



# Around Europe

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## The ILUC Factor: The Bane of the Biofuels Boom

The EU has promoted greater biofuel production, at a cost to social and environmental sustainability, indigenous land rights, and higher food prices. One of the most damaging unintended consequences however is Indirect Land Use Change (ILUC).

ILUC is the expansion of agricultural land into environmentally sensitive areas, when food production is displaced by fuel crops. When demand for biofuels causes existing farmland to be changed from food crops to energy crops, the demand for those food crops does not disappear. That food must still be grown somewhere, which means non-agricultural land - like forests, savannah, or peatland - is destroyed to make space for growing food.

ILUC often encroaches onto highly biodiverse land, causing loss of biodiversity and ecosystem services, which many people in developing countries depend on for their livelihoods. Moreover, clearing forest and savannah, or draining peat bogs, releases vast amounts of CO<sub>2</sub> and other greenhouse gases (GHGs). These would otherwise have remained stored in these carbon sinks. Thus, the effects of ILUC on the overall GHG emissions of biofuels can make the potential savings negative (i.e. more life-cycle GHG emissions than fossil fuels). Biofuels can end up releasing more GHGs than their fossil fuel counterparts. This is the exact opposite of what they are intended to do - making climate change worse, not better.

EU directives, by guaranteeing long-term demand, are direct drivers of biofuels expansion and consequent ILUC. The Renewable Energy Directive (RED) requires 20 per cent of energy production to come from renewables by 2020, some of which is expected to come from bioenergy. The RED, along with the Fuel Quality Directive, requires 10 per cent of transport fuel to come from renewable sources. The sustainability criteria in the RED do not take ILUC into consideration. Biofuels are required to have lifecycle GHG savings of 35 per cent, compared to conventional fossil fuels (rising to 50 per cent in 2017), but the methodology for calculating GHG lifecycles does not include ILUC factors.

EU Member States are legally obliged to meet these targets, and an analysis of the 27 Member States

implementation plans has shown that the 10 per cent renewable transport fuel target will majorly increase the use of conventional biofuels up to 2020.<sup>1</sup> This has been calculated to lead to ILUC equivalent to an area between the size of the Netherlands and the Republic of Ireland. Once the GHG emissions from ILUC are included, the result is additional GHG emissions equivalent to an extra 14 to 29 million cars on the road across Europe in 2020. EU biofuels policy is likely to lead to between 81 per cent and 167 per cent more GHG emissions than meeting the same need through fossil fuel use.



An area of forest cut down to grow food crops displaced by biofuel production. Image: Nanoworld via Flickr CC

The European Commission has been doing an Impact Assessment on ILUC. Of the four responses they are considering, three are non sequiturs. 'Doing nothing' ignores the well-documented negative consequences of ILUC. 'Increasing the minimum GHG savings threshold' would not remove the problem, as ILUC would still be unaccounted for in the lifecycle calculations. Unspecified 'additional sustainability requirements' is too vague, and it is unclear how they could address indirect effects. The only viable option is for the Commission to propose legislation which includes feedstock-specific ILUC factors in the GHG lifecycle calculation methodology - based on, and evolving with, best available science. This means altering the methodology used for GHG savings calculations, so that it includes crop-specific values for the expected ILUC and any consequent GHG



emissions resulting from ILUC.

The RED's sustainability criteria have other weaknesses, notably their voluntary status and reliance on self-monitoring, and the lack of social sustainability criteria. The Nuffield Council on Bioethics has concluded that current EU policies are unethical, violate human rights and damage the environment. Even the World Bank recognises that biofuel expansion is raising global food prices, pushing millions more people into poverty, and recommends relaxing biofuel mandates. Many environmental organizations are calling for the 10 per cent target to be dropped, and for a complete reassessment of the social and environmental implications of EU biofuel

policy.

A world where more than one billion people are starving or malnourished must consider urgently whether converting agricultural land from food crops to energy crops can ever be sustainable. We cannot sacrifice the poor to meet the rich world's energy demands.

**Rachel Tansey**

For a full version of this article. see [qceablog.wordpress.com](http://qceablog.wordpress.com)

<sup>1</sup> Institute for European Environmental Policy 'Anticipated Indirect Land Use Change Associated with Expanded Use of Biofuels and Bioliquids in the EU - An Analysis of the National Renewable Energy Action Plans' March 2011, available at: [www.ieep.eu](http://www.ieep.eu)

## Conflict Prevention: At the Heart of EU External Action?

In June 2001, under the then Swedish Presidency of the European Council and under the leadership of the late Anna Lindh, the European Council agreed a Programme for the Prevention of Violent Conflicts, better known as the Göteborg Programme. The nub of the programme was an agreement to:

- Set clear political priorities for preventive actions;
- Improve its early warning, action and policy coherence;
- Enhance its instruments for long- and short-term prevention, and
- Build effective partnerships for prevention.

Since then, there has been a low-key annual assessment of progress achieved. In 2006 - at the 5 year anniversary - the European Peacebuilding Liaison Office (EPLO) published a report entitled: Five Years after Göteborg: the EU and its Conflict Prevention Potential. There was, at that time, no in-depth review by the European institutions.

In late 2010, the Hungarian government - in preparation for its Presidency of the European Union during the first half of 2011 - decided to embark on a more fundamental review at the 10 year anniversary. An initial discussion between representatives from Member State governments, the EU institutions and conflict prevention experts from civil society organizations was held in Budapest in January 2011; papers were written (including one by EPLO Director

Catherine Woollard), time was spent on developing a plan on how to approach the review and preliminary agreement was reached on what the review should look like.

To support the process, the Conflict Prevention Dialogue Network - an EU-funded programme of policy dialogue - prepared a meeting to discuss this review. On 25 March 2011, the European External Action Service (EEAS) issued the following statement: *'In light of the fact that the EEAS will now be focusing its resources in the field of conflict prevention on practical, action-oriented work in areas of on-going or impending crises, including in the neighbourhood region, it has been decided to cancel the Civil Society Dialogue Network meeting which had been planned for 14 April 2011.'*



Catherine Ashton: an underwhelming performer on Libya and conflict prevention. Photo: European Parliament via Flickr CC

In simple terms, this statement means:

- The commitment to long-term measures in the Göteborg programme continues to be sidelined;
- The EEAS continues the EU's preference for reactive, not preventive, action on conflict;
- One might be forgiven for

thinking that part of the reason for the cancellation of the meeting (and as far as I know, the review itself), is more about sour grapes by the EEAS because it was a Member State who took the initiative than about the issue itself.



In its early days, the EEAS had styled itself as: a service for conflict prevention, security and stability - is this now no longer a priority? And how long are European Union citizens and taxpayers going to be content for the EEAS to rush after every crisis the headlines highlight today without the long-term stamina to actually ask the hard questions: why are there these crises? Is there something inherent in our policies and actions that contribute to them? What can we do to move from fanning the flames and trying to put them out to actually dealing with the fire hazard before it is too late?

A proper, in-depth review of the implementation of the Göteborg Programme would have been a useful first step; a proper implementation of the EU's code

of conduct on arms control and a serious contribution to an Arms Trade Treaty at UN level would be another helpful move. But instead, we are treated to hand-wringing by the High Representative for Foreign Affairs, Catherine Ashton, about the use of cluster munitions by Gaddafi, without any reference to the fact that they were made in Spain - an EU Member State - and exported to Libya, we must assume, under the EU code of conduct on arms control.

The verdict on both the implementation of the Göteborg Programme and the first nearly 18 months of the EEAS: could do a whole lot better.

*Martina Weitsch*

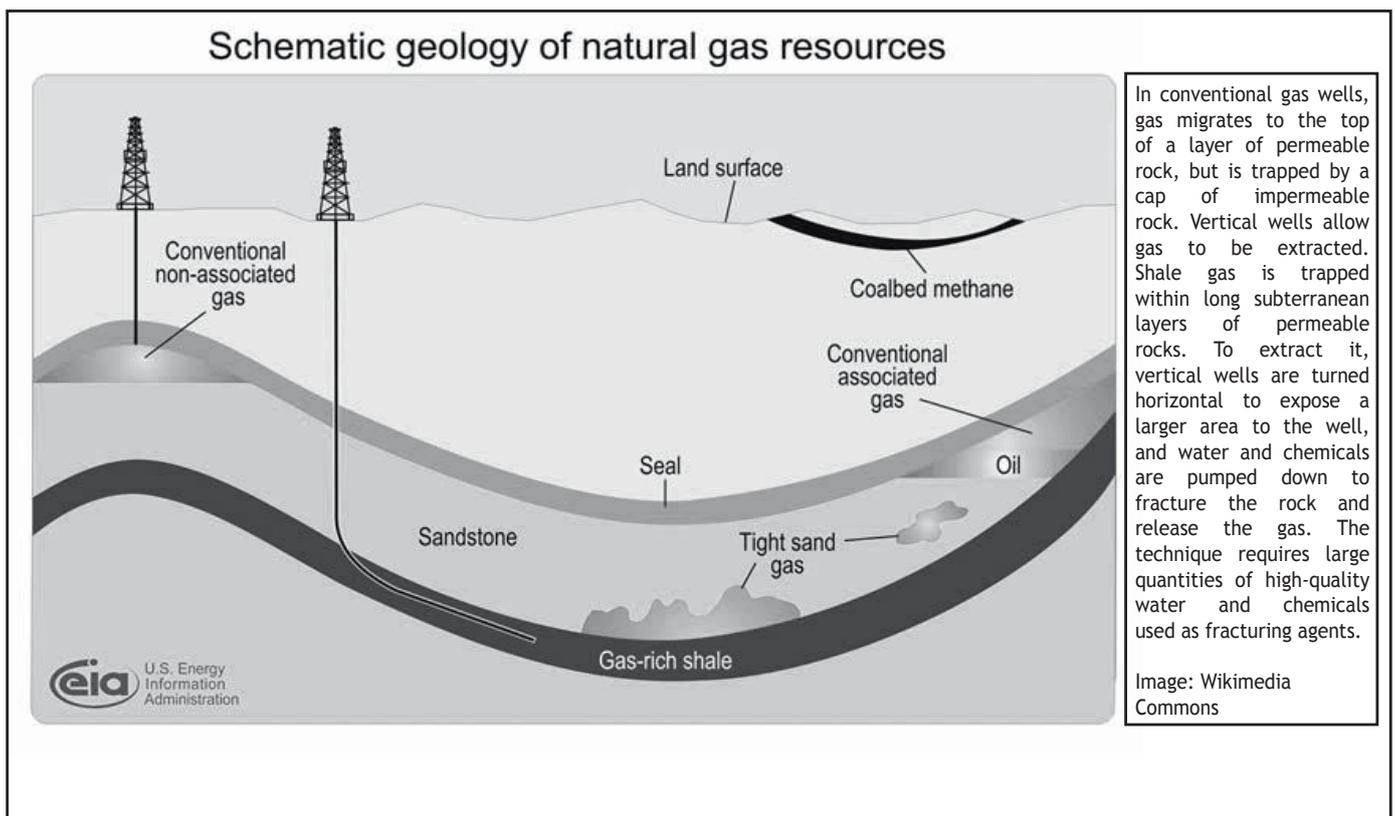
## The European Dash for Shale Gas

Concern about securing future energy supplies, rising energy prices, and the need for low greenhouse gas emission alternatives to coal have seen a sharp increase in shale gas extraction around the world. But the new technology isn't without controversy. And in Europe, the urgency with which some Member States are pursuing shale gas is out-pacing the accompanying public understanding and debate (for example, in response to public protests, the French government is in the process of temporarily freezing shale gas drilling until after the presidential election next year).

Shale gas is a fairly new phenomenon. It started about

15 years ago in Texas, with developments in horizontal drilling allowing previously uneconomic and difficult to access gas deposits to be probed and extracted. As recently as a couple years ago, such "unconventional" gas extraction was almost unheard of. But in the short space of four months, from November 2010 to February 2011, shale gas shot from the fringes of European policy, to centre stage, with its express inclusion in the list of priorities for European Energy Policy (predominantly at Poland's insistence).

Shale gas, like conventional natural gas, is essentially methane, the cleanest burning of all the fossil fuels.





Whereas conventional gas extraction is of the classic, vertical wellbore variety, shale gas requires the remote and targeted hydraulic fracturing (or “fracking”) of dense, sedimentary shale formations, several kilometres deep.

Fracking results in the creation of fissures, which when combined with flushing fluids and sand or ceramic shards (to force open the fractures, and propagate them further), releases the trapped methane from the tightly-packed pores present in the ossified mud. The gas subsequently bubbles out of the ancient sea beds, up the borehole, bringing it to the surface, where it is siphoned off.

If this was all that happened, it is likely few of us would need to be any the wiser. However, shale gas is controversial because of the explosive nature of the process (it has been likened to creating mini-earthquakes underground), the fact that it requires large amounts of (atypically high quality) water to release the gas from the rocks, and the use of dangerous chemicals (over one and half million gallons of carcinogens over a four-year period in Colorado alone). There are also numerous cases in the US where the methane has contaminated local water supplies (of a kilometre away or more).

While many of the chemicals used in hydraulic fracturing are harmless like salt and citric acid, there are also extremely toxic substances such as benzene, methanol and lead. At present, most of the noxious waste water is left underground when the drilling ends, injected into deep aquifers. Where this is not possible, the fluids (newly incorporated with mercury

and arsenic) are stored in open pits on the surface. Fugitive emissions are also of particular concern, owing to poor well construction, as methane is a powerful greenhouse gas.

But this is about more than just lighting your tap water (as evidenced in the 2010 documentary *Gasland*), house basements exploding, unexplained livestock deaths or water salinity levels inappropriate for human consumption (Pittsburgh, Pennsylvania). Not only is the greenhouse footprint for shale gas greater than that for conventional natural gas (and the coal it is meant to replace), but shale gas is also being promoted far beyond the objective evidence of what it can do to alleviate Europe's reliance on Russian energy supplies. Put simply, are we trying to look at how we use energy today, or simply at how we replace it?

While it is pleasing that Europe is finally discussing these issues, what with the International Energy Agency having announced that limiting global warming to 2° Celsius is now all but impossible, and given the current economic problems across Europe, it has never been more vital to focus on the cheapest, cleanest and most secure supply of energy: efficiency savings - energy which we don't need to replace, and which genuinely deserves the hyperbole.

**Paul Parrish**

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