

Climate on the Edge



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ARCTIC MISSION

The Arctic is on the front line of climate change and it is sending us an urgent message: global warming is having a serious impact on the planet. As temperatures increase, thousands of square kilometres of ice cap will soon disappear. Scientists predict devastation if we don't change our ways.

Ice, and the micro-organisms that survive beneath it, form the base of the Arctic food chain. Several species are now at risk. And the Inuit, 'the people of the ice', are already suffering the effects of warmer temperatures.

Climate on the Edge takes an objective look at this complex issue through interviews with leading experts: climatologist Jean Jouzel, oceanographer Eddy Carmack, computer modelling expert Francis Zwiers and glaciologist Fritz Koerner.

Do rising temperatures threaten the very existence of this fragile ecosystem?

Arctic Mission is a collection of five documentary films that explores the impact of global warming on Canada's North.

Directed by **Alain Belhumeur**
Written by **Jean Lemire** and **Alain Belhumeur**
In collaboration with **Thierry Piantanida**
Cinematography **Marc Gaboury csc, Martin Leclerc**
Underwater cinematography **Mario Cyr**
Location sound **Richard Lavole**
Editor **Alain Belhumeur**
Sound editing **Anton Fischlin, Martin Pinsonnault**
Original music **Hervé Postic**
Narrated by **David Suzuki**
Produced by **Glacials Productions (Jean Lemire)**
In co-production with the **National Film Board of Canada (Éric Michel, Colette Loumède and Sally Bochner)** and **Gedeon Programmes (Stéphane Millière)**

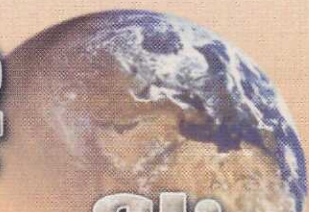
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With the collaboration of **Télé-Québec, CBC Television – Nature of Things, France 5, Centre national de la cinématographie Canada-France, Ministère délégué à la recherche et aux nouvelles technologies**

A **Canada-France** co-production
Shot in high-definition

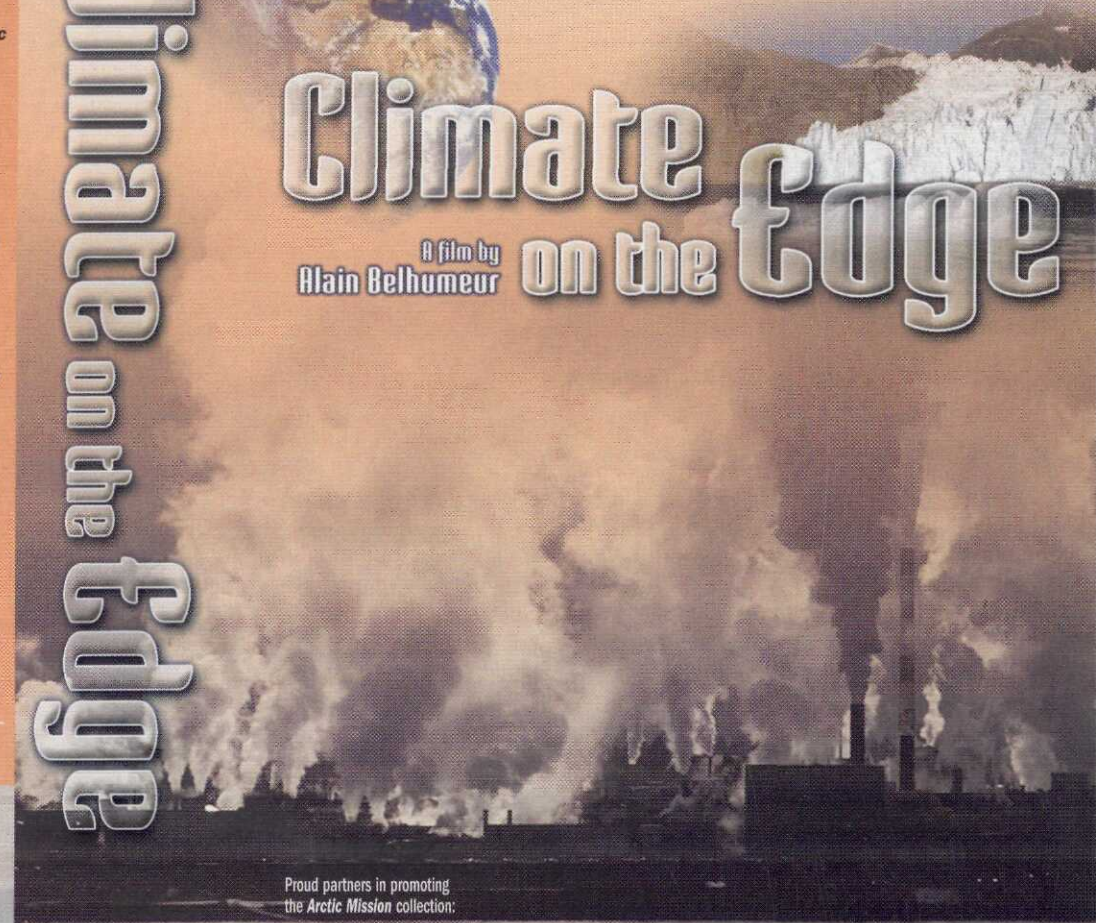
Photographs **Jean Lemire, Stanislas Deville**
Graphics **Mardigrade inc.**

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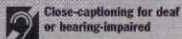
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A film by **Alain Belhumeur**



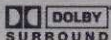
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52 minutes

VHS
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Canada 1 800 267-7710
USA 1 800 542-2164
International (514) 283-9450
Web site www.nfb.ca



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From anywhere... to anyone



A PRODUCTION OF GLACIALIS PRODUCTIONS IN CO-PRODUCTION WITH THE NATIONAL FILM BOARD OF CANADA AND GEDEON PROGRAMMES



Study Guide

Target Audience

Senior Elementary, Secondary School and Adult Education

Connections

Geography, Human and Physical Systems, Global Issues, Local Environments, English, Mass Media, Journalism

Objective

To use media techniques to raise awareness.

Duration

4 hours, including screening time (50 minutes).

PRE-VIEWING ACTIVITIES

1. Explain to the students that they will work in small groups to create a news report setting. The issues are: main causes of global warming, the effects on the environment, and Canada's commitments to the Kyoto Protocol.
2. Discuss the profession of a science journalist. For example, where in the mass media do science reports appear? How should a science journalist proceed when gathering information about greenhouse gases and their role in climate change?
3. Read aloud the film synopsis on the back of this videojacket.
4. Challenge students to watch the video as if they were journalists, paying attention to climate change globally and in the polar regions. They should focus on the causes of global warming as described by scientists.

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POST-VIEWING ACTIVITIES

1. Allow a few minutes for general discussion.
2. Investigate and Report: Divide the class into teams, and provide each group with an issue and the questions below. The task is to do some research and to present an oral report that includes visuals such as diagrams, photos and graphs. The following Web sites may be useful:

www.ec.gc.ca/international/multilat/cccc-e.htm#obj

www.dfait.maeci.gc.ca/department/focus/kyotoprotocol-en.asp

www.climatechange.gc.ca/english/whats-new/overview-e.html

www.climatechange.gc.ca/english/index.shtml

www.nfb.ca/sedna/arcticmission/ma-ressources/sc-climatologie.html

ISSUE 1 - Greenhouse Gases and Global Warming

What kind of natural phenomenon is the greenhouse effect? What are the main greenhouse gases found in Earth's atmosphere? How has industrial activity caused an alarming increase in the emission of greenhouse gases? How is Earth's climate disrupted when greenhouse gases in the atmosphere exceed certain levels? How does global warming affect the polar regions in particular?

ISSUE 2 - The United Nations Framework Convention on Climate Change and the Kyoto Protocol

What are the main objectives of the 1997 Kyoto Protocol? What are the six main greenhouse gases targeted by the protocol? How are they emitted into the atmosphere? What commitment have the developed countries that signed the protocol made respecting a percentage reduction in greenhouse gas emissions?

ISSUE 3 - Canada and its commitments under the Kyoto Protocol

When did Canada ratify the Kyoto Protocol? What are Canada's obligations under the protocol regarding reductions in greenhouse gas? What areas of industry is the country counting on to achieve its targets? By what means? What signs of global warming can we see in the Canadian Arctic? How can we help to reduce our country's levels of greenhouse gases?

3. Group Discussion and Review: Allow teams to read each other's news reports. Encourage an exchange of views, with constructive criticism and comments. Post the news reports so that everyone can see them.
4. Additional Activity: Divide the group into two, one-half representing the countries that have ratified the Kyoto Protocol and the other half, the countries that have not. Hold a debate on the theme, Our reasons for signing/not signing the Kyoto Protocol.