

UNIT 5

- URBAN AND RURAL CANADA: BUILDING SUSTAINABLE COMMUNITIES

- Look at the photographs on p. 196
 - What do you see in each?

- In which of the above cities would you prefer to visit? Why?

Cities

- Provide services for people.
- Large enough to support universities, sports teams, and other major cultural activities.



Cities

- Source of most technological innovation.
- Engines of economic growth for their province/territory or even the country.
- <http://www.youtube.com/watch?v=PYjIMflhysc>



URBAN VS RURAL COMMUNITIES

- There are a wide variety of communities in Canada:
 - Hamlet -> Fewer than 200 people (Swift Current).
 - Village -> 200-800 people (Rushoon).
 - Town -> 1,000-10,000 people (Carbonear).
 - City -> Greater than 10,000 people (St. John's).
 - Census Metropolitan Area (CMA) -> Greater than 100,000 people.
- All of these communities exist throughout Canada.

URBAN VS RURAL COMMUNITIES

- **Urban** -> an area where lots of people live at a high density.
- **Rural** -> People are spread out at a low density.
- CMA is the largest and may contain both urban and rural areas.
 - With the 2011 census, Statistics Canada created the term **population centre** to more specifically define urban areas.
 - An area with at least 1,000 people and a density of at least 400 people per square kilometre.
- Where do you live?

Urban?



Rural?



URBAN VS RURAL COMMUNITIES

- Population Centres are divided into **THREE** categories:
 - 1. Small Population Centre
 - Between 1,000 and 29,999 people.
 - 2. Medium Population Centre
 - Between 30,000 and 99,999 people.
 - 3. Large Population Centre
 - 100,000 people or more.

OK, now back to CMAs:

- A CMA is made up of one or more neighbouring municipalities located around the urban core.
- Example: St. John's.
 - Closely surrounded by which municipalities?
- A CMA must have at least 100,000 people total and at least 50,000 in its core.

CMA's

- Does St. John's and surrounding areas qualify as a CMA?



URBAN VS RURAL COMMUNITIES

- Canadians continue to move to CMAs
- 10 fastest growing CMAs in Canada:
 - Calgary, Alberta
 - Edmonton, Alberta
 - Saskatoon, Saskatchewan
 - Kelowna, BC
 - Moncton, NB
 - Vancouver, BC
 - Toronto, ON
 - Ottawa–Gatineau, ON
 - St. John's NL
 - Brantford, ON



City Wise

- Canada is one of the largest countries in terms of land area.
- However, it has a small population for its size.
- Some places are better suited for resource development than city building.

City Wise

- Why?
- <http://www.youtube.com/watch?v=Ro0LWXpITSA>

City Wise



- Difficult to build cities in many areas:
 - Northern Canada.
 - Swamplands surrounding Hudson Bay.

- Some places are better suited for resource development than city building.



City Wise

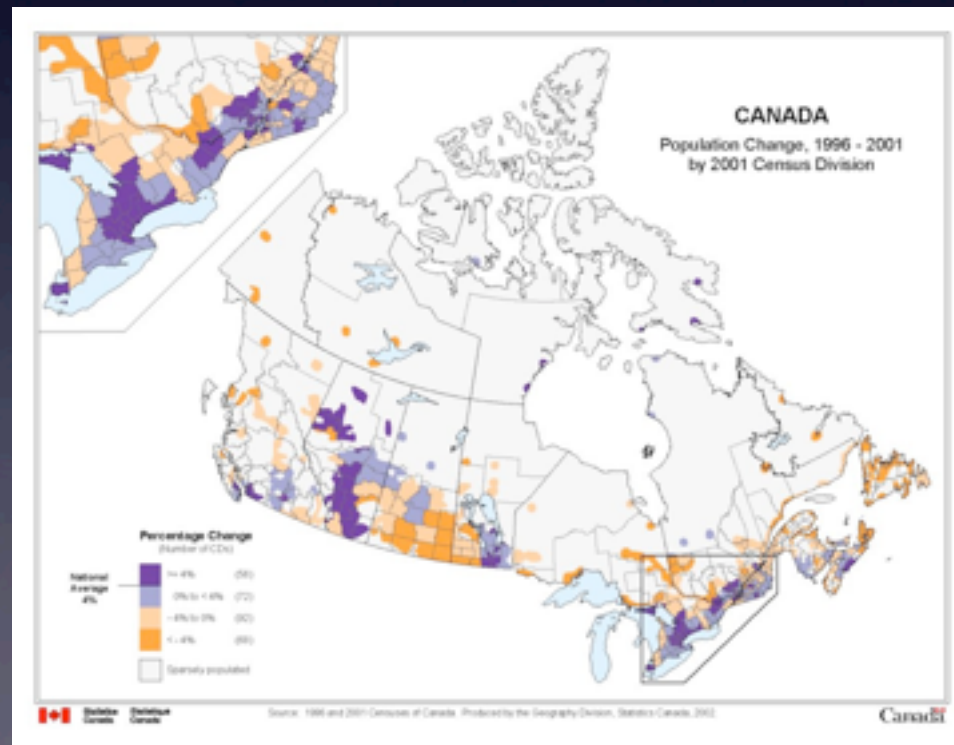
- Some people choose to live in rural areas.
 - Most decide to live in urban areas
 - 81% of Canadians live in large population centres.
 - The three largest are:
 - Toronto
 - Montreal
 - Vancouver



City Wise

- As mentioned earlier...
 - 81% live in population centres.
 - See Figure 5.2 on page 200
 - Over 80% of Canadians live in _____% of the country?

- Urbanization is occurring in Canada:
- Growing trend of increasing numbers of people choosing to live in cities.
- This means Canada is Urbanized.



CANADA'S HEARTLAND

- The Golden Horseshoe region in Southern Ontario and the Montreal region are very popular for settlement.
- Europeans were drawn here for its climate and rich soil.
- Today it is known as **Canada's Heartland**
 - Hub of Canada's economic and industrial activity.



Western Canada

- Natural Systems contributed to western Canada's development.
- Southern BC saw many ports developed.
 - Why?
 - Close to Pacific Ocean (Made trade easy)



Western Canada



- Trade with Who?

Western Canada

- Area also has a moderate climate and plenty of fish stocks.
- Many forests further inland.
- These reasons have lead to the growth of Vancouver and Victoria and they remain very popular.



Circumpolar Nations

- Access to resources from the North.
- Melting of ice caps is opening passageways for shipping.
- Borders provoke competition among nations.



Circumpolar Nations

- Should resources be given out in proportion to border size?
- What about claims from other nations?
- What about Canada's new fighter jets?



Circumpolar Nations

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- Resources can be a great source of income and development.
- However, can be a great cause for competition and disagreement among nations.
- Example: Russia's flag placement and the abuse of Alaska by the United States.
- <http://www.youtube.com/watch?v=VTHsd9wiyio>

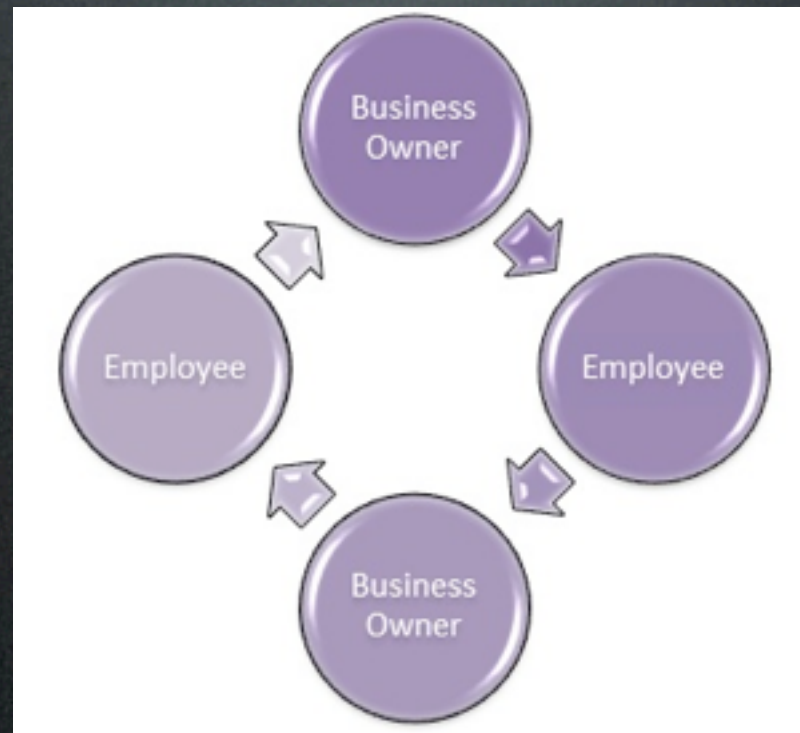
Resource-based Communities

- 20% of Canadians live in scattered rural communities.
- Most of these communities have grown around a primary industry:
 - Fishing, forestry, mining.
- These communities face both major opportunities or major challenges...



Business Cycle

- Often provides excellent employment.
 - Leads to opportunities for businesses in that community.
- However, much profit from selling this resource doesn't come back to the community;
 - Back to shareholders of company.



Business Cycle

- There is little **Accumulation of Capital** in resource-based communities.
- Also, resource could run out or demand for it could drop
 - Lead to serious economic challenges.
- This is the **Business Cycle** of resource-based communities.



Example: Cod Moritorium

- Many small communities struggle during these times.
 - Struggle to retain infrastructure like schools and hospitals.
- Example:
 - Cod Moritorium (1992)
 - Federal Government placed a **moritorium** (ban) on cod fishing.
 - Many fish plants and employees without work (moved to larger urban centres).



Example: Labrador City

- Experiencing significant economic growth.
- Demand for iron ore (used to make steel) has soared.
 - Especially from China and India.
- Although this growth is great for the community, there are still challenges:
 - Competitive housing (very expensive now).

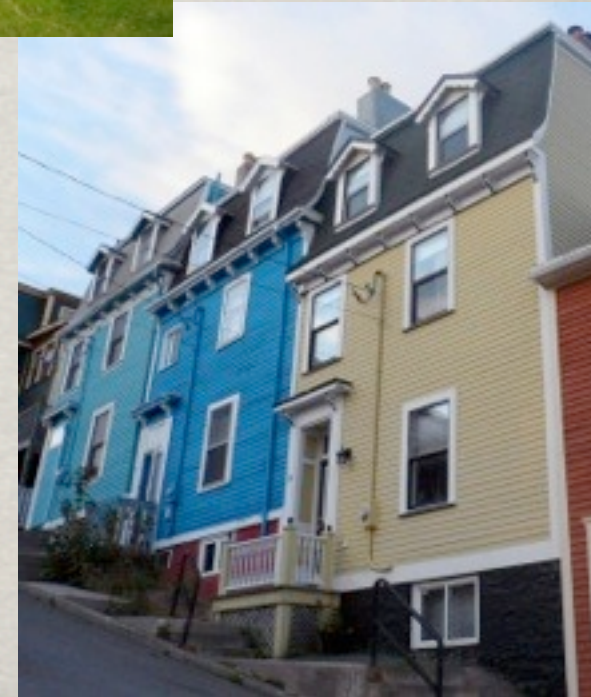


URBAN LAND USE

- ☀ **Land Use** is a term that geographers and planners use to identify the different areas where we live, shop, work, play, and go to school.
- ☀ There are six main types of land use in Canada:
 - ☀ 1. Residential Land Use.
 - ☀ 2. Transportation Land Use.
 - ☀ 3. Commercial Land Use.
 - ☀ 4. Industrial Land Use.
 - ☀ 5. Institutional Land Use.
 - ☀ 6. Open Space and Recreational Land Use.

1. Residential Land Use

- ☀ Refers to land be used for living space.
- ☀ Examples:
 - ☀ Think of your community;
 - ☀ Where do you see:
 - ☀ Single-family houses.
 - ☀ Apartment buildings.
 - ☀ Townhouses (attached houses, usually take up little room, but have

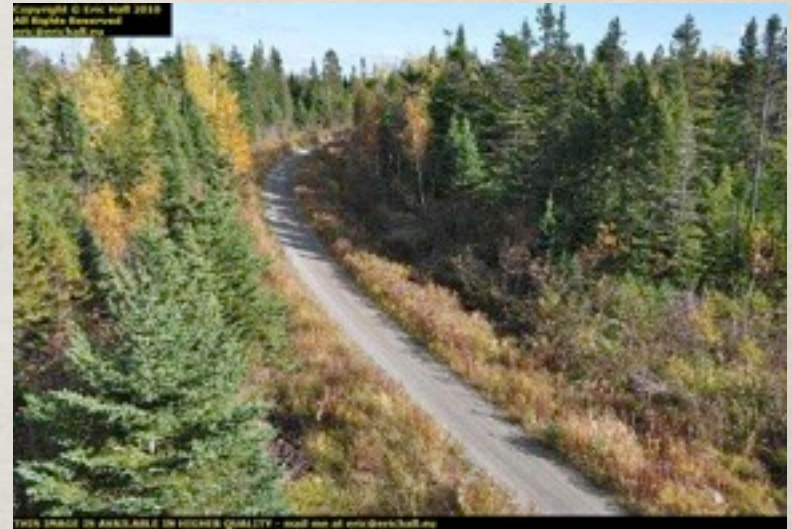


2. Transportation Land Use

☀ Land used to move people from one place to another (Transportation Systems!)

☀ Examples:

☀ Roads, Subways, Trains, Airports, etc.



3. Commercial Land Use

☀ Land being used for business activities, or buying and selling of goods and services

☀ Examples...

☀ Shopping Mall

☀ Stavanger Drive



4. Industrial Land Use

- ☀ Land used for secondary industries (Manufacturing).
- ☀ Examples:
 - ☀ Factories.
 - ☀ Warehouses.
- ☀ Usually located near major routes or highways so goods can be transported easily.



5. Institutional Land Use

☀ Land used for schools, hospitals,



6. Open Space and Recreational Land Use

- ☀️ Open Space
 - ☀️ Land that has been left in its natural state.
 - ☀️ Example:
 - ☀️ Forests
- ☀️ Recreational
 - ☀️ Land used for recreation activities.
 - ☀️ Examples:
 - ☀️ Playgrounds
 - ☀️ Parks
 - ☀️ Golf courses
 - ☀️ Fields



Land Use Planning

- ☀️ We face big challenges in land use planning.
- ☀️ We need to provide housing for a growing population and maintain prosperous urban economy.
- ☀️ However, we must also satisfy the need for green open space and protect wildlife habitats around urban places.
- ☀️ These decisions are made by urban and transportation planners, politicians, developers and citizens.
- ☀️ There may be many issues in making these decisions.

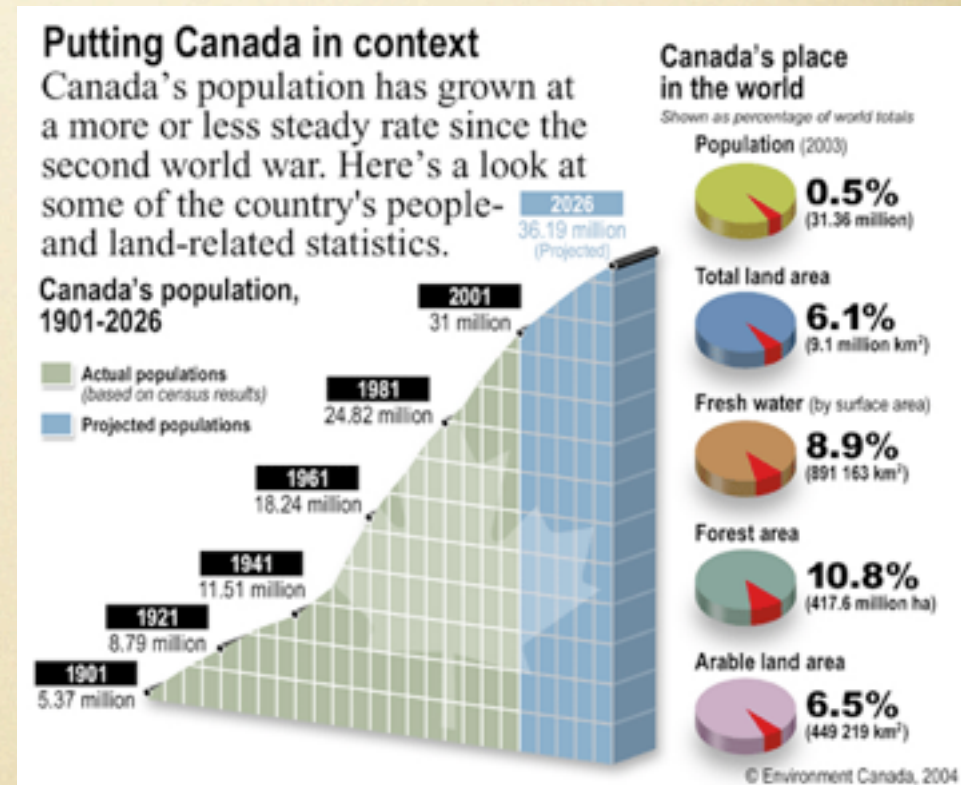
Land Use Planning

☀ Page 212–213

☀ Land Use In Mount Pearl GeoLab Challenge.

Canada's Booming Urban Centres

- After World War II, many couples were reunited and decided to start families.
- At the same time, the use of automobiles became more common.
- This led to many people moving outside cities into the surrounding areas.



Canada's Booming Urban Centres



- This marked the birth of the suburbs.
- Many banks, restaurants, hospitals, etc. moved to the suburbs with the people.
- Canadians no longer had to commute for all their needs.

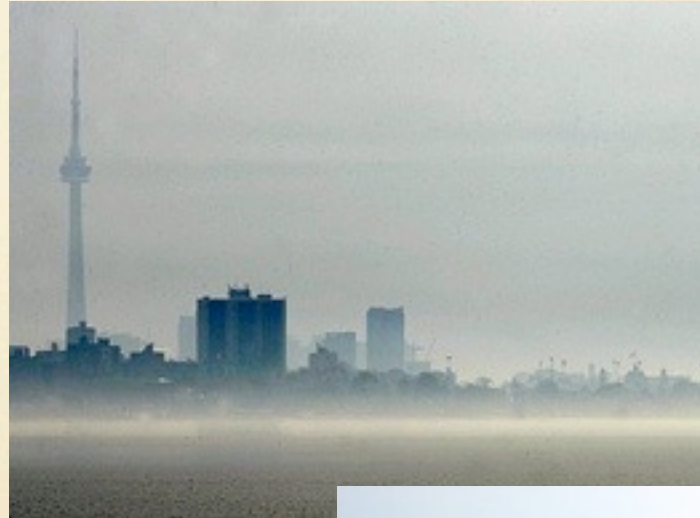
Urban Sprawl

- **Urban Sprawl** -> Outward expansion of urban centres to nearby bordering areas.
- As cities grow, many issues arise:
 - Traffic congestion.
 - Overburdened services.
 - Air Pollution.
 - Planning for efficient mass transit.
 - Managing wastes.
 - Containing urban sprawl.
- As communities grow, many natural and human systems are at risk.



Smog

- **Smog** → Combination of pollutants (gases, particles) that form a haze over a city.
- According to Environment Canada, 95% of smog is caused by burning fuels in vehicles.
- Urban areas need to be able to grow while remaining sustainable.
- <http://www.youtube.com/watch?v=21MaW5Pn5Ig>



HOV

- One way cities have attempted to decrease smog is the availability of High-Occupancy Vehicle (HOV) lanes.
 - Lanes solely used by buses and vehicles with at least two people.
 - Designed to help move more people through busy areas quickly.
 - Help ease congestion in regular lanes.
 - HOV lanes currently exist in the Greater Toronto area.



Waste Management

- As populations in urban areas increase, so does the amount of waste produced.
- Many communities have a recycling and composting program in place to combat this.
 - “Curb It St. John’s”.
- Although these programs exist, recycling is still an issue.
 - How can we fix this?
- Other areas are also transporting their waste to other areas.
 - Great Pacific Garbage Patch Article.
- The real solution is to reduce.

- Great Pacific Garbage Patch



The Future of Cities

- Canada's cities are constantly changing.
- Many communities that grew into suburbs have become much more developed.
- There is a bigger focus on pedestrian walkways in cities today.
 - Why?
 - Fitness?
 - Environmentally friendly?
 - Safety?

Smart Growth Solutions

- New designs for urban planning is called Smart Growth:
 - Focuses on plans for urban expansion while also preserving the natural environment.
- Smart Growth focuses on placing more people in smaller areas;
 - Houses that take up less land area.
 - Apartment buildings.
 - Retail, schools, entertainment located very close by.

Smart Growth Principles

- Develop in existing communities, making them more compact and dense, rather than suburbs that spread into rural areas.
- Mix land uses: put homes, offices, stores and services in the same neighborhoods within walking distance.
- Create a range of housing opportunities that will bring together people of different ages, household types, incomes, ethnicities.
- Provide a variety of transportation choices, including public transit.
- Create places and routes for safe walking and biking.
- Protect green space, farmland, and ecologically sensitive land, such as wetlands.
- Protect wildlife habitat by creating natural corridors through urban areas, so wildlife can roam freely.

Green Technologies

- Environmentally friendly ways of constructing buildings are becoming very popular.
- Alternate forms of energy are being looked at for widespread urban use.
 - Examples?



Green Technology

- Sustainability also exists in building homes.
- Old tires to create rubber roofing tiles.
- Green roofs (Gardens on rooftops) are becoming more popular (Schools).
- Help soak up runoff that would carry pollutants to water supply.

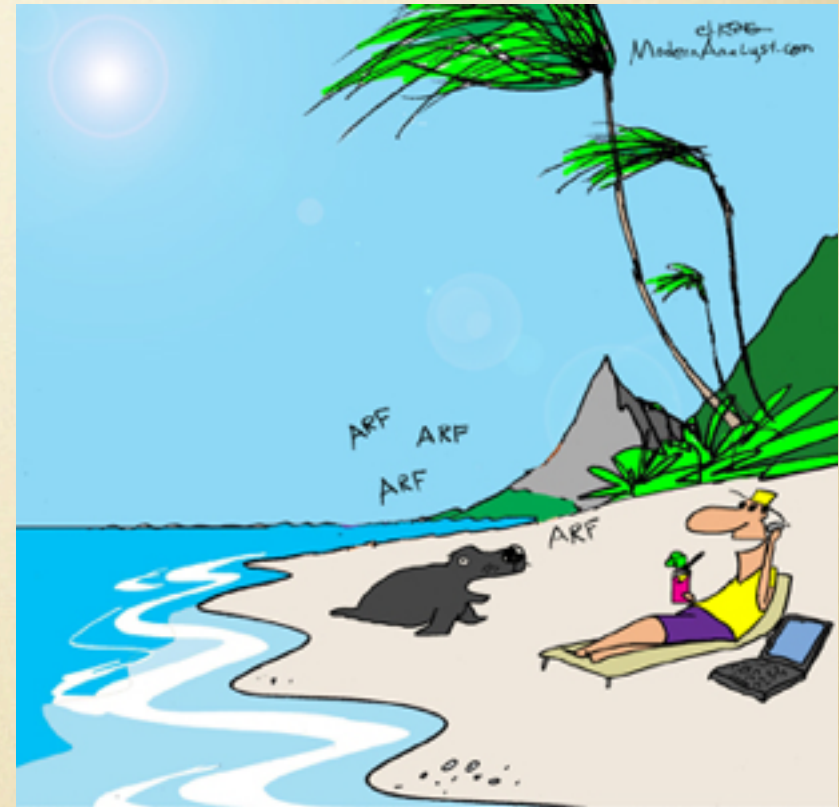


Telecommuting

- The process of commuting electronically to work.
- Many people now use technology to connect with the workplace from home or on the road.
- Avoids traffic.
- 1 million telecommuters working from home for one day a week saves:
 - 250 million kg of Carbon Dioxide.
 - \$40 million in fuel.
 - Over 800 fewer km of mileage.

Telecommuting

- Many environmental benefits.
- Most important:
 - Commuting is eliminated.
 - Congestion and pollution levels drop.
- Smart phones, tablets and laptops make it much easier to connect with others.
- Online conferences can replace face to face meetings.



*“Ah... I'm working from home this week.
What you're hearing are my neighbour's
dogs barking.”*

How Big Is Your Ecological Footprint?

- Ecological footprint – the amount of Earth’s resources it takes to support your lifestyle.
 - Measured in hectares.
- World average footprint: 2.2 hectares.
- Canadian average: 7.0 hectares.



Ecological Footprint

- Your footprint is made up of many factors:
 - Water use.
 - Transportation use.
 - Space used for work or play.
 - How much money you spend.
 - How far food you eat is shipped.
 - How much living space you have.
 - How much garbage you create.
 - <http://www.youtube.com/watch?v=EjyrAHzthTo>