

Chapter 7: British Columbia

British Columbia Within Canada

- Lies at the western edge of Canada's land mass
- Cordillera dominates the landscape while Interior Plains occupies a small portion of its northeast corner
- Alaska Panhandle: strip of the Pacific coast north of 54° 40' N latitude that was awarded to the US in 1903 following what is known as the Alaska boundary dispute
- Emerging giant within Canada's economic system
- West coast region's economy is heavily based on its natural resources and the export of those
- BC's scenic beauty supports a vibrant tourist industry and its expanding knowledge-based industries help drive economic growth in new directions
- Most exports go to USA though exports to Pacific Rim countries continue to climb
- Lumber, pulp, natural gas, and coal are the province's four main exports
- Imports flow through Vancouver to markets across Canada
- British Columbia-Alberta-Saskatchewan Trade, Investment, and Labour Mobility Agreement (TILMA): agreement gives businesses and workers in all 3 provinces seamless access to a larger range of opportunities across all sectors
- BC's rate of economic and population growth have outperformed the national rates even with a depressed forest industry
- Struggle for political power and respect is ongoing and underscores the centralist / decentralist faultline
- Cascadia: name proposed for an independent sovereign state advocated by a grassroots movement in the Pacific Northwest, which would include BC, Washington, and Oregon

British Columbia's Physical Geography

- Famous for its mild west coast climate
- Combination of two contrasting climates (west coast and interior climates) with mountainous terrain has resulted in a wide variety of natural environments or ecosystems
- Physical contrast is due to the effect of the Coast Mountains on precipitation
 - Easterly flowing air masses laden with moisture from the Pacific are forced to rise sharply over this high mountain chain
 - Consequently, most moisture falls as orographic precipitation on the western slopes while little precipitation reaches the eastern slopes

- Winters are extremely mild and freezing temperatures are uncommon while summer temperatures while warm are rarely as high as other areas
- Moderate temperatures, high rainfall, and mild but cloudy winters make the west coast of BC an ideal place to live and a popular retirement centre
- Pacific Ocean has a powerful impact on BC's climate, resource base, and transportation system
 - Continental shelf in BC extends only a short distance from the coast
- Cordillera was formed by severe folding and faulting of sedimentary rocks
- Coast zone is subject to earthquakes because of tectonic movements
- Interior plateau separates the coast mountains from the mountains of the interior (gently undulating land with occasional deeply trenched river valleys)
- Little arable land, largest area of cropland lies outside of the Cordillera in Peace River country
 - Shortage of arable land poses a serious problem for BC
 - With urban developments spreading onto agricultural land, BC lost some of its most productive farmland
- Provincial Agricultural Land Commission: independent BC agency responsible for administering the province's land-use zone in favour of agriculture
- Because of extremely high elevations in the Coast Mountains, few moist Pacific air masses reach the Interior Plateau
- Heavy orographic precipitation occurs along the western slopes, most rain falls in the winter
- Pineapple Express: strong and persistent flow of warm air associated with heavy rainfall that originates in the waters adjacent to the Hawaiian Islands
- Pacific coast of BC has most temperate climate in Canada, dominated by the constant flow of moist Pacific air masses
- Further east, the annual precipitation declines
- Changes in elevation, latitude, variation in topography from mountain ranges to plateaus, and distance from Pacific Ocean to Rocky Mountains control each microclimate (affect vegetation and soil conditions)
- In general, these areas become drier as distance from the Pacific Ocean increases and cooler as either elevation / latitude increases
- Along the west coast, the mild / wet climate encourages a rainforest – lush evergreen and deciduous trees
- Under this vegetation cover, podzolic soils are common (acidic, low in plant nutrients)
- Fertilizers are used because nutrients are washed away by heavy rainfall and fallen needles of coniferous produce acidic soil
- This coastal region contrasts with the sagebush and yellow grasses in lower elevations of the southern Interior Plateau

Environmental Challenges

- Human activities have subjected the seemingly limitless natural riches to mismanagement and wasteful practices that have led to resource loss, environmental degradation, and land-use conflicts
- Sustainable Resource Use: use of renewable resources when the rate of consumption equals the resource's natural rate of replenishment
- Clear-cutting, harvesting method most widely used in BC whereby every tree within a large area is cut down, remains a controversial practice
- Logging companies claim that selective logging is too expensive and would not allow them to compete in world markets
- Clear-cutting left surrounding land vulnerable to rapid soil erosion and stream sedimentation
- Under such conditions, fish habitat is damaged and spawning grounds may be destroyed
- Changing weather patterns pose the chief natural challenge
- Exceptionally dry summers over the last 7 years have resulted in vast forest fires
- Another natural impact has been the destruction caused by the pine beetle on the lodgepole and ponderosa pine trees in the Interior Forest
- Pine beetle larvae spend the winter under bark feeding on the tree and emerges from an infested tree to seek another host
- Mature timber will be in short supply in the future, pine beetles have spread as a result of milder winters
- BC plans to convert the dead trees into electricity by using the wood to fuel local electric generators situated at sawmills

British Columbia's Historical Geography

- Indians lived along the Pacific coast of BC for over 10,000 years before European explorers reached northern Pacific coast in the mid-18th century
- British and American traders came to the Pacific Northwest to seek the highly valued sea otters
- In the early 19th century, the North West Company established a series of fur-trading posts along the Columbia River – develop a working relationship with local Indian tribes based on bartering manufactured goods for furs
- Late 19th century, dispute arose over the Alaska Panhandle and gold rush
- Settlement favoured the US, suggesting Canada's interests may be sacrificed by Great Britain which sought better relations with the US
- Increasing number of American settlers who came west along the Oregon Trail represented a challenge to the authority of the Hudson's Bay Company
- Without the presence of the HBC and Britain's negotiating skills, Canada might have lost its entire Pacific coastline
- By the 1860s, the British government was actively encouraging its colonies in BC to unite into one country

- Ottawa promised to build a railway to the Pacific Ocean within 10 years after BC joined Confederation
- In 1871, BC chose to become a province of Canada
- Most British settlers lived around Fort Victoria, beyond that the vast majority of inhabitants were Aboriginal peoples
- BC government denied that First Nations had a claim to land
- At first, Confederation had little effect on BC – province was isolated from rest of Canada and goods still had to come by ship from San Francisco / London
- When the Canadian Pacific Railway was completed in 1885, BC truly became part of the Dominion
- Main line of the railway and its many branch lines were responsible for the formation of many of the province's towns and cities and for providing access to its forest and mineral wealth
- Vancouver grew quickly and soon became the major centre on the west coast, transshipment point for goods produced in the interior of BC and Western Canada
- By the 20th century, Vancouver had become one of Canada's major port, ice free harbor due to warm Pacific Ocean
- Became the natural transportation link to Pacific nations, more accessible to the markets of the UK and Western Europe
- Between 1885 and the end of WWI, BC underwent a demographic explosion
- At the same time, combination of disease and social dislocation caused the number of Aboriginal people to decline sharply
- WWII called for full production in Canada
- Military production greatly expanded BC's industrial output
- As well, resource industries based on forestry and mining were producing at full capacity
- Over the past 2 decades, BC's increasing economic strength has outpaced that of all other regions in Canada
- Trade is a dynamic force propelling BC's economy, endless between BC and Pacific nations

British Columbia Today

- Economy is more focused on global trade, tourism, high technology, manufacturing, and filmmaking
- Inland Passage: protected waterway of the Pacific Ocean lying between BC mainland and Vancouver Island and Haida Gwaii
- BC's increase in population has caused a shift of the population centre of Canada towards the west
 - Gained more seats in the House of Commons
 - Economic, demographic, and political power has shifted to the west
- BC is an emerging powerhouse within Canada but its manufacturing sector is tiny compared to that found in Ontario and Quebec

- **Horizontal Drilling:** recently developed technology used in drilling for oil and gas
- **Hydraulic Fracturing:** method used to fracture rock formations in order to allow oil / natural gas to flow from impervious geological strata
- **Sea-to-Sky Highway:** winds through Coast Mountains, linking communities from West Vancouver to Whistler, widened / straightened to reduce chances of rock slides
- **Canada Line:** part of Greater Vancouver's rapid transit system
- While BC is no longer seen as a resource-based economy, its resources provide much of the wealth generated by the economy
 - BC is somewhere between a resource-based economy and an industrial one
- Why does manufacturing play such a relatively weak role in the BC economy?
 - Most resources are exported in a raw / semi-processed form
 - Small size of BC's population = small market
- High manufacturing costs are associated with the absence of economies of scale and high cost of labour
- **Producer Services:** enabled firms and regions to maintain their specialized roles in marketing, advertising, administration, finance, and insurance industries
- As the front edge of the structural shift taking place in the manufacturing industry across Canada, high-tech firms are playing a greater role in BC's economy and providing jobs for highly-skilled workers

British Columbia's Wealth

- BC's economic prosperity rests on: its geographic location and its natural resources
- Much of BC's future economic well-being depends on access to Asian markets
 - Represent new markets for BC and Western Canada commodities
 - Exports to Asia lessen dependency on the US market
- **Asia-Pacific Gateway and Corridor:** system of transportation infrastructure that reaches across Western Canada and into the economic heartlands of North America
- **Container:** sealed steel box of standardized dimensions for transporting cargo
- Since increasing amounts of cargo come in the form of containers, port infrastructures to handle shipments are critical
- Natural resources including forest, fish, minerals, petroleum, water power, and physical beauty have driven growth in both primary and secondary sectors

Fishing Industry

- More than 80 species of fish and marine animals are harvested from the Pacific Ocean, freshwater bodies and aquaculture areas

- Salmon is the most valuable species, most today coming from fish farms
- In recent years, excessive harvesting has reduced fish stocks and number of landings (fish caught)
- Environmentalists have long expressed concern about fish farming – waste pollution, disruption of food chains, predators
- Pressure on the fish stocks comes from 4 sources – Canadian commercial fishers, American commercial fishers, Aboriginal fishery, and the sports fishery
- Because salmon are migratory fish, regulating salmon fishing is particularly challenging
- They are common property until caught, based on the rule of capture
- Canadian government cannot regulate the Canadian salmon stocks (spawn in Canadian rivers) because they migrate to American waters when American fleets harvest them
- **Tragedy of the Commons:** destruction of renewable resources that are not privately owned, overwhelming the capacity of the resource to maintain and regenerate itself
- Resource extraction accelerates during periods of high global demand for natural resources
- Ottawa allowed Indian fishers, who have treaty rights to harvest fish for subsistence purposes, a share of the commercial stock
- Ottawa, which is responsible for managing salmon stocks within Canada and for negotiating international fishing agreements, must deal with:
 - Natural cycle of salmon to spawn in rivers, migrate to the sea, and then return to the rivers to spawn again
 - Harmful effects of the forestry and hydroelectric industries on salmon spawning grounds and sea lice from salmon farms on juvenile salmon
 - Diversion of the salmon catch among commercial, Native, and sports fishers
 - Harvesting of Canadian salmon by American fishers in international waters
- Several factors account for decline in the salmon stocks
 - Pollution of fish habitat
 - Warming of ocean temperatures
 - Overfishing
 - High fish quotas
 - Aboriginal fishery

Mining Industry

- Minerals include: copper, gold, silver, lead, zinc, molybdenum, coal, and industrial minerals
- **Liquefied Natural Gas (LNG):** liquid form of natural gas chilled to -162°C , reduces the volume to $1/600^{\text{th}}$ to be easily transported around the world
- Transportation to world markets poses a challenge for mineral development

- For BC, location of its mineral deposits, distance to foreign markets, proximity to ocean ports are key factors
- An expanded rail system and rail-to-ship loading facilities provide an answer though at a high construction cost

Hydroelectric Power

- Renewable energy source dependent on the hydrologic cycle of water
- BC is the second largest producer of hydroelectric power in Canada
- Within the cordillera, a combination of elevation, steep-sided valleys, and steady-flowing rivers provides ideal conditions for the construction of hydroelectric dams
- In addition, heavy precipitation and meltwater from the mountain snowpack ensure a regular and abundant supply of water
- In 1968, BC Hydro built the WAC Bennett hydroelectric dam on the Peace River, creating Williston Lake (largest freshwater body in the province)
- From this reservoir, vast quantities of water flow through the turbines at the power station generating most of BC's electrical power and creating a surplus of power for sale in the US

Tourism

- Natural beauty of BC's ocean, mountains, and forest provide the basis of tourism
- 2010 winter Olympics drew many thousands of tourists to the games
- Tourist facilities do not always mesh with preserving the environment
- Challenge remains how to balance the need for more tourist developments and the desire to maintain a natural landscape and an urban environment free of air and water pollution

Forestry

- Forest is BC's greatest natural asset, with over 60% of the province covered
- BC contains about half of the nation's softwood timber and leads the nation in export of forest products
- Forestry has slipped from the pedestal and now tourism and knowledge-based businesses have gained the high ground in the province's economy
- In the last few years, this shift has been accelerated by the combination of falling sales of softwood lumber and burst in tourism
- **Softwood Forest:** predominant forest in Canada, consist mainly of coniferous trees characterized by needle-like foliage
- Main species harvested are lodgepole pine, spruce, hemlock, balsam, Douglas fir, and cedar
- **Newsprint:** general term used to describe very thin paper used primarily in the publication of newspapers
- Processing of timber into lumber, pulp, newsprint, paper products, shingles, and shakes supports a major manufacturing industry in BC

- Fluctuations in total BC exports by values are affected by forest exports
- Natural events, drop in exports to US, and being affected by economic growth in other sectors play a part in the diminishing forest industry
- Climate and topography have divided this vast forest into 2 distinct regions – rain forest of the coast and boreal forest of the interior
 - Within the rainforest, mild / wet climate allows trees to grow to great heights for 1000s of years
 - Interior trees are smaller with a shorter lifespan, forest stands less dense
- Northern forest sub-region is the most remote of BC's forests
 - Tree growth is hampered by cool growing conditions and poorly drained land
 - Large blocks of land that contain muskeg are either devoid of trees or have trees with little commercial value
- US market is the major destination for Canadian forest productions
 - Advantage of proximity to US market and its size
 - Fluctuation in US demand can cause havoc
 - Depends on US housing construction industry
- NAFTA has reduced trade barriers between US and Canada but it has not prevented trade disputes involving lumber from erupting

British Columbia's Urban Geography

- Concentration of people in the southwest corner of the province
- **Lower Mainland:** describes Vancouver and surrounding area
- Vancouver's population has increased at a rate well above the national average
- Smaller urban centres in BC are also growing quickly
- **North West Transportation Corridor:** stretches across northern BC into Western Canada, centres on the CN rail route and Yellowhead highway
- Much of Vancouver's commercial strength stems from its role as a trade centre
- Largest port in Canada and one of the largest on the Pacific coast

Centralist / Decentralist Faultline in BC

- Lies in the province's perceived lack of power within Confederation
- BC's population continues to grow rapidly
- Yet, this demographic fact has not been fully recognized by political representation in the House of Commons
- This discrepancy poses an irritant in BC's relations with Ottawa
- **Grooves of Geography:** physiographic structure that facilitates exchange between adjacent regions, as with Canada and US, where the physiography has a north-south alignment