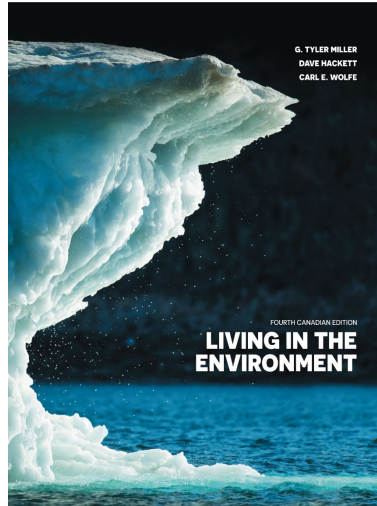


**NETA PowerPoint® Slides**

to accompany

prepared by  
Ian Dawe

Copyright © 2017 by Nelson Education Ltd.

**Chapter 2****Environmental History:  
Learning from the Past**

Copyright © 2017 by Nelson Education Ltd.

## Solutions: New Zealand

New Zealand Ditches GDP for Happiness and Wellbeing

- All new spending must advance one of five government priorities: improving mental health, reducing child poverty, addressing the inequalities faced by indigenous Maori and Pacific island people, thriving in a digital age, and transitioning to a low-emission, sustainable economy.

Copyright © 2017 by Nelson Education Ltd.

3

## Key Concepts

*What has been the environmental impact of each of these?*

### **Cultural revolutions**

- Hunter–Gatherer
- Agricultural
- Industrial–Medical
- Information–  
Globalization

### **Time periods**

- Pre-Columbian
- Colonial
- Conservation
- Environmental

Copyright © 2017 by Nelson Education Ltd.

4

## Near Extinction of North American Bison

### Case study

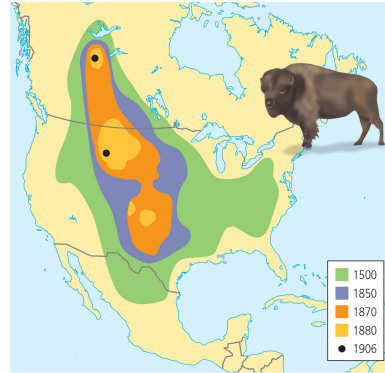
Before European settlers:

- 30–60 million bison

Present day:

- 150 000 bison

Killed for trade, sport,  
feeding rail workers,  
competition with farms,  
military strategy



Copyright © 2017 by Nelson Education Ltd.

5

## Cultural Changes and the Environment: Hunter–Gatherer Societies

Nomadic, small group, hunt or scavenge

Low population growth

- High infant mortality
- Low average lifespan

Low impact

Localized + population size mitigated  
environmental impact

Copyright © 2017 by Nelson Education Ltd.

6

## Cultural Changes and the Environment: Agricultural Revolution

FIGURE 2-3 **TRADE-OFFS**

### Agricultural Revolution

Good and bad news about the shift from hunting and gathering to agriculture. Pick the single pieces of good news and bad news that you think are the most important.



#### Good News

- More food
- Supported a larger population
- Longer life expectancy
- Higher standard of living for many people
- Formation of villages, towns, and cities
- Towns and cities serve as centres for trade, government, and religion.



#### Bad News

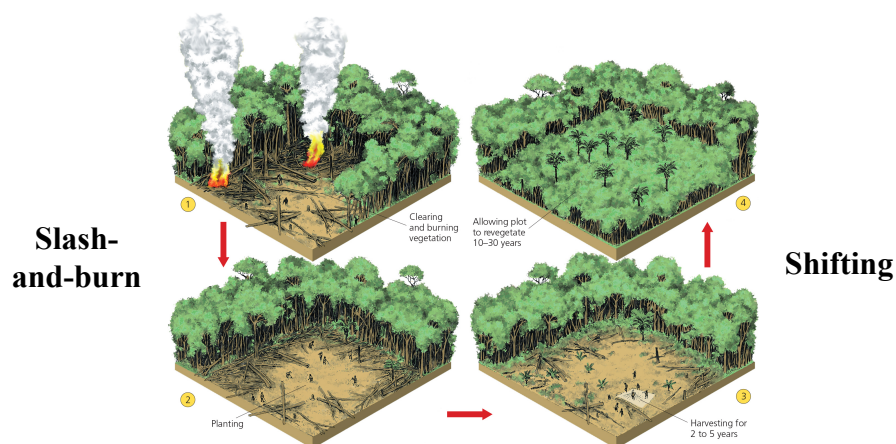
- Destruction of wildlife habitats from clearing forests and grasslands
- Killing of wild animals feeding on grass or crops
- Fertile land turned into desert by livestock overgrazing
- Soil eroded into streams and lakes
- Towns and cities concentrating wastes and pollution and increasing spread of diseases
- Increase in armed conflict and slavery over ownership of land and water resources

(Left: © GSerban/Shutterstock; Right: © Fontpage/Shutterstock)

Copyright © 2017 by Nelson Education Ltd.

7

## Cultural Changes and the Environment: Cultivation in the Agricultural Revolution



Copyright © 2017 by Nelson Education Ltd.

8

## Cultural Changes and the Environment: Industrial–Medical Revolution

FIGURE 2-4 **TRADE-OFFS**

### Industrial-Medical Revolution

Good and bad news about the effects of the advanced industrial revolution. Pick the single pieces of good news and bad news that you think are the most important.



#### Good News

- Mass production of useful and affordable products
- Higher standard of living for many
- Greatly increased agricultural production
- Lower infant mortality
- Longer life expectancy
- Increased urbanization
- Increased education



#### Bad News

- Increased air pollution
- Increased water pollution
- Increased waste production
- Soil depletion and degradation
- Groundwater depletion
- Habitat destruction and degradation
- Biodiversity depletion

(Left): © waabrealmedia/Shutterstock;  
(Right): © Pictive/Shutterstock

Copyright © 2017 by Nelson Education Ltd.

9

## Cultural Changes and the Environment: Information–Globalization Revolution

FIGURE 2-5 **TRADE-OFFS**

### Information and Globalization Revolution

Good and bad news about the effects of this latest cultural revolution. Pick the single pieces of good news and bad news that you think are the most important.



#### Good News

- Computer-generated models and maps of the Earth's environmental systems
- Remote-sensing satellite surveys of the world's environmental systems
- Ability to respond to environmental problems more effectively and rapidly



#### Bad News

- Information overload causing confusion and sense of hopelessness
- Globalized economy increasing environmental degradation by homogenizing the Earth's surface
- Globalized economy decreasing cultural diversity

(Left): © Andrey Artyukov/Shutterstock;  
(Right): © ddbch/odk/Shutterstock

Copyright © 2017 by Nelson Education Ltd.

10

## Environmental History of North America: Pre-Columbian Era (pre-1600s)

First Nations peoples in North America

Some species extinctions, but generally small populations with low-impact

– Hunter–gatherer or agricultural societies

Cultural belief in balance, renewability, and a respectful relationship with nature

Copyright © 2017 by Nelson Education Ltd.

11

## Environmental History of North America: Colonial Era (1607–1890)

Settlers and the **myth of superabundance**

Widespread settlement encouraged

Conflicts between settlers and First Nations

1885: **Transcontinental railway** completed, and Canadian government defeated last major First Nations uprising

1890: American government declares “frontier closed”

Copyright © 2017 by Nelson Education Ltd.

12

## Environmental History of North America: Early Conservation Era (1832–1960)

### 1832–1870

Initial concerns about resource use

- Henry David Thoreau
- George Perkins Marsh

Urged preservation of public lands

Copyright © 2017 by Nelson Education Ltd.

13

## Environmental History of North America: Early Conservation Era (1832–1960)

### 1870–1930

Canadian civil servants and government begin to focus on conservation

- *H. Douglas, R. Campbell, M. Graham, G. Hewitt, C. Sifton, J. Harkin*

National parks established as attractions on the CPR (Banff, Yoho, Glacier)

U.S. National Park Service Act (1916)

Copyright © 2017 by Nelson Education Ltd.

14

## Environmental History of North America: Early Conservation Era (1832–1960)

### 1930–1960

Depression and war-era economics

Canadian National Parks Act (1930)

Prairie Farm Rehabilitation Program (1930s)

– *W.L. Mackenzie King's response to drought in prairies*

– *Soil conservation practices established*

Appreciation of wilderness

– *Art and literature from Grey Owl and the Group of Seven*

Copyright © 2017 by Nelson Education Ltd.

15

## Environmental History of North America: Environmental Era (1960 to present)

### 1960s: Environmental Awakening

Canadian environmental groups

– *Pollution Probe (ON), Ecology Action Centre (NS), Society for the Promotion of Environmental Conservation (West)*

The science of ecology

– *Paul Ehrlich, Barry Commoner, and Garrett Hardin*

Rachel Carson: *Silent Spring* (1962)

Spaceship Earth worldview from Apollo 8 (1968)

Public awareness of endangered species

– *Bald eagle, grizzly bear, whooping crane, peregrine falcon*

Copyright © 2017 by Nelson Education Ltd.

16



## Environmental History of North America: Environmental Era (1960 to present)

### 1970s: Environmental Decade

First Earth Day

More Canadian environmental groups

- *Greenpeace, Sierra Club of Canada, Canadian Audubon Society, Canadian Nature Federation*

Environmental protection laws

- *Arctic Waters Pollution Act (1970)*
- *Clean Air Act (1971)*
- *Canadian Wildlife Act (1973)*

Copyright © 2017 by Nelson Education Ltd.

17

## Environmental History of North America: Environmental Era (1960 to present)

### 1980s: Canada vs. U.S. on the environment

Canada:

- *Acid rain concerns*
- *Montreal Protocol (1987)*

U.S.A.:

- *Privatization of mineral and energy rights*
  - *Cuts to environmental research*
  - *Cuts to renewable energy tax incentives*
  - *Relaxed federal air and water control standards*
  - *U.S. Clean Air Act* ————— **G.W. Bush, Sr.**
- } **Reagan**

Copyright © 2017 by Nelson Education Ltd.

18

## Environmental History of North America: Environmental Era (1960 to present)

### 1990 to present

1992 Earth Summit

– *Maurice Strong, David Suzuki, Brian Mulroney*

1997–2005 Kyoto Protocol (Chrétien, Martin)

– *Committed Canada to reducing its greenhouse gas emissions to 6% below 1990 emissions by 2008–12*

2006 Clean Air Act (Harper)

– *Instead of Kyoto*

Copyright © 2017 by Nelson Education Ltd.

19

## Where Do We Stand Now?

*Can we learn from the past?*

– Environmental history explains how things came to be as they are now

*Can traditional ecological knowledge help?*

Copyright © 2017 by Nelson Education Ltd.

20

## Conclusion

History of environmental science in North America a story of increasing awareness

Historical tension over colonization

Modern tension over needs of industry vs environment

Reconciling traditional ecological knowledge with modern science

Copyright © 2017 by Nelson Education Ltd.

21

## Sweden: a forerunner in environment

How Sweden tackles environmental challenges:

Copyright © 2017 by Nelson Education Ltd.

22