

Peer Review of the Emission Factor for Tropical Peatlands Drained for Palm Oil Cultivation

What is the subject of this peer review?

On January 27, 2012 the EPA issued a document called a Notice of Data Availability (77 FR 4300) to provide the public an opportunity to comment on our initial lifecycle analysis on transportation fuels produced from palm oil (the “palm oil NODA”). In the palm oil NODA, we identified GHG emissions from drained tropical peat soils as a key source of emissions. The EPA used a peat soil emission factor of 95 tonnes of carbon dioxide-equivalent (CO₂) emissions per hectare of drained peat soil to help estimate the total GHG emissions from the expansion of peat soil drainage. The purpose of this review was to request additional scientific input about the Agency’s assessment of the peat soil emission factor for use in EPA’s lifecycle GHG analysis of palm oil-based biofuels.

What guidelines did the peer review follow?

The peer review was conducted following OMB’s peer review guidance that ensures consistent, independent government-wide implementation of peer review and according to EPA’s longstanding and rigorous peer review policies.

How were the peer reviewers selected?

EPA used an independent, third-party contractor to select five peer reviewers:

- EPA provided the contractor with a description of the expertise required and the names of reviewers recommended by stakeholders.
- The Agency solicited reviewer nominations from a range of key stakeholders who commented on the palm oil NODA, and the third-party contractor also identified reviewer candidates through literature review.

- EPA instructed the contractor to use the following criteria to select reviewers:
 - Expertise, knowledge and experience of each individual.
 - Adherence to the conflict of interest guidance in the EPA *Peer Review Handbook*.
 - Panel balance with respect to the expertise required to conduct the review and the diversity of relevant scientific and technical perspectives.
- Out of the 27 candidates identified through stakeholder nominations and literature review, five reviewers were independently selected by the third-party contractor. The Government of Indonesia, Government of Malaysia and the International Council on Clean Transportation (ICCT) each nominated one of the selected reviewers. The two other reviewers were independently identified by the contractor.

Who are the peer reviewers?

The following peer reviewers were independently selected by a third-party contractor:

- Scott Bridgham, Ph.D., Professor, University of Oregon
- Kristell Hergoualc'h, Ph.D., Scientist, Center for International Forestry Research
- Monique Leclerc, Ph.D., Regents Professor, University of Georgia
- Dr. Supiandi Sabiham, Ph.D., Professor, Bogor Agricultural University
- Dr. Arina Schrier, Ph.D., Owner, Climate & Environment International Consultancy

How was the peer review conducted?

The reviewers were supplied with a work product and charge questions. The reviewers worked independently and were not asked to reach consensus.

What information is EPA making publically available?

The full peer review record is available in the public docket for the palm oil NODA (Docket ID No. EPA-HQ-OAR-2011-0542, www.regulations.gov), and the EPA is also posting it on the RFS website: www.epa.gov/OTAQ/fuels/renewablefuels/regulations.htm. The peer review record includes the following information:

- The materials provided to the peer reviewers.
- A description of the procedures and criteria used to select the reviewers.
- A list of the names, affiliations and professional resumes of the peer reviewers.
- The contractor's summary of comments, as well as the original comments attributable to individual reviewers.

What are EPA's next steps for the palm oil determination process?

EPA will consider the peer review results along with public comments received. The Agency will also continue to evaluate new data and scientific analysis of other important factors in the lifecycle analysis of palm oil biofuels, including deforestation and methane emissions from palm oil mill effluent. We will continue the dialogue with government, industry, civil society and scientific experts to understand all of the technical issues.