisheries plans per year adopting the co-management model, with a goal of up to 25 co-managed fisheries by end of 2003.

Progress

Target has been achieved and surpassed.

The goal to attain 25 co-managed fisheries has been surpassed; co-management arrangements are in place in 31 fisheries. Co-management, together with other program and policy changes, forms part of Fisheries Management Renewal. Co-management arrangements will permit greater co-operation and stewardship between DFO and stakeholders to attain fisheries management objectives.

Regional consultations were held as a first step in updating co-management guidelines for the fisheries. Regional consultations and adaptations of guidelines were part of the process used to develop and refine the co-management model.

Outcome 1.1.4

Enhanced involvement of stakeholders in delivery of fish habitat management program.

Planned Activity

Streamline habitat referral process.

Progress

Progress toward target is on schedule.

DFO handles referrals under the *Fisheries Act*. These are project proposals submitted for review for compliance with the *Fisheries Act*, mainly because they may result in harmful alteration, disruption or destruction of habitat. In 2002-2003, DFO handled over 12,000 referrals. DFO staff also conduct environmental assessments under the authority of the *Canadian Environmental Assessment Act*, as triggered by the *Fisheries Act*, the *Navigable Waters Protection Act* and the *National Energy Board Act*.

ULTIMATE IMPACT, OUTCOME 1.1.3

- Increased economic stability among fishery participants, along with greater responsibility for management decisions, reinforcing a commitment toward responsible fishing practices

ULTIMATE IMPACT, OUTCOME 1.1.4

- Conservation and protection of fish habitat from harmful alteration, disruption or destruction
- Healthy, abundant fish populations

DFO is developing operational procedures to streamline regulatory review and approval processes, with the goal of improving the quality of assessments on all project reviews, and concentrating departmental efforts on those project proposals of a less routine nature, with the potential for significant environmental impacts. For example, as the Fish Habitat Management Program has expanded into the inland provinces, DFO has seen a substantial increase in project approvals for routine maintenance of agricultural drains. Working with provincial Conservation Authorities and stakeholder groups in Ontario, the Department has developed a class authorization process for drain maintenance. This process is being implemented with the aim of providing a more effective system for assessing the environmental impacts of projects with known environmental effects. When this process is fully operational, it is expected that the vast majority of proposed maintenance works will proceed without DFO staff having to conduct site-specific reviews and approvals.

In addition, new guidelines are being rolled out for staff and project proponents. For instance, a practitioner's guide will soon be available for use in assessing whether harmful alteration, disruption or destruction of fish habitat will occur if a development proposal proceeds.



Additional streamlining measures, which seek to increase efficiency and effectiveness in managing fish habitat and in reducing duplication and overlap, are becoming possible through partnering arrangements with provinces, other federal government departments, municipalities and industry sectors. Memoranda of Understanding (MOUs) are in place in British Columbia, Prince Edward Island and Manitoba, and there are working arrangements in place with Alberta, Ontario, Nova Scotia and Newfoundland and Labrador. For example, in Ontario there are formal agreements in place with 35 Conservation Authorities and Parks Canada that cover most of southern Ontario. DFO has also signed an MOU with the Canadian Electricity Association toward the same ends, and discussions are progressing with other industry sectors toward similar outcome agreements.

Work is also under way to implement a more streamlined and proactive aquaculture site approval process. This requires moving away from individual site-by-site assessments to a more holistic approach, where the level of review is based on the level of risk posed by each site. For the implementation of such a process to be successful, internal activities must be co-ordinated and consolidated, with sustainable development as a primary objective. A fundamental external requirement is that DFO work with industry and provinces and territories to develop procedures for gathering the information necessary for site reviews. Developing both best practices and auditing protocols for the purposes of monitoring regulatory compliance would also be required, as would consultation and communication strategies for industry, provinces and stakeholders.

To further streamline the habitat referral process, Fish Habitat Management Program Intranet and Internet sites have been developed to provide timely, accessible and reliable information to the public and Fish Habitat Management Program staff.

Planned Activity

Support fish habitat restoration and enhancement across Canada through improved partnerships, public education, public awareness and strategic investments in community capacity to carry out physical projects.

Progress

Progress toward target is on schedule.

DFO is realizing targets for improved partnerships, public education, public awareness and strategic investments. Also, since 1999, DFO has worked closely with the provinces and territories through the Canadian Council of Fisheries and Aquaculture Ministers (CCFAM) to establish a common vision and framework for collaboration on fish habitat management. Together, federal, provincial and territorial agencies have prepared an implementation plan to achieve common objectives that ensure conservation and sustainable use of Canada's freshwater fisheries and their habitat.

The Department has also created opportunities for voluntary sector organizations to contribute to public policy development and to conserving, protecting and enhancing Canada's fisheries, their habitats and ocean resources. Approximately \$470,000 has been provided through the Voluntary Sector Initiative to fund the following four projects:

- **The National Watershed Stewardship Network** (\$98,000) will lay the foundation for a national watershed stewardship network;
- **Promoting Fisheries Renewal Through Environmental Training and Stewardship** (\$126,200) will promote fisheries renewal by increasing the knowledge, capacity and participation of volunteer groups;
- **Stewardship Canada Web Portal and Citizen Science Project** (\$200,000) will improve the capacity of citizens to conduct scientific monitoring (Citizen Science) and improve the Stewardship Canada Web portal; and
- **Policy Internship & Fellowship Program** (\$45,000) will enable a Wildlife Habitat Canada staff member to work in a one-year internship position that encourages the continued engagement of the voluntary stewardship sector in the development and implementation of Canada's Stewardship Agenda.



The level of participation in stewardship partnerships/programs has been further enhanced through the establishment of senior committees and the development of national operating policies for the Fish Habitat Management Program.

The 2003 Budget announced new funding in recognition of the increasing importance of the role of coastal Aboriginal communities in the sustainable management of aquatic resources. The funding committed \$12 million over the next two years to a new DFO program to help Aboriginal groups participate effectively in multi-stakeholder and other decision-making processes used for aquatic resources and oceans management.

The new Aboriginal Inland Habitat Program will enable Aboriginal groups to be more involved in matters relating to fish habitat management and to contribute to better informed decision making. In addition, this program is expected to facilitate the engagement of inland Aboriginal groups in the regulatory and non-regulatory activities of DFO's Fish Habitat Management Program. Discussions with Aboriginal groups and other stakeholders regarding the details of program design and implementation are taking place in 2003-2004.

The new Aboriginal Aquatic Resource and Oceans Management Program will also help interested and eligible Aboriginal groups enhance their capacity to become more involved in fish habitat management in areas where DFO manages the fishery.

Theme 2: Knowledge and Technology for Sustainable Development

Both knowledge and its application through technology are vital for fostering sustainable development. As a major producer and user of both knowledge and technologies, DFO clearly has an interest in using them to advance sustainable development. DFO is also a policy department, often leading the way globally, for example, in devising new ways to manage fisheries resources, respond to oil spills, protect and restore fish habitat or understand the role of the oceans in global climate change and its impact on aquatic resources. Responding and adapting quickly to increasingly complex policy issues has increased the need for new research, innovative ways of organizing knowledge, the identification of new sources of knowledge and the development and use of new technologies.

Goal 2A
 Better knowledge of the nature and use of marine and freshwater resources and ecosystems to support decision making

Objective 2A.1
 Better understanding and more timely scientific information and other knowledge to support decision making

<p>Outcome 2A.1.1 Improved scientific research</p>	<p>Outcome 2A.1.2 Better understanding of environmental impacts of aquaculture and how to minimize and/or mitigate negative effects</p>	<p>Outcome 2A.1.3 Improved knowledge and understanding of the impact of oceans on the Earth's climate</p>	<p>Outcome 2A.1.4 More accurate, in-season, real-time fisheries information available to fisheries managers</p>	<p>Outcome 2A.1.5 A cohesive, cross-sectoral data management system linking major DFO data holdings and initiatives</p>
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**ULTIMATE IMPACT,
OUTCOME 2A.1.1**

- Better understanding of ecosystem linkages
- Better information on effect of multi-purpose uses within an aquatic ecosystem
- Involvement of other levels of government and stakeholders
- Effective use of scientific research resources
- Better understanding of oceans
- Research activities and gaps identified
- More timely management response to changes in health of aquatic resources

Outcome 2A.1.1

Improved scientific research.

Planned Activity

Develop an operational framework for incorporating ecosystem considerations within fisheries and oceans management by end of 2002.

Progress

Progress toward target continues.

DFO has continued to advance a multidisciplinary ecosystem approach to the provision of scientific advice. For example, the Ecosystem Status Report on the Eastern Scotian Shelf Ecosystem provided a comprehensive, integrated assessment of the current status of this large ocean ecosystem relative to previous states. The report reflected expertise in oceanography, habitat ecology, marine genomics research, fisheries research, chemistry, marine biology, benthic ecology and oceans management.

A conceptual framework for incorporating ecosystem considerations into fisheries and oceans management was developed in 2002 by the intra-departmental Working Group on Ecosystems Objectives. The related operational framework is now under development.

Because of the complexity of fully integrating ecosystem considerations into fisheries and oceans management, moving from concept to operations has taken longer than expected. This work will continue in 2003-2004; it will be linked to the change agenda emerging from the DAAP and to ongoing direction from senior management.

Planned Activity

Create a national network of multidisciplinary teams from public and private sectors by end of 2001.

Progress

Target has been achieved.

The Department's role as a partner, broker and catalyst in multidisciplinary, multi-institutional and multinational research continues to facilitate an increase in the scope and depth of research and the national capacity for multidisciplinary aquatic sciences. Initiatives such as the DFO Centre for Offshore Oil and Gas Environmental Research, the national Aquatic Science 2020 Workshop, the DFO Academic Partnering Program and the ongoing development of

an enhanced partnering strategy continue to foster the building of multidisciplinary teams of private- and public-sector scientific expertise.

In 2002-2003, the Science Sector engaged in over 400 collaborative science research projects with other federal government departments; industry, universities and colleges; provincial, territorial and municipal governments; and the international ocean and aquatic science community. Since 1999-2000, the total number of collaborative research projects has increased by approximately 13%. The degree of collaboration between the private- and public-sector aquatic science community is further evidenced by the number of co-authored scientific publications. The most recent available data indicate that approximately 41% of the Department's publications in oceanology and limnology and approximately 51% of those in marine biology and hydrobiology are collaborative efforts with Canadian researchers.

Planned Activity

Identify changes to the current stock assessment process and recommend new approach by end of 2001.

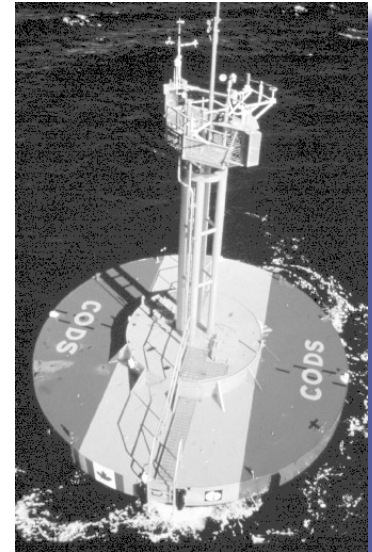
Progress

Target has been achieved.

The review of the stock assessment program has been completed. It identified 24 recommendations for a new approach. The recommendations reflect the need to provide scientific advice within the context of a broader ecosystem approach, in addition to providing advice at the population and species level. A number of the recommendations are now being implemented.

The stock assessment program will expand to include ecosystem monitoring and management, biodiversity issues and issues arising from the *Species at Risk Act*. The precautionary approach will also be fully incorporated into all levels of advice.

While the review and identification of recommendations is complete, implementation of the recommendations is ongoing and is expected to take place over the next few years.



**ULTIMATE IMPACT,
OUTCOME 2A.1.2**

- More environmentally sustainable and competitive aquaculture industry in Canada
- Reduced risk of adverse environmental degradation or accidents
- Higher public confidence in products and practices of the Canadian aquaculture industry

To assess public confidence, DFO has conducted several surveys on aquaculture development in Canada. A 2001 survey indicated that 77% of respondents support aquaculture development in Canada, with only 10% in opposition (*Benchmark Survey*, Environics Research Group Limited, 2001). A more recent survey found similar support for the responsible development of aquaculture for the economic benefit of local communities. However, it was also noted that only half of survey respondents felt confident that governments have adequate regulatory controls in place for aquaculture (Environics Research Group Limited, 2002).

Outcome 2A.1.2

Better understanding of environmental impacts of aquaculture and how to minimize and/or mitigate negative effects.

Planned Activity

Increase DFO's research on environmental impacts of aquaculture by end of 2001.

Progress

Target has been achieved.

DFO has increased its aquaculture research both through its regular research funding and with additional funds from the Aquaculture Collaborative Research and Development Program (ACRDP) (\$4.5M in 2003-2004) and funding to Environmental Science and Biological Science under the Program for Sustainable Aquaculture. DFO has also established partnerships with organizations such as the AquaNet Research Network and the British Columbia Aquaculture Research and Development Committee, the Aquaculture and Environment Fund and the Natural Sciences and Engineering Research Council of Canada.

The ACRDP was established to increase the level of collaborative research and development activity between the aquaculture industry and the Department and in some instances with other funding partners to help the industry maintain its competitiveness. The Program supports innovative research and sustainable development of the aquaculture industry through the competitive allocation of funds to selected research projects proposed and jointly funded by the aquaculture industry. The research and development objectives of the Program are to optimize fish production and health and to improve the environmental performance of the industry. A total of 58 ACRDP research projects (40 ongoing projects and 18 approved in 2002-2003), some of which entail studying aquaculture-related environmental impacts, have been initiated since the Program was launched in 2000.

In addition to establishing the ACRDP, the Department has undertaken further research to increase understanding of the environmental impacts of aquaculture. New knowledge has been generated as a result of such research, including the following:

- A computer-based decision-support system that enables habitat assessment biologists to support science-based streamlining of site-application screening has been developed;
- Regional baseline data on benthic conditions and indices to support environmental assessment and mitigation measures for aquaculture have been developed;

- Mussel culture techniques have been improved to maximize production and minimize environmental impacts;
- Understanding of the far-field effects of salmonid aquaculture on aquatic environments has improved; and
- Understanding of the impact of clam growout on natural populations and benthic communities has increased, and harvesting techniques have been improved to minimize impacts.

Outcome 2A.1.3

Improved knowledge and understanding of the impact of oceans on the Earth's climate.

Planned Activity

Support the Argo Program, an international initiative to understand global climate, by deployment of up to 90 oceanographic floats in world oceans by end of 2003.

Progress

Target has been achieved.

DFO has purchased and deployed 91 Argo oceanographic floats with considerable funding support from the Climate Change Action Plan 2000 fund.

This global array of floats, including those purchased and already deployed by DFO, have been collecting and transmitting near-real-time oceanographic data (e.g., temperature and salt content vertical profiles) that are essential to increased understanding of the ocean/atmosphere climate system and the ocean's role in climate change. The Canadian Argo floats have significantly enhanced the observational network, and they have been delivering near-real-time data via the Global Telecommunications System and Internet pathways to both national and international clients.

Several projects co-funded by the Canadian Foundation for Climate and Atmospheric Sciences and DFO will use the new real-time data in ocean data assimilation projects.

ULTIMATE IMPACT, OUTCOME 2A.1.3

- Contributing to international knowledge on climate change



**ULTIMATE IMPACT,
OUTCOME 2A.1.4**

- Better fisheries management decisions
- More sustainable fisheries
- Reduced surveillance and enforcement costs

Outcome 2A.1.4

More accurate, in-season and real-time fisheries information available to fisheries managers.

Planned Activity

Develop a harmonized Fisheries Information Management database with online access through a common window by end of 2003.

Progress

Progress toward target has been delayed.

The Fisheries Information Management Program (FIMP), which aims to provide a co-operative, co-ordinated and structured approach to fisheries data management, reporting and analysis, is currently under development. The Enterprise Information System (a component of FIMP) is an interactive Web-based tool, and it includes fisheries information data consolidated at the level of the fisheries management plan. FIMP also includes components of a Common Language Management System, in which precise terms and codes are applied to unique data items within DFO databases.

With FIMP, users will be able to query fisheries data and generate reports; they can also manipulate data from multiple records. The development of the first version of the integrated reporting database is complete, and the database is being introduced to users in 2004.

**ULTIMATE IMPACT,
OUTCOME 2A.1.5**

- More timely access to data to support decision making
- Better access to departmental data sources for external clients, facilitating scientific and economic research

Outcome 2A.1.5

A cohesive cross-sectoral data management system linking major DFO data holdings and initiatives.

Planned Activity

Create an inventory of departmental data holdings and data initiatives accessible online to managers, nationally, by end of 2001.

Progress

Target has been achieved.

An application for inventorying departmental data has been built and implemented and is available. It contains data from across the Department, organized into Science and non-Science data holdings.

Planned Activity

Establish a framework to ensure that data quality and consistency is maintained department-wide by end of 2002.

Progress

Target has been revised.

The scope of the required framework has been broadened. Workshops on the umbrella data management process, the Data Management Initiative, led to a proposed framework that establishes operational directives to ensure that departmental data are managed in accordance with Treasury Board's information management policy. The framework is currently being considered in conjunction with other departmental frameworks related to data and information management. Analysis and recommendations consistent with DAAP outcomes will be presented to senior management.

Planned Activity

Electronically link data sources identified as key for decision making by end of 2003.

Progress

Progress toward target continues.

While DFO has made progress in developing the model required for such linkages, it has not yet linked data sources. Data specialists have begun to integrate data across regions. Data will be made available to managers and analysts through the Enterprise Information System. Work continues on an Operational Data Storage (ODS) system, with tables on vessels, parties and licences linked to landings data through the use of common codes. The next step will be to upgrade ODS to a data warehouse capable of generating reports.



Goal 2B
Effective application of knowledge and new technologies to support the sustainable and safe use of marine and freshwater resources

Objective 2B.1
Application of navigation and marine communication technologies for safe use of Canadian waterways

Objective 2B.2
Application of science, socio-economic analysis and new technologies for the sustainable use of marine and freshwater resources

Outcome 2B.1.1
Progress toward a modernized vessel traffic system in Canadian navigable waterways

Outcome 2B.1.2
Safer and more efficient navigation of Canada's navigable waterways

Outcome 2B.2.1
More effective fisheries management strategies based on the precautionary approach

Outcome 2B.2.2
National guidelines in place to support sustainable aquaculture

Outcome 2B.2.3
Progress toward long-term management of fish harvesting capacity in Canada

Outcome 2B.2.4
Strengthened conservation and protection of oceans ecosystems and their living and non-living marine resources

ULTIMATE IMPACT, OUTCOME 2B.1.1

- Marine safety
- More competitive shipping industry in Canada
- Reduced risk of environmental degradation or accidents
- Greater protection for Canadian environment and industries from introduction of exotic species

Outcome 2B.1.1

Progress toward a modernized vessel traffic system in Canada's navigable waterways.

Planned Activity

Develop long-term, multi-year action plan and identify resources required by end of 2003.

Progress

Progress toward target continues.

The first stage of the development of a long-term, multi-year action plan has been completed, and a second phase was launched to identify the required level of resources. Considerable progress has been realized toward establishing a modernized vessel traffic system — an action plan is being developed, and efforts are under way to assess the resources required to fund this system. Stakeholder support for the development of the modernized system is firm, as gauged through the Canadian Marine Advisory Council, Regional Marine Advisory Councils and other consultation boards.

The CCG's Marine Communications and Traffic Services does not currently measure negative environmental incidents that result from vessel movement. However DFO's Environmental Response Program has implemented a Marine Pollution Incident Reporting System that will provide marine pollution incident information.

The CCG provides data on the number of clearances issued annually to vessels entering Canadian waters. Clearances are permission for ships to enter Canadian waters; they provide a measure of vessel traffic and, by inference, the potential for environmental pollution. In 1998-1999, 25,450 clearances were issued. By 2002-2003, the number of clearances had increased to 125,300.

Outcome 2B.1.2

Safer and more efficient navigation of Canada's navigable waterways.

Planned Activity

Convert 600 Canadian Hydrographic Service (CHS) charts to electronic form by end of 2003.

Progress

Progress toward target continues.

The CHS has converted 573 charts, representing approximately 60% of its paper chart portfolio, to Electronic Navigational Charts (ENCs). The CHS has also converted 651 charts to raster format. ENCs and raster charts, used in conjunction with the Differential Global Positioning System, enable mariners to plot their position more accurately, thus enabling safer and more efficient navigation through Canadian waters and helping to prevent pollution incidents.

Outcome 2B.2.1

More effective fisheries management strategies based on the precautionary approach.

Planned Activity

Test Objectives-Based Fisheries Management (OBFM) approach in 10 pilot fisheries by end of 2003.

Progress

Target has been revised.

ULTIMATE IMPACT, OUTCOME 2B.1.2

- Improved marine safety and reliable navigational aids despite increased marine use
- Decreased risk and severity of environmental accidents

ULTIMATE IMPACT, OUTCOME 2B.2.1

- Sustainable fisheries/harvesting

DFO includes OBFM as part of Fisheries Management Renewal. OBFM is being designed to clarify fisheries management objectives and develop a sustainable fisheries framework that incorporates the biological, economic and social factors that affect a fishery. This is based on the principles of incorporating risk analysis with clear and measurable objectives into a framework to assist in the practical application of the precautionary approach and ecosystem-based management. This new approach involves greater involvement from the fishing industry in setting management objectives for each fishery in a transparent process.

OBFM has evolved within the context of Integrated Fishery Management Plans (IFMPs), an initiative developed to set forth multi-year plans for the development and management of orderly fisheries. A pilot approach was envisioned as the way to test various elements of this new type of management on a variety of species, settings, fishing industries and gear types. The continuous learning approach was employed through refinement of five drafts of the OBFM guidelines to produce a management tool that incorporated lessons learned from the pilot studies and to assist in implementation of the concepts of OBFM in management of fisheries.



DFO's Fisheries Management Sector, in collaboration with the Science Sector in the regions and in Ottawa, held workshops on biological objectives and the precautionary approach as part of the pilot phase of OBFM. A series of workshops were held to discuss objectives with respect to specific fisheries. The pilot approach, using analysis and refinement of another potential tool for management, was also used to test high-level performance indicators based on experience with the pilot fisheries. Analysis and refinement of these will continue beyond 2003.

Based on the results of some of the pilots, other fisheries are being managed based on the OBFM approach, where stated objectives are the basis for planning and operational activities. For example, the gadoid workshop in 2002 used objectives to set reference points for fisheries management.

The target was revised from testing this in a pilot approach to implementation of OBFM.

Outcome 2B.2.2

National guidelines in place to support sustainable aquaculture.

Planned Activity

Develop national operational policy framework and guidelines for the aquaculture industry, in collaboration with the industry and other stakeholders, by end of 2001.

Progress

Target has been achieved.

Improved regulatory and policy frameworks are two key elements of DFO's Aquaculture Action Plan, which was announced in 2001. As a result, DFO released national Aquaculture Site Application Review Process Interim Guidelines in 2001 to both the provinces and territories and industry. These guidelines clarified DFO's role regarding its responsibilities with respect to the *Fisheries Act*, the *Navigable Waters Protection Act* and the *Canadian Environmental Assessment Act*.

In 2001, DFO also approved the Aquaculture Policy Framework to focus the Department around a common vision for aquaculture and to guide the development of operational policies for the application of its regulatory responsibilities for aquaculture. Implementing the principles of the Policy Framework is an ongoing priority.

Through the Canadian Council of Fisheries and Aquaculture Ministers (CCFAM) and the Aquaculture Task Group, national guidance documents, including those for the application of the *Canadian Environmental Assessment Act*, are being re-evaluated for improvements and for harmonization with provincial regulatory frameworks. Codes of conduct and best practices for promoting the sustainability of aquaculture are being developed by industry in consultation with DFO, Environment Canada and the provincial and territorial governments. Finally, ongoing environmental research is contributing to the development of carrying capacity model(s) and guidelines to ensure the integrated management of aquaculture areas.



ULTIMATE IMPACT, OUTCOME 2B.2.2

- More environmentally sustainable and competitive aquaculture industry in Canada
- Reduced risk of adverse environmental degradation or accidents
- Higher public confidence in products and practices of the Canadian aquaculture industry

**ULTIMATE IMPACT,
OUTCOME 2B.2.3**

- More sustainable and economically viable fishing industry
- Fish harvesting capacity in balance with resource capacity over long term
- Reduced restructuring costs

Outcome 2B.2.3

Progress toward long-term management of fish harvesting capacity in Canada.

Planned Activity

Complete a National Action Plan to manage harvesting capacity and to facilitate self-adjustment by commercial fleets, as part of Canada's commitment to the United Nations Food and Agriculture Organization (FAO), by end of 2003.

Progress

Progress toward target has been delayed.

A National Action Plan to manage fishing capacity is under development. As Canada already uses many tools for capacity management, work within the Department has focused on developing a tool for capacity monitoring and assessment on a fleet-by-fleet basis.

To complete the National Action Plan, DFO is working to develop a policy and regulatory framework that facilitates self-adjustment by fishing fleets. To attain this goal, DFO is actively seeking an inter-jurisdictional agreement. Work has been undertaken with the active participation and support of the provinces through a federal-provincial Task Group on Capacity Management, which has worked well. Furthermore, Canada will participate in early 2004 in an FAO technical consultation on its International Plan of Action on Capacity Management. This plan aims to review international progress and promote fuller implementation.

Consultations with stakeholders have been held throughout the development of the National Action Plan. In 2001, a backgrounder on the FAO initiative and Canada's role was sent to key stakeholder organizations, and additional information was posted on the DFO Web site. To date, feedback has been minimal. However, selected stakeholder groups will be consulted again as the National Action Plan continues to develop.

Outcome 2B.2.4

Strengthened conservation and protection of oceans ecosystems and their living and non-living marine resources.

Planned Activity

Develop and implement a national system of marine protected areas (MPAs) including designation of five MPAs by end of 2002.

Progress

Progress toward target continues.

In collaboration with Parks Canada and Environment Canada, DFO is leading the development of a federal strategy to achieve a national system of MPAs. In March 2003, the Endeavour Hydrothermal Vents was announced as the first *Oceans Act* MPA to be established in Canada. This designation is an important first step toward the creation of a national system of federal MPAs.

A draft federal MPA Strategy has been developed. This strategy recognizes and capitalizes on the complementary nature of Canada's five federal MPA programs, which are implemented by three federal agencies: Parks Canada, Environment Canada and DFO. The strategy aims to increase the ecological effectiveness and complementarity of individual MPAs in an effort to conserve and protect the structure and function of ecosystem components in the marine environment. The draft strategy is expected to be completed in 2004.

Twelve MPA Areas of Interest covering Canada's three coasts have been identified. Areas of Interest identified to date include Basin Head, Bowie Seamount, East Port, Gabriola Passage, Gilbert Bay, Leading Ticks, Manicouagan, Musquash Estuary, Race Rocks, the Gully, St. Lawrence Estuary and the Beaufort Sea Beluga. These Areas of Interest are at various stages of development. East Port, Gilbert Bay, Manicouagan and Musquash Estuary are moving toward regulatory designation, and draft regulations have been prepared for the Gully, Basin Head, Bowie Seamount, Gilbert Bay and Manicouagan.

Unforeseen challenges have delayed some MPA work or resulted in the need for more time to resolve challenges. These challenges include significant regulatory complexity, the need for appropriate consultation and First Nations issues.

ULTIMATE IMPACT, OUTCOME 2B.2.4

- Improved health of estuarine, coastal and marine ecosystems

Planned Activity

Establish Marine Environmental Quality (MEQ) guidelines, objectives and criteria.

Progress

Progress toward target is on schedule.

In 2002-2003, the MEQ program focused more substantively on the generation of practical information and advice for oceans conservation and management. This work included the completion or advancement of ecosystem overviews for several MPA and Integrated Management (IM) planning areas, along with scientific studies and further development and pilot testing of MEQ objectives and monitoring programs in each of Canada's oceans.

MEQ objectives are being integrated into management plans for specific MPAs or Integrated Management Plans (IMPs). The Central Coast IM initiative is one of the most advanced in this regard. Currently, MEQ objectives and supporting monitoring programs for the Gully, Basin Head, and Endeavour Hydrothermal Vents are under development.

The development of a work plan is currently under way to guide the implementation of ecosystem-based management, including the delineation of eco-regions for Large Ocean Management Areas and the identification of ecosystem objectives.



Theme 3: Sustainable Operations

DFO has a significant environmental footprint because of its numerous and diverse activities and programs. DFO occupies buildings and operates vehicles, aircraft and a very large fleet of ships. DFO also purchases goods and services and can thus influence producers to operate on a sustainable basis. DFO's programs and activities are required to comply with Canadian environmental protection legislation and standards.

DFO is an active participant in Sustainable Development in Government Operations (SDGO), an interdepartmental initiative designed to identify and co-ordinate opportunities to advance the federal commitment to be a leader in sustainable development. The Department is working with other SDGO departments and agencies to adopt common measurement and reporting methods. The Department is also actively participating in the Federal House in Order Initiative, working with other federal government departments and agencies to reduce greenhouse gas emissions and, ultimately, address climate change.

While DFO has made progress toward many of the commitments in this thematic area, significant work remains to be done to improve the sustainability of DFO's operations, particularly with respect to environmental compliance.

Goal 3

Reduction of negative physical environmental impacts of departmental operations

Objective 3.1

Departmental operations consistent with recognized Canadian and international environmental management standards

Outcome 3.1.1
Environmental Performance Baselines established for major DFO facilities by end of 2001

Outcome 3.1.2
Environmental Management Programs (EMPs) developed for all environmental aspects including Green Procurement by end of 2003

Outcome 3.1.3
Effective implementation and performance of existing plans for contaminated sites, ozone-depleting substances and fuel storage tanks

Outcome 3.1.4
Implementation of Environmental Management Plans at all current client-managed harbours (559) by end of 2002

Outcome 3.1.5
Compliance with ISM Code for all DFO vessels above 125 tonnes by end of 2003

**ULTIMATE IMPACT,
OUTCOME 3.1.1**

- Establishing baselines will provide a level of measurement against which DFO can benchmark its environmental performance in future years

Outcome 3.1.1

Environmental performance baselines (Water/Waste-water, Energy (GHG emissions), Non-Hazardous Solid Waste and Toxic Substances and Halocarbons) established for major DFO facilities by end of 2001.

Planned Activities

Collect data from DFO facilities.

Compile and synthesize environmental performance information into baselines.

Conduct environmental audits of each major facility.

Progress

Target has been achieved.

Between July 2000 and March 2001, DFO commissioned environmental audits at its 18 major facilities. Various environmental issues were examined during these audits, including wastewater, water consumption, energy consumption and resulting greenhouse gas emissions, non-hazardous solid waste, toxic substances and halocarbons. Subsequent to these environmental audits, DFO committed to undertaking a number of specific actions to improve the sustainability of its operations. In 2003, DFO initiated monitoring to assess progress. Areas of non-compliance were identified, and many corrective measures have been put in place. This corrective action continues.

In 2001-2002, a DFO environmental performance baseline was developed through the compilation and statistical analysis of the data collected during the 2000-2001 audits. This baseline is now being used to measure the Department's performance improvement, as well as to provide a required component of the Department's Management System.

Outcome 3.1.2

Environmental Management Programs (EMPs) developed for all environmental aspects including Green Procurement by end of 2003.

Planned Activities

Use environmental performance baselines collected for the major facilities to develop greening outcomes and action plans for EMPs.

Consult with stakeholders.

Update SDS in 2001 to include outcomes developed from baseline data.

Use DFO's share of the Federal House in Order GHG emissions reduction target as the Energy (GHG emissions) target in 2001.

Progress

Progress toward target continues.

The timeframe for the achievement of this target has been extended. Based on DFO's environmental performance baselines, EMPs have been drafted in areas of highest priority, including contaminated sites, storage tanks, halocarbons, wastewater and hazardous materials. Progress has also been achieved on EMPs for mercury management and asbestos-containing materials. Action plans are being developed, and regional consultation is under way.

DFO has been successful in achieving its Federal House in Order greenhouse gas emissions reduction target through a variety of efficiency measures, including vessel fuel consumption reductions and facility energy efficiency upgrades.

ULTIMATE IMPACT, OUTCOME 3.1.2

- Reduce DFO's impact on the environment

**ULTIMATE IMPACT,
OUTCOME 3.1.3**

- These actions are proportional to the outcomes established in the EMPs and assist the reduction of DFO's environmental footprint

Outcome 3.1.3

Effective implementation and performance of existing management plans.

Planned Activity

Complete 800 Canadian Council of Ministers of the Environment (CCME) Phase I assessments and 50 CCME Phase II and/or Phase III assessments per year:

- Use a risk management approach to prioritize sites.

Progress

Target has been achieved.

The following table details DFO's achievements in completing CCME phased assessments of its sites.

Type of Assessment	Year			Total Achieved	Total Targeted
	2001	2002	2003		
Phase I	1779	235	25	2039	2400
Phase II	298	49	1	348	150
Phase III	122	546	68	736	
Total	2199	830	94	3123	2550

Sites are prioritized using the DFO Contaminated Property Management Framework. This framework is based on a risk management approach, and any confirmed risks to human health or the environment are immediately addressed.

The number of assessments outlined in the SDS was determined before the implementation of the DFO Contaminated Property Management Framework. The overall target of this objective has been achieved because the total number of assessments over the three-year period exceeded the total number targeted.

Planned Activity

Invest \$250K per year for replacing halocarbon in DFO operations with non-ozone-depleting substances (ODS):

- Identify feasible replacement candidates.
- Complete halocarbon inventory.
- Populate the Halocarbon Inventory Database.

Progress

Progress toward target is on schedule.

The timeframe for achieving this target has been extended. DFO met its SDS target of investing \$250K per year in activities related to ODS, such as identifying feasible replacement candidates, replacing some halocarbons with non-ODS substances and completing or updating halocarbon inventories. In addition to working toward these objectives, DFO invested in annual leak testing of systems and training in such testing.

A comprehensive inventory of halocarbons exists within DFO, and the design and development of a Halocarbon Inventory Database was initiated in early 2003.

Planned Activity

100 fuel storage tank inspections and 50 tank upgrades per year:

- Complete implementation of the Fuel Storage Tank Management Plan.
- Review profile annually to determine departmental liability.

Progress

Target has not been met.

DFO exceeded its targeted number of fuel storage tank inspections for all three years but fell short on tank upgrades. In 2001, DFO performed 153 tank inspections and 26 tank upgrades; in 2002, the Department performed 148 tank inspections and 40 tank upgrades, and in 2003 there were 244 tank inspections and 47 tank upgrades.

Although considerable time and resources were allocated to achieving this outcome, the Department must continue to focus on implementing its storage tank management program, including performing tank upgrades and profiling departmental liability on an annual basis.



*ULTIMATE IMPACT,
OUTCOME 3.1.4*

- Increase client-manager awareness of environmental aspects of harbour operations
- Reduce impacts on environment

Outcome 3.1.4

EMPs implemented at all current client-managed small craft harbours by end of 2002.

Planned Activities

Sensitize client-managers to the benefits of EMPs and sound environmental practices.

Consult with client-managers to mould the EMPs to specific harbour needs.

Work with new client-managed harbours to develop EMPs within three years of establishment.

Progress

Target has been achieved.

The 495 harbours managed by Harbour Authorities as of March 31, 1999, were required to have EMPs in place by March 31, 2002. By that date, 460 such plans (93%) were in place.

DFO's Small Craft Harbours (SCH) Branch is responsible for establishing client management at all of its core harbours. The number of harbours managed by Harbour Authorities at the end of March 2002 stood at 638. SCH realizes that Harbour Authorities need time to become familiar with harbour management and their new responsibilities. For this reason, SCH works with Harbour Authorities to understand specific harbour/client needs and to help Harbour Authorities develop their EMP within three years of establishment.

The establishment of EMPs in the harbours managed by Harbour Authorities has increased the sensitivity of harbour users to the environment, led to the development of sound environmental practices and resulted in cleaner harbours.

Outcome 3.1.5

Compliance with the International Maritime Organization's International Management Code for the Safe Operation of Ships and Prevention of Pollution (ISM Code) for DFO vessels above 125 tonnes by end of 2003.

Planned Activities

Ensure that the CCG's onboard Safety Management System meets the requirements of the ISM Code.

In partnership with stakeholders, promote the Safety Management System and identify possible improvements to it.

Co-ordinate activities with external auditors from an agency approved by law to issue Documents of Compliance and Safety Management Certificates.

Monitor environmental profile data for all vessels.

Progress

Progress toward target continues.

CCG implemented a fleet safety management system that fully complies with the ISM Code. Thirty-eight of the eligible 45 vessels have received certification; the remaining seven will be certified by the end of 2004.

Through partnerships with stakeholders, the Safety Management System was promoted by the following:

- internal audits (total of 124);
- emergency exercise and debriefings (total of 13);
- reviews of the Safety Management System both regionally and nationally (total of 24);
- meetings with the Superintendent of Safety for all regions (average of two per year);
- distribution of Fleet Bulletins on Safety Issues (total of 33); and
- major reviews of sections of the *Fleet Safety Manual* involving personnel from the Fleet and shore.

In an effort to improve the Safety Management System, CCG has conducted a major review over the past two years of four sections of the *Fleet Safety Manual* involving senior personnel both from the Fleet and shore. Seven new procedures have been introduced as a result of changes in legislation or improvements to the system.

ULTIMATE IMPACT, OUTCOME 3.1.5

- Improved safety of DFO vessel operations
- Increased pollution protection
- Reduced vessel operation costs

Since 1999, CCG has been subjected to 59 external audits. Lloyd's Register was the initial external auditor, and that responsibility has now been transferred to Det Norske Veritas. CCG received its original Document of Compliance in 1999 following an audit of Headquarters and the regions. The certificate, valid for five years, has been endorsed annually by subjecting Headquarters and one regional office to an external audit each year. Thirty-eight Safety Management Certificates have been obtained by the CCG.

The environmental profile data has been monitored for all vessels through the following:

- internal audits (total of 124);
- the monitoring, reviewing and investigating as required of hazardous occurrence reports; and
- the creation of a distinct section on shipboard environmental operations in the *Fleet Safety Manual*.

CCG will continue to monitor and review the efficiency of the Safety Management System to ensure that timely and appropriate corrective actions are taken when necessary.



Theme 4: Managing for Progress and Performance

DFO continues to improve its ability to assess its performance in relation to its sustainable development goals and outcomes and to build an organizational culture in which achievement of results drives decision making. Indeed, the DAAP now under way at DFO has, as one of its key outcomes, a revised Planning, Reporting and Accountability Structure (PRAS).

The Department recognizes that a new PRAS is needed to align its business areas more closely with the outcomes and benefits it provides to Canadians. At the same time, this new accountability framework requires an integrated performance measurement framework to enable DFO to track and review outcomes in a systematic and meaningful way.

Goal 4

A management system to track progress and performance of the Sustainable Development Strategy

Objective 4.1

Sustainable development commitments incorporated into departmental integrated planning initiative

Outcome 4.1.1

Systematic review and measurement of progress and senior management assessment of performance

Outcome 4.1.1

Systematic review and measurement of progress and senior management assessment of performance.

Planned Activities

Integrate SDS into departmental business planning and reporting processes.

Develop a performance measurement framework for the Strategy.

Progress

Progress toward target is on schedule.

Progress has been made with respect to integrating sustainable development commitments into DFO's existing performance measurement, business planning and reporting processes. Since the

ULTIMATE IMPACT, OUTCOME 4.1.1

- Improved management of the Strategy and Action Plan
- Closing of the “implementation gap”
- Continuous learning

tabling of the 2001 SDS, sustainable development commitments have been linked to DFO's reports to Parliament and to internal business planning processes. Analysis of the commitments made in the SDS has informed the drafting of both the *Report on Plans and Priorities* and the *Departmental Performance Report* since 2001. These reports contain hyperlinks to the SDS, thus allowing readers to cross-reference the commitments and achievements. Finally, through internal business planning, sectors are directed to consider progress against sustainable development commitments in their future plans.

DFO also continues to refine existing performance measures and develop more meaningful ones. At the level of Results-based Management and Accountability Frameworks and Risk-based Audit Frameworks, the Department ensures consistency among program deliverables and sustainable development commitments, which are often inextricably linked. For example, DFO's sustainable development aquaculture commitments exist within a broader policy and program context that has attached to it a separate performance framework. Similarly, regular monitoring of commitments with respect to sustainable operations (Theme 3) is conducted using a thorough performance measurement framework.

DFO's Next Sustainable Development Strategy

Following the completion of the DAAP, DFO's Strategic Plan and PRAS will be renewed, and a comprehensive new SDS will be developed and tabled in 2004-2005. While the content of this strategy cannot be known at the present time, DFO is confident that its new Strategy will reflect findings from the DAAP and recent audit observations of the CESD. DFO is also confident that the new Strategy will take advantage of emerging opportunities — the *Species at Risk Act*, for example, as well as Aboriginal engagement, collaboration with other levels of government and international co-operation.

Audit Observations of the Commissioner of the Environment and Sustainable Development

In October 2002, the CESD carried out an audit to assess the effectiveness of DFO's SDS and its impact on the way the Department carries out its mandate. This audit recognized that DFO has made important changes in the past decade to integrate sustainable development concepts into its planning documents and policy development process. The audit also acknowledged that DFO is making progress in reflecting sustainable development concepts and principles in various planning and priority-setting documents and in linking sustainable development actions to intermediate and long-term outcomes.

At the same time, the audit noted that the process used to develop the SDS produced a strategy that is largely a catalog of projects highlighting current work. The audit further observed that DFO's Strategic Plan plays a more visible and stronger role in the Department than its SDS and is better integrated into the business planning process.

Species at Risk Act

The recent entry into force of the *Species at Risk Act* has provided DFO with an additional tool to reinforce its environmental protection and sustainable development efforts. At the same time, the Act will require the Department to do the following:

- increase its efforts to assess the status of species at risk;

- engage in consultations with Canadians on species considered for listing under the Act;
- develop and implement recovery strategies, action and management plans, and enforcement mechanisms; and
- identify critical habitats necessary for the survival and recovery of species at risk.

As the Department with the authority for aquatic species under the Act, DFO will continue to carry out activities that directly support the implementation and enforcement of this important legislation.

Aboriginal Engagement

A boriginal groups are seeking a greater role in decision making in fisheries management and other areas of DFO responsibility. The Department is working with Aboriginal groups on an approach to building their capacity to participate in the multi-stakeholder and other decision-making processes used for aquatic resource and oceans management. Such expanded arrangements would help DFO work with Aboriginal groups to achieve mutual fisheries management objectives in an integrated and sustainable manner. Conservation of the resource remains a key priority for the Department.

Aboriginal groups and DFO recognize four guiding principles for shaping their relationship together. First, stable programs that reflect and reinforce long-term collaboration must be developed. Second, the growing breadth and complexity of the relationship needs to be further embraced and advanced. Third, durable structures and capacity need to be put in place that allow DFO and Aboriginal groups to work together effectively. Finally, DFO and Aboriginal groups should build on what works well in their present relationship.

To this end, DFO will engage in renewed commitment and approaches to the Aboriginal Fisheries Strategy (AFS), including maintaining the core AFS mandate; developing longer term, simpler AFS agreements; introducing straightforward, streamlined reporting requirements; adopting a flexible approach to capacity-building and economic opportunities; and improving communication.

To complement and augment the AFS, DFO has also developed the new Aboriginal Aquatic Resource and Oceans Management (AAROM) Program as a key element of a more proactive and sustainable approach to the Department's Aboriginal programming. Particular emphasis is placed on Aboriginal participation in multilateral decision-making and advisory processes that involve fishers, scientists, industry representatives, conservation groups, DFO officials and other

government departments. The program is designed around 1) support for Aboriginal groups that come together on a voluntary basis to create common aquatic management structures, 2) potential funding for Aboriginal Fishery Officers, 3) eligibility criteria, 4) capacity-building assistance and 5) commercial fisheries access and aquaculture opportunities. The AFS and AAROM programs apply only where DFO manages the fishery.

Aboriginal representatives and DFO program managers have also emphasized the importance of providing Aboriginal groups with an effective window to other departments with programs beyond DFO's mandate. While DFO will continue to focus on its core mandate, the Department will attempt to respond more effectively to Aboriginal requests for assistance outside the DFO mandate by bringing other departments and programs to the table, by facilitating a more cross-departmental approach to dealing with issues and by supporting Aboriginal groups with related programming.

Discussions with Aboriginal groups and other stakeholders are taking place in 2003-2004 on the details of program design and implementation.

Collaboration with Federal, Provincial and Territorial Governments

Many of DFO's sustainable development goals require working with other federal government departments, as well as provincial and territorial governments.

An example of federal/provincial/territorial collaboration is the Canadian Council of Fisheries and Aquaculture Ministers (CCFAM). The Agreement on Interjurisdictional Co-operation gave rise to the CCFAM, which formed various task groups to address national issues. A number of these task groups have been used to advance sustainable development objectives at the national level, such as the Freshwater Fisheries Task Group, the Alien Invasive Species Task Group, and the Aquaculture Task Group. A three-year review recently conducted by CCFAM concluded that tremendous progress has been made in the areas of national consistency and intergovernmental co-operation.

Furthering sustainable development within Canada requires a concerted effort across the federal government. To this end, DFO continues to work actively within interdepartmental sustainable development committees as these groups identify common federal priorities, participate in the development of a federal sustainable development vision and co-operate on research initiatives to identify the most effective ways of advancing sustainable development.

Because of the shared nature of Canada's natural resources, implementing successful sustainable development strategies requires considerable federal-provincial-territorial co-operation. Recognizing this, every jurisdiction in Canada agreed in 1999 to establish the CCFAM. Together, governments work co-operatively to effectively address issues of national importance, including sustainable development.

CCFAM:

- reviews and co-ordinates public policy objectives;
- promotes interjurisdictional co-operation;
- improves consultation and information-sharing on interjurisdictional matters;
- identifies opportunities for increased efficiency and effectiveness to improve resource management and services to industry and the public; and
- provides a forum for discussion and consultation on Canadian positions in international negotiations and subjects of national and regional interest.

Federal government priorities of particular interest to DFO include water and achieving sustainable development in departmental operations. The North is rapidly evolving with changes in governance, large-scale economic development and the settling of land claims. In this context, and because of DFO's responsibilities relating to the use of aquatic resources, DFO will continue work with several other federal departments to advance sustainable development priorities in the North. DFO is also working with other government departments and agencies to identify mitigation and adaptation strategies with respect to the effects of climate change on aquatic resources.

International

In many cases, achieving sustainable development within Canada requires international co-operation to address broader issues. For this reason, DFO works within a variety of international fora, including the International Maritime Organization, the Organisation for Economic Co-operation and Development Fisheries Committee, the Global Forum on Oceans Coasts and Islands and the FAO Committee on Fisheries, to assist in the development of international policies and approaches. DFO has also made sustainable development commitments to various international organizations. For example, at the World Summit on Sustainable Development in 2002, Canada and other countries committed to achieving such goals as the following:

- a regular process for global reporting and assessment of the state of the marine environment;
- implementation of an Action Plan for Illegal, Unreported and Unregulated (IUU) Fishing;
- substantial progress regarding land-based pollution by the next Global Program of Action review;
- encouraging application of the ecosystem approach;
- a representative network of Marine Protected Areas;
- the maintenance or restoration of depleted fish stocks to levels that can produce the maximum sustainable yield; and
- eliminating subsidies that contribute to IUU fishing and fishing over capacity.

Conclusion

DFO's commitment to change is clear. The Department's planning framework — which includes DAAP, a renewed Strategic Plan and PRAS, and development of the next SDS — will continue to push the Department beyond business as usual and toward thinking of new ways of doing business in support of sustainable development.



Annex A: Sustainable Development Principles

The following principles have helped to guide the application of sustainable development at DFO.

Integrated Decision Making

Integrated decision making recognizes that decisions aimed at sustainable development:

- have a **long-term focus** that seeks to preserve and enhance economic, social and natural capital to sustain aquatic species and to improve the quality of people's lives and ensure continuing benefits for future generations;
- take a **horizontal perspective that incorporates** economic, environmental and social aspects;
- feature an **ecosystem approach**; and
- accept **shared responsibility** and commit to **transparency and communication** of how and why decisions were made.

Accountability

The Department will accept and define its accountability for its role in supporting sustainable development. This means that the SDS will:

- develop a management system to **review performance against commitments** at regular intervals and thereby document progress and the need for corrective action as necessary to ensure **continuous improvement**;
- determine the specific real world expected outcomes to be achieved in a way that is **measurable and time-bound**;
- define a reporting framework that is committed to and supportive of consultative and **transparent operations and decision making**;
- **set an example** as a way of encouraging and influencing clients, stakeholders and partners to support decisions aimed at sustainable development;
- outline the Department's accountability in its operational activities for **compliance**, for instance, with standards and requirements for fishing activities, environmental protection and prevention of pollution; and

- reaffirm a **commitment to partnering** in our relations not only with our private-sector stakeholders and members of the public but also with other federal government departments, other levels of government and Aboriginal groups.

Science and Knowledge

The Department understands the essential knowledge provided by science and the critical role that knowledge and understanding play in making decisions that are sustainable over time.

Therefore, as a basis for its decisions, the Department will —

- be guided by a **precautionary approach** and risk analysis, recognizing the limitations of our understanding of oceans-related sciences;
- provide **timely, reliable and best available scientific knowledge**, understanding and advice on key aquatic resources and ecosystems;
- complement and integrate scientific knowledge and understanding with **community and traditional knowledge**; and
- integrate and share information and data to enhance cost-effective decisions based on **anticipation and prevention of problems**, in part through conducting strategic environmental assessments of policies, plans and programs in accordance with the 1999 Cabinet Directive.

Annex B: Assessing Progress on DFO's 2001-2003 SDS

To assess progress on DFO's 2001-2003 SDS commitments, qualitative measures have been used in this document to evaluate the 41 planned activities. The measures are meant to describe DFO's progress toward the targets – the 41 planned activities – to which DFO committed in its 2001-2003 SDS. These measures are the same as those reported in Appendix B of the March 2003 report of the Commissioner of the Environment and Sustainable Development, except that a sixth category, *Progress toward target continues*, has been added.

Description of progress toward targets set in the sustainable development strategy	Comments
Target has been achieved.	The target identified in the sustainable development strategy has been achieved. Departments and agencies may wish to include a discussion of the results associated with achieving their targets.
Progress toward target is on schedule.	Progress toward the target identified in the sustainable development strategy is ongoing and on schedule. Departments and agencies may wish to include a discussion of the results associated with progressing toward their targets.
Progress toward target continues.	The target date has not been met, but significant progress has been made and is ongoing.
Target has not been met or progress toward target has been delayed	Progress on the target in the sustainable development strategy has been delayed. A brief explanation of why progress has been delayed and the barriers and challenges being encountered should be provided. Corrective actions for bringing the target back on track should also be outlined (if applicable).
Target has been revised.	The target has been revised. A brief explanation of why and how the target was revised should be included.
Target is no longer valid.	The target is no longer valid. An explanation of why this is the case should be provided.

Annex C: Summary of 2001-2003 SDS

The following tables summarize the themes, goals, objectives, outcomes, planned activities, performance measures/indicators and ultimate impacts of DFO's 2001-2003 SDS.

Theme 1: New Forms of Governance and Shared Stewardship

Goal #1: Sustainable use of marine and freshwater resources and ecosystems through new forms of governance and shared stewardship

Objective 1.1: Collaborative, integrated approaches to management and use of marine and freshwater resources

Expected Outcome	Planned Activities	Performance Measures/Indicators	Ultimate Impacts
1.1.1 – Improved stakeholder involvement in shared stewardship of estuarine, coastal and marine ecosystems and resources	<ul style="list-style-type: none"> Develop and implement integrated management plans (IMPs) and complete demonstration projects in three coastal regions by end of 2002: Eastern Scotian Shelf, Western Arctic, and Gulf of St. Lawrence Establish Minister's Advisory Council on Oceans (MACO) 	<ul style="list-style-type: none"> Effectiveness of new oceans governance Level of stakeholder participation Number/coverage /nature of active and proposed IMPs Reach and usage of educational materials and Internet 	<ul style="list-style-type: none"> Realization of economic potential and social benefits from oceans
1.1.2 – Increased stakeholder involvement in delivery of marine services	<ul style="list-style-type: none"> Initiate and test new CCG partnerships with private and voluntary sector stakeholders in delivery of marine services by end of 2003 	<ul style="list-style-type: none"> Number of new partnerships and alliances created Stakeholder support 	<ul style="list-style-type: none"> Improved marine safety Decreased risk of environmental pollution Increased awareness of environmental aspects by stakeholders
1.1.3 – Expanded arrangements for DFO and stakeholders to work together to achieve mutual fisheries management objectives	<ul style="list-style-type: none"> Initiate co-management arrangements with 1-2 fisheries plans per year adopting the co-management model, with a goal of up to 25 co-managed fisheries by end of 2003 	<ul style="list-style-type: none"> Number of fisheries under the co-management model, per year Shared enforcement costs 	<ul style="list-style-type: none"> Increased economic stability among fishery participants, along with greater responsibility for management decisions, reinforcing a commitment toward responsible fishing practices
1.1.4 – Enhanced stakeholder involvement in delivery of fish habitat management program	<ul style="list-style-type: none"> Streamline habitat referral process Support fish habitat restoration and enhancement across Canada through improved partnerships, public education, public awareness, and strategic investments in community capacity to carry out physical projects 	<ul style="list-style-type: none"> Improvements in response time to development proposals (i.e., referrals) received and reviewed by DFO in Ontario and the Prairie provinces Level of stakeholder participation, including in-kind contributions and leveraged funds applied to habitat conservation, restoration and enhancement initiatives An increased level of DFO participation in stewardship partnerships/programs in all parts of Canada which support goals of DFO habitat policy 	<ul style="list-style-type: none"> Conservation and protection of fish habitat from harmful alteration, disruption or destruction Healthy, abundant fish populations

Theme 2: Knowledge and Technology for Sustainable Development

Goal #2A: Better knowledge of the nature and use of marine and freshwater resources and ecosystems to support decision making

Objective 2A.1: Better understanding and more timely scientific information and other knowledge to support decision making

Expected Outcome	Planned Activities	Performance Measures/Indicators	Ultimate Impacts
2A.1.1 – Improved scientific research	<ul style="list-style-type: none"> Develop an operational framework for incorporating ecosystem considerations within fisheries and oceans management by end of 2002 Create a national network of multidisciplinary teams from public and private sectors by end of 2001 Identify changes to the current stock assessment process and recommend new approach by end of 2001 	<ul style="list-style-type: none"> Better scientific information on biodiversity and species at risk Increased exchanges of knowledge among private and public sectors oceans experts and fisheries scientists Number of fisheries managed on basis of ecosystem considerations Improved public confidence in scientific information and advice to fisheries and oceans managers 	<ul style="list-style-type: none"> Better understanding of ecosystem linkages Better information on effect of multi-purpose uses within an aquatic ecosystem Involvement of other levels of government and stakeholders Effective use of scientific research resources Better understanding of oceans Research activities and gaps identified More timely management response to changes in health of aquatic resources
2A.1.2 – Better understanding of environmental impacts of aquaculture and how to minimize and/or mitigate negative effects	<ul style="list-style-type: none"> Increase DFO's research on environmental impacts of aquaculture by end of 2001 	<ul style="list-style-type: none"> Additional researchers hired Research projects launched Increased confidence on part of aquaculture industry and other stakeholders Increased public confidence in the Canadian aquaculture sector 	<ul style="list-style-type: none"> More environmentally sustainable and competitive aquaculture industry in Canada Reduced risk of adverse environmental degradation or accidents Higher public confidence in products and practices of the Canadian aquaculture industry
2A.1.3 – Improved knowledge and understanding of the impact of oceans on the Earth's climate	<ul style="list-style-type: none"> Support the Argo Program, an international initiative to understand global climate, by deployment of up to 90 oceanographic floats in world oceans by end of 2003 	<ul style="list-style-type: none"> Number of floats purchased and deployed Data made available to Canadian and global partners References in climate change literature 	<ul style="list-style-type: none"> Contributing to international knowledge on climate change
2A.1.4 – More accurate, in-season, real-time fisheries information available to fisheries managers	<ul style="list-style-type: none"> Develop a harmonized Fisheries Information Management database with online access through a common window by end of 2003 	<ul style="list-style-type: none"> % of database harmonized Number of standardized codes % of database architecture completed Sharing of catch and other fisheries information across DFO Regions 	<ul style="list-style-type: none"> Better fisheries management decisions More sustainable fisheries Reduced surveillance and enforcement costs
2A.1.5 – A cohesive, cross-sectoral data management system linking major DFO data holdings and initiatives	<ul style="list-style-type: none"> Create an inventory of departmental data holdings and data initiatives accessible online to managers, nationally, by end of 2001 Establish a framework to ensure that data quality and consistency is maintained department-wide by end of 2002 Electronically link data sources identified as key for decision-making by end of 2003 	<ul style="list-style-type: none"> National fisheries data on landings and values of the principal fisheries is available within 6 months of the end of the calendar year Number of previously unconnected data sources automatically linked Increased number of downloads of data from departmental web sites 	<ul style="list-style-type: none"> More timely access to data to support decision-making Better access to departmental data sources for external clients, facilitating scientific and economic research

Theme 2: Knowledge and Technology for Sustainable Development (continued)

Goal #2B: Effective application of knowledge and new technologies to support the sustainable and safe use of marine and freshwater resources

Objective 2B.1: Application of navigation and marine communication technologies for safe use of Canadian waterways

Expected Outcome	Planned Activities	Performance Measures/Indicators	Ultimate Impacts
2B.1.1 – Progress toward a modernized vessel traffic system in Canadian navigable waterways	<ul style="list-style-type: none"> Develop long-term, multi-year action plan and identify resources required by end of 2003 	<ul style="list-style-type: none"> A completed action plan Stakeholder support Fewer negative environmental incidents resulting from vessel movement Compliance rates by Canadian and foreign vessels with Canadian shipping rules 	<ul style="list-style-type: none"> Marine safety More competitive shipping industry in Canada Reduced risk of environmental degradation or accidents Greater protection for Canadian environment and industries from introduction of exotic species
2B.1.2 – Safer and more efficient navigation of Canada's navigable waterways	<ul style="list-style-type: none"> Convert 600 CHS charts to electronic form by end of 2003 	<ul style="list-style-type: none"> Number of charts converted Reduced number of incidents 	<ul style="list-style-type: none"> Improved marine safety and reliable navigational aids despite increased marine use Decreased risk and severity of environmental accidents

Objective 2B.2: Application of science, socio-economic analysis and new technologies for the sustainable use of marine and freshwater resources

Expected Outcome	Planned Activities	Performance Measures/Indicators	Ultimate Impacts
2B.2.1 – More effective fisheries management strategies based on the precautionary approach	<ul style="list-style-type: none"> Test Objectives-Based Fisheries Management (OBFM) approach in 10 pilot fisheries by end of 2003 	<ul style="list-style-type: none"> Number of pilots implemented 	<ul style="list-style-type: none"> Sustainable fisheries/harvesting
2B.2.2 – National guidelines in place to support sustainable aquaculture	<ul style="list-style-type: none"> Develop national operational policy framework and guidelines for the aquaculture industry, in collaboration with the industry and other stakeholders, by end of 2001 	<ul style="list-style-type: none"> Policy framework in place National guidelines communicated to the aquaculture industry and other stakeholders Level of industry and other stakeholder involvement and support 	<ul style="list-style-type: none"> More environmentally sustainable and competitive aquaculture industry in Canada Reduced risk of adverse environmental degradation or accidents Higher public confidence in products and practices of the Canadian aquaculture industry
2B.2.3 – Progress toward long term management of fish harvesting capacity in Canada	<ul style="list-style-type: none"> Complete a National Action Plan to manage harvesting capacity and to facilitate self-adjustment by commercial fleets, as part of Canada's commitment to the FAO, by end of 2003 	<ul style="list-style-type: none"> National Action Plan completed Inter-jurisdictional agreement Stakeholder support 	<ul style="list-style-type: none"> More sustainable and economically viable fishing industry Fish harvesting capacity in balance with resource capacity over long term Reduced re-structuring costs
2B.2.4 – Strengthened conservation and protection of oceans ecosystems and their living and non-living marine resources	<ul style="list-style-type: none"> Develop and implement a national system of marine protected areas (MPAs) including designation of five MPAs by end of 2002 Establish MEQ guidelines, objectives and criteria 	<ul style="list-style-type: none"> Number/coverage/nature of active and proposed MPAs Reach and effectiveness of MEQ guidelines, objectives and criteria Level of integration vis-a-vis precautionary/ ecosystem 	<ul style="list-style-type: none"> Improved health of estuarine, coastal and marine ecosystems

Theme 3: Sustainable Operations

Goal #3: Reduction of negative physical environmental impacts of departmental operations

Objective 3.1: Departmental operations consistent with recognized Canadian and international environmental management standards

Expected Outcome	Planned Activities	Performance Measures/Indicators	Ultimate Impacts
3.1.1 – Environmental Performance Baselines (Water/Waste-water, Energy (GHG emissions), Non-Hazardous Solid Waste and Toxic Substances and Halocarbons) established for major DFO facilities by end of 2001	<ul style="list-style-type: none"> Collect data from DFO facilities Compile and synthesize environmental performance information into baselines Conduct environmental audits of each major facility 	<ul style="list-style-type: none"> Number of baselines established Number of DFO facilities examined 	<ul style="list-style-type: none"> Establishing baselines will provide a level of measurement against which DFO can benchmark its environmental performance in future years
3.1.2 – Environmental Management Programs (EMPs) developed for all environmental aspects including Green Procurement by end of 2003	<ul style="list-style-type: none"> Use environmental performance baselines collected for the major facilities to develop greening outcomes and action plans for EMPs Consult with stakeholders Update SDS in 2001 to include outcomes developed from baseline data Use DFO's share of the Federal House in Order GHG emissions reduction target as the Energy (GHG emissions) target in 2001 	<ul style="list-style-type: none"> Number of EMPs prepared on an annual basis 	<ul style="list-style-type: none"> Reduce DFO's impact on the environment
3.1.3 – Effective implementation and performance of existing Management Plans for: 1. Contaminated Sites 2. Ozone-depleting substances (ODS) 3. Fuel Storage Tanks	<ul style="list-style-type: none"> Complete 800 CCME Phase I assessments and 50 CCME Phase II and/or Phase III assessments per year <ul style="list-style-type: none"> Use a risk management approach to prioritize sites Invest \$250K per year for replacing halocarbon in DFO operations with non-ODS <ul style="list-style-type: none"> Identify feasible replacement candidates Complete halocarbon inventory Populate the Halocarbon Inventory Database 100 Fuel storage tank inspections and 50 tank upgrades per year <ul style="list-style-type: none"> Complete implementation of the Fuel Storage Tank Management Plan Review profile annually to determine departmental liability 	<ul style="list-style-type: none"> Number of Phase I and Phase II and/or Phase III assessments completed per year \$ invested per year Number of halon systems identified Number of reservoirs inspected per year Number of reservoirs improved per year Number of tanks inspected per year Number of tanks upgraded per year 	<ul style="list-style-type: none"> These actions are proportional to the outcomes established in the EMPs and assist the reduction of DFOs environmental footprint
3.1.4 – Implementation of Environmental Management Plans (EMPs) at all current client-managed harbours (559) by end of 2002	<ul style="list-style-type: none"> Sensitize client-managers to the benefits of EMPs and sound environmental practices Consult with client-managers to mould the EMPs to specific harbour needs Work with new client-managed harbours to develop EMPs within three years of establishment 	<ul style="list-style-type: none"> Number of EMPs implemented at client-managed harbours per year 	<ul style="list-style-type: none"> Increase client-manager awareness of environmental aspects of harbour operations Reduce impacts on environment
3.1.5 – Compliance with ISM Code for all DFO vessels above 125 tonnes by end of 2003	<ul style="list-style-type: none"> Ensure that the CCG's onboard Safety Management System meets the requirements of the ISM Code In partnership with stakeholders, promote the Safety Management System and identify possible improvements to it Co-ordinate activities with external auditors from an agency approved by law to issue Documents of Compliance and Safety Management Certificates Monitor environmental profile data for all vessels 	<ul style="list-style-type: none"> Number of DFO vessels over 125 tonnes certified 	<ul style="list-style-type: none"> Improved safety of DFO vessel operations Increased pollution protection Reduced vessel operation costs

Theme 4: Managing for Progress and Performance

Goal #4: A management system to track progress and performance of the Sustainable Development Strategy

Objective 4.1: Sustainable Development commitments incorporated into departmental integrated planning initiative

Expected Outcome	Planned Activities	Performance Measures/Indicators	Ultimate Impacts
4.1.1 – Systematic review and measurement of progress and senior management assessment of performance	<ul style="list-style-type: none">• Integrate SDS into departmental business planning and reporting processes• Develop a performance measurement framework for the Strategy	<ul style="list-style-type: none">• Regular progress reports• Performance assessment reports• Senior Management involvement• Improved credibility with Canadian public, parliamentarians and stakeholders	<ul style="list-style-type: none">• Improved management of the Strategy and Action Plan• Closing of the “implementation gap”• Continuous learning

Annex D: Summary of Progress on Planned Activities

Goal	Planned Activities	Status
1: Sustainable use of marine and freshwater resources and ecosystems through new forms of governance and shared stewardship	• Develop and implement integrated management plans (IMPs) and complete demonstration projects in three coastal regions by end of 2002: Eastern Scotian Shelf, Western Arctic, and Gulf of St. Lawrence (Outcome 1.1.1)	Progress toward target
	• Establish Minister's Advisory Council on Oceans (MACO) (Outcome 1.1.1)	Achieved
	• Initiate and test new CCG partnerships with private and voluntary sector stakeholders in delivery of marine services by end of 2003 (Outcome 1.1.2)	Achieved
	• Initiate co-management arrangements with 1-2 fisheries plans per year adopting the co-management model, with a goal of up to 25 co-managed fisheries by end of 2003 (Outcome 1.1.3)	Achieved
	• Streamline habitat referral process (Outcome 1.1.4)	On schedule
	• Support fish habitat restoration and enhancement across Canada through improved partnerships, public education, public awareness, and strategic investments in community capacity to carry out physical projects (Outcome 1.1.4)	On schedule
2A: Better knowledge of the nature and use of marine and freshwater resources and ecosystems to support decision making	• Develop an operational framework for incorporating ecosystem considerations within fisheries and oceans management by end of 2002 (Outcome 2A.1.1)	Progress toward target
	• Create a national network of multidisciplinary teams from public and private sectors by end of 2001 (Outcome 2A.1.1)	Achieved
	• Identify changes to the current stock assessment process and recommend new approach by end of 2001 (Outcome 2A.1.1)	Achieved
	• Increase DFO's research on environmental impacts of aquaculture by end of 2001 (Outcome 2A.1.2)	Achieved
	• Support the Argo Program, an international initiative to understand global climate, by deployment of up to 90 oceanographic floats in world oceans by end of 2003 (Outcome 2A.1.3)	Achieved
	• Develop a harmonized Fisheries Information Management database with online access through a common window by end of 2003 (Outcome 2A.1.4)	Delayed
	• Create an inventory of departmental data holdings and data initiatives accessible online to managers, nationally, by end of 2001 (Outcome 2A.1.5)	Achieved
	• Establish a framework to ensure that data quality and consistency is maintained department-wide by end of 2002 (Outcome 2A.1.5)	Revised
	• Electronically link data sources identified as key for decision-making by end of 2003 (Outcome 2A.1.5)	Progress toward target
2B: Effective application of knowledge and new technologies to support the sustainable and safe use of marine and freshwater resources	• Develop long-term, multi-year action plan and identify resources required by end of 2003 (Outcome 2B.1.1)	Progress toward target
	• Convert 600 CHS charts to electronic form by end of 2003 (Outcome 2B.1.2)	Progress toward target
	• Test Objectives-Based Fisheries Management (OBFM) approach in 10 pilot fisheries by end of 2003 (Outcome 2B.2.1)	Revised
	• Develop national operational policy framework and guidelines for the aquaculture industry, in collaboration with the industry and other stakeholders, by end of 2001 (Outcome 2B.2.2)	Achieved
	• Complete a National Action Plan to manage harvesting capacity and to facilitate self-adjustment by commercial fleets, as part of Canada's commitment to the FAO, by end of 2003 (Outcome 2B.2.3)	Delayed
	• Develop and implement a national system of marine protected areas (MPAs) including designation of five MPAs by end of 2002 (Outcome 2B.2.4)	Progress toward target
	• Establish MEQ guidelines, objectives and criteria (Outcome 2B.2.4)	On schedule

Goal	Planned Activities	Status
3: Reduction of negative physical environmental impacts of departmental operations	<ul style="list-style-type: none"> Collect data from DFO facilities (Outcome 3.1.1) 	Achieved
	<ul style="list-style-type: none"> Compile and synthesize environmental performance information into baselines (Outcome 3.1.1) 	Achieved
	<ul style="list-style-type: none"> Conduct environmental audits of each major facility (Outcome 3.1.1) 	Achieved
	<ul style="list-style-type: none"> Use environmental performance baselines collected for the major facilities to develop greening outcomes and action plans for EMPs (Outcome 3.1.2) 	Progress toward target
	<ul style="list-style-type: none"> Consult with stakeholders (Outcome 3.1.2) 	Progress toward target
	<ul style="list-style-type: none"> Update SDS in 2001 to include outcomes developed from baseline data (Outcome 3.1.2) 	Progress toward target
	<ul style="list-style-type: none"> Use DFO's share of the Federal House in Order GHG emissions reduction target as the Energy (GHG emissions) target in 2001 (Outcome 3.1.2) 	Progress toward target
	<ul style="list-style-type: none"> Complete 800 Canadian Council of Ministers of the Environment (CCME) Phase I assessments and 50 CCME Phase II and/or Phase III assessments per year <ul style="list-style-type: none"> Use a risk management approach to prioritize sites (Outcome 3.1.3) 	Achieved
	<ul style="list-style-type: none"> Invest \$250K per year for replacing halocarbon in DFO operations with non-ozone-depleting substances (ODS) <ul style="list-style-type: none"> Identify feasible replacement candidates Complete halocarbon inventory Populate the Halocarbon Inventory Database (Outcome 3.1.3) 	On schedule
	<ul style="list-style-type: none"> 100 Fuel storage tank inspections and 50 tank upgrades per year <ul style="list-style-type: none"> Complete implementation of the Fuel Storage Tank Management Plan Review profile annually to determine departmental liability (Outcome 3.1.3) 	Not met
	<ul style="list-style-type: none"> Sensitize client-managers to the benefits of EMP's and sound environmental practices (Outcome 3.1.4) 	Achieved
	<ul style="list-style-type: none"> Consult with Client Managers to mould the EMPs to specific harbour needs (Outcome 3.1.4) 	Achieved
	<ul style="list-style-type: none"> Work with new client-managed harbours to develop EMP's within three years of establishment (Outcome 3.1.4) 	Achieved
	<ul style="list-style-type: none"> Ensure that the CCG's onboard Safety Management System meets the requirements of the ISM Code (Outcome 3.1.5) 	Progress toward target
	<ul style="list-style-type: none"> In partnership with stakeholders, promote the Safety Management System and identify possible improvements to it (Outcome 3.1.5) 	Progress toward target
	<ul style="list-style-type: none"> Co-ordinate activities with external auditors from an agency approved by law to issue Documents of Compliance and Safety Management Certificates (Outcome 3.1.5) 	Progress toward target
<ul style="list-style-type: none"> Monitor environmental profile data for all vessels (Outcome 3.1.5) 	Progress toward target	
4: A management system to track progress and performance of the Sustainable Development Strategy	<ul style="list-style-type: none"> Integrate SDS into departmental business planning and reporting processes (Outcome 4.1.1) 	On schedule
	<ul style="list-style-type: none"> Develop a performance measurement framework for the Strategy (Outcome 4.1.1) 	On schedule