

The image is a split-screen composition. The left half shows a high-altitude landscape with a large, light-colored glacier flowing down a rocky mountain slope. In the foreground, there's a small, light blue lake and some rocky terrain. The right half shows a lower-altitude landscape with a dense forest of evergreen trees in shades of green and brown, reflected in a calm body of water. In the background, more mountains are visible under a clear blue sky.

Climate Change

*A Rotarian's
Viewpoint*

THE FOUR-WAY TEST AND CLIMATE CHANGE

Is it the truth? – By 2020 198 scientific organizations worldwide had formally stated that climate change has been caused by humans.

Is it fair to all concerned? – The Developed World has created most of the excess CO₂. The underdeveloped world will suffer more, and has least resources and ability to adapt. (e.g. Pakistan: <1% CO₂, one of ten most vulnerable)

Will it build goodwill and better friendships? – Without serious action to ameliorate CO₂ production, there will be greater stress on livelihoods of many people in underdeveloped countries, leading to conflict and desire to migrate. How can Rotarians help?

Will it be beneficial to all concerned? – The effects of climate change are wide-ranging, and will affect essentially everyone on the planet. What we do as Rotarians will benefit us, but also the global population.

ALBERTA TEMPERATURE CHANGES REPRESENTED AS COLOUR BARS

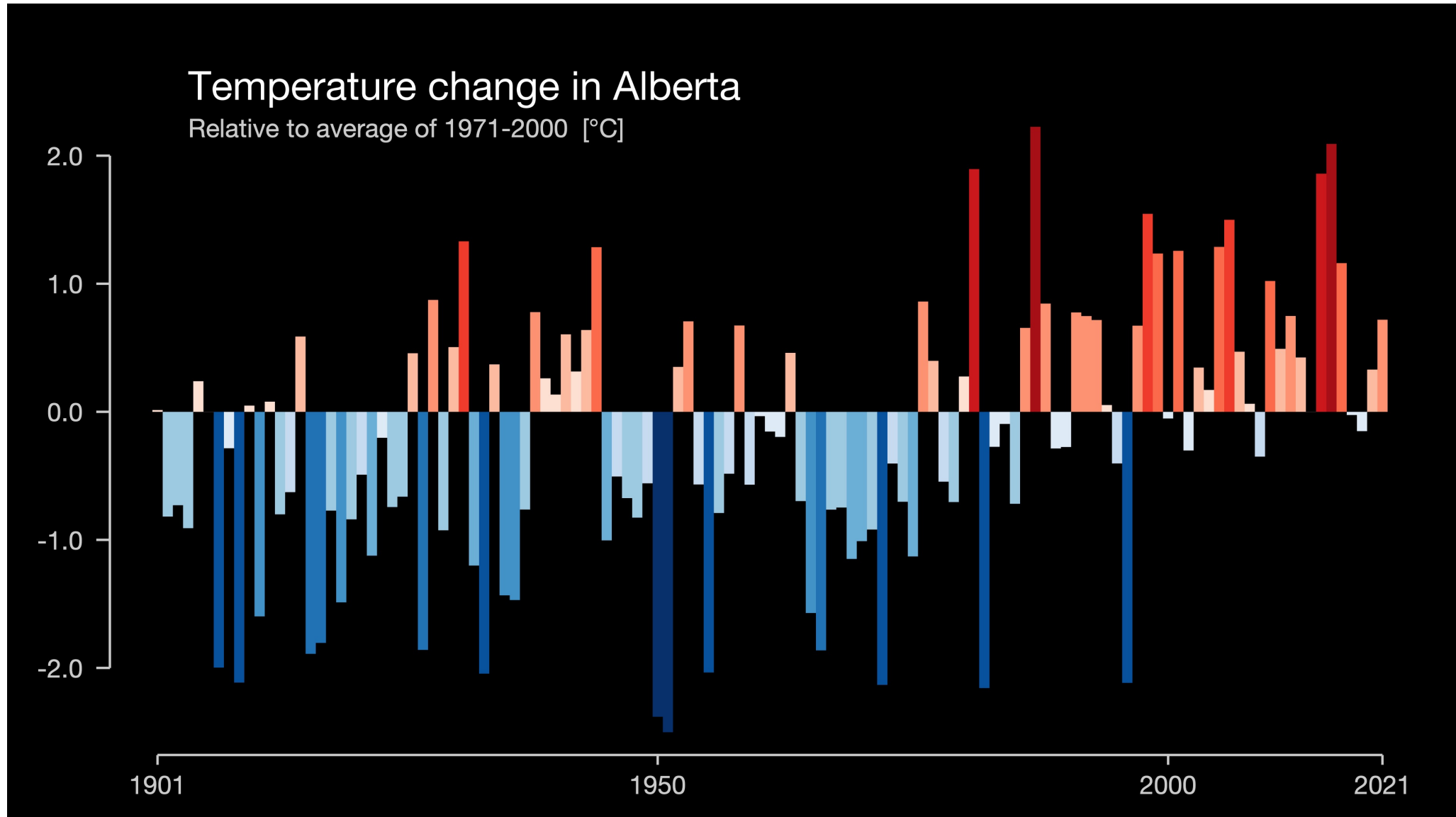


Image from: <https://showyourstripes.info/l/northamerica/canada/alberta>

CALCULATING MY ECOLOGICAL FOOTPRINT

FOOD

How often do you eat animal-based products?

(beef, pork, chicken, fish, eggs, dairy products)

NEVER  VERY OFTEN

Very Often
(meat daily)

Source: <http://www.footprintcalculator.org/home/en>

FOOD

How much of the food that you eat is unprocessed, unpackaged or locally grown?

(less than 320 kilometers/200 miles away)

NONE



ALL

40 %

HOUSING

Which housing type best describes your home?

- ☐ Freestanding, no running water
- ☒ Freestanding, running water
- ☐ Multi-storey apartment
- ☐ Duplex, row house or building with 2-4 housing units
- ☐ Luxury condominium

HOUSING

What material is your house constructed with?

- ☐ Straw/bamboo
- ☒ Wood
- ☐ Brick/concrete
- ☐ Adobe
- ☐ Steel/other

HOUSING

How many people live in your household?

JUST ME



10+

2

What is the size of your home?

TINY



HUGE

Large

158 m² / 1700 sq ft

HOUSING

Do you have electricity in your home?

NO



YES

How energy efficient is your home? 

HARDLY



VERY

Above average

(well insulated, efficient lighting and appliances, careful use)

HOUSING

What percentage of your home's electricity comes from renewable sources? 

(either directly or through purchased green power)

LOW



HIGH

**Alberta
Average**

14%

HOUSING

Compared to your neighbors, how much trash do you generate?

MUCH LESS




MUCH MORE

Less

ADD DETAILS TO IMPROVE ACCURACY

18,000 km/year
for 2 cars

TRANSPORTATION

How far do you travel by car or motorcycle each week? 

(as a driver or passenger)



ZERO



VERY FAR

350 kms
219 miles



ZERO



VERY FAR

0 kms
0 miles

TRANSPORTATION

What is the average fuel economy of the vehicles you use most often? 



INEFFICIENT



EFFICIENT OR
ELECTRIC

9 liters / 100 kms
26 miles /gallon



INEFFICIENT



EFFICIENT OR
ELECTRIC

5 liters / 100 kms
52 miles /gallon

TRANSPORTATION

When you travel by car, how often do you carpool?

NEVER



ALWAYS

6 %
Never

TRANSPORTATION

How far do you travel on public transportation each week?

(bus, train, etc.)

NOT FAR



VERY FAR

0 kms
0 miles

TRANSPORTATION

How many hours do you fly each year?

NONE



MANY

34 Hours

RESULTS

Your personal Earth Overshoot Day is:

24. Feb 

If everyone lived like you, we would need

6.6 Earths 

i.e. We
consume 6.6
times our fair
share

A rural
Maya
family's
share is 1
or less



**Are my wife and I
typical for Rotarians of
our club?**

**What can we do
individually to improve
our situation?**

**What about the
millions of people who
aspire to our lifestyle,
and currently consume
less than 1 Earth?**

Acting in our own home is difficult to make a big difference. But small things help, for example:

- LED lightbulbs
- High efficiency furnace
- Good quality windows and airtight seals

Mostly we just live in very large houses that require a lot of energy, and we drive personal cars too much. Both of those factors are hard to change without a major change in lifestyle.



**Buying
carbon
offsets is a
major topic**

**Air travel by my
wife and me is 1/6
of our total impact**

**Buying offsets for air
travel may costs you
about 5% of a ticket**

CARBON EMISSIONS PER PERSON BY COUNTRY

United States	16 tonnes/year
Australia	17 tonnes/year
Canada	16 tonnes/year
China	7.4 tonnes/year
United Kingdom	5.5 tonnes/year
Zimbabwe	0.7 tonnes/year
Yemen	0.4 tonnes/year

The richest 10% of people in the world produce 50% of the CO2 emissions.

The richest 1% of people in the world produce twice the CO2 of the poorest 50% of the people.

The biggest individual producers of CO2 are large oil and gas companies.

The biggest single institutional producer of CO2 is the U.S. Military.

Source: Saving Us; Katherine Hayhoe, 2021

CARBON FOOTPRINT BY COUNTRY

Canada/USA	8 Earths
Australia	7 Earths
United Kingdom	4 Earths
China	3.7 Earths
India	1.2 Earths
Least developed countries	< 1 Earths

If Everyone on Earth lived like North Americans, we would need 5 Earths.

At this time, the average global deficit is 1.1 Earths.

Source: Saving Us: Katherine Hayhoe, 2021

THE END

**OR THE BEGINNING OF AN ENDLESS DISCUSSION,
HOPEFULLY ABOUT HOW WE EACH CAN ACT**

See also:

<https://esrag.org/wp-content/uploads/2022/11/ESRAGs-Policy-Statement-on-Climate-Action.pdf>