



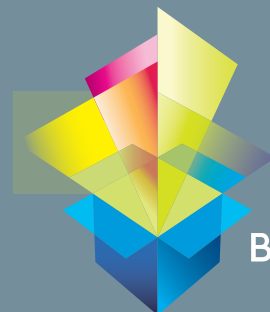
# THE PLANET STUDY GUIDE

**From the John VanDuzer Children's Film Collection**

An Educational Resource Addressing Environment, Politics,  
Economics, Geography, Psychology and Civics

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# Message to the Educator

The Youth Learning Department at the Toronto International Film Festival Group aims to provide children, youth and students with new academic opportunities and social experiences by introducing them to the language and power of the moving image. We are proud to introduce educators to the John VanDuzer Children's Film Collection. This initiative reflects our continuing commitment to educating and inspiring youth with the transformative powers of the moving image.

The collection, the first of its kind in the world, is empowered to purchase, archive and distribute the best children's and family films available from around the world. Developed with education experts, study guides accompany each film and are designed to address contemporary social issues and provide a wealth of synergistic programming with the Ontario Ministry of Education. For more information, please visit [reellearning.ca](http://reellearning.ca), our online film-literacy resource for educators.

## Synopsis

### *The Planet*

Country of Origin: Sweden

Release Year: 2006

Original Language: English

Directors: Michael Stenberg, Linus Torell, Johan Soderberg

Runtime: 82 minutes

Themes: environment, politics, economics, geography, psychology, civics

Originally a three-part series made for Swedish television, *The Planet* is a feature film version distilling the essential features of the programme into an 82-minute documentary on the devastating consequences of global warming. Over the course of two years, the filmmakers visited more than 25 countries. They interview numerous experts who testify to the damage that human activity is having on the environment and warn us that, at our current rate of consumption, it would take five planets to maintain our resource use.

Blending anecdotal and scientific evidence, *The Planet* explores the impact global warming has on the environment, the economy and the global political landscape. The filmmakers present information in a visually arresting manner, alternating the "talking heads" with footage illustrating the points being raised by the experts. The combination of images, ideas and original music contribute to an absorbing multimedia experience that confronts the viewer with a powerful message about the state of the environment.

Related website: <http://www.forskning.se/planeten/index.html?lang=eng>

# Curriculum Applicability

*The Planet* is relevant to a number of courses across the curriculum from Grades 7 to 12, particularly Grades 7/8 Geography and Grades 9/10 Canadian and World Studies. Below is a general guide to the subjects that are relevant to the issues raised in the film. See the detailed curriculum applicability table on page 29 of this guide for a more comprehensive list of the particular criteria within each subject toward which the film can be applied.

## Science:

What is global warming? What are the causes of global warming?

## Geography:

How does global warming impact the environment?

## Economics:

How does climate change affect the global economy?

## Politics:

How do different countries deal with the issue of global warming? What role does the environment play in international relations?

## Civics:

What are the responsibilities of the individual in reducing greenhouse gas emissions and in compelling politicians to becoming more proactive about the environment?

## Media:

How are environmental issues depicted in the media? What techniques do documentaries use to persuade audiences to agree with a particular argument?

## Ways into the Text

*The Planet* is a comprehensive examination of the effects of global warming across the world. Over the course of the two years that it took to make the film, the directors travelled to over twenty-five different countries and interviewed both scientific experts and local residents about the impact that global warming has had on their countries. One of the countries the filmmakers did *not* visit is Canada, providing teachers with an ideal point of entry into the film. What is Canada's environmental record? Students should research where Canada fits into the global picture in terms of greenhouse gas emissions, deforestation, energy consumption, water consumption, biodiversity, climate change, air quality and waste management. What measures is Canada taking to protect its resources from further harm? What is the Kyoto Protocol and what are Canada's obligations under the terms of the international treaty on climate change? How effective has the government been to date in meeting these obligations?

Once students have researched the issue of global warming from a national context, they should reflect on how their actions and lifestyles as individuals impact on the environment and consider specific actions they can take to help minimize these effects. An interesting introductory lesson would be getting students to calculate their individual "footprint." Here are some websites that students can visit in order to do this:

- <http://www.earthday.net/footprint/index.asp>
- <http://www.ec.gc.ca/default.asp?lang=En&n=21F302D8-1>
- <http://www.canadianliving.com/canadianliving/client/en/Health/SpecialDetailNews.asp?idNews=237161&pg=1&idsm=517&special=1>

In addition to studying the issues raised by the film, students should explore the way in which the filmmakers convey their ideas and attempt to convince viewers of the urgent need to tackle the problem of global warming. Particular attention should be paid to how the directors position the audience to respond to the comments made by the experts. How does *The Planet* differ from other documentaries that deal with the same topic? To this end, teachers should engage students in a discussion about the film as part of a particular genre and have them analyze how the filmmakers use the conventions of the documentary genre in order to formulate a specific argument. After watching the film, students could look at the trailer for two other popular environmental documentaries, *An Inconvenient Truth* and *The Eleventh Hour*, and consider the apparent similarities and differences between these films and *The Planet*.

The websites for the trailers can be found at:

- *An Inconvenient Truth*: [http://www.youtube.com/watch?v=0XMn\\_Ry3z6M](http://www.youtube.com/watch?v=0XMn_Ry3z6M)
- *The Eleventh Hour*: <http://wip.warnerbros.com/11thhour/>

After watching both trailers, students should compare the way the messages of each film are conveyed by commenting on the features of each one listed below and answering the following questions:

|   | <i>An Inconvenient Truth</i> | <i>The Eleventh Hour</i> |
|---|------------------------------|--------------------------|
| Target audience   |                              |                          |
| Narrator/celebrity spokesperson   |                              |                          |
| Images (video footage, photographs)   |                              |                          |
| Visuals (maps, graphs)  |                              |                          |
| Scientific information presented  |                              |                          |
| Emotions solicited to   |                              |                          |
| Taglines/slogans used   |                              |                          |
| Overall effectiveness<br>(Would you want to watch this film? Why? Why not?) |                              |                          |

1. Unlike *An Inconvenient Truth* or *The Eleventh Hour*, *The Planet* does not have a well-known public figure acting as a narrator. Do you think that the film would be more effective if it had a narrator, or is the “talking head” approach more convincing? Why/why not?
2. What similarities do you think that the three films share?
3. What are the differences in the ways that the three films try to engage their audiences?
4. Which film do you think would be most likely to persuade an audience? Why?
5. Another interesting exercise is comparing the way two documentaries handle the same set of facts. To this end, students should watch how *An Inconvenient Truth* deals with the issue of glaciers receding (<http://www.youtube.com/watch?v=EHRvECEngE0&mode=related&search=http://www.youtube.com/watch?v=EHRvECEngE0&mode=related&search>) and compare it to the way that *The Planet* handles the same information (00:59:20-01:02:20). How are these segments similar? How do they differ? Which one presents the information more persuasively? Why? List the specific techniques used by the directors of both films to make their points and argue why they are or are not effective?

# Studying the Documentary Genre

The documentary genre has become increasingly mainstream since Michael Moore's *Bowling for Columbine* won an Academy Award® in 2002. Undoubtedly influenced by the popularity of reality television shows, documentaries are now more likely to mix documentary conventions with those from different genres in order to engage a wider audience. For example, Kevin Macdonald's *Touching the Void* (2003) combines documentary conventions with dramatic re-enactments to convey the experience of two mountain climbers in the Peruvian Andes.

Because documentaries deal with actual people and real events, it is easy for viewers to take what is being presented to them at face value as “the truth.” However, like the newspapers we read and the news we watch on television, documentaries are constructed to convey an issue or an argument in a particular way. Just as students need to become alert to particular biases in the print media so, too, should they be made aware of the techniques that documentary filmmakers adopt to position their viewers to agree with the stance they take on a given issue. To do this, students must first become familiar with the different types, styles and conventions of documentary films.

## Types, Styles and Conventions

(From Andrea Hayes, *Cambridge VCE English Units 1&2*, Cambridge University Press, Melbourne, 2006)

Documentaries can be:

- Event driven
- Issue driven
- Character centric
- Experiment driven
- Slice of life
- Recreated scenarios

Different documentary styles include:

- Commentator (filmmaker or someone comments on the action, e.g. Michael Moore)
- Fly-on-the-wall (camera runs uninterrupted and footage is later edited)
- Essay style
- Dramatization (recreated historical or famous event)
- Cinema vérité (meaning “cinema of truth”, the camera operator is part of the action)
- Ethnographic
- Propaganda

Documentary conventions:

- Narrator
- Talking heads (interviews)
- Subjects talking to camera
- Voice-over
- Photographs
- Music
- Facts
- Different perspectives of people, events or facts presented
- Live footage
- Different settings
- Themes/issues
- Hypothesis about a central theme/issue on which a documentary is based
- Director's perspective or expressed opinion
- Graphics
- Animation

Which of the above-mentioned styles and conventions does *The Planet* use? Students should generate a list of techniques that the filmmakers use to convince viewers that they need to take action against global warming. They should also consider the following questions:

1. What are the issues/themes raised in the film?
2. Who is the target audience for the film?
3. What is the main question/hypothesis posed by the filmmakers?
4. What do you believe the filmmakers' perspectives on the subject of global warming to be?
5. Do the filmmakers offer alternate perspectives? Does the film offer a balanced perspective on the issue of global warming?
6. Do the filmmakers offer any potential solutions to the problems identified in the film?
7. What response do you think the filmmakers want to elicit from the audience?
8. What techniques do the filmmakers use to persuade the audience that global warming is an issue that requires urgent attention?

## Cinematic Techniques (from the *Skinny film kit*, Andrea Hayes, 2005)

In order to develop an understanding of how meaning is created visually, students need to familiarize themselves with the language of film. Below is a list of basic cinematic techniques. Students should identify where the directors of *The Planet* use some of these conventions and discuss how they are used to develop the argument and to position viewers to adopt a particular perspective on the issue of global warming.

### Camera Shots

Extreme long shot (ELS): allows the viewer to see the subject in relation to surroundings, places things in context (a.k.a. establishing shot, wide shot).

Long shot (LS): depicts the subject's whole body but not much of their surroundings.

Mid shot (MS): depicts the subject from the waist up.

Close-up (CU): depicts the subject's head and shoulders – concentrates attention on an important detail (e.g., reaction shot).

Extreme close-up (ECU): focus on one body part - adds intrigue, can be disconcerting.

### Camera Movement

Pan shot: (panoramic): camera rotates horizontally around a fixed position.

Tilt shot: camera moves vertically around a fixed position.

Tracking shot: camera is mounted on a dolly and moves horizontally on a track.

Crane shot: camera can be raised, lowered and moved horizontally (aerial shot, e.g., above a crowd).

Handheld: camera is held in the cinematographer's hand rather than on a tripod and can follow action (sometimes called "wobblecam" if unsteady).

Helicopter shot: ultimate aerial view (e.g., of cityscape)

Zoom: shot that goes from wide to close up quickly.

## Camera angle

Eye level: horizontal; makes audience feel like part of the action, can create intimacy.

High angle: provides general overview; depicts a subordinate position.

Low angle: dominant position, depicts a character in power.

Angled shot: can provide distorted view (technique often used in film noir)

## Editing

Editing is the arranging of images and sound to tell a story. Editing can allow scenes to be repeated, offer different perspectives or create tension.

Cut: a simple transition between two shots that have been joined together.

Cross-cutting: editing shots of events in different locations that often coincide with one another, or move to intersect.

Dissolve: a transition from one shot to another by fading out the first shot as the second shot fades in.

Jump cut: an edit in which a section of the footage is cut out from a shot when the camera has not changed its angle. It looks like an obvious jump to the viewer's eye.

Subtitles: letters or words that appear onscreen.

Montage: editing together various shots that are not continuous but create meaning.

Freeze frame: the moving image suddenly comes to a standstill (like a photograph), often signalling the end of a film.

VFX: visual effects created with computer technology.

Time-lapse photography: technique whereby each film frame is captured at a rate much slower than that at which it will be played back. When replayed at a normal speed, time appears to be moving faster and thus lapsing. Processes that would normally appear too subtle for the human eye (e.g. a flower opening) become highly pronounced.

Diagetic sound: sound originating from the world within the film (dialogue, action sounds, e.g., car horn).

Non-diagetic sound: sound that has its source outside the film (e.g., music, voice-overs).

Ambient sound: background sound recorded at location when there is no dialogue or movement.

Music: creates mood in a film.

Voice-overs: added in post-production and are used to clarify meanings and guide audience.

### **Suggested Activities:**

Construct a wall chart listing examples of the above-listed techniques employed by the directors of *The Planet*.

Watch a clip with the soundtrack turned off and then watch it again with the sound. Discuss how the soundtrack helps to convey the message.

## Artistic Style:

### *The Planet:*

Visually, *The Planet* is heavily influenced by Godfrey Reggio's 1982 classic film, *Koyaanisqatsi*, especially in its use of time-lapse photography. Students may also comment that the film has the look of a music video. This is because one of the directors of *The Planet*, Johan Soderberg, has worked as an editor for Madonna's "Hung Up" and "Sorry" videos and directed the video for her song "Hey You" which was written specifically for the Live Earth concert designed to raise environmental awareness. Indeed, some of the footage used in *The Planet* also appears in the "Hey You" video.

In order to understand the way a director uses visuals as a persuasive tool, students should have a brief look both the "Hey You" video and scenes from *Koyaanisqatsi* and analyze the way the directors of each use a combination of sound and images to position the audience in a particular way.

### *Koyaanisqatsi*

Directed by Godfrey Reggio and released in 1982, *Koyaanisqatsi: Life out of Balance* is a visual poem exploring the relationship between humans, nature and technology. Without any dialogue or narration, the film consists primarily of slow motion and time-lapse photography of cities and natural landscapes across the United States set against a minimalist score composed by Philip Glass. The juxtaposition of images and music combine to form a critique of the way humans have exploited nature's resources and have become overly reliant on technology. In the Hopi language, "Koyaanisqatsi" means "life of moral corruption and turmoil, life out of balance," and the film suggests modern industrial society is guilty of living this way. Students should watch the trailer to the film (<http://www.youtube.com/watch?v=PirH8PADDgQ>) and compare it to *The Planet* by answering the following questions:

What specific film techniques are used in both *Koyaanisqatsi* and *The Planet*? (refer to specific scenes in *The Planet* which borrow directly from *Koyaanisqatsi*).

How does the music contribute to the message of both films? Watch the trailer to the film without the sound. How does this affect your response?

Do you think that the absence of a narrator makes the message of the film more or less effective? Why or why not?

# “Hey You”

Below are the lyrics to Madonna’s song, “Hey You.” Students should watch the video at [http://www.youtube.com/watch?v=V8fi7n\\_7uEE](http://www.youtube.com/watch?v=V8fi7n_7uEE) and, in pairs, fill out the grid below recording the images that accompany the songs. Have one student comment on the words only and one student comment on the impact of the words and music with the visual images. They should also answer the accompanying questions and discuss their findings with the whole class.

| Words   | Images |
|---|--------|
| Hey you, don't you give up<br>It's not so bad<br>There's still a chance for us<br>Hey you, just be yourself<br>Don't be so shy<br>There's reasons why it's hard   |        |
| [Chorus One]<br>Keep it together, we'll make it alright<br>Our celebration is going on tonight<br>Poets and prophets would envy what we do<br>This could be good, hey you   |        |
| Hey you, open your heart<br>It's not so strange<br>You've got to change this time<br>Hey you, remember this<br>None of it's real including the way you feel   |        |
| Chorus One repeated   |        |
| Save your soul, little sister<br>Save your soul, little brother<br>Hey you, save yourself<br>Don't rely on anyone else  |        |
| [Chorus Two]<br>First love yourself<br>Then you can love someone else<br>If you can change someone else<br>Then you have saved someone else<br>But you must first love yourself<br>Then you can love someone else<br>If you can change someone else<br>Then you have saved someone else<br>But you must first |        |
| Hey you, there on the fence<br>You've got a choice<br>One day, it will make sense<br>Hey you, first love yourself<br>Or if you can't<br>Try to love someone else  |        |

1. Which images does the music video take directly from *The Planet*? Do you respond differently to the same images when you see them in a different context?
2. What is the message of the music video? How does it differ from the message conveyed in *The Planet*?
3. Who is the target audience for the video? How does it differ from the target audience of *The Planet*?
4. Although the music video uses some of the same footage as the documentary, the viewer of the former likely winds up feeling more optimistic. How is that optimism conveyed through both the words and the images?
5. Is the music video more or less likely than the documentary to convince viewers to be more environmentally aware? Why or why not?

# Canada's Environmental Record

*The Planet* explores a number of environmental challenges currently facing society, ranging from deforestation to disappearing species. However, apart from a brief reference to acid rain, Canada does not factor into any of the issues raised in the film and this provides students with a rich opportunity to do some independent research. Teachers could divide students into groups and ask each one to explore an environmental issue as it relates specifically to Canada. Each group could then report their findings to the rest of the class or submit a written report that includes suggestions on how to improve our national environmental standards. Below is a brief list of some relevant facts and statistics as well as a list of useful sites that students can access for further information.

## Deforestation

(From *Estimating Carbon Losses from Deforestation*, Robinson, D.C.E., W.A. Kurz and L. Pinkham, 1999. Link to this report prepared by Essa Technologies Ltd. for the National Climate Change Secretariat in Ottawa can be found at <http://www.essa.com/downloads/pubs.htm>.)

Forestry and agriculture sectors are the two major causes of deforestation, and together remove 319-524 km<sup>2</sup>/yr, with above-ground emissions of 6.3 – 10.2 Mt CO<sub>2</sub>/yr. The petroleum and mining sectors account for the third major source of deforestation (109-127 km<sup>2</sup>/yr). Oil exploration and infrastructure development in Alberta explain most of this disturbance. Urban development and electricity generation are other significant factors in deforestation, together accounting for 106 – 137 km<sup>2</sup>/yr. Taking into account all of these factors, the estimated deforestation rate is between 546–805 km<sup>2</sup>/yr. This implies a 1% loss of forested land over the next 50 to 75 years at current rates.

Other relevant forestry sites:

Natural Resources Canada: The State of Canada's Forests: [http://cfs.nrcan.gc.ca/sof/sof06/for\\_stat\\_trd\\_e.html](http://cfs.nrcan.gc.ca/sof/sof06/for_stat_trd_e.html)

## Species at Risk

(Source: Environment Canada: Species at Risk: [http://www.speciesatrisk.gc.ca/search/default\\_e.cfm](http://www.speciesatrisk.gc.ca/search/default_e.cfm))

|                 | Mammals | Birds | Reptiles | Amphibians | Fishes |
|-----------------|---------|-------|----------|------------|--------|
| Extinct         | 2       | 3     | 0        | 0          | 6      |
| Extirpated      | 3       | 2     | 4        | 1          | 4      |
| Endangered      | 20      | 27    | 12       | 7          | 34     |
| Threatened      | 17      | 15    | 13       | 5          | 25     |
| Special Concern | 27      | 22    | 9        | 7          | 41     |

Extinct: species indigenous to Canada, no longer in existence anywhere.

Extirpated: species no longer existing in wild in Canada but occurring elsewhere in the world.

Endangered: species threatened with imminent extinction or extirpation throughout all or significant portions of its Canadian range.

Threatened: species likely to become extinct if factors affecting its vulnerability aren't reversed.

Special Concern: vulnerable species particularly at risk because of low or declining numbers or small ranges, but not threatened.

Other relevant wildlife sites:

[http://www.cwf-fcf.org/pages/media/medianews\\_e.asp?section=3&page=46&language=e](http://www.cwf-fcf.org/pages/media/medianews_e.asp?section=3&page=46&language=e)

<http://www.on.ec.gc.ca/wildlife/sar/recovery-e.html>

<http://www.cosewic.gc.ca/>

[http://www.fishwildlife.org/part\\_wildlife.html](http://www.fishwildlife.org/part_wildlife.html)

## Energy Consumption

(Source: Environment Canada: [http://www.ec.gc.ca/soer-ree/English/Indicator\\_series/new\\_issues.cfm?issue\\_id=11&tech\\_id=45#bio\\_pic](http://www.ec.gc.ca/soer-ree/English/Indicator_series/new_issues.cfm?issue_id=11&tech_id=45#bio_pic))

Canada ranks as the world's sixth largest user of primary energy. Canada's energy consumption in 2000 was 9.9 exajoules, up 10% from 1990. However, Canada's per-capita energy consumption has decreased since 1990, indicating that efforts to increase energy efficiency may be working. Nevertheless, improvements in energy efficiency have only a minor effect on total energy use. Fossil fuel use in Canada has increased by 20% since 1990. In 1999, Canada's energy use accounted for 2.5% of total global energy consumption and 2.5% of the total fossil fuels used.

Other relevant energy sites:

[http://globalis.gvu.unu.edu/indicator\\_detail.cfm?IndicatorID=146&Country=CA](http://globalis.gvu.unu.edu/indicator_detail.cfm?IndicatorID=146&Country=CA)

<http://envirostats.info/2007/08/12/0290/>

<http://cslforum.org/canada.htm>

## Municipal Solid Waste

(Source: [http://www.ec.gc.ca/soer-ree/English/Indicator\\_series/new\\_issues.cfm?issue\\_id=13&tech\\_id=53#bio\\_pic](http://www.ec.gc.ca/soer-ree/English/Indicator_series/new_issues.cfm?issue_id=13&tech_id=53#bio_pic))

Canadians are often cited as being among the leading per-capita producers of solid waste in the world. Between 1998 and 2000, per-capita non-hazardous solid waste generation increased by 10%. 40% of this solid waste is generated by the industrial, commercial and institutional sector and one third by the residential sector.

Waste diversion also increased by 10%. 75% of the materials diverted included paper, glass and metals, while plastics comprised 1% by weight.

Other relevant waste disposal sites:

[http://ontario.sierraclub.ca/campaigns/waste\\_diversion/](http://ontario.sierraclub.ca/campaigns/waste_diversion/)

<http://www40.statcan.ca/l01/cst01/envir25a.htm>

## Passenger Transportation

(Source: [http://www.ec.gc.ca/soer-ree/English/Indicator\\_series/new\\_issues.cfm?issue\\_id=12&tech\\_id=49#bio\\_pic](http://www.ec.gc.ca/soer-ree/English/Indicator_series/new_issues.cfm?issue_id=12&tech_id=49#bio_pic))

Automobile travel has grown by 9% over the last decade. In 2000, for every 100 kilometres travelled by Canadians, 74 kilometres were travelled by automobile. Air travel also grew, experiencing a 50% increase over the last decade. Total fossil fuel use by automobiles increased by 21% between 1990 and 1999. Fuel efficiency rose dramatically between 1973 and 1982, but has not improved since. Meanwhile, there has been an increased use of less fuel-efficient light-duty trucks including sports utility vehicles.

## Municipal Water Use

(Source: [http://www.ec.gc.ca/soer-ree/English/Indicator\\_series/new\\_issues.cfm?issue\\_id=6&tech\\_id=25#bio\\_pic](http://www.ec.gc.ca/soer-ree/English/Indicator_series/new_issues.cfm?issue_id=6&tech_id=25#bio_pic))

Canadians are among the highest water users in the world, using roughly twice as much per person as in other industrialized countries, with the exception of the United States. From 1994 to 1999, about 26% of Canadian municipalities reported water shortages at one time or another as a result of drought, infrastructure problems or growing consumption. Between 1991 and 1999, total daily municipal water use increased by 5%, largely reflecting the increase in municipal population. One of the main factors in explaining high residential consumption rates is the lack of financial incentive to Canadian households to use less water. For example, in 1999, unmetered households, which pay a flat rate for water, used 50% more water than metered households, which pay for water by volume used.

## Climate Change

(Source: [http://www.ec.gc.ca/soer-ree/English/Indicator\\_series/new\\_issues.cfm?issue\\_id=4&tech\\_id=15#bio\\_pic](http://www.ec.gc.ca/soer-ree/English/Indicator_series/new_issues.cfm?issue_id=4&tech_id=15#bio_pic))

Canada's greenhouse gas emissions have increased by 18% since 1990. Canadian emissions of six key greenhouse gases have grown 20% since 1990. Increased emissions of carbon dioxide are reflected in global atmospheric carbon dioxide concentrations that have increased by 33% since the beginning of the industrial age. The average global temperature has risen by about 0.6 degrees Celsius over the last century, with Canada's average temperature rising about one degree Celsius between 1950 and 2000.

According to the Climate Action Network Canada, while the global average temperature should rise by 2-6 degrees Celsius by the end of the century, the Canadian average will be within a 6-10 degree range.

Other relevant sites:

[http://www.whrc.org/resources/online\\_publications/warming\\_earth/](http://www.whrc.org/resources/online_publications/warming_earth/)

<http://www.thecanadianencyclopedia.com/index.cfm?PgNm=TCE&Params=M1ARTM0012130>

<http://www.wwf.ca/AboutWWF/WhatWeDo/ConservationPrograms/GlobalWarming.asp>

## Natural Disasters

(Source: [http://www.ec.gc.ca/science/sandefeb03/a3\\_e.html](http://www.ec.gc.ca/science/sandefeb03/a3_e.html))

While geophysical disasters (e.g. earthquakes) have remained relatively constant in Canada over the last fifty years, weather-related disasters have skyrocketed and climate change is expected to exacerbate this situation further, as it is expected to increase the frequency and severity of some extreme weather events. Economic, socio-demographic and technological changes over the last fifty years have increased vulnerability to these events. By exploiting our natural resources, we have degraded the environment and destroyed natural buffers that help to reduce the impacts of certain hazards. The cutting of timber on hillsides magnifies the impact of landslides. Draining of wetland amplifies the effects of flooding and higher concentrations of people living in urban areas means that more people will be affected when disasters do hit.

Factors that increase vulnerability:

- Population growth
- Urbanization
- Environmental degradation
- Increased mobility
- Aging population
- Aging infrastructure unable to cope with environmental loads
- Greater reliance on power, water, transportation and communication
- Historical over-reliance on technological solutions

Other relevant sites:

[http://www.ec.gc.ca/envirozine/english/issues/34/any\\_questions\\_e.cfm](http://www.ec.gc.ca/envirozine/english/issues/34/any_questions_e.cfm)

<http://www.ccep.ca/etkin.html>

<http://www.cbc.ca/news/background/forcesofnature/>

## Population Projections

(Source: <http://www.statcan.ca/Daily/English/051215/d051215b.htm>)

Canada's population could exceed 40 million by the late 2030s under the medium-growth scenario (which assumes a continuation in the most recent trends in fertility, mortality and immigration). Under the medium-growth scenario, Canada would continue to have, until 2056, a higher rate of population growth than that currently expected of G8 countries such as Germany, Russia, Italy and Japan.

## Canada and the Kyoto Protocol

(Source: [http://en.wikipedia.org/wiki/Kyoto\\_Protocol](http://en.wikipedia.org/wiki/Kyoto_Protocol))

On December 17, 2002, Canada ratified the Kyoto treaty that came into force in February 2003 requiring the nation to reduce emissions to 6% below 1990 levels during the 2008-2012 commitment period. By 2004, CO<sub>2</sub> emissions had risen 27% above 1990 levels (even higher than 16% increase recorded by the U.S.).

On April 25, 2006, Environment Minister Rona Ambrose announced that Canada would have no chance of meeting its targets under Kyoto and would look to participate in the U.S.-sponsored Asia-Pacific Partnership on Clean Development and Climate. On May 2, 2006, it was reported that environmental funding designed to meet Kyoto standards had been cut while the Harper government develops a new plan to take its place. John Baird has since replaced Rona Ambrose as Environment Minister.

On February 14, 2007, a Private Member's Bill put forth by Pablo Rodriguez of the Liberal Party was passed, aiming to force the government to "ensure that Canada meets its global climate-change obligations under Kyoto Protocol". Senate is now considering

the bill and, if passed, it would give the government sixty days to form a detailed plan of action. The Conservative government has refused to abide by the bill.

In May 2007, Friends of the Earth sued the federal government for failing to meet its Kyoto Protocol obligations to cut greenhouse gas emissions. This was based on a clause in the Canadian Environmental Protection Act requiring Ottawa to “prevent air pollution that violates an international agreement binding on Canada.” Canada’s obligation to the treaty begins in 2008.

Other relevant sites:

<http://www.cbc.ca/news/background/kyoto/>

<http://www.cme-mec.ca/kyoto/index.html>

(This site looks at the negative impact the protocol would have on the Canadian energy and manufacturing sectors.)

<http://canadaonline.about.com/od/environment/i/kyotoprotocol.htm>

## Close Analysis of Selected Segments of *The Planet*

Below is a selection of key scenes from *The Planet* with some guided questions that students could use to inform their analysis of the film. Divide students into pairs and give each one a segment of the film to analyse. Each pair will deliver an oral presentation to the class, identifying as many techniques as possible from their clip and explaining how these techniques are used to construct a particular point of view and how they position the viewer to respond. Each pair should watch their specific segment and use the following chart to record their observations:

| Words | Images | Camera techniques | Sound/Music |
|-------|--------|-------------------|-------------|
|       |        |                   |             |

## Opening Sequence (00:00:16-00:02:50)

1. The graphic that precedes the film is that of a globe with a human face being picked apart by forks, leaving just a pair of eyes. What do you think the question mark is meant to signify?
2. What noises can you hear in the background as the globe is being eaten away? How do they contribute to your understanding of what the film is going to be about?
3. The opening image of the film is that of a flickering planet that gradually moves towards the viewer. What is the significance of this image and why do you think the filmmakers begin the film this way?
4. What is the blue line with the flickering yellow light meant to signify?
5. “Climate change is one of the greatest threats that we face today.” “Global warming is too serious for the world any longer to ignore its danger.” Do you recognize these voices? Why have they been included?

## Mathis Wackernagel, Executive Director of Global Footprint Network (00:27:25-00:30:32)

1. How do the filmmakers build tension in this sequence? List as many techniques as you can.
2. How do the aerial shots position the viewer to respond to the words being spoken?
3. What effect does the combination of music and sound effects (e.g., footsteps, sirens) have on the viewer?
4. Why do the filmmakers repeat the image of five planets twice in this sequence?
5. Why do the filmmakers repeat the opening image of the blue line with the yellow flickering light? Why do they show it flickering at a higher speed and with greater intensity than it did at the beginning of the film?

## Neha Sareen, Television Presenter (00:31:26-00:35:45)

6. Why do the filmmakers begin this segment by zooming in on the sign that proclaims “the day every one of us gets a toilet to use, we shall have reached the pinnacle of progress”?
7. Why does the interview with Sareen take place in a dressing room while she has having her hair and make-up done?
8. Why do the directors contrast Sareen’s comments with images of Indians working outside as manual labourers?
9. How is the audience positioned to respond to Sareen’s comments about selling a “fantasyland”?
10. Why do the directors repeat the phrases “killer instinct” and “fantasyland”? What response do you think they want to elicit in the viewer?

## Herman Daly, Professor of Economics, University of Maryland (00:43:31-00:45:22)

1. How do the images depicted in this segment reinforce the points that Daly is making?
2. The images taken from the fishing industry are repeated at other points in the film. What is their significance? How do you respond to them?
3. Why is the phrase “that’s depletion and that’s pollution” repeated several times?
4. How is the viewer positioned to respond to Daly’s comment that “even his grandchildren” could understand the logic of his argument?

## Psychology Segment (01:08:04-01:11:45)

1. The words of the psychology experts interviewed are set against black-and-white images that are designed to look like footage taken from the 1950s (e.g., the man behind the desk ignoring the doomsday proclamations in the newspaper, the trailer to a horror film and the psychologist telling a patient to relax as she holds a stick of dynamite). Why do you think that the filmmakers chose this “retro” look? What are they suggesting?
2. After presenting us with a myriad of disturbing facts and images throughout the film, why do you think that the directors chose to include a section on the failure of scare tactics at the end of the film?
3. This segment repeats the image of the five planets as well as Neha Sareen’s voice saying “fantasyland.” What is the purpose of this repetition?
4. What response do you think the directors want to elicit from the viewer in this scene? How effective is this scene overall?

Teachers who want to explore further the ideas raised in the psychology segment may want to raise the issue of satire with their students. How are environmentalists and environmental causes often depicted in the mainstream media? Why are they so often the target of jokes and crude stereotypes? Students could have a look at the satirical skit called *Global Warming Saskatoon* that lampoons environmental documentaries (<http://www.youtube.com/watch?v=JupNd3IYe0M>) and answer the following questions:

1. List all of the film techniques that are used in both this mockumentary and *The Planet*.
2. List all of the documentary conventions (e.g. expert opinion, statistics) that are utilized by the filmmakers in *Global Warming Saskatoon*.
3. Given the similarity in film style and narrative structure, how do we know that *Global Warming Saskatoon* is a satire? (i.e. how does the filmmaker undermine the very conventions that he employs?)
4. How is the viewer positioned to respond to this skit? What stereotypes does the filmmaker utilize in satirizing the global warming issue?
5. Do you think that satirising the issue is an example of what the psychologist interviewed in *The Planet* referred to as a defence mechanism against frightening information? Why or why not?

## Suggested Classroom Activities

1. *The Planet* conveys some convincing information about the dangers of global warming, but it does not offer any dissenting opinions. Listed below is a series of assertions made by the experts interviewed in the film. Students should research each statement and see if they can find alternative viewpoints or interpretations of the same data. Who provides the more convincing argument? Why?

| Assertion   | Rebuttal |
|---|----------|
| <p>The rate of which species are going extinct now is 1000 times greater than it would have been under natural circumstances. (Stuart Pimm, Professor of Conservation Ecology, Duke University)</p>   |          |
| <p>If you continue with business as usual, you will see agricultural failures, you will see more conflict over water shortages and essentially, I think you'll start seeing a real breakdown of civilization into much more fractious, combative societies. I think you'll see more and more competition among smaller groups that are increasingly divided and fragmented. (Robert Gelbspan, writer)</p>   |          |
| <p>The disappearance of those glaciers [Himalayan Glaciers] alone is enough to throw the world into net food deficit. It is enough to cause a global humanitarian catastrophe. (George Monbiot, Visiting Professor, Oxford Brookes University)</p>  |          |
| <p>So this means that we have from now until about the middle of the century to think very carefully and to actually start doing something about changing energy systems, changing land-use systems, changing the way we live. If we don't do it by the middle of the century, we're facing much higher risks of significant and potentially very damaging changes. (Will Steffen, Professor/Director, Centre for Resource and Environmental Studies, Australian National University, Canberra)</p> |          |

2. Have students generate a list of actions that people can take at home, at school and in their community to reduce greenhouse gas emissions and combat global warming.
3. Have students produce a five-minute video encouraging young people to become more environmentally aware. Students could take on different roles involved with the production (e.g. writing, directing, acting, filming, producing the soundtrack).

4. “Easter Island is one of the clearest examples of a society that destroyed itself... Similarly, if we wreck the planet of earth, isolated in the middle of space, there isn’t any other planet or galaxy from which we can summon help and there is no other galaxy to which we can flee. So the collapse of Easter Island is a metaphor for what may be the collapse of global earth society ahead of us.” (Jared Diamond, Professor of Geography, University of California, Los Angeles Campus) Use this quote as the basis for a short story depicting a dystopian society that has exploited all of the resources on their planet.
5. Write a letter to the Environment Minister outlining steps that the government should take to reduce greenhouse gas emissions.
6. Research the topic of globalization and its effects on politics, economics, technology and the environment. What opportunities does globalization offer? What are the risks inherent in globalization?

### General Discussion Questions:

1. “This is not a depressing message, this is a wake-up call.” (Will Steffen, Professor/Director, Centre for Resource and Environmental Studies, Australian National University, Canberra) Does the film leave you feeling optimistic about the future? Why or why not?
2. Do you think that watching this film will influence your attitude and behaviour with regard to environmental issues?
3. Some people argue that environmental changes made by individuals are insignificant and that the responsibility for reducing greenhouse emissions lies with the main contributors (U.S., China and India). Do you think that individual people and individual countries such as Canada can make a difference in the long term? Why or why not?
4. “The rich nations are in no position to lecture the poor nations... They can see full well that it’s grossly unfair of us to say ‘you’ve got to sort out the problem on our behalf and we’re not going to sort it out’...Right now, the problem is us.” (George Monibot, Visiting Professor, Oxford Brookes University) Do you agree with this assertion? Is it hypocritical of wealthy nations like Canada to criticize developing nations for wanting the kind of “fantasyland” that Neha Sareen promotes?
5. “There’s never an interest, there’s never an incentive on the part of politicians to do anything about [global warming]. The only possible incentive is if the population starts to get really angry, starts to put enormous pressure on it, starts to make it the number one political issue in that particular country.” (George Monibot). Do you think that the environment should be the number one political issue today? If so, in what ways can we put pressure on politicians to be more proactive on the environment?

## Some Useful Websites:

Canadian Network for Environmental Education and Communication

[http://www.eecom.org/english/links\\_can.html](http://www.eecom.org/english/links_can.html)

Environment Canada: Action and Learning

<http://www.ec.gc.ca/default.asp?lang=En&n=8B2F9F48-1>

Woods Hole Research Centre

[http://www.whrc.org/resources/online\\_publications/warming\\_earth/](http://www.whrc.org/resources/online_publications/warming_earth/)

Environment Canada: Citizens and Society

<http://www.ec.gc.ca/cppic/citizens/En/index.cfm>

*Envirozine*: Environment Canada's Online Newsmagazine

[http://www.ec.gc.ca/EnviroZine/english/home\\_e.cfm](http://www.ec.gc.ca/EnviroZine/english/home_e.cfm)

The *New York Times*: Choking on Growth

[http://www.nytimes.com/interactive/2007/08/26/world/asia/choking\\_on\\_growth.html?adxnnl=1&adxnnlx=1188187836-MPJlt938tpyPJ0d4p7/RYg](http://www.nytimes.com/interactive/2007/08/26/world/asia/choking_on_growth.html?adxnnl=1&adxnnlx=1188187836-MPJlt938tpyPJ0d4p7/RYg)

*Maclean's Magazine*: Global Warming Crisis

<http://www.thecanadianencyclopedia.com/index.cfm?PgNm=TCE&Params=M1ARTM0012130>

Climate Action Canada

<http://www.climateactionnetwork.ca/e/issues/cc-primer.html>

The Pew Center researching climate

<http://www.pewclimate.org/>

A Global Warming Education site

<http://www.climatechangeeducation.org/>

The Climate Institute researching climate change

[http://www.climate.org/climate\\_main.shtml](http://www.climate.org/climate_main.shtml)

An environmental website for students and teachers

<http://www.adventureecology.com/>

## Skeptical Sites:

Competitive Enterprise Institute  
<http://www.cei.org/>

<http://www.junkscience.com/>

<http://www.globalwarming.org/>

## Lesson Plans Online:

Statistics Canada: Various environment-related lessons  
<http://www.statcan.gc.ca/english/kits/courses/environment.htm#2>

Statistics Canada: Canadians' Perceptions and Participation in Environmental Issues  
<http://www.statcan.ca/english/kits/hae2000/issue1.htm>

Statistics Canada: Debate the Issues: Global Warming  
<http://www.statcan.gc.ca/english/kits/hae2000/globe1.htm>

Natural Resources Canada: Forest Fire Hazard and Climate Change  
[http://atlas.nrcan.gc.ca/site/english/learningresources/lesson\\_plans/high\\_school/ons.html](http://atlas.nrcan.gc.ca/site/english/learningresources/lesson_plans/high_school/ons.html)

Statistics Canada: Natural Resources Research Project  
<http://www.statcan.ca/english/kits/natur1.htm>

Parks Canada: Teacher's Corner  
[http://www.pc.gc.ca/apprendre-learn/prof/itm2-crp-trc/htm/ecoint\\_e.asp](http://www.pc.gc.ca/apprendre-learn/prof/itm2-crp-trc/htm/ecoint_e.asp)

Statistics Canada: Ecosystems and Well-being: Acid Rain  
<http://www.statcan.ca/english/kits/hae2000/acid1.htm>

Statistics Canada: Ecosystems and Well-being: Canada's Protected Areas  
<http://www.statcan.ca/english/kits/hae2000/area1.htm>

Earth Care Canada: Environmental Lessons and Activities  
[http://www.earthcarecanada.com/EarthCARE\\_Program/Lessons/Ecological\\_Foot.asp](http://www.earthcarecanada.com/EarthCARE_Program/Lessons/Ecological_Foot.asp)

Environment Canada: Action and Learning  
<http://www.ec.gc.ca/default.asp?lang=En&n=8B2F9F48-1>

Internet Web Quest on Ice Ages and Climate Change  
<http://lava.tamu.edu/courses/geol308/WebQuests/ClimateChangeWQ/WQIceAge.htm>

# Detailed Curriculum Applicability

Below is a list of selected subjects that relate to issues raised in the film, including the particular strand of that course to which the film can be applied and the criteria which need to be addressed.

| Subject           | Strand                         | Expectations   |
|-------------------|--------------------------------|--|
| Grade 7 Geography | Themes of Geographic Inquiry   | <p>Explain geographic concept of environment.</p> <p>Explain the geographic concept of interaction (e.g., people change the environment as they use it).</p> <p>Formulate questions to guide and synthesize research on an environmental issue.</p>  |
|                   | Patterns in Physical Geography | <p>Explain how world climate patterns result from the interaction of several factors.</p> <p>Identify the effects of natural phenomena (e.g., hurricanes)</p> <p>Describe how the following major factors influence commercial agriculture: location, climate, etc.</p>  |
|                   | Natural Resources              | <p>Describe a variety of ways in which people use and manage renewable and non-renewable resources to meet their needs.</p> <p>Identify patterns in the distribution and use of natural resources throughout the world.</p> <p>Describe the ways in which technology has affected our natural resources.</p> <p>Explain the concept of sustainable development and its implications for the health of the environment.</p> <p>Describe the economic importance of natural resources to a particular country.</p> |

| Subject                             | Strand  | Expectations   |
|-------------------------------------|---|--|
| Grade 8 Geography                   | Patterns in Human Geography                     | Identify and explain the factors affecting population distribution (e.g., natural environment).<br>Summarize factors that affect patterns of urbanization, industrialization and transportation.   |
|                                     | Economic Systems                                | Explain how the availability of particular economic resources (e.g., quality and quantity of land) influences the economic success of a region.  |
|                                     | Migration                                       | Identify the push-and-pull factors that influence people to move (e.g. drought, climate).<br>Describe the effects that migration has had on the development of Canada.   |
| Grade 9 Geography of Canada (CGC1D) | Space and Systems                               | Explain terms and concepts associated with regions (e.g., ecozone, ecological footprint).<br>Describe the characteristics (e.g., complex, interconnected, affecting natural systems) of human systems (e.g., energy networks, economic systems).   |
|                                     | Human-Environment Interactions                  | Explain how human activities (e.g., forest harvesting) affect, or are affected by, the environment.<br>Describe how natural systems (e.g., climate) influence economic activities (e.g., employment).<br>Identify the role of government in managing resources and protecting the environment. |
|                                     | Global Connections                              | Explain the role of select international organizations and agreements and why Canada participates in them (e.g., Kyoto Protocol).<br>Explain how Canada's natural systems form part of global natural systems.   |
|                                     | Understanding and Managing Change               | Explain how selected factors change in human and natural systems (e.g., global warming).   |
|                                     | Methods of Geographic Inquiry and Communication | Develop and use appropriate questions to define a topic, problem or issue and to focus a geographic inquiry.<br>Gather geographic information from primary and secondary sources.<br>Evaluate the credibility of sources and reliability and usefulness of information.                        |

| Subject                  | Strand                 | Expectations  |
|--------------------------|------------------------|---|
| Civics, Grade 10 (CHV20) | Informed Citizenship   | <p>Analyze contemporary crises or issues of international significance (e.g., environmental quality).</p> <p>Evaluate civic actions of individuals and non-governmental organizations that have made a difference in global affairs (e.g., Greenpeace).</p>   |
|                          | Purposeful Citizenship | <p>Compare the varied beliefs, values and points of view of Canadian citizens on issues of public interest (e.g., pollution, water quality).</p> <p>Describe how their own and others' beliefs and values can be connected to a sense of civic purpose and preferred types of participation (e.g., financial or volunteer support for community service programs).</p> <p>Describe and assess the contributions that citizens and citizens' groups make to the civic purposes of their communities.</p> |
|                          | Active Citizenship     | <p>Demonstrate an understanding of the ways in which individuals can voice opinions about important civic matters.</p> <p>Demonstrate their responsibilities as local, international and global citizens by applying their knowledge of civics to a project of civic importance.</p>  |

## References

All websites cited are from September 2007.

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<http://www.earthday.net/footprint/index.asp>

<http://www.statcan.ca/english/kits/hae2000/globe1.htm>

[http://www.youtube.com/watch?v=V8fi7n\\_7uEE](http://www.youtube.com/watch?v=V8fi7n_7uEE)

<http://www.youtube.com/watch?v=JupNd3IYe0M>

<http://www.youtube.com/watch?v=PirH8PADDgQ&mode=related&search>

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<http://www.climateactionnetwork.ca/e/issues/cc-primer.html>

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[http://www.ec.gc.ca/youth/index\\_e.cfm](http://www.ec.gc.ca/youth/index_e.cfm)

<http://www.ec.gc.ca/cppic/citizens/En/index.cfm>

<http://www.ec.gc.ca/default.asp?lang=En&n=C07483BF-1>

[http://www.ec.gc.ca/science/sandefeb03/a1\\_e.html](http://www.ec.gc.ca/science/sandefeb03/a1_e.html)

[http://www.ec.gc.ca/science/sandefeb03/a3\\_e.html](http://www.ec.gc.ca/science/sandefeb03/a3_e.html)

[http://www.nytimes.com/interactive/2007/08/26/world/asia/choking\\_on\\_growth.html#story2](http://www.nytimes.com/interactive/2007/08/26/world/asia/choking_on_growth.html#story2)

<http://www.on.ec.gc.ca/community/youth/ec-educators-e.html#featlessons>

[http://cfs.nrcan.gc.ca/sof/sof06/minister\\_e.html](http://cfs.nrcan.gc.ca/sof/sof06/minister_e.html)

Currently under construction in downtown Toronto, Bell Lightbox is soon to be the world's leading destination for film lovers. This major new cultural institution on the Canadian and international landscape will be structured around five state-of-the-art cinemas celebrating film from around the world. Bell Lightbox programming will give context to films through innovative cross-media exhibitions, lectures, and film-related learning opportunities for all ages. Designed by the innovative architecture firm KPMB, Bell Lightbox's fluid design encourages exploration, movement and play within its soaring atriums.

TIFFG is a charitable, not-for-profit cultural organization whose mission is to transform the way people see the world. Its vision is to lead the world in creative and cultural discovery through the moving image.