Fisheries and Oceans Canada
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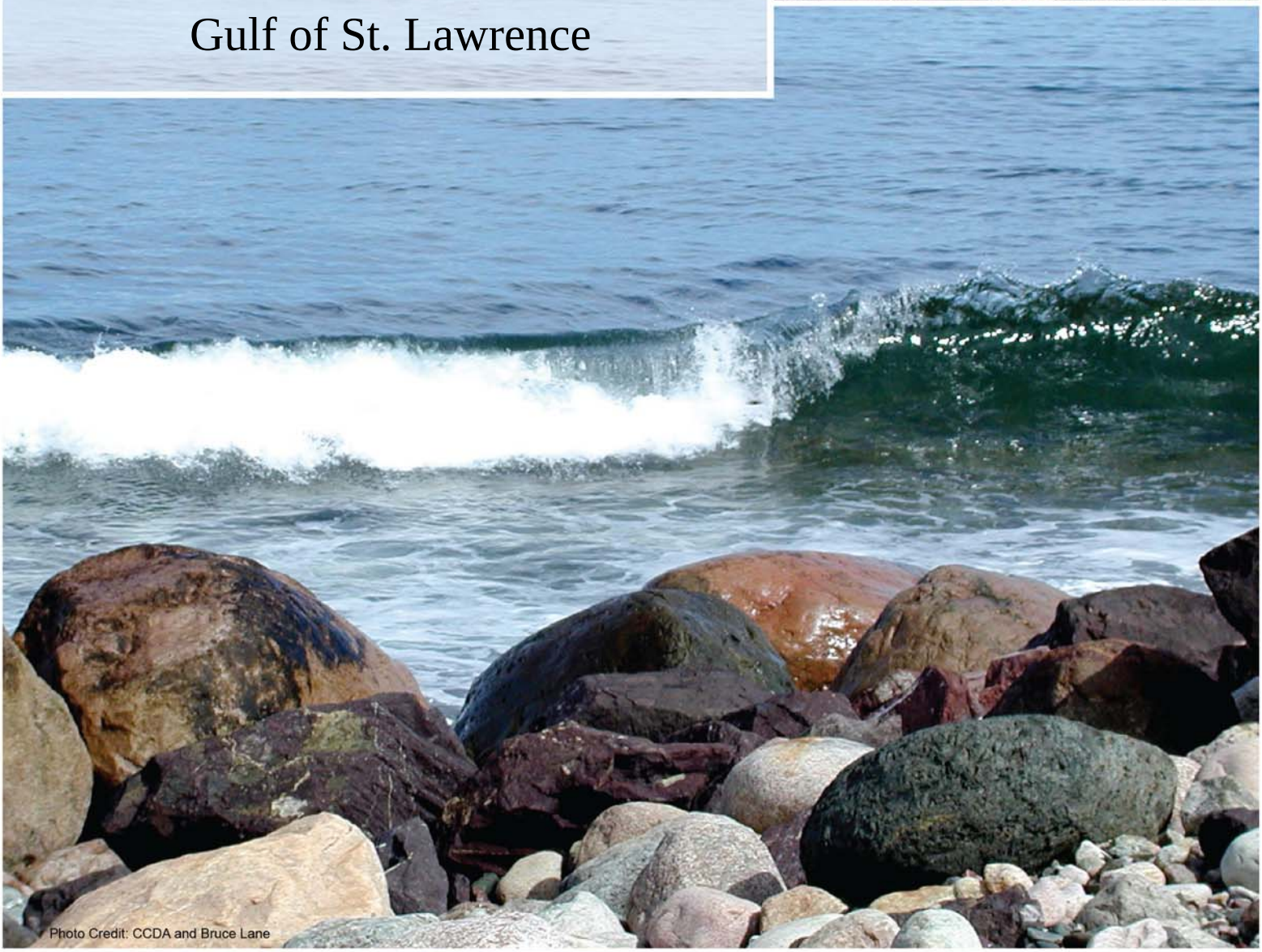
# ECOSYSTEM/SOCIOECONOMIC OVERVIEW REPORT

Oceans, Habitat and Species at Risk Publication Series, Newfoundland and Labrador Region

## Synopsis of the Social, Economic, and Cultural Overview of the Gulf of St. Lawrence



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# Synopsis of the Social, Economic, and Cultural Overview of the Gulf of St. Lawrence

Prepared by

Fisheries and Oceans Canada
Policy and Economics Branch
National Headquarters[1]

Prepared for

Fisheries and Oceans Canada
Oceans Directorate
National Headquarters [1]

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Fisheries and Oceans Canada
Newfoundland and Labrador Region
P.O. Box 5667
St. John's, NL A1C 5X1

[1] 200 Kent Street, Ottawa, ON, K1A 0E6

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## Preface

This publication is part of a multi-volume assessment of the social, economic and cultural features of the Gulf of St. Lawrence Large Ocean Management Area. Responsibility for oceans management in this area is shared among three DFO administrative regions (Quebec, Gulf, and Newfoundland and Labrador). Each of these regions prepared their own social, economic and cultural assessment, while a synopsis of all three assessments was also completed. The three assessments and the synopsis comprise the four volumes in this series. These publications were published in both English and French.

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# 1.0 Introduction

## 1.1 Purpose of the Report

Canada's *Oceans Act* provides a framework for current and future coastal and ocean management initiatives using the approach of Integrated Management (*Oceans Act 1996*). Integrated management is an ecosystem-based approach to coastal and ocean management that brings together environmental, social, economic, and cultural considerations (DFO 2002). The Oceans Action Plan (DFO 2005a) defines it as a comprehensive way of planning and managing human activities so that they do not conflict with one another and so that all factors are considered for the conservation and sustainable use of marine resources and shared use of oceans spaces.

The Government of Canada has identified five priority Large Ocean Management Areas (LOMAs) as the primary focus for the development and implementation of integrated management plans. The Gulf of St. Lawrence is one of these priorities, with a management area that encompasses the entire Gulf of St. Lawrence and its estuary, including five provinces and several First Nation groups.

Among the many requirements for effective implementation of Integrated Management in the Gulf of St. Lawrence is the need for baseline information on a wide range of social, economic, and cultural features as well as human activities. This information will be combined with existing ecological data in order to form a comprehensive picture of the Gulf of St. Lawrence Integrated Management (GOSLIM) area.

This report is presented in four chapters. The purpose of this introductory chapter is to present an overview of the major social, economic, and cultural features and trends of the GOSLIM area *based on available information*. The three regional chapters found in the annexes contain an in-depth analysis for each of the DFO administrative regions within the GOSLIM area (Quebec, Gulf and Newfoundland and Labrador).

## 1.2 Study Area

The Gulf of St. Lawrence extends over 260,000 square kilometers, and is similar to an inland sea with a distinct ecosystem. The physical and biological components of the Gulf create a unique environment, characterized by partial isolation from the North Atlantic Ocean, freshwater run-off from the land, a deep trough running along its length, seasonal ice, and the presence of a cold intermediate layer, shallow depths and high biological productivity and diversity. The Gulf of St. Lawrence encompasses the coastal area of five provinces; New Brunswick, Nova Scotia, Prince Edward Island, Quebec and Newfoundland and

Labrador. Responsibility for Oceans Management is shared among three DFO administrative Regions (Quebec, Gulf, and Newfoundland and Labrador).
The regional chapters used the following coastal areas in their analyses which may differ slightly from the actual ecologically defined GOSLIM area due to incongruences with the statistical and administrative areas for which socio-economic data are available:

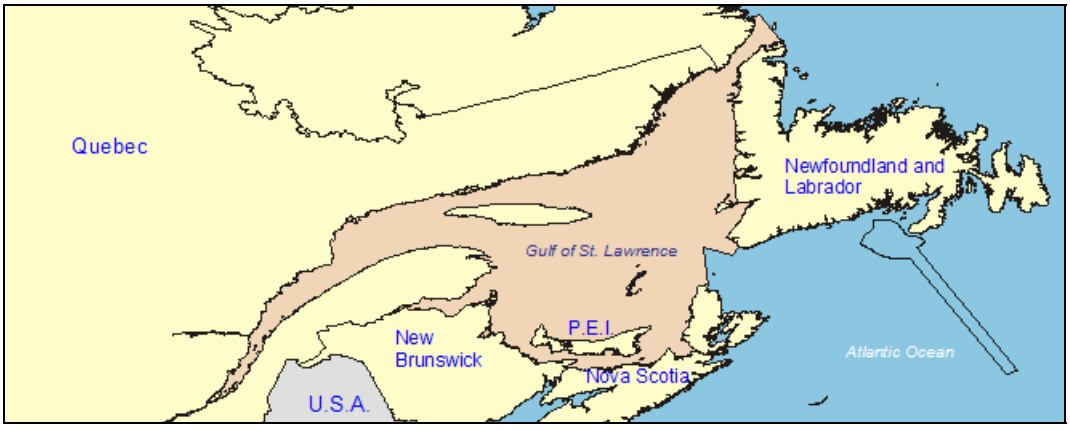
- The Maritime Quebec Region consists of three administrative regions: the Lower St. Lawrence, the North-Shore and the Gaspe Peninsula-Magdalen Islands. These administrative regions are further subdivided into 19 regional municipal counties.

- The Gulf Region is organized into 5 areas: New Brunswick North, New Brunswick South, Prince Edward Island, Nova Scotia North Shore and Nova Scotia Cape Breton.

- The Newfoundland and Labrador Region is divided into 4 coastal areas: Bay St. George/Port au Port, Bay of Islands, Great Northern Peninsula and Southern Labrador. These coastal areas are further subdivided into 13 census subdivision boundaries.

Please refer to the regional chapters for detailed descriptions of the study areas used.

**Figure 1.1: Map of GOSLIM AREA**




## 1.3 Integrated Management

Integrated Management is an Oceans Management approach that involves comprehensive planning and managing of human activities to minimize the conflict among users. The aim of integrated management is to improve decision making to ensure that decisions:

- are more effective in the long term

- are not conflicting
- are built upon a common knowledge base and
- take into consideration the needs of the ecosystem as well as the needs of humankind

The Canadian approach recognizes that management objectives and planning practices must reflect that ecosystems nest within other ecosystems. DFO's proposed Integrated Management planning framework extends from the large to the small scale – from Large Ocean Management Areas to Coastal Management Areas.

Participants in the Integrated Management Collaborative Process include federal, provincial/territorial/regional authorities, Aboriginal organizations and communities, industry and resource users, non-governmental organizations, community groups, and the academic, science and research community. Through collaboration among federal, provincial, territorial, Aboriginal and local authorities and programs, decision-making across ecosystems will be better informed as each stakeholder brings their own experiences and knowledge to the process.

An Integrated Management approach to oceans related activities requires consideration of the long term direct and indirect impacts from a variety of activities at an ecosystem level. The main considerations include ecological and socio-economic factors. In particular, socio-economic considerations are brought into the integrated management planning process through a Social, Economic and Cultural Overview and Assessment (SECOA) that is carried out for a defined integrated management area; in this case the Gulf of St. Lawrence.

## 1.4 Methodology, Data Sources, and Limitations

This chapter summarizes social, economic, and cultural features and human activities of the GOSLIM area based on regional perspectives. It provides an overview of the social, economic and cultural indicators and trends that were compiled separately by each of the three DFO Regions. When consistent data were available among the three regional reports, comparative analyses were conducted using graphs and tables.

In addition, data from the *Economic Impact of Marine Activities in Large Ocean Management Areas* study by Gardner Pinfold (2009) prepared for Fisheries and Oceans Canada, was used to gain a better understanding of the economic contributions of marine activities within the GOSLIM area. In this study, the Statistics Canada inter-provincial Input-Output Model (2004 version) was used to estimate the impacts for 2006. Two levels of impact were calculated.

- Direct impacts: refers to impacts arising from the expenditures made by firms in the subject industries on the goods and services needed to produce industry outputs.
- Indirect impacts: refers to the inter-industry purchases triggered by the direct demand.

This overview chapter is structured under 4 general topics, based on the structure of the three Regional chapters. Following this introductory section, Section 2 covers social indicators such as population, age distribution, educational level and life expectancy. Section 3 focuses on economic components, featuring information on activities and opportunities available in the Region, as well as the resulting benefits from their exploitation. Cultural aspects are presented in Section 4, listing information on protected and historically significant areas. Finally, Section 5 portrays the Governance aspects of the GOSLIM area.

Briefly, data come from the following sources:

- The Maritime Quebec Region used primarily 2001 and 2006 censuses to collect information relevant to the social context. Economic data were presented according to the North American Industry Classification System (NAICS) at the two digit level for all industries except fishing (1141) and fish processing (3117) where 4 digit codes were used.

- The Gulf Region used census sub-divisions, as defined by Statistics Canada, to collect socio-economic data. When data at this level were unavailable, Health Regions and Zones, counties with Gulf of St. Lawrence waterfront, and Provincial data were used.

- When data were unavailable at the census subdivision level, the Newfoundland and Labrador Region used data for Regional Economic Development Zones.

All three Regional reports made extensive use of internet sources, accessing data from Statistics Canada, Fisheries and Oceans Canada, Community Information Databases, and Provincial statistical agencies. In addition, government reports, industry annual reports, government surveys, and direct communication with experts were used to fill in the data gaps.

The diversity of social, cultural, and economic values within the Gulf of St. Lawrence means that regional differences are inevitable. The indicators selected by the three regions often reflect this heterogeneity, making Gulf-wide synthesis a challenge. Furthermore, the development of cultural indicators was more challenging than the others due to lack of data and the chosen indicators may underestimate the significance of these activities. It should also be highlighted

that macro level indicators were used due to poor data availability at a micro level.

Finally, it should be noted that the focus of this report was to synthesize existing information.

## 2.0 Overview of the Social Context

Nations and communities have become increasingly reliant on social indicators to assess status and develop policies[2]. This section aims to portray key social elements of the three Regions; Quebec Maritime, Gulf and Newfoundland and Labrador within the GOSLIM area. These social indicators will convey the present status of communities and enable an assessment of how they may face opportunities and challenges more effectively. The individual Regional chapters have included in depth analyses of social indicators such as demographic, educational and health. This overview chapter depicts population and its age distribution, educational level and life expectancy to evaluate the commonalities and the trends within the three Regions and the entire LOMA as a unit.

### 2.1 Demographic profile

#### 2.1.1 Population size and distribution

The total population of land areas adjacent to the GOSLIM area was 1,092,640 in 2006, which represented 3.5% of the overall Canadian population. Table 2.1 illustrates the population change from 2001 to 2006 for each individual Region and the entire LOMA. The population in the LOMA has remained stable within this period. However, the Newfoundland and Gulf Regions experienced a slight decline in their population, while the population in Quebec Maritime Region increased by 1.4% due to the presence of three major cities. In comparison to overall Canadian population growth of 5.4%, stable or declining population in the Region may pose challenges to maintain long term employment and economic growth in tune with the rest of the country.

**Table 2.1: Total Population, 2001 - 2006**

| Geographic Area | Total Population | | % Change |
|---|---|---|---|
| | 2001 | 2006 | |
| Quebec Maritime | 395,320 | 400,899 | 1.4 |
| Gulf | 630,625 | 628,024 | -0.4 |
| Newfoundland and Labrador | 65,671 | 63,717 | -3.0 |
| GOSLIM Area | 1,091,616 | 1,092,640 | 0.1 |
| Canada | 30,007,094 | 31,612,897 | 5.4 |

[2] C.Cobb & C. Rixford, "Lessons learned from the history of social indicators", November, 1998

Declining birth rates and continued out-migration in search of better economic opportunities in urban centres and in other parts of Canada are thought to be the drivers of population decline, particularly in the Newfoundland and Labrador Region.

### 2.1.2 Aboriginal Population

The Aboriginal population in Atlantic Canada is a distinct subgroup of the overall GOSLIM area population. In the Quebec Maritime Region, there are three main aboriginal groups: the Innus (Montagnais), Mi'kmaq, and Malecites with a total population of approximately 16,000 residents and non residents as of 2006. In the Newfoundland and Labrador Region of the GOSLIM area there exist three aboriginal groups with a total population of 7,340. The largest proportion is made up of North American Indians, followed by Métis and Inuit. This aboriginal population increased 72 % from 2001 to 2006. The largest increase can be seen in the Bay St. George/Port au Port Peninsula - just over 100% between 2001 and 2006 - and may be explained by the re-identification as Métis by those who once considered themselves of non-aboriginal descent. As of 2006, the aboriginal population in the Gulf region of GOSLIM amounted to 9,050, of which 76% resided in the New Brunswick. Trends show that the population of aboriginal communities has become progressively younger with the highest proportion of the population falling between the ages of 0 to 19. It can also be seen that there was a substantial drop from age 50 onwards. This may suggest that life expectancy of the aboriginal population in the Region is lower than that of the non-aboriginal population of Canada.

### 2.1.3 Age Distribution

The three Regions within the LOMA have similar age distributions, with 68% – 69% of population between the ages of 15 to 64 years (Table 2.2). Similarly, just over 15% of the population is over 65 years old. This is substantially higher than the Canadian average of 6%. This may reflect a demographic trend of an aging population distribution in the LOMA, which may have an impact on labour availability, if there are not enough young entrants to the labour market.

### 2.1.4 Language Structure

Table 2.3 illustrates the language structure within each region of the GOSLIM area. As for Quebec, 92% of the population speaks "French only". In comparison to the other 2 Regions, Quebec Maritime Region of GOSLIM area also has a larger population that speaks first nation languages. The high proportion of French speaking population in the Gulf Region is attributed to New Brunswick's official bilingualism status - 76% of population speaks English and almost 23% speaks French. English is the most common language in Newfoundland and Labrador Region.

The most obvious difference between GOSLIM area and Canada is the other languages spoken at home (Table 2.3). Almost 20% of Canadians speak a language other than English or French. Many new immigrants who arrive in Canada speak other languages and these new Canadians are attracted to the urban cities where there are more opportunities and integration is easier. Thus, their representation is lower in a more rural area such as that surrounding the Gulf of St. Lawrence.

## 2.2 Education

Education level has a bearing on the skill sets that people bring to the market place. Comparing census data for 2001 and 2006, it is evident that the proportion of residents with no high school diploma has significantly declined from 35% to 25% (Figures 2.2 and 2.3). However, the GOSLIM area is still lagging behind the Canadian average of 25% and 15% in the same periods. Newfoundland and Labrador Region has the highest proportion of population with no high school diploma; almost half of the population in 2001 and 37% in 2006.

Gulf Region has the highest proportion of individuals with a degree/ diploma or certificate (Figure 2.3). The proportion of persons who possess a degree/diploma or certificate in the GOSLIM area has substantially increased from 44% in 2001 to 53% in 2006. However, this proportion is still considerably below the Canadian average.

Younger people tend to possess higher formal education levels than those who are close to retiring age achieved. With better educational opportunities and institutions in place, there may be an increasing trend in the proportion of persons holding a diploma/degree or certificate, in the future.

**Table 2.2: Age distribution, 2006**

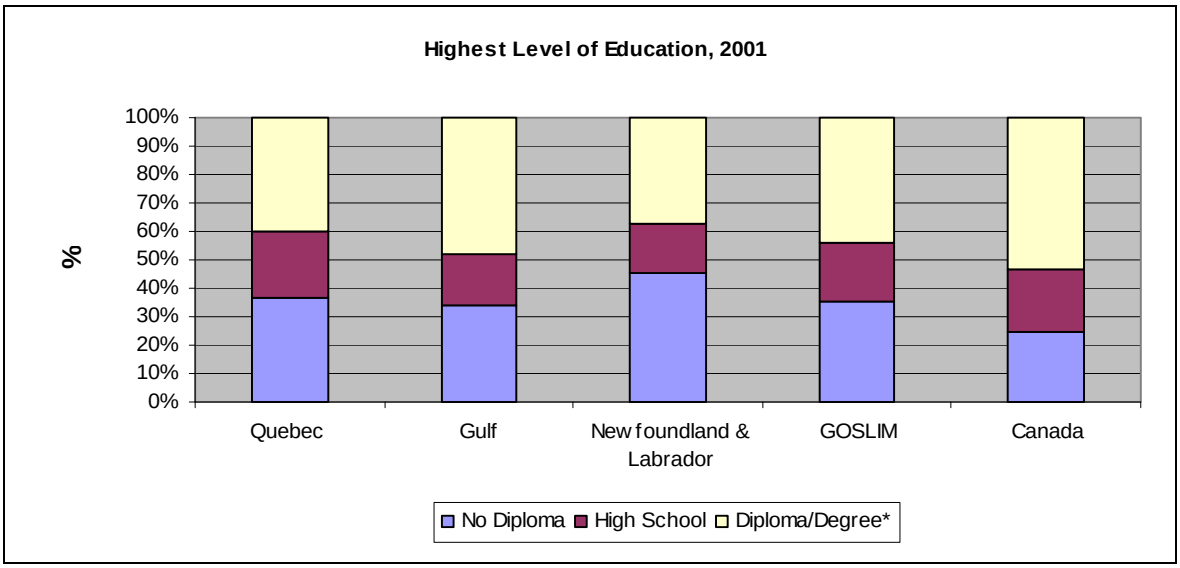
| Geographic Area | 0-14 years | 15-64 years | 65+ |
|---|---|---|---|
| Quebec Maritime | 15.2% | 68.3% | 16.5% |
| Gulf | 15.9% | 68.6% | 15.4% |
| Newfoundland and Labrador | 15.0% | 69.2% | 15.8% |
| GOSLIM Area | 15.6% | 68.5% | 15.8% |
| Canada | 17.7% | 76.3% | 6.0% |

**Table 2.3: Distribution of Population by Languages spoken at home (%)**

| Geographic Area | English Only | French Only | English & French | Others * |
|---|---|---|---|---|
| Quebec | 5.0% | 92.0% | 0.2% | 3.2% |
| Maritime | 76.2% | 22.4% | 0.5% | 1.0% |
| Gulf | | | | |
| Newfoundland and Labrador | 97.4% | 1.1% | 0.2% | 1.4% |
| GOSLIM Area | 51.3% | 46.7% | 0.4% | 1.8% |
| Canada | 57.2% | 21.8% | 0.3% | 19.7% |

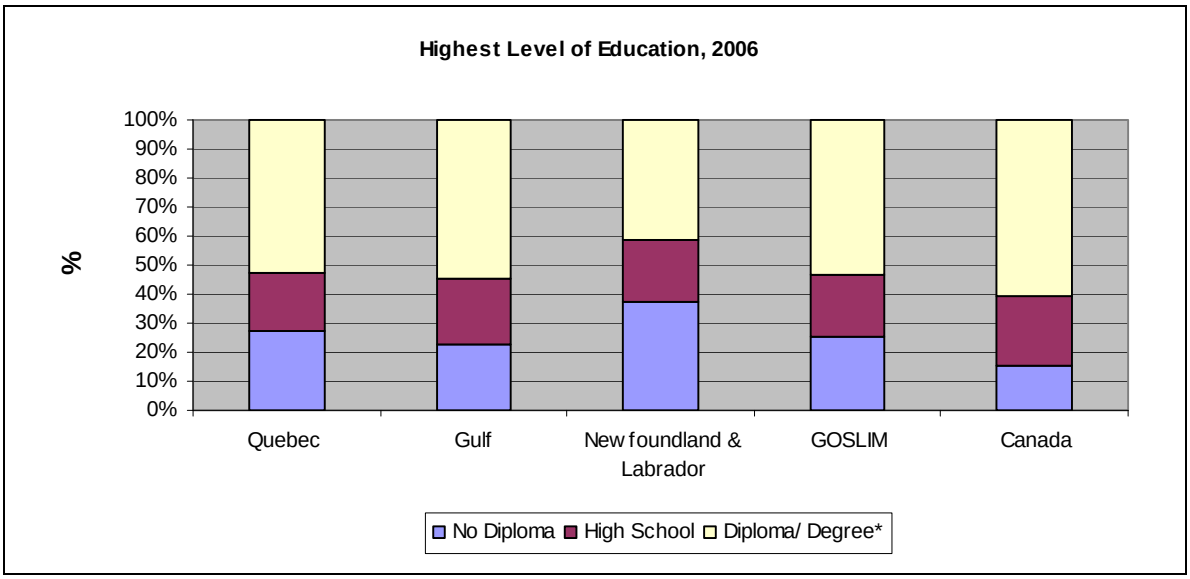
* Includes First Nation languages

**Figure 2.2: Highest Level of Education, 2001**




* Professional diploma/college Diploma and University Bachelor degree and Higher

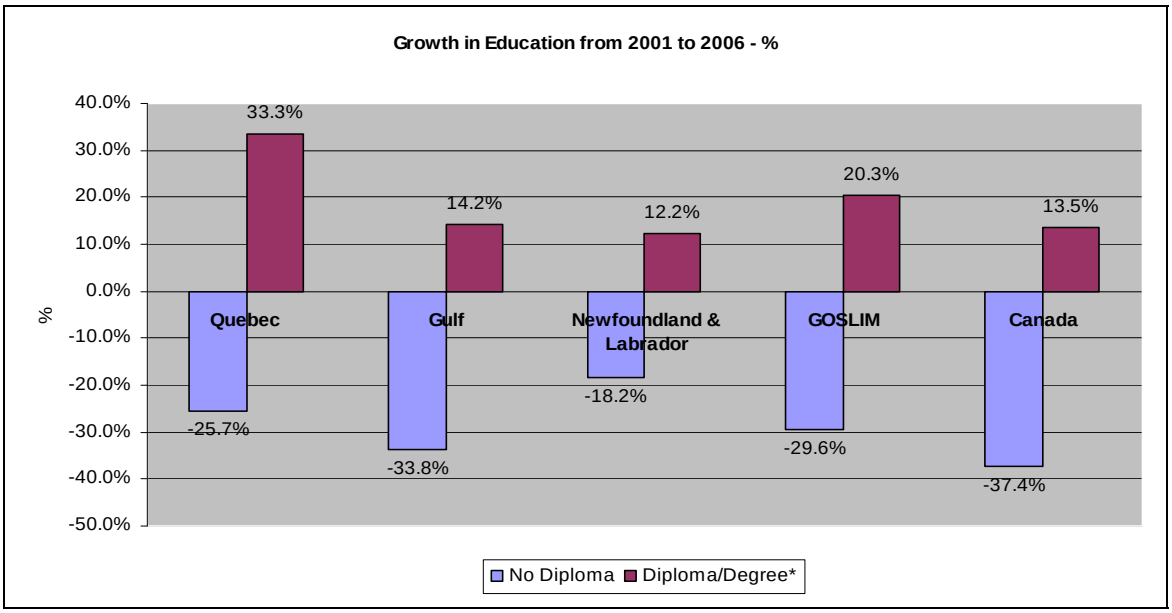
**Figure 2.3: Highest Level of Education, 2006**




* Professional Diploma/College Diploma and University Bachelor Degree and Higher

To further evaluate the education levels in the LOMA, changes in the percentage of individuals who do not hold a high school diploma and who possess a degree/diploma or certificate are compared. As can be seen from Figure 2.4, Gulf Region has the highest proportional reduction in individuals with no high school diploma. Newfoundland and Labrador has the lowest performance in both categories in comparison to the other two Regions. Quebec Maritime Region shows the highest improvement in "individuals who possess a degree/diploma or certificate", with 33% growth surpassing and the average Canadian growth of 13.5%.

**Figure 2.4: Percentage Change in Education from 2001 to 2006**




* Professional Diploma/College Diploma and University Bachelor Degree and Higher

## 2.3 Health

Average life expectancy at birth is used as a means of evaluating development in public health and medical care systems within the GOSLIM area. Average expected life of males and females in GOSLIM area are 75 years and 81 years respectively. As can be seen from the Table 2.4, the average life expectancy in the LOMA is slightly lower than the Canadian average.

**Table 2.4: Average Life Expectancy at Birth**

| Geographic Area | 2001 | |
|---|---|---|
| | Male | Female |
| Quebec Maritime | 74.9 | 81.4 |
| Gulf | 75.7 | 81.4 |
| Newfoundland and Labrador | 74.4 | 80.4 |
| GOSLIM Area | 75.3 | 81.3 |
| Canada | 77 | 82 |

## 3.0 Overview of the Economic Context

## 3.1 Economic Performance

Economic performance is at the very foundation of the development and growth of a prosperous community. This section captures the economic features of various industries along with their contribution to the GOSLIM area. First, the

report focuses on general economic indicators such as employment and income, to measure the economic well-being of the communities within the GOSLIM area while providing a comparison against Canadian and provincial averages. Next, significant marine related activities within the GOSLIM area are discussed and an analysis of the *Economic impact of marine activities in Large Ocean Management Areas* is provided, to better understand the economic outlook of the Region. A more detailed analysis of the economic performance of the three Regions can be found in the individual Regional chapters.

It is important to note that the data used here do not reflect the effects of the 2009 recession on the local/Regional economies, as the analysis and data pre-date that event.

### 3.1.1 Resource Based Industries and Workforce

The economic well-being of the Gulf of St. Lawrence coastal Regions depends on resource based industries such as fisheries, agriculture and forestry. All three Regions have similar levels of employment in resource based industries. 9.4% of Gulf Region's workforce is employed in the primary sector and Quebec Maritime Region employs 9.8% as of 2006. The dependence on primary industries in the GOSLIM area is evident when compared to the Canadian average of 5.2%. Newfoundland and Labrador Region only has this information available for the year 2001. In 2001, this Region employed 10% of it's workforce in resource based industries, although some regions displayed a much greater dependence, such as the Great Northern Peninsula (23%) and Southern Labrador (19%).

Employment in these primary industries is mostly seasonal and on average earns a lower income. This may help explain the lower average incomes and higher dependence on transfer payments within the Region compared to Canada as a whole. Income is discussed more fully in section 3.1.3.

### 3.1.2 Employment Structure

Overall, participation in the workforce is well below the Canadian average within the GOSLIM area, with the exception of the Gulf Region (Table 3.1). Although unemployment levels have improved throughout the GOSLIM area from 2001 to 2006, they remain substantially higher than the Canadian average. The seasonal nature of work, transition away from resource industries and global competition may explain the high unemployment in the GOSLIM area.

Newfoundland and Labrador Region has the highest unemployment rate within GOSLIM area (i.e. 24%), and some of the coastal areas such as the Great Northern Peninsula and Southern Labrador have unemployment rates above 30%. Such rates are between four and six times the Canadian average unemployment rate. However, the trends during the period of 1996 to 2006 show that unemployment has declined in the Region. For instance, Southern Labrador

experienced almost 51 % unemployment rate in 1996 which improved to 33 % by 2006.

Although unemployment rates in Quebec Maritime Region and Gulf Regions are much lower than Newfoundland and Labrador, they still are almost twice the Canadian average. During the period between 2001 and 2006, both Regions experienced a 3% to 4 % decline in unemployment. Furthermore, the Quebec Maritime Region has the highest rate of involuntary part time employment (people working part time who would rather work full time) within the GOSLIM area due to low availability of full time employment.

**Table 3.1: Employment Structure of Population (> 15 years old)**

| Geographic Area | Participation Rate % | | Employment Rate % | | Unemployment Rate % | |
|---|---|---|---|---|---|---|
| | 2001 | 2006 | 2001 | 2006 | 2001 | 2006 |
| Quebec Maritime | 58.4 | 59.1 | 48.5 | 52.0 | 16.3 | 12.4 |
| Gulf | 62.6 | 63.2 | 53.4 | 55.9 | 14.8 | 11.5 |
| Newfoundland & Labrador | 54.4 | 54.4 | 72.2 | 75.9 | 27.8 | 24.1 |
| GOSLIM Area | 60.6 | 61.2 | 52.8 | 55.6 | 16.1 | 12.6 |
| Canada | 66.4 | 66.8 | 61.5 | 62.4 | 7.4 | 6.6 |

### 3.1.3 Income

Income provides an important indicator of the economic context of a Region/community. For this analysis, we focused on average income to gain a better understanding of the communities within the GOSLIM area.

While average income for the population 15 years and older has steadily increased over the years within Canada, the rate of increase in the Regions that constitute GOSLIM area is slower than the Canadian average.

Average income in the Gulf Region is equal to 69% of the Canadian average income. New Brunswick South and North have the lowest income and the lowest rate of increase within the Gulf Region. Transfer payments are also a key source of income in all three Regions. Transfer payments represent $20 for each $100 income in the Gulf Region. This is twice the Canadian average of $9.9. It is stated that the higher proportion of transfer payment in the Gulf Region may be explained by the relatively higher proportion of citizens over the age of 65 compared to the Canadian average (15.4% vs. 6%).

Average income in Quebec is 76% of the Canadian average, with the Lower North Shore, Gaspe Peninsula, and Magdalen Islands experiencing the lowest

income within Quebec for 2006. Transfer payments represent 21% of the total income, in the province of Quebec. However, the areas associated with the Gulf of St. Lawrence LOMA tend to show greater dependence (many between 30% and 55%).

In Newfoundland and Labrador, income per capita has increased for all the regional economic development zones around the GOSLIM area from 2001 to 2005, but remains below the NL and Canadian average. In 2005, average income per capita ranged between 63% - 77% of the Canadian average. The self-reliance ratio, which is the ratio of market income (as opposed to government transfers) to total personal income, fell between 62% and 78% in these areas, implying that the transfer payments range between 22% - 32% of income.

### 3.1.4 Housing Value

Housing values tend to reflect the economic strength and stability of a community. In the Gulf Region, average housing prices increased to $112,365 as of 2006, an increase of 43% over 2001. Despite this sharp increase, houses were still valued lower in the region compared to the national average. During the same period, average housing prices in the Quebec Maritime Region increased by 37% to $94,037. Similar to the Gulf Region, housing prices in this region were substantially lower than the provincial and national averages. For example, during the period of 2005-2009, the average resale price was 50% lower than the provincial average. Nevertheless, investment in housing is an important component of capital investment in some areas within the Quebec Maritime Region; in 2008, 30% of the total investment in the Lower St. Lawrence area was directed towards housing.

One possible consequence of lower average housing values is that individuals may find it difficult to move from or re-locate within a specific region, since the equity they may receive from the resale of their houses may not be sufficient for them to re-establish in an area where housing prices are higher.

## 3.2 Economic Impact of Marine Activities in the GOSLIM Area

In order to provide an introduction to the economic activities within the GOSLIM area, this section reports the results of a recent study entitled *Economic impact of marine activities in Large Ocean Management Areas* (Gardner-Pinfold Consultants, 2009). The economic impacts of marine activities were calculated using the Statistics Canada - Input Output Model. The impacts were estimated in terms of Gross Domestic Product (GDP – the sum of the value added by each industry), employment, and income.

Provincial level impacts obtained through the Input Output Model were allocated to the GOSLIM area using industry specific allocation factors; for example for the

fishing industry (2006), GOSLIM area was allocated 30% of impacts based on the percentage of landed values for the region as compared to the province.

The relative economic importance of marine activities in the GOSLIM area is reflected in the contributions made towards GDP and Employment (Table 3.2). The fishing sector, water transportation and support services, and tourism and recreation are the most important industries to the GOSLIM area. Together they contributed almost 79% towards total (direct and indirect) GDP in the region. Furthermore, 82% of total (direct and indirect) employment in the GOSLIM area is attributed to these industries.

Many of the local communities in the GOSLIM area are reliant on the fishing sector (commercial fishing, aquaculture and fish processing) as it contributed $645 million towards direct and indirect GDP. In addition, this sector provided over 11,300 employment (full-time equivalent) opportunities to the Region.

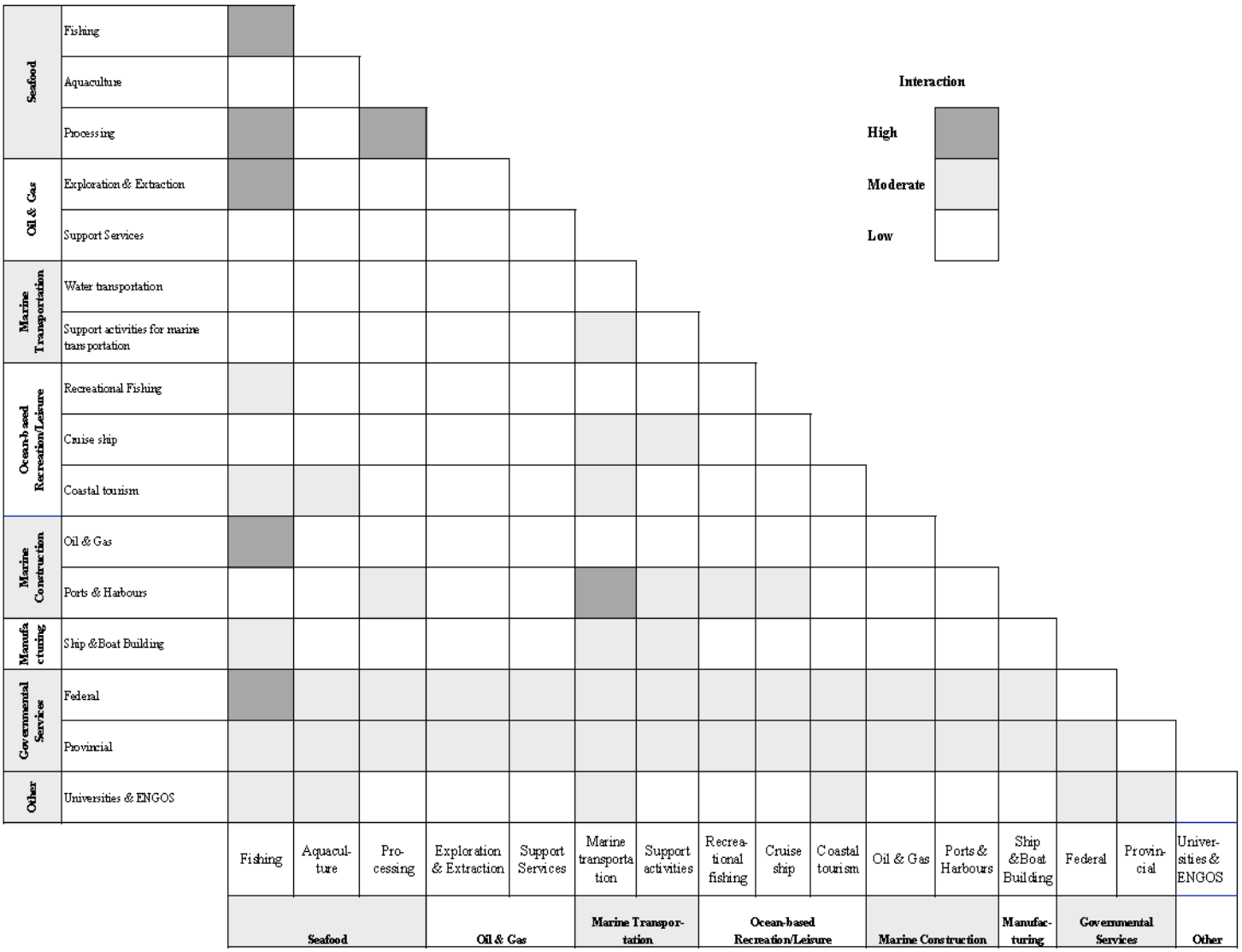
The transportation, and tourism and recreation industries are significant contributors to the GOSLIM area due to its geographic location. The tourism and recreation industry contributed approximately $660 million to the Region's GDP and employed close to 17,000 GOSLIM area residents. In addition, the transportation industry brought over $371 million to the Regional GDP and employed just over 6,000 residents.

**Table 3.2: Economic Impact of Marine Activities in the GOSLIM Area**

| GDP and Income in $000s Employment in full-time equivalent | Atlantic region output value | LOMA allocation | Direct | | | Indirect | | | Induced | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ocean activity** | $000s (1) | factor (2) | GDP | Employment | Income | GDP | Employment | Income | GDP | Employment | Income | GDP | Employment | Income |
| Commercial fishing | 1,501,372 | 0.29 | 228,042 | 2,790 | 156,771 | 49,261 | 800 | 25,470 | 68,519 | 902 | 50,282 | 345,822 | 4,491 | 232,523 |
| Aquaculture | 467,565 | 0.09 | 15,624 | 226 | 6,349 | 6,878 | 107 | 3,448 | 5,247 | 86 | 2,701 | 27,748 | 420 | 12,498 |
| Fish processing (3) | 3,234,566 | 0.29 | 206,670 | 5,396 | 152,764 | 138,956 | 2,003 | 50,699 | 64,599 | 1,310 | 40,338 | 410,225 | 8,708 | 243,801 |
| Oil & gas exploration/extraction | 9,121,886 | 0.00 | | | | | | | | | | | | |
| Support activities for oil & gas | 186,000 | 0.00 | | | | | | | | | | | | |
| Water transportation | 872,600 | 0.30 | 105,552 | 1,544 | 81,699 | 34,523 | 591 | 23,375 | 39,404 | 609 | 32,535 | 179,479 | 2,744 | 137,609 |
| Support activities for transportation | 1,003,000 | 0.30 | 160,488 | 3,042 | 124,149 | 70,818 | 873 | 30,327 | 66,524 | 1,117 | 47,371 | 297,830 | 5,032 | 201,847 |
| Tourism & recreation | 1,590,981 | 0.55 | 390,590 | 10,201 | 268,450 | 262,015 | 6,382 | 234,754 | 185,013 | 4,897 | 156,865 | 837,618 | 21,480 | 660,068 |
| Oil & gas facilities construction | 267,785 | 0.00 | | | | | | | | | | | | |
| Ports and harbours construction | 134,422 | 0.12 | 6,452 | 95 | 4,194 | 3,226 | 111 | 4,011 | 2,659 | 56 | 2,432 | 12,337 | 262 | 10,637 |
| Ship and boat building | 620,000 | 0.41 | 108,777 | 2,708 | 112,779 | 33,128 | 948 | 31,755 | 41,216 | 1,178 | 48,997 | 183,121 | 4,834 | 193,530 |
| | | | | | | | | | | | | | | |
| National Defence (4) | 1,035,300 | 0.00 | | | | | | | | | | | | |
| Fisheries & Oceans (4) | 694,072 | 0.38 | 168,761 | 2,423 | 168,761 | 78,642 | 417 | 24,294 | 71,182 | 838 | 60,453 | 318,585 | 3,679 | 253,508 |
| Other federal departments (4) | 74,600 | 0.14 | 6,943 | 68 | 6,943 | 1,442 | 31 | 1,186 | 2,075 | 28 | 1,929 | 10,460 | 127 | 10,058 |
| Provincial departments | 94,080 | 0.24 | 11,781 | 104 | 11,781 | 2,598 | 86 | 2,776 | 3,485 | 48 | 1,999 | 17,864 | 238 | 16,556 |
| Universities & ENGOs | 73,991 | 0.25 | 13,191 | 194 | 10,462 | 2,664 | 42 | 1,120 | 3,809 | 55 | 3,098 | 19,664 | 291 | 14,680 |
| Total | 19,470,848 | | 1,422,871 | 28,790 | 1,105,102 | 684,151 | 12,390 | 433,213 | 553,732 | 11,125 | 449,000 | 2,660,754 | 52,305 | 1,987,315 |

1. See Gardner Pinfold, *Economic Impact of Marine Related Activities in Canada*, 2009, (prepared for DFO) for sources and derivation of output values.
2. See Appendices 1 and 2 for derivation of allocation factors.
3. Fish processing impacts have been adjusted to remove double counting of indirect and induced impacts of commercial fishing.
4. Includes only expenditures in provinces bordering the LOMA (Atlantic Provinces and Quebec).

**Figure 3.1: Economic Interdependence Matrix for the Gulf LOMA**




Marine activities in the GOSLIM area often utilize the same resources, which can result in high levels of interdependencies, both positive and negative. The matrix below illustrates the degree to which different sectors may interact, either in a collaborative or in a competitive fashion. For instance, small craft harbours facilitate loading and unloading of fishing vessels, therefore creating a strong positive interaction between these sectors. A competitive interaction can be reflected in the relationship between fishing and oil and gas industries in the Region. For instance, seismic activity by the oil and gas industries can have an adverse impact on fish populations.

## 3.3 Fisheries

### 3.3.1 Commercial Fishing

Commercial fishing has long been a major focus of economic activity and remains the foundation of many coastal communities within GOSLIM area. With the collapse of groundfish stock, the fishing industry has restructured itself to generate new interest in other species, particular shellfish. All three Regions have experienced an increase in the value of landings over the years due to higher lobster prices and increased shrimp and snow crab landings.

The commercial fishing industry is an important economic base for many communities within the Newfoundland and Labrador Region. The GOSLIM areas of Newfoundland and Labrador Region landed an average of 56 thousand tonnes of fish during the period of 2000 to 2007, valued at over $50 million per year. Pelagics and crustaceans are the most important species in terms of both value and volume in all the communities except for Southern Labrador. Groundfish is the most important species for Southern Labrador, which has the lowest proportion of total overall landed weight (4%) and landed value (7%). As of 2006, there were just over 1,000 active fishers, 7,000 active fishing licenses and 1,000 fishing vessels.

The importance of the commercial fishing industry in the Gulf Region can be reflected in the evolution of coastal settlements along the Gulf of St. Lawrence, establishing commercial fishing as the primary economic activity in the region. In 2007, there were approximately 6,000 fishing licence holders and 4,000 registered vessels which brought in $365 million of total landed value. Almost 85% of the revenues were generated from lobster and snow crab fisheries. In total, there were 12,000 commercial fish harvesters in the Region, including crew members.

Similar to the other Regions, the commercial fishing in Maritime Quebec is a key industry for the local economies of the region. In 2007, there were approximately 3,000 active fishers and 1,200 fishing vessels that generated just over $140 million in total landed value; the Gaspe Peninsula accounted for almost 50% of these landings. The key fisheries in the region were crustaceans and Greenland halibut.

An important factor that should be highlighted in commercial fishing is the age structure of the fish harvesters. In all three regions surrounding the LOMA, most fish harvesters are older than the average worker, and the younger generation does not perceive the fishing industry to be a viable career choice. For instance, almost 65% of the fish harvesters in the Gulf Region are over the age of 45 years while 3.5% of the participants are less than 30 years old.

### 3.3.2 Aboriginal Fisheries

The Marshall decision in 1999 allowed First Nation communities to have increased access to commercial fishing opportunities, thus contributing to their economic well-being. The communal commercial fishing licences in the Gulf Region generated over $22 million in revenue in 2007, with lobster and snow crab landings accounting for 95% of this revenue. In Quebec Maritime Region, fishing contributed over $15 million in revenue for first nation communities in 2007.

The direct contribution of commercial fishing in First Nation communities in Newfoundland and Labrador Region has not been quantified. However, available information indicates that first nation communities own 10 core enterprises in this Region.

### 3.3.3 Seal Hunt

The seal hunt provides economic opportunities to the coastal communities within the GOSLIM area. It is an important food source and plays a major part in the social and cultural life of aboriginal peoples. However, recently both the European Parliament and the Council of the European Union have voted in favour of an import ban on all commercial seal products into the EU, citing inhumane hunting methods as a rationale. There are exemptions placed on this ban for products from the Inuit traditional hunts. In 2008, Canadian exports of all seal products totalled approximately $10 million. Of that amount, 25% were exported to the EU, though the final markets lie elsewhere. At this time the ultimate effects of the ban are not yet known, since a majority of Canada's seal products are not destined to the EU and weather and ice conditions have impacted recent harvests.

Two types of seals are commercially hunted in the Gulf Region; gray seal and harp seal. Of the total allowable catch, 12,000 gray seals and 1,399 harp seals (2% of the total hunt) were allocated for hunters from New Brunswick, Nova Scotia and Prince Edward Island in 2008. In addition, aboriginal communities were permitted to hunt 1620 harp seals.

Harp seal is the only commercially significant species in the Quebec Maritime Region. In 2006, total Canadian allowable catch was estimated at 325,000, out of which 28% was granted to the North Shore and the Magdalen Islands. The total number of hunters has significantly increased from 340 in 2002 to 500 in 2007.

Harp and hooded seals are the main two types of seals hunted in Newfoundland and Labrador waters. The landed value of seals in the study area accounted for over $8.8 million in revenue for 2006 which represented about 29% of total catch value of seals in the Newfoundland and Labrador that year. This is a significant

source of income in this region, particularly because the hunt takes place when employment opportunities in other sectors are seasonally limited.

### 3.3.4 Fish Processing

The seafood processing industry continues to be vital to some Canadian coastal regions, in spite of overall lower employment in recent years. Fish can be processed either through primary or secondary processing. Primary processing involves filleting and freezing of fresh fish; while secondary processing produces chilled, frozen and canned products. It is in the secondary processing that most of the value added occurs.

In total, there are almost 200 fish processing plants in GOSLIM area, employing approximately 14,000 persons. Jobs in this industry are largely seasonal. In Quebec Maritime Region, for example, 75 % of fish processing jobs are seasonal, with participants working less than 25 weeks a year.

The Gulf Region hosts the bulk of the fish processing industry in the GOSLIM area, with about 108 plants that employ 10,000 people. These facilities processed more than 8,000 metric tonnes of fish in 2007, which translated into $600 million in revenue. Herring and mussel processing accounted for almost 50 % of the volume of the total fish processed, but lobster and snow crab accounted for 80 % of the total value.

In 2007, there were 70 fish processing plants in the Quebec Maritime Region, which created 4500 jobs. An important point to note is that there has been a sharp rise in fish processing employment in the Gaspe Peninsula since 2001, while there has been a significant decline in the Magdalen Islands. Fish processing contributed $290 million to the region in 2007. The most important species in terms of value were snow crab and lobster. Traditionally, fish processing plants purchased fish from local suppliers. However, this has changed considerably; in 2006, almost 6 million lbs. were purchased from outside of the Quebec Maritime Region. Since 1991, the region has witnessed a shift in focus from primary to secondary processing, mainly due to the increasing profits that are attributed to secondary processing.

There were 18 seafood processing plants in the GOSLIM area of Newfoundland and Labrador Region, as of 2008. These facilities employed 1500 persons; however, there has been a declining trend in processing employment in the region as well as in the province as a whole - the Region has witnessed a 15% decline from 2004 to 2008.

The main markets for fish processed in the GOSLIM area are foreign markets; for example, 70% - 80 % of processed seafood in 2007 in Quebec Maritime Region was exported, The United States imports the largest share of these Canadian processed seafood exports.

### 3.3.5 Aquaculture

Although the aquaculture industry is considered to be relatively small within the GOSLIM area, it is nonetheless a thriving and growing sector in some areas. The aquaculture industry plays a significant role in the GOSLIM area, especially by providing for greater economic diversity. In general, the Canadian aquaculture industry is relatively small, contributing to only 0.27 % of world aquaculture production between the periods of 1995-2000. In 2008, the Government of Canada announced a $70 million investment plan over 5 years to promote the aquaculture industry, and it is expected that this sector will expand in the coming years.

The aquaculture industry in the Gulf Region was practically non-existent a decade ago, but production has increased by 50 % since 2001. This rapid growth has been triggered mainly by technological innovations and increased demand for seafood. In 2008, there were 1,678 active aquaculture production facilities, 65 % of which were located in Prince Edward Island. In terms of species, over 80 % of the aquaculture licenses in the region were dedicated to oyster and blue mussel production.

Aquaculture production in the Newfoundland Region of the GOSLIM area is considered to be unfeasible due to heavy winds and long ice-bound seasons. In fact, from a total of 207 aquaculture licenses for the province, only 7 were registered in this region.

The aquaculture industry in the Quebec Maritime Region is also small, with province-wide aquaculture production representing only 0.44 % of the total Canadian production between the periods of 1995-2000. As of 2002, there were a total of 23 aquaculture companies in the region, and in 2007, total aquaculture production in the Region was 624 tonnes, with 98 % from mussel production.

## 3.4 Marine Transportation

The St. Lawrence River and the Gulf is a major marine corridor that opens central and eastern Canada to international trade markets[3]. This industry also facilitates commerce in primary industries, such as fishing, mining and forestry.

Two ports, Sept-Îles and Port-Cartier have dominated the shipping industry in the Quebec Maritime Region, handling on average 50 million tonnes of cargo annually between the 1996 and 2005. Furthermore, the ports in the Region handled over 45 % of the total provincial volume of cargo, despite Quebec City and Montreal ports being outside the boundary of the GOSLIM area, illustrating

[3] http://www.glf.dfo-mpo.gc.ca/os/goslim-gigsl/s-2-e.php

the significance of this industry to the region. The industry generated approximately $292 million in revenue and created more than 2,300 direct jobs as of 2007. More than 60 % of these jobs reside in the Gaspé Peninsula. In addition to shipping, ferry service also plays an important role in marine transportation. In 2001, ferries in the region carried over 3.2 million passengers, generating $ 26.8 million in revenue.

The Port of Corner Brook is a significant contributor to the Newfoundland and Labrador region's economy. Newsprint, cement and processed frozen fish were the three major exports, in terms of volume, in 2007. Ferry services are also important to the region, particularly between Newfoundland and Nova Scotia. In 2008, there were a total of 438,000 ferry passengers in the Region.

There are two major ports located in the Gulf Region; Charlottetown, Prince Edward Island and Port Hawkesbury, Nova Scotia. In addition, there are two ferry services; Wood Island, PEI to Caribou, NS, and the NL Ferries that serves approximately 475,000 passengers annually.

### 3.5 Tourism and Recreational Activities

The coastal areas of the GOSLIM area provide ample economic opportunities pertaining to marine tourism and recreation. Since there are many activities that fall within this sector, we provide an analysis for the three following categories; 1) recreational fishing, 2) cruise ship generated tourism, and 3) marine related tourism.

#### 3.5.1 Recreational Fishing

Recreational fishing activities bring in revenue and contribute to the provincial economies of the GOSLIM area. Between 2000 and 2005, the three Gulf Region provinces experienced a 22.9 % increase in expenditures associated with recreational angling despite a decline of 23.8 % in the total number of days spent fishing by anglers.

In Quebec, there has been a significant decline in recreational fishing activity in terms of number of days and total expenditures. The number of fishing days decreased by 22 % from 2000 to 2005, but most important to note is that the expenditure associated with angling declined by 64 %.

There were 133,698 licensed anglers in Newfoundland in 2005 who contributed $207.3 million in expenditures associated with angling.

### 3.5.2 Cruise Ship Generated Tourism

Cruise ship activity in the GOSLIM area is a growing industry that contributes to the local economies. Charlottetown, PEI is the only cruise destination port in the Gulf Region. The number of passengers increased by 202 %, from 2007 to 2008 and contributed just over $4 million in passenger and crew expenditure.

The cruise ship industry in Quebec is growing and of great value to the region. The Canadian and provincial government have planned to invest 100 million over the next 5 years in infrastructure development in order to increase the number of cruise ships in the region. The number of cruise ship passengers increased by 220 % between the periods of 2000 to 2008, and total expenditure was valued at $32.3 million for both passenger and crew members as of 2006. Furthermore, this sector has generated $150 million in direct, indirect and induced GDP and created 1,100 full or part-time jobs in the region. In addition, excursion cruises make a valuable contribution to the province, specifically “observation of maritime mammals”, an activity unique to maritime Quebec. This activity brought in $31.2 M in direct revenue in 2001.

Growth in the cruise industry was not evident in the Newfoundland region of the GOSLIM area. In 2008, the estimated value of the cruise industry dropped substantially by 70 % to $460,000 from the previous year. In addition, the number of passengers decreased by 65 % in 2008.

### 3.5.3 Marine Related Tourism

There has been a growing interest in marine related tourism activities such as sea kayaking, scuba diving, coastal hiking and whale and bird watching with potential to generate future income/revenue within the GOSLIM area.

In the Gulf Region, the number of trips with marine related tourism activities was generally stable between the period of 2000 and 2006. Tourist spending attributable to marine related activities decreased for the provinces in the Gulf Region during the same period with the exception of PEI, which experienced an average growth of 3.6 percent from 2003 to 2006.

In contrast, the number of trips related to maritime tourism in Quebec increased by almost 40 percent between the periods of 2000 to 2006 and contributed over $190 million to the economy. Among the Maritime Quebec Regions, it was in the Gaspe Peninsula that tourists spent the most money - $225 million in 2006, which was only 3 percent of total provincial tourist spending. In the same year, just over 1,900 tourists visited the maritime Region of Quebec, representing only 7 percent of all tourists who visited the province.

There is a growing interest in marine related tourism in the Newfoundland and Labrador Region, particularly in the Bay of Islands and Gros Morne National Park

in the Great Northern Peninsula coastal area. However, information on the economic contribution of this industry is not yet available.

## 3.6 Energy

### 3.6.1 Renewable Energy

The development of alternative energy sources is important to Canada and to the GOSLIM area as a way to secure an energy future that is environmentally and economically sustainable.

In the Gulf Region, there are 8 thermal power generation plants, 3 wind farms and 2 hydroelectric plants to produce the energy required in the adjacent provinces. New Brunswick has the highest capacity to generate electricity in this region, accounting for 3.1% of overall Canadian capacity. Development of wind energy in the Gulf Region would benefit PEI since it produces the least amount of electricity of the Gulf Region provinces.

The importance to Quebec of developing alternative energy sources is reflected by the investments made in wind power projects. For the period of 2006 to 2012, investments in wind power projects totalled $4.9 billion, with the ability to create over 5,500 permanent and temporary employment opportunities. Furthermore, hydroelectric production created 1,100 jobs in the North Shore.

### 3.6.2 Nonrenewable Energy

The Oil and Gas industry in the GOSLIM area is not well developed; however, investments are currently being made for exploratory and developmental purposes. In 2006, the three Gulf Region provinces invested $103 million in exploration and development, 85 percent of which was dedicated to New Brunswick. Between the periods of 1990 to 2000, $100 million was invested in oil and gas exploration in Quebec. The Gaspé Peninsula and Anticosti Island have the most potential for producing onshore oil and gas. Similar to other Regions in the GOSLIM area, oil and gas is still at an early stage of development in the Newfoundland and Labrador portion of the GOSLIM area. As of 2008, there were 18 onshore and offshore exploration permits; a large portion of the onshore permits are concentrated in the Bay of St. George area.

## 3.7 Agriculture

Coastal communities in the GOSLIM area are heavily dependent on resource based industries, and agriculture is a major contributor to the economic well-being of the Region along with fishing and forestry.

In the Quebec Maritime Region, there were 2,108 farms covering almost 203,000 hectares as of 2006. This makes up 11 % of all farm land in the province of Quebec. They contributed approximately $260 million to the GDP of the region and employed 5,000 individuals. Field berry production is one of the major industries in this region.

The agricultural sector in the Newfoundland and Labrador Region of the LOMA is dominated by dairy production, contributing $50 million in revenue and providing 480 direct and indirect employment opportunities. Furthermore, there were 70 farms in this area, 80 percent of which were concentrated in and around Bay St. George. Farm cash receipts amounted to over $50 M in 2006; however, it should be noted that this value may be over-stated due to the inclusion of communities outside of the LOMA area.

Agriculture data is only available at the provincial level in the Gulf Region. In 2006, there were more than 8,200 farms with over 1 million hectares in farmland, contributing $1.3 billion to the three provincial economies. Beef, fruit and dairy production are common to all three provinces. However, potato production is of primary importance to PEI, constituting 23 % of PEI's total crop production.

### 3.8 Forestry

The forest industry has undergone a major transition due to rising energy costs, a strong Canadian dollar, diminishing demand and global competition. During the past ten years, the three provinces in the Gulf Region have experienced a major transition in forestry employment and export revenue. The industry has suffered a 12 % decrease in employment: 5,400 jobs were lost in the primary forestry and pulp and paper industry, while 2,000 new jobs were created in the 'wood product' industry, illustrating a shift away from primary forestry industries towards more value added production. This shift is further evidenced in the change in export revenue during this period. For instance, pulp and lumber export revenue decreased by 42 %, while export revenue in 'other wood' products increased by 53 %. Although the paper industry in general has faced a downward trend, Nova Scotia has experienced almost a 90 % increase in paper export revenue, thus contributing to the overall 12 % growth for the provinces within the same time period.

Quebec's forestry industry shares similar economic trends as the Gulf provinces. During the period of 2005 to 2009, there were 15 permanent factory closures in the Quebec Maritime Region, which resulted in the loss of almost 2,400 jobs. Although there are no trend data available regarding product shifts, the importance of wood products can still be seen - 49 % of total forestry revenue in the Region was generated from wood products.

The province of Newfoundland and Labrador has faced the same challenges in the industry as the other two Regions. For instance, during the period of 1997-2007, there was a 67 % decline in employment related to forestry, logging and supporting activities. The trend seen in the other two Regions continues in Newfoundland and Labrador. Newsprint and lumber production have decreased substantially. In 2008, the volume of provincial lumber production is estimated to have declined by 40 %.

### 3.9 Mining

Canada's wealth of resources has led it to be one of the world's largest mineral producers, representing 19 % of Canadian goods exported in 2007[4].

In the Quebec Maritime Region, there were 488 active mining sites as of 2008, out of which, 82 % were located in the North-shore Region of the GOSLIM area. The two aluminum plants alone; Alcoa and Aluminerie Alouette Inc. produced approximately 36% of Quebec's total aluminum production, while employing 2,000 individuals as of 2005. Quebec's future mining potential can be associated with China's continuous economic development, which has been causing an increased demand for iron ore since 2004.

Similarly, the province of Newfoundland and Labrador has experienced a substantial growth in its mining industry. In 2007, mineral exports brought in nearly $3.9 billion; a 470 % increase since 2004. Although mining activity in the Region is relatively small, it is expected to grow in the near future, particularly in the Port au Port and Stephenville areas. Some of the mined resources which have been exploited in the area are limestone, dolomite, gypsum, peat, salt and potash.

Similar to the other two regions, there appeared to be an increasing trend in this industry for the Gulf region provinces of New Brunswick and Nova Scotia since 2003. Prince Edward Island, on the other hand, has experienced a negative trend since 2001, but detailed data are not available. In 2006, production for New Brunswick and Nova Scotia was valued at $1.85 billion, 87% of which came from New Brunswick, making it the most important of the three provinces. Employment in Nova Scotia has stabilized at about 1,000 persons after a downward trend up to 2002, while New Brunswick employment has stabilized at about 2,000 persons after a downward trend up to 2001.

[4] Source: The Mining Association of Canada

## 4.0 Overview of the Cultural Context

Culture is represented by history, language, art and religion in a community and contributes to building and maintaining a community's identity. In the preceding social and economic sections of this study, indicators were used to conduct analyses. However, cultural features cannot be evaluated in a similar manner due to lack of indicators. Since the scope of this study includes only available resources, non market valuation methods and cultural value surveys were not pursued for this report. Instead, significant cultural features are simply listed here, with more details to be found in regional chapters.

### 4.1 Museums & Historic Sites

The cultural richness of the GOSLIM area is emphasized by its various cultural centers - historic sites, shipwrecks and museums - that allow visitors to discover the history of the region and to appreciate aspects that are unique to Atlantic communities.

In the GOSLIM area, there are 99 museums, 20 historical sites, and 23 shipwrecks, all of which are vital to the cultural foundation of the local communities. Worth highlighting is the internationally recognized L'Anse aux Meadows National Historical Site, located in the Newfoundland and Labrador Region.

### 4.2 National & Provincial Parks

National and Provincial Parks are important to the cultural identity of Canada's coastal Regions as they provide for recreational activities, camp grounds, natural features and landscapes.

Conservation and stewardship programs exist within the LOMA regions in order to preserve and protect the natural beauty and the resources that national and provincial parks provide to the public. For instance, within the marine and coastal area of the Gulf of St. Lawrence, there are more than ten thousand square kilometres of conservation and protected areas; including ecological reserves, migratory bird sanctuaries, wildlife areas, wetlands, heritage rivers, *etc.* In the Newfoundland and Labrador Region of the LOMA, there are 32 species listed under the Species at Risk Act as of 2009. To address the conservation needs of these species, local and national stakeholders have taken initiative by developing stewardship programs such as the Limestone Barrens Habitat Stewardship program.

## 4.3 Aboriginal Culture

Aboriginal communities in the Gulf of St. Lawrence contribute to the richness and diversity of this Region. Mi'kmaq is the dominant aboriginal group within, and their culture is deeply intertwined with maritime life. For instance, the Mi'kmaq group in Quebec is highly dependent on salmon fishing for traditional cultural reasons as well as subsistence. In the Newfoundland and Labrador Region, the bands that have struggled with a loss of culture have more recently seen a great interest in the revival of their traditions through the annual celebration of Aboriginal Day on June 21 to share their knowledge on traditional practices such as sunrise ceremonies, religious services, feasts, dances and ceremonial exchanges.

Traditional language is vital to the conservation of Mi'kmaq culture, along with many other traditional practices. However, statistics show that the language is not widely used throughout the communities; in the Gulf Region only 26.5 % of aboriginals who live on reserves use their native language at home, with the highest language use (approximately 65%) occurring in the Richibucto reserve. In Newfoundland and Labrador the language is no longer used routinely, although it is carried on through traditional songs. In Quebec, the language is taught in schools and is widely used in the Listuguj and Gesgapegiag communities.

## 5.0 Governance

The governance and management of ocean related activities in the GOSLIM area is an interactive process involving federal, provincial, regional, municipal, Aboriginal, industry, resource user, non-governmental organization, community, and academic/research interests. Key organizations representing these interests include the Government of Canada, Provincial Governments, municipalities, Aboriginal groups, non-governmental organizations (NGOs), and business and industry.

### 5.1 Federal Department and Agencies

Within the federal government alone, over 20 departments or agencies are involved in the oceans sector through various legislation, regulations, programs and/or services. The lead federal organization in oceans management is Fisheries and Oceans Canada, which is responsible for coordinating federal policies and programs related to oceans, including fisheries, habitat, conservation and protection, maritime safety, aquaculture, hydrographic services, and integrated management. Table 5.1 lists the various Federal Departments with legislative responsibility for oceans activities within the GOSLIM area.

**Table 5.1: Federal Departments with Legislative Responsibility for Oceans Activities in the GOSLIM Area**

| Department | Legislation |
|---|---|
| Fisheries and Oceans Canada | *Oceans Act, Canada Shipping Act, Coastal Fisheries Protection Act, Fisheries Act, Fisheries Development Act, Fishing and Recreational Harbours Act, Fish Inspection Act, Government Organization Act, Navigable Waters Act, Oceans Act, Species at Risk Act* |
| Department of Foreign Affairs and International Trade | *Coasting Trade Act, Foreign Affairs and International Trade Act, Oceans Act* |
| Department of National Defence | *Canadian Shipping Act, Emergencies Act*, *International Convention for the Safety of Life at Sea* |
| Department of Justice | *Department of Justice Act, Oceans Act* |
| Department of Indian and Northern Affairs | *Arctic Waters Pollution Prevention Act, Canada Petroleum Resources Act, Nunavut Land Claims Agreement Act, Western Artic (Inuvialuit) Claims Settlement Act* |
| Natural Resources Canada | *Arctic Waters Pollution Prevention Act, Canada-Newfoundland Atlantic Accord Implementation Act, Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation Act, Canada Oil and Gas Operators Act, Canadian Petroleum Resources Act, Resource and Technical Surveys Act, Species at Risk Act* |
| Transport Canada | *Canada Shipping Act, Coastal Trade Act, Government Organization Act*, *International Convention for the Safety of Life at Sea, National Transportation Act* (1987)*, Pilotage Act, Public Harbours and Port Facilities Act, St. Lawrence Seaway Authority Act, Shipping Conference Exemption Act* (1987) |
| Privy Council Office | *Canadian Transportation Accident Investigation and Safety Board Act* |
| Environment Canada | *Canadian Wildlife Act, Canadian Environmental Assessment Act, Canadian Environmental Protection Act, Fisheries Act* (sections 36-42), *Government Organizations Act, Migratory Birds Convention Act, Species at Risk Act* |
| Department of Canadian Heritage | *National Parks Act, Species at Risk Act* |
| Health Canada | *Food and Drug Act* |
| Public Works and Government Services Canada | *Department of Public Works and Government Services Act* |

| | |
|---|---|
| Industry Canada | *National Research Council Act; Government Organization Act Atlantic Canada 1987; Natural Sciences and Engineering Research Act* |

## 5.2 Provincial

Five provincial governments (NS, NB, PEI, QC and NL) have jurisdiction over land-based activities within their respective Provinces within the GOSLIM area, many of which interact directly and indirectly with the marine environment. In the past, the Government of Canada has delegated a number of marine related responsibilities to Provincial governments including aquaculture licensing responsibilities within the respective Provinces. The Department of Fisheries and Aquaculture and the Department of Environment share the lead in integrated coastal and oceans management within Provinces. As shown in table 5.2, there are 28 departments and over 100 provincial legislative acts that govern directly or indirectly the activities associated with the marine environment of the Estuary and the Gulf of St. Lawrence.

**Table 5.2: Number of Provincial Departments and Acts Associated with Ocean Management in GOSLIM Area**

| Province | Number of Departments | Number of Acts |
|---|---|---|
| Newfoundland and Labrador | 6 | 13 |
| Quebec | 6 | 68 |
| New Brunswick | 7 | 17 |
| Nova Scotia | 7 | 17 |
| Prince Edward Island | 2 | 3 |
| Total | 28 | 118 |

## 5.3 Joint Federal/Provincial Management

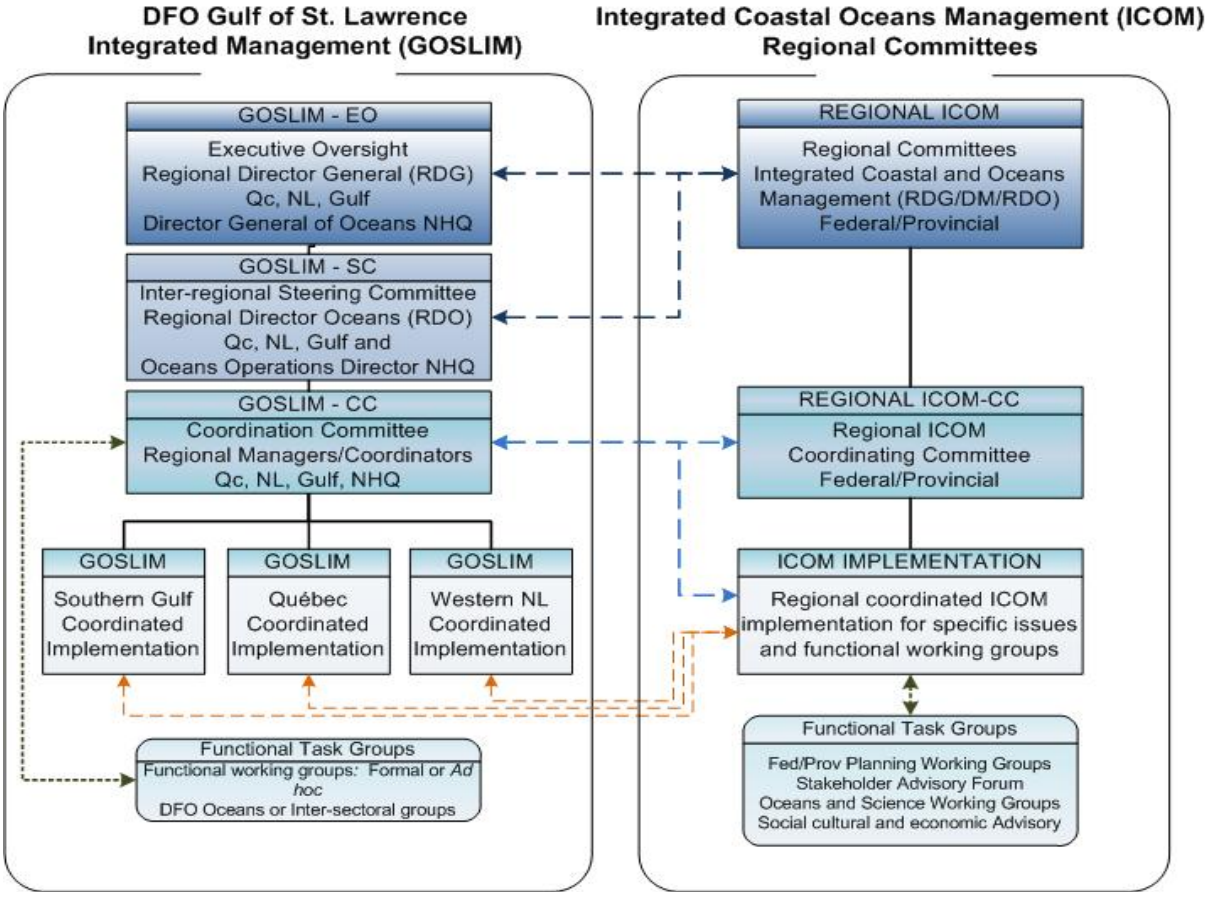
A number of marine activities throughout the GOSLIM area are managed at a joint Federal/Provincial level representing the shared interests of both levels of government. For example the Canada - Newfoundland and Labrador Offshore Petroleum Board (CNLOPB) and Canada-Nova Scotia Offshore Petroleum Board (CNSOPB) manages oil and gas activities within the offshore regions

Newfoundland and Labrador and of Nova Scotia respectively. Furthermore, there have been various agreements signed between the Federal and Quebec government including, the Canada-Quebec Agreement on the St-Lawrence 2005-2010 (2005).

Since 1999, the Canadian Council of Fisheries and Aquaculture Ministers (CCFAM) enables the provinces, territories, and federal government to work in partnership under a broad oceans mandate. The Oceans Task Group (OTG) under the CCFAM is a vehicle for collaborative governance and coordination of efforts to resolve federal, provincial, and territorial issues of strategic importance regarding Canada's oceans. In the three Maritime Provinces a Regional Implementation Committee has been established including CCFAM OTG representatives. The Maritime Provinces Regional Committee for Oceans Management (RCOM) provides the executive level collaborative oversight for the Southern Gulf component of the GOSLIM as well as the Eastern Scotian Shelf Integrated Management Initiative (ESSIM) and the Gulf of Maine IM efforts.

The figure below shows the proposed integrated oceans management governance structure for the whole of GOSLIM area:

**GULF OF ST. LAWRENCE INTEGRATED MANAGEMENT (GOSLIM) GOVERNANCE FRAMEWORK**



## 5.4. Municipal Governments

Many Municipal governments enforce by-laws to manage activities occurring within municipal boundaries; activities that have the potential to interact with the marine environment such as sewage disposal and development of coastal areas. Communities not incorporated as municipalities are organized as local service districts, which is a common practice in the Bay St. George/Port au Port and Great Northern Peninsula coastal areas of Newfoundland. Municipal governments have the potential to contribute to the sustainability of coastal and marine areas through responsible coastal and infrastructure planning. In total there are nearly 400 municipalities bordering the GOSLIM area.

## 5.5 Aboriginal Governance

First Nations and other aboriginal groups have a shared interest in the management of coastal and marine activities and resources within the GOSLIM area. The Constitution Act (1982) and the Oceans Act (1997) respects the historical treaties and traditional rights of aboriginal people. In addition, the Aboriginal Aquatic Resource and Oceans Management (AAROM) program provides funding to qualifying Aboriginal groups to form aquatic resource and oceans management organizations to allow them to effectively participate in decision-making and advisory processes. Aboriginal people have much to contribute to the management of coastal and marine activities and resources through their traditional ecological knowledge; knowledge that is an important component of understanding this complex marine environment.

## 5.6 Non-Governmental Organizations

There are numerous non-governmental organizations throughout the GOSLIM area that share an interest in the management of marine activities and resources including economic development boards and associations, environmental, stewardship and conservation groups, and academic and research institutions.

### 5.6.1 Economic Development Boards and Associations

Economic development boards and associations throughout the GOSLIM area focus on the socio-economic significance of coastal and marine resources and activities. Economic development boards and associations are coordinated at the Provincial level but operate on a local scale. Working closely with Federal, Provincial and municipal governments; economic development boards and associations support the socio-economic interests of municipalities within their respective counties[5].

5 LeBlanc, M. and C. LeBlanc. 2001. Governance Models for Community Groups, Southern Gulf of St. Lawrence (unpublished).

### 5.6.2 Environmental, Stewardship and Conservation Groups

Environmental, stewardship and conservation groups throughout the GOSLIM area focus on the management, conservation and protection of coastal and marine resources and ecosystems. These groups generally operate at a local or provincial scale, capitalizing on support and resources from Federal and Provincial governments.

### 5.6.3 Academic and Research Institutions

A number of academic institutions throughout the GOSLIM area provide educational and research programs directed at marine related activities. Academic and research institutions develop modern technology to support ocean activities, and provide scientific advice to government and industry on ocean related matters.

# 6 Next Steps

This report is a first attempt at providing baseline information on a wide range of social, economic, and cultural features as well as human activities in the GOSLIM area. As DFO moves forward with the implementation of the integrated management approach of ocean resources, this document may be treated as a living document by regularly updating and refining the information provided, so that it better serves the needs of integrated resource managers.

In looking forward, it is important to keep in mind some of the first hand lessons learned so far. Data and information are not always available at the required geographic scales or area. Data generated nationally, such as Statistics Canada tables, is generally available for all provinces. However, data generated by provinces or regional bodies is often disparate. Hence, the information picture for GOSLIM is sometimes characterized by the use of different shades and hues across the region. The cultural section, in particular, should be improved by establishing methodology and indicators which will add value to this report.
Nevertheless, this report provides a good first building block upon which to continue perfecting the social, economic and cultural profile of the integrated management area.