

Military greenhouse gas emissions: EPA should recognize environmental impact of protecting foreign oil, researchers urge

Regulators do not currently attribute these emissions to U.S. gasoline use -- but they should, the authors say.

UNL researchers Adam Liska and Richard Perrin estimate that emissions of heat-trapping gases resulting from military protection of supertankers in the Persian Gulf amount to 34.4 million metric tons of carbon dioxide equivalent a year. In addition, the war in Iraq releases another 43.3 million metric tons of CO₂ annually.

"Our conservative estimate of emissions from military security alone raises the greenhouse gas intensity of gasoline derived from imported Middle Eastern oil by 8 to 18 percent," said Liska, UNL assistant professor of biological systems engineering, and coordinator of the Energy Sciences minor. "In order to have a balanced assessment of the climate change impacts of substituting biofuels for gasoline, a comparison of all direct and indirect emissions from both types of fuel is required."

This is why, in the national discussion on how to reduce greenhouse gas emissions, the environmental impact of oil-related military emissions must be included in comparisons of gasoline and biofuels such as ethanol, the researchers said.

"Military activity to protect international oil trade is a direct production component for importing foreign oil -- as necessary for imports as are pipelines and supertankers," Liska and Perrin, professor of agricultural economics at UNL, wrote in a recently published article. "Therefore, the greenhouse gas emissions from that military activity are relevant to U.S. fuel policies related to climate change."

According to the 2007 Energy Independence and Security Act, biofuels have to meet specific reductions of greenhouse gas emissions -- from 20 to 60 percent -- under gasoline to qualify for substitution.

That evaluation includes direct emissions and indirect emissions, meaning measurements must include not only what is being put into the air from burning fuels but also what additional emissions result from the production of the fuel.

That's different from how gasoline's impact is evaluated by regulators, the researchers note. Only direct emissions are accounted for when looking at its environmental impact.

So Liska and Perrin sought to understand how military emissions affect the total amount of greenhouse gas emissions from gasoline. They found multiple studies that indicate U.S. spending on military protection of maritime oil transit routes incurs an annual cost of roughly \$100 billion per year.

Emissions related to this military security were estimated based on government statistics and were shown to further penalize gasoline relative to renewable fuels.

"We hope that environment regulators will assess these military emissions associated with gasoline in greater detail," Liska said. "Such analysis should also be meaningful now when federal energy policy is being designed."

Liska and Perrin's findings were published in the July-August edition of *Environment* magazine. The article can be found online at <http://www.environmentmagazine.org/Archives/Back%20Issues/July-August%202010/securing-foreign-oil-full.html>

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