# Annotated Curriculum Research Guide: Ecojustice and Climate Change in the Secondary Social Studies Classroom

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In recent years, the effects of climate change have become far more discernible for young people, and the once-abstract discussions surrounding drastic and irreversible changes to the planet's ecology are becoming increasingly pertinent and real. However, despite the magnitude of the contemporary climate crisis, Canadian schools continue to lag behind in engaging with youth on matters of climate change, and more importantly, ecojustice. In British Columbia, a number of secondary teachers have criticized recent revisions to the curriculum for failing to focus on the elephant in the room that is climate change. By failing to address issues of climate change, it is inevitable that issues of environmental justice are also omitted from classroom discussions. The clear link between neoliberal economics, resource extractivism, and neocolonial environmental exploitation in Indigenous communities in Canada and the Global South must be explored with students so as to better help them understand the system in which they reside. Textbooks echo the general social initiative view of Canada as a world leader in combating climate change, and yet little state-mandated content goes so far as to criticize the gargantuan ecological footprint of Canadians, the dependency of the Canadian economy on resource extractivism and nonrenewable energy, and the failure of the federal government to oblige by various international climate agreements, such as the Kyoto Protocol and Paris Accords. As such, I have compiled a resource guide for secondary social studies teachers to effectively teach students what climate change is (and what it looks like), how Canada is currently failing the global community in reducing its unsustainable footprint, and how we may seek out and promote solutions that can help transform our local communities into strongholds of ecojustice.

Teaching climate change can often feel like an insurmountable battle due to the seemingly infinite breadth of environmental issues, and it is an often natural psychological reaction to become overwhelmed and complacent; one must refocus on the issues closest to

home when teaching climate change to youth. As such, this resource guide is far more specific to Canada, with a number of British Columbian examples as well, so as to force students to identify problematic aspects of the Canadian lifestyle and system of governance. Topics that can and should be explored include: the Canadian mining sector's role in the developing world, Canadian reliance on the fossil fuels industry, the devastating effects of forest fires, the loss of old-growth forests, historical and contemporary examples of environmental racism in Canada, environmental conservationism, Indigenous hunting and fishing rights, alternative sources of renewable energies, and Canada's obligations to international climate agreements. The role of Indigenous peoples in helping shape Canadian attitudes and practices with regards to sustainability and connection to the land can also be explored through literary mediums; as such the excellent novel Moon of the Crusted Snow has been included. Though a unit plan tackling such an important topic would require dozens, perhaps even hundreds, of resources in order to supplement lessons, I have limited myself to resources that are relevant (not outdated), engaging for youth, and that touch upon the aforementioned topics. Obviously not everything can be included, but it is my hope that a teacher could incorporate this resource guide into their toolkit and better address matters of ecojustice as they pertain to the Canadian experience.

# **Annotated Bibliography**

## Articles

Burgesson, A., & Ruffinengo, G. (2020, February 26). What is environmental racism? Talking with Nova Scotia's Ingrid Waldron. *The Chronicle Herald*. Retrieved December 09, 2020, from

https://www.thechronicleherald.ca/salt/what-is-environmental-racism-talking-with-nova-scotias-ingrid-waldron-416132/

This article focuses on an interview with Ingrid Waldron, an associate professor at Dalhousie University who studies social inequality in Nova Scotia. Despite the fact that many believe that environmental racism is very much a 20th-century issue, Waldron provides data that displays that Black and Indigenous peoples still disproportionately suffer from health issues that are the direct result of environmentally racist policies when compared to White citizens. Asthma in particular is highlighted by Waldron, and the article provides students with a number of multimedia tools such as interactive maps and videos to further supplement their understanding of the issue. This is an excellent resource for a teacher who wants to explore the continuity of environmental racism in Canada, especially against Black peoples; a case study of Africville would help display the lingering effects of historically racist policies with regards to urban planning.

Cannon, J. C. (2020, March 2). Map reveals Canadian mining company's environmental, social conflicts. *Mongabay*.

https://news.mongabay.com/2020/03/maps-reveal-canadian-mining-companys-environme ntal-social-conflicts/.

This resource highlights a map that was recently published by the Environmental Justice Atlas. The map itself covers the operations of the Pan American Silver Corporation (based in Vancouver) and the various conflicts that have arisen with workers, local governments, and Indigenous groups as a result of resource extractivism. Instead of including the map as a supplementary resource, this article provides additional scaffolding by highlighting some of the Canadian mining sector's overseas interests, especially those in Guatemala. This article, along with the attached map, would be excellent resources for a lesson concerning Canadian-led resource extraction in the Global South. The map itself, though originally published in Spanish, can be easily translated using Google Translate. It can be found here: https://ejatlas.org/featured/envconflictsPAS.

Porter, J. (2017, September 12). Children of the poisoned river. *CBC News*. Retrieved December 09, 2020, from

https://www.cbc.ca/news2/interactives/children-of-the-poisoned-river-mercury-poisoning -grassy-narrows-first-nation/

This CBC article delves into the Grassy Narrows controversy in great-depth, mainly focusing on the people themselves who are being affected by the generational effects of mercury poisoning. This is a great resource for those teachers who want to stray away from teaching elitist history, as it is a perfect example of a social history narrative. Porter's article is accompanied by a series of eye-opening photographs from Ed Ou that further help humanize the issue. The

article discusses how the community was declared an emergency by the national media in 1983, and how health issues continue to plague the community despite the passage of time. Yet again, this allows for teachers to explore issues of environmental racism through a continuity lens, further modernizing the curriculum for students who may be passionate about current events and issues of social justice.

Steyn, E. (2020, October 26). Slavery charges against Canadian mining company settled on the sly. *The Conversation (Canada)*.

https://theconversation.com/slavery-charges-against-canadian-mining-company-settled-on-the-sly-148605.

This article discusses the BC Court of Appeal's 2020 Nevsun Resources Ltd. v. Araya case, wherein three Eritrean refugees posited that a Vancouver-based mining company was using slave labour and torture in their Bisha mine. The case was recently settled outside of court with little explanation, and the article outlines the secrecy and lack of transparency surrounding such a settlement. The 1998 Quebec case Recherches Internationales Quebec (RIQ) vs. Cambior Inc. case is also discussed. Both of these cases can be explored when discussing the issue of overseas mining.

Canada's role in the Global South, especially with regards to its mining industry, is often omitted from the secondary curriculum. This is an extremely important topic to talk about with students, as Canada's environmental footprint is felt far beyond its political borders. Additionally, the neocolonial aspects of these

industries display that Canada is more than comfortable to approve the exploitation of Indigenous peoples overseas during the post-Reconciliation era.

## **Blog Posts**

Croome, J. (2020, June 19). Canada can't miss another target – we need a Canadian Climate

Accountability Act [Web log post]. Retrieved December 09, 2020, from

https://ecojustice.ca/canada-needs-climate-accountability-act/

The author calls for Canada to abide by new emissions targets and for the adoption of climate accountability legislation. Originally written back in June, the author updated the blog post after Canada committed to decreased emissions targets for 2050, but the author's thesis statement remains the same: Canada has a track record of not abiding by the targets it once set. When teaching climate change in the Canadian context, it is important that teachers do not just focus on what has been *said* in the past, but what has also been *done* with regards to Canada's commitment to the future. As such, this blog post would be a great way to open a conversation on whether or not Canada is a global leader in environmental reform; the teacher could also incorporate resources pertaining to the Kyoto Protocol and Paris Accords. Thus, this resource is extremely relevant for those teachers who hope to analyze Canada's commitment to multilateral climate agreements, and better yet, those teachers who plan to criticize Canada's failure to properly commit in the first place.

Decembrini, A. D. (2020, October 08). The Marshall Decision and Mi'kmaq Commercial Fishing Rights: An Explainer [Web log post]. Retrieved December 09, 2020, from

https://www.firstpeopleslaw.com/public-education/blog/the-marshall-decision-and-mikm aq-commercial-fishing-rights-an-explainer

This blog post provides a clear and objective summary of federal conservation laws, Mi'kmaq fishing operations, Indigenous rights to hunting and fishing, and landmark cases such as *R. v. Marshall* (1999). It helps contextualize what "conservation" even means with regards to Indigenous operations and how the term is often used as a political excuse to police the economic and cultural practices of peoples such as the Mi'kmaq. This is an effective tool for those teachers who want to explore the issue of Indigenous rights as they pertain to the environment, and the neocolonial aspects of conservationism in Canada. When engaging with this issue, it is important that Canadian teachers refrain from using mainstream news articles for informative purposes, as much of the dominant media narrative has incorrectly portrayed Indigenous fishing rights and the "moderate livelihood" clause.

## **Books and Graphic Novels**

Elliot, A. (2019). This Place: 150 Years Retold. Winnipeg, MB: Portage & Main Press.

This graphic novel was released in 2019 and features stories from Indigenous writers that retell Canada's 150 years as a nation through a series of vignettes. Relevant stories in the anthology include those relating to pipeline battles, the Oka crisis, and the Dakota Access Pipeline. The stories are vibrant and easy to digest, offering students insight into Indigenous perspectives on resource use, as well as land and property rights.

The sections pertaining to Indigenous struggles in the face of settler-colonial energy programmes are of particular relevance to those teachers interested in teaching about environmental justice. Though the source is fairly new, it omits the Wet'suwet'en crisis, and thus a teacher should supplement this reading with further information on the more recent dispute. Altogether the interesting visual styles and short story structure of the graphic novel ensure student engagement, and the contemporaneous aspects of the novel make this a necessary teaching tool, especially for those teachers who specialize in literature.

Klein, N. (2014). *This Changes Everything: Capitalism vs. The Climate*. New York, NY: Simon & Schuster.

Though I would never recommend a teacher use the entirety of this nonfiction book, *This Changes Everything* provides an extremely detailed look at neoliberal free market enterprise and the numerous obstacles the "free market" poses to various calls for environmental reform. This is a university-level resource, and as such it is often wordy and in-depth, but Klein's exploration of the psychological aspects of climate change denialism are extremely important to teaching various perspectives on climate change and environmental justice. There are also a number of case studies throughout the book that include Canada, and thankfully this almost-500 page book comes complete with an index.

The first portion of the book is far more personal, exploring Klein's own experiences on Vancouver Island as a means of understanding the pressing immediacy of climate change; this is obviously relevant when teaching about

issues in British Columbia. Once again, though I wouldn't recommend using this resource in full, excerpts on the psychological aspects of climate change denialism are a must when exploring these issues with students.

Kurlanksy, M. (1998). *Cod: A Biography of the Fish That Changed the World*. New York, NY: Penguin Books.

In this book of nonfiction, Mark Kurlansky outlines the role of cod as a transnational resource throughout history, and how colonial ventures to Canada were in themself first connected to the bountiful amount of cod in Atlantic Canada. The evolution of various fishing technologies and practices, and their effects on dwindling fish stocks, is also explored. The final chapter, "Bracing for the Canadian Armada," explores this issue in great detail, though it largely draws upon oral testimony from American fishermen who were outmaneuvered by Canadian fishing interests. The book is a little under 300 pages, and though I would not recommend assigning the entire book, one could use the Maritime example as an introduction to conservationism and the current Mi'kmaq fishing dispute in Nova Scotia. It is an effective resource for teaching about issues of overfishing and the "tragedy of the commons," but teachers should refrain from drawing upon the more American aspects of the book.

Rice, W. (2018). Moon of the Crusted Snow: A Novel. Toronto, ON: ECW Press.

This speculative 'cli-fi' novel is about an Anishinaabe community that has its resilience tested by an influx of people from the south after a crisis. Order in the community is upset by the newcomers, and the leader in the story looks to

Anishinaabe tradition to find a path forward and restore cohesion to the community. This novel helps incorporate Indigenous (Anishinaabe) connections with the land into the curriculum, and though this would be better suited for an Ontario classroom, connections can still be made to British Columbia. It also examines the intersections between colonialism and the environment, themes that are already touched upon when considering issues of ecojustice in Canada. Alsom its emphasis on resilience and alternative solutions is a more constructive and hopeful approach to stimulate student imagination and avoid feelings of despair. Coming in at 224 pages, it could easily be assigned as part of a book report project. Altogether, it is an effective piece of literature when conceptualizing climate change in Canada in intersectional terms, and thus it can also help a teacher Indigenize the curriculum.

#### Cartoons

Raeside, A. (2020, September 19). Smoky air. Times Colonist. cartoon.

https://www.timescolonist.com/opinion/editorial-cartoon/adrian-raeside-cartoon-smoky-a ir-1.24206052.

Extremely relevant cartoon that was published over the fall when smoke from the wildfires in the United States was blanketing much of Southern British Columbia. The cartoon touches upon the often cyclical nature of the climate change conversation, the increasing frequency of wildfires in North America, and how society is normalizing these events in the 21st-century. It is a funny and succinct way to introduce a lesson on forest fires to students in British Columbia.

#### **Games and Simulations**

The Habitat Conservation Trust Foundation. (2014, September). Greenhouse Gas Game.

Retrieved December 08, 2020, from

http://hctfeducation.ca/wp-content/uploads/2014/09/GreenhouseGasGame\_Lesson.pdf

This board game teaches students about the sources and role of greenhouse gases, the effect greenhouse gases have on altering the climate of our planet, and how students can modify personal behaviour so as to decrease their ecological footprint. The game is extremely versatile and can be adapted for Grade 8 students, or additional rules can be established for upper-grade students.

Additionally, the game can be played outside, is played on teams/groups, and only takes around an hour to complete if done correctly; all of the factors help ensure student engagement. The rules are fairly complex, and as such it is not worth me attempting to re-explain them, but I would draw closer attention to the "Wrap-Up" portion of the resource which has some excellent reflective activities and questions for students to consider after playing the game. Altogether is an engaging activity that helps break up the monotony of sit-down, individual work throughout the year; I would highly recommend this resource and plan on using it over the course of my long practicum.

UBC Faculty of Forestry. (2016, November 03). Future Delta 2.0. Retrieved December 11, 2020, from https://calp.forestry.ubc.ca/home/future-delta-2-0/

This video game was developed by the UBC Faculty of Forestry's Collaborative for Advanced Landscape Planning (CALP) program and provides students with

an engaging and slick way of creating climate change solutions in the Lower Mainland. Set in a dystopic version of Delta in the year 2100, *Future Delta* presents students with a number of decisions that have implications on the virtual setting, from cutting emissions in the industrial context of Tilbury to exploring future solutions in the waterfront areas of Boundary Bay. This particular version of the game is only available on desktop, but it has been patched a number of times and works quite well. In fact, despite the fact that it is not available for mobile devices, it is a slightly better game when compared to the one below in my opinion. Regardless, a teacher should be able to instruct an end-of-the-year lesson concerning local climate change solutions through this tool, but only if their school has ready access to laptop banks or computer labs.

UBC Faculty of Forestry. (2020, June 16). Our Future Community - Beta. Retrieved December 10, 2020, from <a href="https://calp.forestry.ubc.ca/home/our-future-community/">https://calp.forestry.ubc.ca/home/our-future-community/</a>

A successor to the *Future Delta* video game, this game was also developed by the UBC Faculty of Forestry's CALP program. It provides students with a localized tool for understanding alternative sources of energy, the effects of policy on emissions, and how to better conceptualize future solutions. Though the game is still in beta development, I managed to get it up and running on my desktop computer without any issues; students can also play it on their Android or Apple phones. The game takes around 3 hours to complete and is set in the Kitsilano neighbourhood of Vancouver, making it a great resource for teachers operating in the Vancouver District. Altogether, I think it is a bit rudimentary in that it mainly focuses on ways in which individuals, not collectives, can create solutions, but it

is a localized, engaging, and relevant resource for any British Columbia social studies classroom. *Future Delta* may be the superior game if a teacher had to choose between the two.

## **Films**

Arnaquq-Baril, A. (Director). (2016). *Angry Inuk* [Film]. Canada: National Film Board of Canada. Retrieved 2016, from <a href="https://www.nfb.ca/film/angry\_inuk/">https://www.nfb.ca/film/angry\_inuk/</a>.

This 2016 film discusses and defends the Inuit seal hunt, exploring the ways that non-profit organizations and regulatory bodies intervene in the issue. The film raises important questions for students to think about, such as who is allowed to economically benefit from resource use in Canada, and what the future of Indigenous economies may look like. This also encourages students to think about political conflict, and how even groups with interests that are seemingly aligned can diverge on key issues.

Yet again, this film could be included in a lesson concerning the implications of environmental conservationism on the policing of Indigenous fishing and hunting rights; it is also an excellent analysis of ethnocentric bias. The documentary runs a little under 90mins, but it is worth showing in its entirety.

Baichwal, J., De Pencier, N., & Burtynsky, E. (Directors). (2018). *Anthropocene: The Human Epoch* [Film]. Canada: Mongrel Media. Retrieved 2019, from https://www.tvo.org/video/documentaries/anthropocene-the-human-epoch.

This documentary provides students with extensive, detailed shots of places, people, and events that outline the realities of anthropogenic climate change and resource extractivism. The entire documentary is 90mins long and could be shown in full-length, but segments can be extracted depending on the theme of the lesson that particular day. For example, the 29:00 minute mark explores the logging industry in British Columbia and visualizes deforestation for students. This can also be used alongside Ed Burtynsky's work as he was a director on this project. Canadian Geographic has also collaborated with the production team in order to provide teachers with various lesson plans and teaching resources. Though the project in itself is quite dire and "slow" for younger people - largely due to the long nature of the shots - it becomes increasingly effective if the Canadian Geographic teaching resources are used to supplement some of the video clips. You can order a free kit from the Anthropocene Education Program here: https://anthropocene.canadiangeographic.ca/book-a-classroom-kit/

Ortowksi, J. (Director). (2012). *Chasing Ice* [Film]. United States: Submarine Entertainment. Retrieved 2012, from <a href="https://watchdocumentaries.com/chasing-ice/">https://watchdocumentaries.com/chasing-ice/</a>.

Though it is a little older, the themes explored in this documentary are still relevant today, and its runtime of around 80mins makes it the perfect length for incorporation into a lesson. This documentary follows the photographer James Balog as he documents the melting of ice in the Arctic through time-lapse photography. The technical shots of the icebergs and glaciers melting are some of the best I have ever personally seen in a documentary, and the film also provides an interesting behind the scenes look of Balog's work. Once again, this

documentary helps students visualise the effects of climate change on tangible entities such as glaciers.

The documentary can also be combined with the "Docs for School" lesson plan concerning *Chasing Ice* so as to better explore Balog's role in the environmental justice movement; it provides teachers with a number of excellent reflective prompts. If a teacher combines the documentary with the lesson plan, this activity would be a productive way of teaching about Arctic issues and the Earth's oceans; it could also be combined with the *Angry Inuk* to highlight two distinct cultural perspectives in the Arctic. Please refer to this link for the *Chasing Ice* lesson plan: https://climatechangeconnection.org/wp-content/uploads/2015/04/HD13\_DFS\_E DPKG\_CHASINGICE\_FINAL.pdf

## **Photo Collections**

Brooks, B. Gone but Never Forgotten: Bob Brooks' Photographic Portrait of Africville in the 1960s, Nova Scotia Archives, Halifax. Retrieved December 09, 2020, from <a href="https://archives.novascotia.ca/africville/">https://archives.novascotia.ca/africville/</a>.

The Nova Scotia Archives have a collection of Bob Brooks' photographs prior to the razing of Africville in the 1960s. The community of Black Canadians once operated outside of the City of Halifax, but the site was eventually demolished as part of an "urban renewal" project, displacing the poor residents without proper compensation. Bob Brooks provides students with a glimpse into the conditions of the Afriville slum, and examples of environmental racism are distinct throughout the collection. This would be an effective resource for a teacher interested in

teaching about historical examples of environmental racism in Canada, and contemporary instances of environmental racism can be connected to Africville through continuity and change activities. Additionally, it can be used as the foundation for a class that also touches upon contemporaneous issues such as Grassy Narrows and the legacies of environmental racism in Nova Scotia.

Burtynsky, E. Photographs. https://www.edwardburtynsky.com/projects/photographs.

An online collection of Edward Burtynsky's high-resolution images, some of which are "giga-pixel" photography. These photographs are extremely detailed and can be broken up into segments for students to analyze while working together in groups. Burtynsky is also a Canadian artist, and as such a significant number of his industrial landscapes are based in Canada. Images like these can help students visualize the scale and intensity of resource extraction sites. As Burtynksy also worked on the Anthropocene project, it is worth ordering a classroom kit in order to explore some of these images through virtual reality headsets. I have incorporated Burtynsky's work into classes in the past, and have found that students strongly respond to the breathtaking, almost-alien aspects of his photography. I firmly believe that an entire lesson could be taught around Burtynsky's portrayals of industrial landscapes in Canada so as to better visualize these often remote sites for urban Canadians.