



NEW STUDY REVEALS SUBSTANTIAL UNREPORTED QUANTITIES OF GREENHOUSE GAS EMISSIONS FROM THE OIL SANDS IN THE BOREAL FORESTS OF ALBERTA CANADA

EDMONTON, September 27, 2009 – A new research paper, *Bitumen and Biocarbon*, was released today by Global Forest Watch Canada. The paper reveals that significant amounts of greenhouse gases are emitted through the disturbance and/or removal of biocarbon (trees, shrubs, peats), which overlay Alberta's oil sands. These emissions have not previously been measured nor reported by governments and industry.

"We wanted to know what volumes of greenhouse gases will be emitted by the oil sands industries from existing and planned levels of development within boreal forest ecosystems," said Peter Lee, lead author of the report and Executive Director of Global Forest Watch Canada. "What we found is an astonishing volume of present and projected future greenhouse emissions due to the conversion of biocarbon to carbon dioxide and methane."

The resulting analyses, maps and report give further insights into the growing impacts of oil sands development on Alberta's and Canada's greenhouse gas emissions.

The total area of natural ecosystems that are planned to be removed by oil sands extraction is 1,613,887 ha (20 times the size of the City of Calgary). These areas store 579 megatonnes (million tonnes) of biological carbon, mostly in peatlands. When the carbon in soils, peat and trees breakdown, it combines with oxygen to form the well known greenhouse gas, carbon dioxide (CO₂). As a result, 873 megatonnes of CO₂ may be emitted into the atmosphere over the next 100 years under the scenario of full oil sands development. The resulting annual average emissions of 8.7 megatonnes of CO₂ will substantially raise the normally-reported emissions from the oils sands industry activities.

Other significant findings from this research paper include:

- As of June 1, 2009, 68,574 ha of boreal forest and peatlands had been cleared for oil sands surface mining. This forest and peatland area contained the equivalent of 77 megatonnes of CO₂;
- Peatlands have been naturally sequestering carbon for millennia. Full development of the oil sands area would result in the loss of 438,659 ha of peatlands and a potential release from these peatland areas of 657 megatonnes of CO₂.

Peter Lee, Executive Director of Global Forest Watch Canada, notes, "We undertook this research to help better inform the recent efforts of the Government of Alberta to try to balance bitumen extraction with environmental concerns. As part of these initiatives, it is important to know the full carbon emission impact of all activities associated with oil sands development, not just those related to industrial processing."

Peter Lee further noted that "Our research also builds on the reports commissioned by the Alberta Government's Energy Research Institute. One of those reports concluded that assessing and including greenhouse gas emissions that may arise

from land use was beyond the scope of their work. We hope our *Bitumen and Biocarbon* analysis will motivate others to include the destruction of natural boreal ecosystems, and the consequent loss of stored biological carbon and greenhouse gas emissions, into more complete life cycle assessments of the impacts of bitumen industrial activities”

Download the report, maps and photographs from www.globalforestwatch.ca

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Global Forest Watch Canada was formed to provide access to more complete information about development activities in Canada's forests and their environmental impacts. We are convinced that providing rigorous information about Canada's forests will lead to better decision-making on forest management and use, which ultimately will result in forest management regimes that provide a full range of benefits for both present and future generations.