

# THE STATE OF BRITISH COLUMBIA COASTAL COMMUNITIES IN 2015

## INTRODUCTION

Provincial  
GDP 2013:  
\$229  
billion

Population  
(2014):  
4,631,000

889+  
communities  
161  
municipalities

Coastal communities across British Columbia are surrounded by vast natural resources and unparalleled beauty. The ocean is at the heart of these communities – providing food, transportation, recreation, a sense of place, and so much more. The relationship between these communities and the ocean helps define their economic, social and cultural fabric. For post-settlement communities this association goes back over 150 years, while for First Nations, thousands of years of economic activity, knowledge, traditions and culture have evolved with the ocean and its resources.

In recent years, pressures have begun to multiply along the coast, and access to coastal resources has shifted away from rural communities toward urban centres. Declining populations and the loss of a local tax base associated with the decline in the resource sectors has created new challenges for certain communities, while others face pressures of near-doubling populations. These, among many other issues, are inextricably linked to how we govern and manage our coasts. By better understanding the nature of the issues facing coastal communities today, we can develop pragmatic and effective solutions.

## SOCIAL

Coastal  
Population  
(2014):  
3,344,178

Excluding  
GVRD and  
Capital:  
497,592

300+  
communities

74  
municipalities

People living in coastal communities depend on the ocean for their livelihoods, culture, and recreational pursuits. This, in turn, puts pressures on local ecosystems. In some areas of coastal B.C., population is on the rise – particularly in the Georgia Basin; by 2025, an estimated million people are expected to move to Metro Vancouver. The indigenous population of B.C. is undergoing rapid change, with the population under 25 equal to the entire population over 25. Yet in most northern coastal regional districts, populations are in decline as people move to larger urban centres. Prince Rupert, for example, had the largest decrease in population between 2013 and 2014 of any community in BC.

Coastal regional districts vary immensely in their socio-economic index (which combines rankings of human economic hardship, crime, health, education, children-at-risk, and youth-at-risk). In general, rural parts of British Columbia (regardless of whether they are coastal) tend to have lower levels of education and health than the provincial average. The Skeena-Queen Charlotte, Kitimat-Stikine and Alberni-Clayoquot regional districts were ranked the three worst-off in the province in 2012. On the other end, the Comox-Strathcona, Greater Vancouver, Sunshine Coast and Capital regional districts are among

the top six. Many demographic trends – including crime and substance abuse – are linked to changes in traditional fishing and forestry sectors, which have hit particularly hard in the north and central parts of BC.

The ocean forms the cultural lifeblood of coastal communities. Fish in particular have played a major role in shaping the culture and spiritualism of many First Nations in the Pacific Northwest. In a recent study of the values in the fishing sector of Northern BC, it was found that the cultural connections made through fishing were extremely important to participants. Furthermore, a desire to teach the future generation about their roots, culture, traditions, and reliance on fish was very strong, along with the importance of protecting these traditions by conserving fish and the ocean. Fishing is just one aspect of coastal life; the ocean also provides space for travel, recreation, and much more. Inhabitants of coastal areas are often very concerned about threats to the coast that could disrupt their entire way of life.

## ECONOMIC

EEZ Area: 450,000 km <sup>2</sup>	BC's ocean economy was built around fishing, coastal logging, marine transport, and ship building. It has since expanded, and now the major components of the ocean-based industries in order of importance are: recreation (e.g., boating, cruise ship tourism, ferry travellers, whale watching, etc.; 33%), transport (29%), and seafood (12%). According to a 2007 report, economic activity that relies on the marine environment contributed \$11 billion to BC's provincial GDP and 168,000 person-years of employment, amounting to 7-8% of the provincial economy. Yet there is little documentation of the role of the informal economy in coastal communities and particularly how the marine environment is linked to community well-being.
Marine related jobs: 168,000	
Marine dependent GDP 2005: \$11 billion	
Visitors per year: 14 million	The economic prospect of BC's coastal communities in the next ten years is variable. The Mainland/ Southwest and Vancouver Island/Coast regions are expected to account for the majority of total projected job openings. The Northeast and North Coast and Nechako regions are expected to have the lowest number of total job openings, despite having the highest expected annual demand growth.
Vessel transits (>400 GT) in 2012: 29,185	Many communities have infrastructure deficits that will require considerable investment in the future. From transit issues to wastewater treatment, infrastructure deficit makes it difficult to attract new industry. So while many communities have experienced a decline in their contribution from the marine environment, they are further challenged in positioning their communities in new economies.

With the closure of several industrial operations in recent years, communities' industrial tax base has eroded. Where this has led to out-migration of the associated workforce, housing prices have fallen because of the surplus of homes on the market. In some cases the homes may be purchased by seasonal residents who spend less locally, resulting in further impacts on the local service sector.

### Specific Economic Sectors

#### Fisheries & Aquaculture

Fisheries, both commercial and recreational, have historically provided a consistent economic base and strong community cohesion across coastal B.C. However, recent challenges including globalization, shifting ocean conditions, and evolving fishery management philosophy have devastated the salmon and herring sector in Canada's Pacific fishery. Yet over the same period, other Pacific fisheries, specifically groundfish and invertebrate fisheries, have grown and flourished.

Since the 1980s, BC's fishing fleet has shrunk by 60%, and the number of fishermen has decreased by 70%. Changes in management practices have shifted licence and vessel ownership from individuals to companies and from rural to urban areas. The industry is plagued by strict federal policies that drive fishing profits away from local fishermen and communities and into fewer hands. If the fishing sector is to remain a pillar of economic, social and cultural stability for these communities, it will need to be redesigned and rebuilt.

Coastal First Nations people have relied on fish for millennia to provide them with a crucial source of nutrients and food energy. Fish were therefore treated with the utmost respect, shaping their culture and spiritualism. The arrival of Europeans in the late 1700's marked the beginning of drastic changes in traditional fisheries, leading to rippling effects for the social, cultural and spiritual aspects of First Nations fishing. Through industrialization and commercialization, traditional ecological knowledge was ignored and First Nations' access to fisheries was increasingly limited. This has only begun to change recently, as the BC Supreme Court recognizes that fishing is central to the culture, traditions and way of life of many coastal peoples. After conservation, First Nations fishing for food, social and ceremonial purposes has priority.

Aquaculture has flourished in British Columbia over the past forty years, becoming an important contributor to the economy of resource-based coastal communities. About 740 aquaculture operations in B.C. produce salmon, other finfish and shellfish year-round, with a total harvested value of nearly \$534 million (in 2010). The aquaculture industry in B.C. represents more than half the total aquaculture production in Canada. Aquaculture is dependent on good water quality conditions, which are affected by other marine activities and climate change. There is significant concern about the impacts of finfish aquaculture, including the spread of sea lice, increased waste below pens, escapement of farmed fish, and spread of disease to wild stocks.

#### Tourism & Marine Recreation

Tourism generates up to \$13.4 billion in spending and \$7.5 billion in British Columbia's GDP annually. In 2014, nearly 14 million international visitors travelled to BC. The coast is a particularly alluring area for tourism – offering opportunities for recreational boating, paddle sports, whale watching, scuba diving, and much more. Individual communities vary somewhat in their dependence on tourism, from a low of 2% in Kitimat to 11% on Haida Gwaii, though these numbers have been in decline. Many communities are limited in their ability to capture more tourism due to declining populations, narrow recreational seasons, lack of business resources, inadequate infrastructure, and high transportation costs combined with changing and decreased schedules. However, as communities' connections to fishing and forestry decline, tourism has the potential to contribute an increasing share of the economic base to help stabilize and grow communities.

The BC Coast remains an iconic destination for many ocean recreation activities, but our understanding of how these might be affected by overuse or mismanagement of the resource is not clear. Many First Nations have yet to resolve cultural issues concerning the use and exposure of traditional knowledge in tourism. Yet traditional knowledge is itself a tourism asset among eco-tourism markets and may represent an avenue for preserving cultural values.

## Marine Transportation

Marine transportation facilitates a broad range of activities that are vital to coastal communities and BC's economy. Connecting communities from a regional to international scale, transportation is critical to the economic and social well-being of remote areas. The vast majority of large vessel (>400 GT) transits occur in southern BC; and overall vessel traffic is forecasted to remain much higher in the Vancouver area than farther north on the coast. The greatest changes in vessel traffic could be seen in areas with major proposed projects, including Prince Rupert, Stewart, and Kitimat. Throughout coastal communities, there is high concern over the potential detrimental effects of marine transportation on the marine environment – including vessel discharges, spill response, port developments, noise pollution, and more.

## Industrial Development

Change is certainly on the horizon – a plethora of proposed development projects could be affecting coastal areas over the coming decade. These projects amount to an estimated \$37 billion in potential investment and roughly 15,000 short-term construction jobs and 2,000 long-term operational jobs. While there is considerable uncertainty over how much development will actually proceed, the consequences of new and existing industrial activities are likely to be very significant. In most cases, these development projects will entail significant economic, environmental, and social impacts.

## ENVIRONMENT

27,000 km  
of coastline

6,500  
islands

Marine  
protected  
areas: 197

Marine fish  
species:  
409

Marine  
mammal  
species: 31

British Columbian waters are home to diverse and plentiful marine life: ancient glass sponge reefs; globally-significant bird populations; a wide variety of whales, dolphins, porpoises, and pinnepeds; and hundreds of fish species. Additionally, coastal ecosystems provide many ecological services, such as nutrient regulation, water treatment, nursery functions, and recreation opportunities. Combined, the marine environment provides for many commercial, cultural, and ecological benefits.

More marine species and ecosystems are at risk than ever before due to warming waters, ocean acidification, pollution, habitat destruction, and sea level rise; but as yet there is little agreement as to the best way to deal with these issues. An important conservation tool is protected areas, both terrestrial and aquatic (Table 1). Development of a network of marine protected areas (MPAs) could provide benefits such as: the preservation of ecosystem components, the conservation of economic opportunities, creation of new economic opportunities, the enhancement of recreational opportunities, and the preservation of cultural values and scientific opportunities. Conversely, MPA costs include loss of economic opportunities and recreation opportunities, and management expenses.

BC currently has 197 marine protected areas totalling an area of approximately 14,450 km<sup>2</sup> or 3.2% of Canada's Pacific waters from the coast to the far boundaries of the Exclusive Economic Zone. These include many provincially-designated areas, such as the Race Rocks Ecological Reserve and the Hakai Conservancy. Additionally, there are two federally-designated MPAs (Bowie Seamount and Endeavour Hydrothermal Vents) and one National Marine Conservation Area Reserve (Gwaii Haanas). There are two Marine Protected Areas in development (Hecate Strait / Queen Charlotte Sound Glass Sponge

Reefs and Race Rocks), a proposed Marine National Wildlife Area (The Scott Islands), and a proposed National Marine Conservation Area for the Southern Strait of Georgia.

*Table 1.* The various forms of spatial environmental protection measures (terrestrial and aquatic) under municipal, provincial and federal jurisdiction. Others include aboriginal/indigenous protected areas, private protected areas, and United Nations biosphere reserves.

<b>MUNICIPAL/REGIONAL</b>	<b>PROVINCIAL</b>	<b>FEDERAL</b>
Municipal Park	Provincial Park	National Park (Parks Canada)
Regional Park	Ecological Reserves	Marine Protected Area (Fisheries and Oceans Canada)
Botanical Gardens	Protected Area	National Marine Conservation Area (Parks Canada)
Conservatories	Conservation Area	Marine Wildlife Area (Environment Canada)
	Recreation area	National Wildlife Area (Environment Canada)
	Wildlife Management Area	Migratory Bird Sanctuary (Environment Canada)
		Rockfish Conservation Areas (Fisheries and Oceans Canada)

Protected areas can be a contentious issue – while some user groups advocate for them, others perceive them as a hindrance. Protected areas require broad support, effective integration into regional landscapes, and strong local stewardship. Many studies have shown that the establishment of protected areas lead to many benefits for coastal communities, ranging from enhanced food security to political empowerment, but can also negatively affect a minority of fishers. The objectives of protected areas must reconcile those of Aboriginal peoples, local communities and a range of other stakeholders.

## GOVERNANCE

- >15 federal Agencies
- 8 provincial Ministries
- 14 Coastal Regional Districts
- 80 Coast First Nation Communities
- >24 Governance Agreements
- >56 Advisory Committees

Given the vast area of BC’s coastal and ocean territory and its wide array of uses, it is no wonder that it is complicated to govern. Several authorities are responsible for various aspects coastal management and planning (see Tables 2 and 3). At least fifteen federal agencies and eight provincial Ministries have a role in ocean management, in addition to the roles of local government and First Nations. This patchwork of First Nations, federal, provincial and municipal agencies can fail to co-ordinate regulatory efforts, leading to conflicts among competing user groups. The marine realm is currently managed on a project-by-project basis through sector-by-sector strategies that do not provide integrated management.

The complexity of ocean jurisdiction should not prevent action and successful strategy development. In recent years, BC has taken positive steps such as the Marine Planning Partnership (MaPP) to improve coastal management. MaPP is a collaborative initiative aimed at sustainable development, economic opportunity, and ecological integrity for the North Pacific Coast. MaPP has been in progress since 2011; marine plans were completed in spring 2015, with a regional action framework to follow. MaPP is an agreement between the province and First Nations; but there is also growing interest and support for a greater role of local government in marine planning efforts. West Coast Aquatic, the

Islands Trust, the MaPP subregional planning processes, and the Skeena Watershed Conservation Coalition are all examples of attempts to increase the inclusivity of decision making.

Table 2. The various aspects of ocean management that fall under municipal, provincial and federal jurisdiction.

<b>MUNICIPAL/REGIONAL</b>	<b>PROVINCIAL</b>	<b>FEDERAL</b>	<b>FIRST NATIONS</b>
Aquaculture	Aquaculture, Commercial Fishing, Seafood Processing, Sport Fishing	Aquaculture, Commercial Fishing, Sport Fishing	Aquaculture, Commercial Fishing, Sport Fishing
Ocean Recreation	Ocean Recreation	Ocean Recreation	Ocean Recreation
Marine Transportation (ports)	Marine Transportation (ports)	Marine Transportation, Marine Safety, Navigation	Marine Transportation
	Environmental Assessments	Ocean Disposal	
	Marine Energy and Mining	Marine Energy and Mining, Marine Tenures, Oil and Gas Development	
	Research, Monitoring and Enforcement	National Defence and Public Safety	

(Robinson Consulting and Associates Ltd., 2012).

Table 3. Governing roles over coastal shores.

	<b>MUNICIPAL/REGIONAL</b>	<b>PROVINCIAL</b>	<b>FEDERAL</b>	<b>FIRST NATIONS</b>
Backshore	Plan and regulate land use through OCPs, zoning, development permits, etc.	Issue tenures (permit, licence of occupation, lease or grant) and sale of provincial Crown lands	Fish habitat protection, including shoreline / riparian vegetation and timing windows	Planning and regulation in Reserve lands; may be negotiating Treaty rights elsewhere
Foreshore	Land use planning & regulation extends into foreshore that lies within local government boundary	Issue tenures over all foreshores	Fish and fish habitat protection, public navigation	Planning and regulation in Reserve lands; may be negotiating Treaty rights elsewhere
Nearshore	Land use planning & regulation extends into nearshore areas that lies within local government boundary	Issue tenures over all nearshore areas in inland seas	Fish and fish habitat protection, public navigation	Planning and regulation in Reserve lands; may be negotiating Treaty rights elsewhere

(Islands Trust, 2009)

The province has the capacity to build on successes and partnerships with First Nations and coastal communities in order to plan for the future. Effective coastal and ocean management should be one of BC's highest priorities, as the coast is one of our most valuable resources. In 2009, the province released an Ocean & Coastal Strategy that highlighted four major issues and opportunities: economic development, fisheries reform, ocean health, and hardship in coastal communities. Outlines for four Action Plans were developed to address these issues, centering around:

1. Growing and greening our ocean and coastal economy by making smart investments in people, technology, and innovation.
2. Ensuring that BC's marine fisheries are well-managed, sustainable, and remain a significant part of coastal British Columbian economies.

3. Protecting the health of our ocean and the benefits it provides.
4. Creating a foundation for health and prosperity in our coastal communities by planning collaboratively for the future.

To date, no formal progress report has been given on these outlines. However, a joint Canada-BC MPA Network Strategy was released in 2014, a step towards protecting ocean health and ecological integrity, and the First Nation-BC MaPP plans endorsed in April 2015 are a step towards planning collaboratively for our future.

Integrated marine planning (IMP) brings together stakeholders to plan and manage the region through face-to-face interaction to seek consensus on management strategies. Jointly agreeing on goals and objectives, followed by developing and implementing plans to achieve these mutually agreed-upon goals, aims to meet the interests of all stakeholders. Integrated management strategies have been shown to outperform single focus measures and are ideal for achieving effective ecosystem-based management. IMP can ensure the environmental health of the region and encourage sustainable development of the economy, especially with increased resource use in the coming decades. IMP can help ensure the prosperity of BC's diverse and valuable coastal communities.

## SUMMARY

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British Columbia's coastal communities are diverse in many ways, but are all connected by the Pacific Ocean. These communities have developed cultures, societies and economies that are intertwined with the vast ocean resources that surround them. We are in a time of significant change, with shifting population pressures, proposed major industrial developments, and growing impacts of climate change. Considering the changes and pressures ahead, a coordinated government effort facilitated through integrated marine planning may be a way to secure a prosperous future for BC's coast.

## REFERENCES

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- BC Stats. Socio-Economic Indices – Overall Regional Socio-Economic Index by LHA. Retrieved on 2015-08-14 from: <http://www.bcstats.gov.bc.ca/StatisticsBySubject/SocialStatistics/SocioEconomicProfilesIndices/Profiles.aspx>
- Beckley, T. M. (1995). Community stability and the relationship between economic and social well-being in forest-dependent communities.
- Binkley, C. S., Percy, M., Thompson, W. A., & Vertinsky, I. B. (1994). A general equilibrium analysis of the economic impact of a reduction in harvest levels in British Columbia. *The Forestry Chronicle*, 70(4), 449-454.
- Destination BC. (2014). Tourism Indicators – 2014 Year in Review. Retrieved on 2015-08-24 from: [http://www.destinationbc.ca/getattachment/Research/Industry-Performance/Year-In-Review/Tourism-Indicators-2014-Year-in-Review/Provincial-Tourism-Indicators\\_2014-Year-in-Review.pdf.aspx](http://www.destinationbc.ca/getattachment/Research/Industry-Performance/Year-In-Review/Tourism-Indicators-2014-Year-in-Review/Provincial-Tourism-Indicators_2014-Year-in-Review.pdf.aspx)
- Fisheries and Oceans, Dept. of. (2015). Hecate Strait and Queen Charlotte Sound Glass Sponge Reefs Marine Protected Areas Regulations. *Canada Gazette*. 149 (26).
- Fulton, E. A., Smith, A. D., Smith, D. C., & Johnson, P. (2014). An integrated approach is needed for Ecosystem Based Fisheries Management: insights from ecosystem-level management strategy evaluation. *PLoS one*, 9(1).
- G S Gislason & Associates Ltd. et al. (2007). Economic contribution of the oceans sector in British Columbia. Report Prepared for Canada/British Columbia Oceans Coordinating Committee. Vancouver, B.C.
- Hallin, L. (2014). Tourism Indicators 2012. Prepared for Destination BC by BC Stats.
- Islands Trust. (2009). Coastal Shore Jurisdiction in British Columbia. *Green Shores*. Retrieved on 2015-08-24 from: [http://www.islandstrust.bc.ca/media/262837/Greenshores-JurisdictionIssueSheet\\_finalVer4.pdf](http://www.islandstrust.bc.ca/media/262837/Greenshores-JurisdictionIssueSheet_finalVer4.pdf)
- Joseph, C., & Gunton, T. I. (2009). Benefits of Marine Planning: An Assessment of Economic and Environmental Values (No. 4). *Marine Planning Research Report*.
- Living Oceans Society (2013). Marine Protected Areas in BC. Data acquired from the Canadian Council on Ecological Areas, Living Oceans Society, and Province of BC. S [http://www.livingoceans.org/sites/default/files/oceanEcosystems\\_mpa\\_size\\_apr2013.pdf](http://www.livingoceans.org/sites/default/files/oceanEcosystems_mpa_size_apr2013.pdf)
- Markey, S., Halseth, G., & Manson, D. (2008). Challenging the inevitability of rural decline: Advancing the policy of place in northern British Columbia. *Journal of Rural Studies*, 24(4), 409-421.
- O'Donnell, K., Hesselgrave, T., & Macdonald, E. (2013). Understanding Values in Canada's North Pacific.
- Ommer, R. E. (2007). *Coasts under stress: Restructuring and social-ecological health*. McGill-Queen's Press-MQUP.
- Ommer, R., Perry, I., Cochrane, K. L., & Cury, P. (2011). *World fisheries: a social-ecological analysis*. John Wiley & Sons.
- Robinson Consulting and Associates Ltd. (2012). Socio-economic and Cultural Overview and Assessment Report for the Pacific North Coast Integrated Management Area. Fisheries and Oceans Canada, Ecosystem Management Branch, Oceans Division.