



Time to face the facts

Europe must revise its biofuels policies

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Time To Face the Facts

Biofuels have been put forward as a way to reduce carbon emissions and tackle climate change. ActionAid believes they will not serve as the solution to either of these challenges. There is increasing evidence that the EU's reliance on so-called first generation¹, industrial biofuels to meet its renewable energy targets is instead fuelling land grabs and causing global food price rises and volatility.

Background: biofuels

Industrial biofuels are currently being made from corn, wheat, sugar cane and oil seeds such as palm oil, soy and rapeseed. Rapidly rising demand for crops for fuel stimulated by the targets and financial incentives that the EU and others have put in place, has sparked increased competition with those crops grown as food. In many countries in the developing world, people spend over half of their income on food. When food prices rise, these are the people who suffer the most.

Many scientific studies have shown that biofuels production has led to higher food prices and food price volatility globally². These concerns have been echoed by the UN's Food and Agriculture Organisation, the World Bank and the World Trade Organisation, amongst others. Although there is no consensus as to the exact extent to which biofuels influenced the global food price spike in 2008, one thing is certain; even the most conservative estimates reveal that biofuels played a significant role. This is of great concern when one in every seven people on the planet goes hungry every day.

Demand for agricultural land – a resource often mistakenly thought to be abundant – is also surging, driving food prices higher. This also has a great impact on the diets of people living in developing countries, and determines who has access to land and other natural resources.

Europe does not have enough agricultural land to grow the biofuels needed to meet its current targets and is therefore increasingly seeking land elsewhere, primarily in countries where it can be obtained easily and cheaply. But in many countries, land is an essential resource to sustain livelihoods and life. For poor people, access to land means being able to grow your own food and generate income. In countries where people are already struggling to get their rights to own and farm their land respected, increasing demand for land to grow biofuels is making that struggle even harder.

In the last 3 years, communities in countries from Kenya to Guatemala have brought to our attention cases of land grabs for biofuels which threaten their very existence. As their food and land rights are further threatened and violated by biofuels production, biofuels targets and subsidies become not only a problem of failed policies – they become a human rights problem.

Industrial biofuels are increasingly being recognised as a 'false solution' to combating climate change. When you include all the emissions from the production process, most biofuels actually emit more carbon than the fossil fuels that they are designed to replace. This was most recently confirmed by the European Environment Agency's scientific committee³ as well as International Food Policy Research Institute (IFPRI).

ActionAid is concerned that providing false solutions to tackling climate change – such as industrial biofuels – may divert attention away from genuine efforts to provide solutions to a problem that is already threatening the livelihoods of millions of people in developing countries.

Citizens in the EU are paying taxes that are used to subsidize biofuels. People in developing countries are having their rights violated by policies agreed at the EU level. The EU cannot continue to support poverty eradication and the Millennium Development Goals on the one hand, whilst fuelling land grabs and food price volatility on the other. The policy needs to be changed.

Facts on biofuels

- The EU will triple its biofuels consumption by 2020
- EU companies have already acquired or requested at least 5 million hectares of land for industrial biofuels in developing countries – an area greater than the size of Denmark
- The EU targets could push the price of food oils and grains up by 15% by 2017
- The EU's biofuels consumption alone will be responsible for an extra 27-56 million tonnes of carbon emissions per year compared to conventional fossil fuels – this is equivalent of up to an extra 26 million cars on Europe's roads by 2020⁴
- The amount of corn required to fill the tank of a 4x4 vehicle with biofuels would feed a child for a year – that's a staggering 1,000 meals⁵
- It takes 2.5-3 litres of water to produce 1 litre of ethanol
- 21-35% of all global land grabs can be attributed to biofuels⁶
- Globally the average biofuels plantation is approximately 40,000 hectares⁷
- In Tanzania alone, a country with high levels of hunger and food insecurity, about 450,000ha of arable land which could have been used to produce food for local consumption had been earmarked for biofuels production by 2009 with more than 40 biofuels companies, many of them foreign owned, operating in the country.⁸

Global problem

The EU is not the only bloc or country promoting the use of biofuels. Other global actors with high levels of biofuels production, consumption, targets and trade include the US, Brazil and China.

In the US, biofuels mandates and subsidies have led to a surge in corn being produced for bioethanol. This has meant that the price of corn has become more closely linked with the price of other energy sources including fossil fuels such as oil, rather than being dependent on demand for corn for food. This has led to extreme volatility in the price of corn, but also in the grains that it competes with as a food source⁹.

This food price volatility affects all food consumers, but it affects poorer and more marginalised communities the most, as they often spend up to 80% of their income on food and have little insurance against shocks. A report commissioned by FAO, WTO and the World Bank and others ahead of the G20 agricultural ministers' meeting in June 2011, shows that current biofuels subsidies, tax expenditures and targets lead to higher food prices and increased food price volatility¹⁰. The report goes on to conclude that 'removing provisions that artificially stimulate demand and supply for biofuels is the best way to avoid policy driven fuel – food/feed conflicts'¹¹.

In Brazil, 26.1 billion litres of bioethanol was produced from sugar cane in 2009. As bioethanol production increases, more land is being bought for sugar cane plantations, increasing demand on land prices which squeezes many small-scale farmers out of the market as land prices rise and local farmers cannot afford to buy it¹². It also means that more and more agricultural land is being converted to sugar cane production, less food is being produced, putting pressure on local food supplies and regional food prices.

Sugar cane cultivation for bioethanol in Brazil also presents a severe risk of underground water contamination due to the leaching of herbicides through the ground. Other immediate effects include the reduction of biodiversity caused by deforestation and monoculture sugar cane planting, and the depletion of soil quality due to pesticides, as well as land grabs by large corporations who replace diverse food production with mono-crop sugar cane plantations.

The EU will be a key importer from both US, Brazil as well as from a range of developing countries. Imports from these countries are set to increase dramatically over the coming decade and beyond according to the projected consumption of the EU market to meet the targets. However, it's not only the production and imports from least developed countries that should worry the EU, as production in middle and high income countries such as Brazil and the USA will also contribute to global food price volatility, land grabs and environmental degradation.

In fact, the EU and countries like the US and Brazil have both an individual and collective responsibility to address the causes of global food insecurity and threats to the climate and biodiversity. ActionAid is calling on all concerned actors to accept this responsibility and revise their biofuels mandates and policies accordingly.



A worker at Kenya Jatropha Energy's jatropha pilot project in the Dakatcha woodlands. Expansion of the project has been suspended, pending an inquiry by the Kenyan Environment Ministry

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EU biofuels targets and trends

a) Land grabs and food insecurity on the ground in developing countries

ActionAid and its partners have already witnessed a number of land grabs by European companies for biofuels for the European market. In Kenya's Dakatcha Woodlands, Italian company Nuove Iniziative Industriali leased 50,000 hectares of land for biofuels production, with the local communities alleging that this happened without the prior, informed consent of the people living there. ActionAid's campaigning has put a temporary stop to the plantation, which would have displaced over 20,000 people and put their access to food at risk¹³.

In Tanzania, Swedish company SEKAB planned to grow biofuels on 40,000 hectares of land to respond to projected future European biofuels demand¹⁴. This land was extremely important to local populations who use it to produce food, for building materials among other reasons. Following pressure from local communities and with the support of ActionAid, SEKAB has reportedly decided not to clear the land for biofuels production.

Also in Tanzania, UK company SUN Biofuels bought up land in Kisarawe, just 70km from Tanzania's capital Dar es Salaam, in 2006¹⁵. They established a plantation of 8,200 hectares, growing jatropha. There was no informed consultation, and the community lost its land, with the company failing to keep its promises made to local communities about jobs and investments. Following financial problems, SUN Biofuels went bust in autumn 2011 and activity on the ground ceased, though not before much of the potential damage to the environment and communities had already been done.

These are only a few cases – millions of hectares of land are being taken over by EU biofuel investors to meet increased demand. They highlight the scale of the land grab and the serious problems that are a result of the EU's biofuels policies.

The EU has taken a number of legislative and policy steps to promote biofuels in recent years. The Climate and Energy package also known as the 20-20-20 goals¹⁶, aims to assist in the fight against climate change and include some key pieces of legislation.

The Renewable Energy Directive¹⁷ (RED) was adopted in 2009 as a part of this package. It states that 20% of energy consumption must come from renewable energy sources by 2020 and that 10% of transport fuel must come from renewable sources by 2020. In order to show how they will meet the targets, EU member states have submitted Renewable Energy Action Plans which show that more than 9% of transport fuels in the EU will come from first generation biofuels by 2020. There will also be a significant increase in the use of bioliquids¹⁸ for heating and power supply.

This means that the EU's consumption of first generation biofuels will triple between 2008 and 2020, over 40% of which will be imported¹⁹. With this target, there will be a guaranteed market for the European biofuels industry until 2020. It is worth noting here that the so-called second generation biofuels²⁰ that are often hailed as the biofuels success story as they require less land to produce and therefore do not compete with food production to the same level, will not become commercially available at a significant scale until after 2020.

A range of studies and reports have also established a strong scientific base for the need to seriously revise the methodology that is currently used to calculate the greenhouse gas emissions of first generation biofuels. This revision would seriously undermine the contribution of first generation biofuels to the climate objectives as originally intended (see section below on ILUC). When ILUC is included in the equation, along with food price rises and volatility, and land grabs, it is clear that Europe will not be able to meet its 10% renewable energy target in a sustainable way.

b) The European Union's international obligations

The European Union also has a number of international legal obligations in relation to its biofuels policies, including its duties to respect, protect and promote the rights to food and land. Article 208 of the Lisbon Treaty states that: 'Union development co-operation policy shall have as its primary objective the reduction and, in the long term, the eradication of poverty. The Union shall take account of the objectives of development co-operation in the policies that it implements which are likely to affect developing countries'²¹.

This means that the EU must not undermine the work that it is doing with its development policies with policies in other areas such as energy. EU policies, both external and internal, must be coherent with development objectives. This is what is meant by the EU's commitment to Policy Coherence for Development.

Furthermore, the key inter-institutional agreement on development co-operation of the European Commission, European Council and European Parliament is known as the 'European Consensus on Development'. This states that 'the EU is fully committed to taking action to advance Policy Coherence for Development in a number of areas. It is important that non-development policies assist developing countries' efforts in achieving the MDGs'²². Despite elaborate policies to ensure PCD²³, this is not the case.

c) The problem of Indirect Land Use Change (ILUC)

European biofuels policies do not only have a negative effect on land and food rights in developing countries. The climate credentials of first generation biofuels are far from as favourable as first thought²⁴. The EU is still not portraying an accurate picture of the role that biofuels can play in the fight against climate change – one of the original objectives for their promotion by the EU²⁵.

When biofuels are grown on European agricultural land, they often displace food production outside of Europe. As agricultural production for European consumption moves from European to non-European production, it often takes up agricultural land elsewhere, and all too often forests are cut down and wetlands and peatlands drained, to create additional arable land. This is referred to as Indirect Land Use Change or ILUC.

Apart from pushing people off their land, ILUC creates additional carbon emissions to the tune of 876-1459 million tonnes of CO₂ equivalent from vegetation and soil. This means Europe's biofuels alone could be responsible for an extra 27-56 million tonnes of CO₂ equivalent per year²⁶ (based on the 20 year time horizon specified in the RED, and taking into account the anticipated GHG savings of biofuels). At the upper end this is the equivalent to approximately 6% of total EU transport emissions in 2007 or around 12% of EU emissions from agriculture. This is equivalent to adding an extra 12-26 million cars on Europe's roads by 2020²⁷.

This means that on top of contributing to global hunger and land grabs, biofuels do not actually reduce the emissions that are causing climate change. Climate change severely affects poor and marginalised communities around the world in a disproportionate manner. This is mainly due to the fact that they are unable to adapt their food production to the effects of climate change and protect themselves against climate change effects such as drought and floods.

Despite extensive science underlining the problem with ILUC and despite being mandated in the Renewable Energy Directive to regulate it by 2010 at the latest, the European Commission has at the time of writing (November 2011) failed to take any action to regulate ILUC.

Recommendations

Based on the clear threat that European biofuels targets pose to the rights and livelihoods of poor and marginalised communities in developing countries, ActionAid recommends the EU and its member states:

- Remove the 10% target for renewable energy in transport fuel as soon as possible
- Phase out all financial incentives for biofuels, including subsidies and tax exemptions
- Investing the money saved by ending subsidies for first generation biofuels in energy efficiency, genuinely renewable energy, and research on second and third generation biofuels
- Introduce more ambitious measures to reduce energy consumption across Europe
- Introduce robust ILUC factors differentiated by feedstock as soon as possible to ensure accurate carbon emission accounting
- Act within the G20 and other international fora such as COP and Rio+20 to push for a global end to targets and subsidies for first generation biofuels

- 1 First generation biofuels are made primarily from food crops such as wheat, maize, corn etc or vegetable oils such as rape seed oil.
- 2 See http://www.fao.org/righttofood/publi08/Right_to_Food_and_Biofuels.pdf
- 3 European Environment Agency Scientific Committee, 6. 'Opinion of the EEA Scientific Committee on greenhouse gas accounting in relation to bioenergy,' 15 September 2011
- 4 For more information, see http://www.actionaid.org.uk/doc_lib/driving_to_destruction.pdf
- 5 For more information, see http://www.actionaid.org.uk/doc_lib/meals_per_gallon_final.pdf
- 6 World Bank (2011) 22. Rising global interest in farmland, Washington: World Bank
- 7 World Bank (2011) 22. Rising global interest in farmland, Washington: World Bank
- 8 See http://www.actionaid.org/sites/files/actionaid/implications_of_biofuels_in_tanzania.pdf
- 9 Corn prices at the Chicago Board of Trade increased from an average of \$2 a bushel in 2006 to nearly \$7 in July 2008 and then down to \$4 a bushel (a level just barely above the cost of production) by October 2008 and was back up to \$6 a bushel by December 2010. Jae Hur, "Corn Extends Gains to Six-Week High as Report Says U.S. Planting May Drop," Bloomberg <http://www.wikininvest.com/wikininvest/api.php?action=viewNews&aid=2155857&page=Commodity%3ACorn&format=html&comments=0> (December 20, 2010)
- 10 See http://www.unctad.org/en/docs/2011_G20_FoodPriceVolatility_en.pdf. "Government subsidies, tax expenditures and mandates - which are statutory obligations to use a specific quantity or share of biofuels - increase demand for some crops and contribute to higher world prices. In addition, mandate induced demand is completely inelastic with respect to price and adds to price volatility. Last, the speed with which mandates have been implemented during the last decade has coincided with and may have contributed to the depletion of inventories and has weakened the resilience of the markets to external shocks"
- 11 See http://www.unctad.org/en/docs/2011_G20_FoodPriceVolatility_en.pdf
- 12 For more information, see http://www.actionaid.org/sites/files/actionaid/smoke_screen_biofuels_executive_summary.pdf
- 13 For more information, see http://www.actionaid.org/sites/files/actionaid/aa_dakatcha_report_final.pdf
- 14 For more information, see http://www.actionaid.se/files/SEKAB_Etanol_till_varje-pris.pdf
- 15 For more information, see http://www.actionaid.org.uk/100621/Insight_debate_and_campaigning_news_from_ActionAid.html?article=3581
- 16 20% energy efficiency, 20% GHG emission reduction, 20% renewable energy - all by 2020
- 17 Renewable energy directive, 2009/28/EC, see <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32009L0028:EN:NOT>
- 18 Bioliquids are liquid fuels made from biomass for energy purposes other than transport (i.e. heating and electricity).
- 19 See http://www.actionaid.org.uk/doc_lib/driving_to_destruction.pdf
- 20 Second generation biofuels are primarily made from lignocellulosic or woody crops, agricultural residues or waste
- 21 Article 208, Treaty of Lisbon, see http://europa.eu/lisbon_treaty/full_text/index_en.htm
- 22 http://ec.europa.eu/development/icenter/repository/european_consensus_2005_en.pdf, p. 6
- 23 See Spotlight report by CONCORD 2011, <http://www.actionaid.org/sites/files/actionaid/spotlight-on-eu-policy-coherence-for-development-2011.pdf>
- 24 See "Assessing the Land Use Change Consequences of European Biofuels Policies" <http://www.ifpri.org/sites/default/files/publications/biofuelsreportec2011.pdf>
- 25 INSERT Ref 20-20-20 package
- 26 Based on the 20 year time horizon specified in the RED, and taking into account the anticipated GHG savings of biofuels
- 27 For more information, see http://www.actionaid.org.uk/doc_lib/driving_to_destruction.pdf

Cover Pic
Activists dressed as biofuels
bandits Barroso, Ashton,
Merkel and Sarkozy grab land
outside the European Council
to highlight the impact of EU
biofuels policies in developing
countries
Credit: ActionAid

ActionAid is a partnership between people in rich and poor countries, dedicated to ending poverty and injustice. We work with people all over the world to fight hunger and disease, seek justice and education for women, hold companies and governments accountable, and cope with emergencies in over 40 countries.

ActionAid EU office
41 Rue du Commerce
1000 Brussels
Belgium

Telephone
+32 2503 2422

Facsimile:
+32 2502 6203

Email
brussels@actionaid.org

Website
www.actionaid.org/eu