

KEY TERMS...

Unit 1 Key Terms.doc

- **urbanization** - process in which an increasing proportion of an entire population lives in cities or suburbs of cities, areas of population dense enough that residents cannot grow their own food.

NOTE: **urban** refers to a city and/or densely populated area



- **habitat destruction** - caused by urban sprawl, forest destruction and agricultural practices.

NOTE: **habitat** refers to where a species grow, lives and reproduces.



- **environmental refugees** - people forced to leave their homes because of environmental factors such as drought, flooding and the rise of sea levels.



- **ecological restoration** - the process of assisting the recovery of an ecosystem that has been degraded, damaged or destroyed.
- **ecosystem services:** - provide us with clean water and air
 - pollinate our crops and disperse seeds
 - protect us from extreme weather and ultraviolet light
 - control pests and disease-carrying organisms
- **sustainable yield** - the taking of a biological resource that does not exceed the capacity of the resource to reproduce and replace itself.
- **biodiversity** - the variety of living things in the natural world.
- **externality** - something that, while it does not monetarily affect the producer of a good, does influence the standard of living of society as a whole.

Pollution is a very common negative externality. A company that pollutes loses no money in doing so, but society must pay heavily to take care of the problem pollution caused.

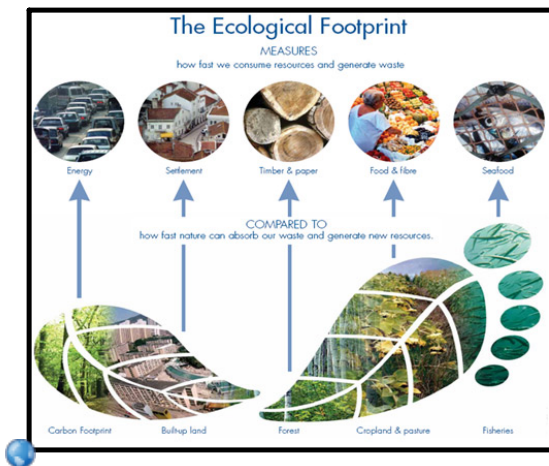
- **environmental degradation** - the deterioration of the environment through depletion of resources such as air, water and soil.
- **stewardship** - an attitude of active care and concern for natural lands.

UNIT 1 - An Overview of Environmental Science

- *The Issues*
- *Population Growth and Resource Limitations*
- *Researching Current Environmental Issues*

What is your ecological footprint?

How many planets would we need if everyone lived like you? An **ecological footprint** measures the total amount of land and resources used, it includes your **carbon footprint** but goes further. Find out your **ecological footprint** by answering questions about your lifestyle. See how your choices affect the environment and whether you are living beyond the capacity of the planet.



Ecological footprints allow people to visualize the impacts of their consumption patterns and activities on ecosystems.


An average world citizen has ecological footprint equivalent to 2.3 hectares or 5.6 acres while the biologically productive land available is only 1.9 hectares per person.

The average resident of the United States lives at a consumption level that requires 9.7 hectares of bioproductive land. If everyone in the world adopted a North American lifestyle, we'd need about four more planets to support us all.

Mr. Hallihan's Ecological Footprint...

YOUR ECOLOGICAL FOOTPRINT

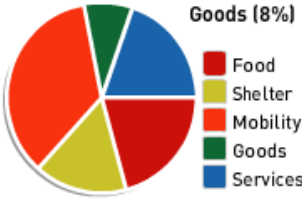
Many activities impact our Footprint. If everyone lived like you, we'd need **3.4** Planet Earths to provide enough resources.



An average person living in Ontario needs 3.58 Planet Earths.

Here is how your Ecological Footprint breaks down


Goods (8%)



- Food
- Shelter
- Mobility
- Goods
- Services

To support your lifestyle, it takes **7.2** global hectares of the Earth's productive area.

(15.7 tons of CO₂)



Category	Percentage
Energy land	58.9%
Crop land	20.6%
Grazing land	9.1%
Forest land	9.8%
Built-up land	0.8%
Fishing grounds	0.9%

Can you reduce your Ecological Footprint?

- edit your Footprint** go back and retake parts of the quiz
- explore scenarios** explore simple actions to change your Footprint
- save and exit** continue without exploring

100% Complete

Determining your 'Ecological Footprint'

<http://www.footprintnetwork.org/en/index.php/GFN/page/calculators/>



Let's do one together...

YOUR PERSONAL ECOLOGICAL FOOTPRINT print results

Congratulations on completing the first step to reducing your Ecological Footprint.

Your Ecological Footprint is: **6.6** global hectares

Your current consumption requires an area of productive land equivalent to **8.1** Canadian football fields.

Category	Value (Global Hectares)
Your Footprint	6.6
Calgary Average	8.6
Canadian Average	5.8

The imagineCalgary objective is to reduce Calgary's Ecological Footprint 30% by 2036.

Your Ecological Footprint based upon your consumption:

Category	Percentage
Services	34%
Food	
Shelter	
Mobility	
Goods	

Some ideas to reduce your Footprint – follow the "take action" link below for detailed suggestions:

Energy (70% of Calgary's Footprint):

- Reduce your household energy use – turn down your thermostat when not occupied and at night, use energy efficient bulbs and replace appliances with Energy Star® rated models, add insulation and draft proofing.
- Use public transit, carpool, ride a bike or walk. Keep tires properly inflated, have your vehicle properly tuned and avoid idling.

Local Foods:

- In season, purchase locally grown foods that require less transportation and processing to get products to market.

Goods:

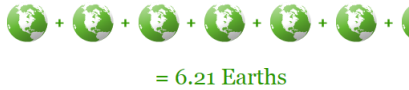
- Reduce consumption of one-time use products. Purchase re-usable products when possible. Avoid products that produce excess waste. Purchase goods that are made locally to reduce their transportation Footprint.

[edit footprint](#) go back and retake parts of the quiz

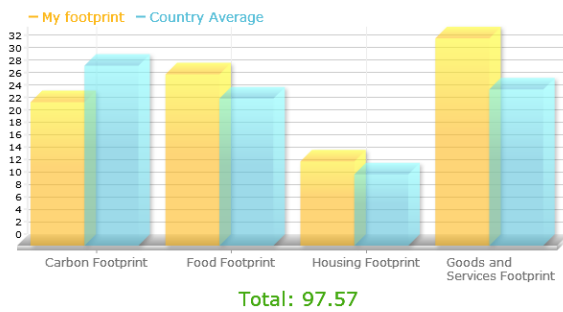
[take action](#) Return to Calgary.ca/ footprint to find out what you can do to take action to reduce your footprint

My Ecological Footprint - Quiz Results

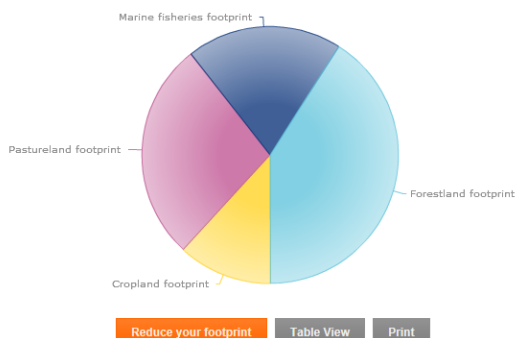
If everyone on the planet lived my lifestyle, we would need:



MY FOOTPRINT IN GLOBAL HECTARES BY CONSUMPTION CATEGORY



MY FOOTPRINT SHARE BY BIOME





REFLECTION/DISCUSSION

What ways can one reduce their own ecological footprint?

What part of my Footprint can I influence?

Some of each person's Ecological Footprint is dependent upon choices they make in their own life, such as how much they drive, recycle and purchase new products, and some of it is their per person share of their societies' infrastructure. The first part can be influenced directly. The second part is equally critical to living within the means of one planet, but must be influenced through more indirect action such as political engagement, green technology and innovation, and other work toward large-scale social change. For more information on these distinctions, [click here](#).



Ways to reduce your carbon footprint

Attachments

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Carbon_footprint_quispam_site.pdf