

Oil exploitation in Canada's tar sands

Tar sands oil is a high carbon fuel strip-mined from beneath Canada's Boreal forest. Fuel from tar sands represents an increasingly significant portion of the fuel used in cars in the United States. To extract oil from tar sands, companies must destroy fragile forest ecosystems and then use a very energy-intensive upgrading and refining process to turn that oil into transportation fuel. Tar sands mining and production harm the Boreal forest's fragile ecosystem, waste enormous amounts of water, and disrupt the lives of indigenous people in the area.

Climate impacts

Tar sands oil production emits three times more carbon dioxide compared to the average barrel of conventional oil consumed in the United States.ⁱ If we expand our use of dirty tar sands, we could jeopardize the gains we make combating climate change through raising automobile standards and using renewable power.

Ecosystem destruction

Tar sands extraction requires total destruction of pristine areas within the Canadian Boreal forest, one of the few large, intact ecosystems on Earth. The forest is clear cut, the wetlands are drained, and living matter and soil are hauled away to expose the tar sands. Oil companies remove and dump four tons of sand and soil for every one barrel of oil they get from tar sands.ⁱⁱ Oil companies have so far failed to deliver on their promises to mitigate some of this destruction by refilling tar sands mines and planting new vegetation.ⁱⁱⁱ

Water waste

Extracting the fossil fuels in tar sands from the sand, silt, and clay requires enormous amounts of water. It takes about three barrels of water to extract one barrel of oil.^{iv} Over 90 percent of this water, 400 million gallons per day, ends up as toxic waste dumped in massive pools^v that contain carcinogenic substances like cyanide.^{vi}

Disruption of native people

The tar sands are being mined in a region home to many native people. They have trouble practicing their cultural traditions because of the destruction caused by tailing ponds and strip mining operations.^{vii} The people downstream from the toxic tailing ponds have high rates of rare cancers, renal failure, lupus, and hyperthyroidism.^{viii} Indigenous groups have organized and protested to stop the expansion of tar sands operations. This opposition is shared by the majority of Albertans, with 71 percent supporting a moratorium on new projects in a recent survey.^{ix}

What we can do

The majority of tar sands oil is exported to the United States. Tar sands already make up 4 percent of the crude oil we use^x and our tax dollars are already subsidizing pipelines and refineries that would allow oil companies to quadruple that amount.^{xi} So far, the Canadian government and oil companies have not found any buyers of tar sands oil outside of the U.S. As a result, stopping U.S. taxpayer subsidies for new pipelines and upgraded refineries will go a long way towards ending oil companies' exploitation of this dirty fuel and the havoc wrought on the local environment and indigenous people's livelihoods in the process.

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i Charpentier, Alex D., et al. *Understanding the Canadian oil sands industry's greenhouse gas emissions* (2008).

ii Nikiforuk, Andrew. *Tar Sands*. 2008. Greystone Books. p 3.

iii Grant, Jennifer, et al. *Fact or Fiction: Oil Sands Reclamation*. p 1.

iv Nikiforuk, Andrew. *Tar Sands*. 2008. Greystone Books. p 3.

v Nikiforuk, Andrew. *Tar Sands*. 2008. Greystone Books. p 3 and 78.

vi Nikiforuk, Andrew. *Tar Sands*. 2008. Greystone Books. p viii.

vii The Indigenous Environmental Network. <http://www.ienearth.org/cits>.

viii Nikiforuk, Andrew. *Tar Sands*. 2008. Greystone Books. p 89.

ix Kunzig, Robert. *The Canadian Oil Boom*. *National Geographic*. March 2009. p 8 (online).

x A calculation of 781,226 barrels a day of tar sands exportation, (taken from "Oil Sands Exports to the U.S." by Marc Huot and Mike Kennedy of Pembina Institute), divided by 19,498 million barrels per day of total US consumption (taken from the Energy Information Administration's Official Energy Statistics: <http://www.eia.doe.gov/basics/quickoil.html>).

xi Levi, Michael A. *The Canadian Oil Sands: Energy Security vs. Climate Change*. Council on Foreign Relations p 6.

