

Top scientists condemn EU land use values for biofuels

[Euractiv](#) and [The Guardian](#), 7th October 2011 - Updated 10th October 2011

Over 100 top scientists and economists have written to the European Commission calling for indirect land use change (ILUC) to be accounted for in EU biofuels policy making.

The [letter](#), seen by EurActiv, argues that assigning biofuels a zero or "carbon neutral" emissions value – as the EU has done – "is clearly not supported by the [best available] science".

Because of "flawed" accounting conventions, "the European Union's target for renewable energy in transport may fail to deliver genuine carbon savings in the real world," the scientists argue.

"It could end up as merely an exercise on paper that promotes widespread deforestation and higher food prices."

The letter's signatories include: Daniel Kammen, the World Bank's chief technical specialist for renewable energy; Kenneth Arrow, a Nobel Memorial Prize winner and Professor Emeritus at Stanford University; Thomas Lovejoy, chair of the Heinz Centre for Biodiversity, and several professors.

Since 2008, EU member states have [been obliged](#) to raise the share of biofuels in the energy mix to 10% by 2020.

But [recent reports](#) by the European Environment Agency and four other EU agencies have questioned whether meeting the EU's target would cut any CO2 emissions at all. This is because the method chosen allegedly [double counts](#) the carbon absorbed by the biofuels during their growth, and omits to count their exhaust pipe CO2 emissions.

The scientists' letter cites peer-reviewed research over several years, some commissioned by the European Commission, which show that displaced human activity caused by converting forests and grasslands to biofuels production can result in "substantial" CO2 emissions.

"All the studies of land use change indicate that the emissions related to biofuels expansion are significant and can be quite large," the letter says.

ILUC debate

Minutes from a recent EU executive meeting, dated 13 July and seen by EurActiv, said that targeting feedstock-based fuels such as biodiesel would be "the most effective solution to address ILUC, and would create the right incentives in favour of the development of second and third generation biofuels."

[Second generation biofuels](#) made from 'woody' material such as tree bark and leaves do not compete with food production, and so have less ILUC impact. They are also more effective at reducing greenhouse gas emissions, although they are costly.

But because of "scientific uncertainties," the Commissioners decided to introduce a contested 'threshold' measurement of CO2 savings until 2018 that would not penalise individual biofuels emissions.

Some sources have [suggested](#) that there may have been a trade off between the EU's energy and climate departments, involving the application of sustainable criteria to both biofuels and heavily polluting fuels such as Canada's tar sands.

In a further sign of the biofuels debate heating up, European bioethanol producers have also sent a letter to the EU's energy and climate action Commissioners, seen by EurActiv, calling for Brussels to introduce ILUC factors that distinguish between "good and bad biofuel pathways".

"The modelling of future ILUC effects lacks enough robustness to be a suitable basis for policy," their letter says.

Alleged EU bias

Such positions are fiercely contested by biodiesel producers. [The European Biodiesel Board is releasing two land use change studies today](#) (7 October), which argue that ILUC is "not scientifically proven" and that one recent study by the International Food Policy Research Institute (IFPRI) for the EU was biased.

"The indirect land use modelling undertaken by IFPRI has a large number of problems, and the result is that the ILUC emissions are greatly overestimated," said one of the EBB report's authors, Don O'Connor, of the S&T business consultancy.

"The econometric correlation between cropland expansion and for example, deforestation has not been shown to be statistically significant," added two Kiel University professors, who co-wrote the other EBB study.

Attempting to draw a line under the debate, the accountancy firm Ernst and Young suggested a method to incentivise green biofuels production. In a [report](#) released on 5 October, E&Y argued that indirect land use change could be mitigated by incentives that encouraged sustainable practices in biofuels production.

"Producers may be willing to adopt further sustainability requirements for biofuels, but only if the financial value gained by doing so outweighed the costs of adopting the requirements," Andrew Britton, a senior manager in Ernst and Young's Climate Change and Sustainability Services practice said.

A contributor to the report's launch, Utrecht University Professor, André Faaij, a convening lead author for the Intergovernmental Panel on Climate Change (IPCC) added that this sort of "proactive strategy" would be better than an introduction of ILUC factors

"Bioenergy options can provide a key lever for sustainable development of the agricultural sector and rural economies instead of causing conflict with food supplies and land," he said.

EU Biofuels monies

As the debate over land use change intensified, the European Investment Bank [announced](#) €500 million of loans for climate mitigation projects in Brazil on 5 October, including biogas and biomass-fired heat and power plants.

The specific projects that will be funded "still need to be identified," an EIB spokesperson said.

The EU itself has previously contributed monies to co-finance biofuels investment projects in the developing world - such as [domestic Jatropha farming in Tanzania and Kenya](#) - from the €200 million available under the second Energy Facility.

Positions:

Raffaello Garofalo, Secretary General of the European Biodiesel Board, argued that imposing ILUC standards for biofuels in Europe risked favouring imported biodiesel that have lower environmental standards.

"one of the paradoxical aspects of hypothetical ILUC legislative penalties against EU biodiesel would be that imported biodiesel from palm oil (produced not in Europe but in countries where deforestation exists) would become probably the easiest and cheapest source for biodiesel production, if not the only one in practice allowed. If this risks becoming the result of European norms on ILUC [which were] conceived to guarantee environmental sustainability, clearly there is something wrong with the way in which ILUC and European legislative options on ILUC are thought [through]".

But, from the other side of the debate, **Dr Gernot Pehnelt, the director of the independent research and consulting institute GlobEcon** recently wrote a report contending that the default values ascribed by the EU to palm oil were wrong.

"Our results show that the realistic GHG (greenhouse gas) emissions potential of palm biodiesel is between 37% and 44% for transportation fuel, compared to the 19% referenced in the Annex of the EU's Renewable Energy Directive," he said. If methane capture in the oil mill had been included, palm oil would exceed the EU's 35% greenhouse gas (GHG) savings threshold for biofuels, and so in his view "the current default palm oil values unfairly discriminate against imported biofuels in favour of domestically produced biofuels."

Arthur Neslen