

BP's role in the global agrofuel industry

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BP has invested \$1.5 billion into global biofuel developments and is planning major expansion in their agrofuel investment. They are the first major oil company to have invested in Brazilian sugar cane ethanol. According to background research by Rainforest Rescue, "The industrial refinery opened in the state of Goiás in September last year, in the heart of the Cerrado savannah. Since then, sugar cane plantations have been proliferating, largely at the cost of food production. Cattle ranchers and soya plantations are pushed north into Cerrado savannah and rainforest areas. The green desert of sugar cane in Goiás already extends across 458,000 hectares. Around 60,000 hectares are the result of BP's ethanol refinery."

BP state on their website: "In the EU and the US, we continued to lobby for the introduction of effective policies to support the development and wider availability of biofuels for transport".¹

BP plays a major role within the agrofuel industry, comprising lobbying for pro-agrofuel policies, direct investment in refineries and plantation development, research and development of 'second generation' agrofuels, including aviation agrofuels, and as a major distributor of biofuels.

BP's involvement in current 'first generation' agrofuels

A 2006 publication by BP claims that, at the time, they distributed and/or blended about 10% of all biofuels globally. Their agrofuel interests include:

- + **Ethanol investment in Brazil:** In 2008, BP acquired 50% of shares in Tropical BioEnergia S.A., with the other half of shares remaining with two Brazilian companies, Grupo Maeda and Santelisa Vale. Santelisa Vale have since been taken over by the French agribusiness corporation Louis Dreyfus.

In the same year, Tropical BioEnergia opened their first ethanol refinery in Goiás, with a final capacity of 435 million litres. In Edeia, the district of Goiás where Tropical BioEnergia is active, plantations have increased from a mere 739 hectares to 10,356 hectares in just one year. BP has announced plans to invest \$5 to \$6 billion in ethanol in Brazil over the next 5-10 years.² This includes plans to invest \$1 billion to expand Tropical BioEnergia's existing ethanol refinery and to build a second plant also in Goiás. They aim to process up to 100 million tonnes of sugar cane a year.³

- + **UK Wheat ethanol:** BP, DuPont and Associated British Foods (which includes British Sugar) are jointly building one of the UK's largest planned wheat ethanol refineries, at Hull, with a 420 million litre/a capacity. The company will operate under the name Vivergo Fuels and BP holds 45% of the shares. The plant will consume 1 million tonnes of wheat per year, at a time of record and fast rising wheat prices. BP expect the refinery to open in 2010 and state that they plan to later retrofit it to produce biobutanol. Together with another refinery which Ensus is planning to open shortly it will use 19% of the UK's wheat harvest (based on 2009 figures) and makes it far more likely that the UK will become a net importer of wheat, pushing up wheat prices worldwide.
- + **Australian wheat ethanol:** In 2006, BP signed a Memorandum of Understanding with Primary Energy to purchase the entire output from a new wheat ethanol plant to be built in Kwinana, Western Australia (80 million litres of ethanol), despite steep declines in Australian wheat production which are expected to worsen as a result of climate change. BP has stated

¹ www.bp.com/liveassets/bp_internet/globalbp/STAGING/global_assets/downloads/B/bp_sustainability_report_2006.pdf

² www.thebioenergysite.com/news/3503/bp-expands-ethanol-investment-in-brazil

³ www.reporterbrasil.org.br/agrocombustiveis/clipping.php?id=128

that they intend to supply two-thirds of the Australian government's 350-million litre biofuels target by 2010.⁴ However, the refinery is not so far operational.

- + **Jatropha:** In 2006, BP signed a 10-year agreement with The Energy and Resource Institute (TERI) to develop jatropha for biodiesel in Andhra Pradesh, India. In 2007, BP entered into a joint venture with UK company D1 Oils to develop jatropha as a biodiesel feedstock. The declared aim was to develop jatropha plantings on 1 million hectares across India, southern Africa and South-east Asia. In India, many small farmers have suffered crop failures and found themselves in high debt after misleading claims by D1 Oils about jatropha thriving with little water and on poor soils, which is not the case. Such investment is strongly opposed by many small farmers and civil society organisations in India and elsewhere⁵. Friends of the Earth have published a report about the impacts of D1 Oil's investments in Swaziland.⁶ In July 2009, BP pulled out of the joint venture with D1 Oils, which has so far continued to accrue debts, not profits. D1 Oils future is currently uncertain, with take-over bids having been reported.
- + **Biodiesel from tallow:** BP has invested in biodiesel production from tallow in Australia and New Zealand. Tallow is a by-product from the livestock industry. A report commissioned by the UK government states that using tallow for biodiesel rather than, as before, in the soap and oleochemical industries, is leading to those industries increasingly relying on palm oil.⁷ It thus contributes to palm oil expansion.
- + **Biofuel blending:** BP blends biofuels from different sources. In the UK, Greenpeace showed in October 2008 that this includes palm oil.⁸ In the same year, the Renewable Fuel Agency listed BP as one of the companies which had failed to report any of their biofuels to meet the very minimum government standards.⁹

BP's role in lobbying for agrofuels and in 'greenwashing' the industry

BP states that they believe 25% of all transport fuel worldwide could come from agrofuels¹⁰ – and they have been very active lobbying for policies which will ensure further agrofuel expansion.

In the **UK**, BP was closely involved in the drafting of the Renewable Transport Fuel Obligation (RTFO) which sets mandatory targets for biofuel use in the UK. Their 2005 Sustainability Report states that they were "closely involved in drawing up the Biofuels Assurance Scheme being created by the UK Low Carbon Vehicle Partnership."¹¹ The Low Carbon Vehicle Partnership, on whose Board BP continue to be represented, played an instrumental role in preparing the RTFO. Subsequently, BP was represented on the Advisory Board which drew up the Guidance for the Carbon and Sustainability Accounting Standards under the RTFO, and were one of four companies which piloted it.¹² BP is now directly involved in implementing that legislation, through the Renewable Fuels Agency (RFA). BP's Group Head for Energy, Climate and Environment, Paul Jefferiss, is on the RFA Board. He also advises three UK government departments and the Sustainable Development Commission. Bernie Bulkin, former Chief

⁴ www.bp.com/genericarticle.do?categoryId=9008681&contentId=7022725

⁵ See for example: <http://tech.groups.yahoo.com/group/biofuelwatch/message/1553>

⁶ Friends of the Earth, Jatropha: Wonder Crop? Experiences from Swaziland, May 2009, www.foe.co.uk/resource/reports/jatropha_wonder_crop.pdf

⁷ www.dft.gov.uk/pgr/roads/environment/rtfo/tallow/tallowfinalresport.pdf

⁸ www.greenpeace.org.uk/blog/climate/petrol-stations-are-pumping-out-bad-biofuels-20081007

⁹ www.newenergyfocus.com/do/ecco/view_item?listid=1&listcatid=105&listitemid=1773

¹⁰ www.bp.com/productlanding.do?categoryId=9027829&contentId=7050796

¹¹ www.bp.com/liveassets/bp_internet/globalbp/STAGING/global_assets/downloads/S/bp_sustainability_report_2.pdf

¹² www.renewablefuelsagency.org/db/documents/Carbon_and_Sustainability_Guidance_Part_1.pdf

Scientist at BP, has been advising the UK government on biofuels, in his role as Commissioner for Climate Change, Energy and Transport with the Sustainable Development Commission.¹³

The 2003 **EU** Biofuels Directive created one of the main incentives for global

agrofuel expansion. BP claim: "As a member of the European Petroleum Industry Association (Europa) we took a leadership position in developing an industry view on the EU biofuels directive, providing first-hand evidence about the practical implications of implementation, and contributing to the Biofuels Directive Review".¹⁴ BP is on the steering committee of the **Roundtable for Sustainable Biofuels (RSB)**, a stakeholder forum which has played a significant role in legitimising agrofuel expansion, without having put forward any credible mechanism for ensuring the sustainability of biofuels. The RSB is not concerned with questions around unsustainable demand.

In the **US**, BP has lobbied for an end to a US import tax on Brazilian ethanol. If either the US or the EU was to life tariffs on Brazilian ethanol, this would lead to massive further expansion of sugar cane plantations for export, at the expense of communities, ecosystems and the climate. In April 2009, BP wrote to the California Air Resources Board, shortly before a decision on the Californian Low-Carbon Fuel Standard, to call for their support for ending US ethanol tariffs.¹⁵

Furthermore, BP is a member of various roundtables which aim to 'certify' industrial monocultures, including for biofuels, as 'sustainable':

- + the Roundtable for Responsible Soya (RTRS), which has been rejected by a large number of civil society groups as an attempt to greenwash an inherently unsustainable industry;¹⁶
- + the Roundtable on Sustainable Palm Oil (RSPO), which has rejected by over 250 groups on similar grounds;¹⁷ BP state that they plan to source certified palm oil from Ghana (the first African country likely to introduce RSPO certification shortly), and from Asia.¹⁸
- + the Better Sugarcane Initiative (BSI) is another voluntary stakeholder initiative, one which has not developed any clear definition of what they mean by 'sustainable sugarcane'. They differ from the other roundtables in that only members who have paid \$25,000 get voting rights.¹⁹

BP's investment in 'next generation' agrofuel research

BP is a major investor in 'next generation' biofuels research. They invest in various start up and synthetic biology companies which are developing ways of 'engineering' new types of microbes or algae (or new metabolic pathways) which can metabolise the sugars in biomass and turn them into cellulosic ethanol, synthetic diesel or biofuels which are virtually identical with hydrocarbon fuels and can be used without engine modification, including in aviation. Synthetic biology developments are not regulated and there are serious concerns over potential environmental, health, economic and social impacts. For a more detailed discussion see www.etcgroup.org/en/issues/synthetic_biology.html. Furthermore, any breakthrough in turning wood into liquid biofuels would greatly increase the pressures on forests and on other ecosystems, which are already being converted to industrial tree plantations, primarily for the

¹³ Helena Paul, BP, Agrofuels, revolving doors and genetic engineering, August 2007, www.lobbywatch.org/archive2.asp?arcid=8188

¹⁴ www.bp.com/liveassets/bp_internet/globalbp/STAGING/global_assets/downloads/S/bp_sustainability_report_2.pdf

¹⁵ www.ogj.com/display_article/360486/7/ONART/none/Prong/1/BP-wants-end-to-US-import-tax-on-Brazilian-ethanol/

¹⁶ <http://lasojamata.iskra.net/en/node/373>

¹⁷ www.rainforest-rescue.org/news.php?id=1445 and www.biofuelwatch.org.uk/docs/17-11-2008-ENGLISH-RSPOInternational-Declaration.pdf

¹⁸ Nina Holland, Corporate Europe Observatory, Report from the International Biofuels Conference in Sao Paulo, April 2009, www.corporateeurope.org/agrofuels/content/2009/04/brazils-agrofuel-push-sao-paulo

¹⁹ Corporate Europe Observatory, Sugar Cane Ethanol: A Sweet Solution for Europe's Fuel Addiction, February 2009, www.corporateeurope.org/agrofuels/content/2009/02/sugar-cane-ethanol-not-so-sweet

pulp and paper industry. Finally, the development of aviation biofuels would, if successful, open up a very large new market for biofuels.

BP's investment in 'next generation' agrofuel research and development involves:

- + A partnership with Verenium to develop and commercialise cellulosic ethanol, to turn whole sugar cane plants and miscanthus into ethanol, with BP investing \$90 million. A second joint venture with Verenium, called Vercipia Biofuels, involves a cellulosic ethanol plant in Highlands Country, Florida which BP expects to commence commercial production in 2012 and to produce up to 36 million gallons a year.²⁰
- + A partnership with Chris Venter's company Synthetic Genomics, with BP as an equity investor. This was agreed in August 2007. The aim is to develop and commercialise the use of synthetic biology to convert biomass into biofuels which could be used in unconverted engines, including jet engines.²¹
- + A \$500 million agreement, signed in 2007, to set up an Energy Biosciences Institute, against protests from many students and some members of staff at UC Berkley, as well as an international petition against that deal.²² This deal involves research on genetically engineered plants and microbes to produce cellulosic ethanol. BP's Energy Biosciences Institute has links with the US biotech company Ceres, which has a partnership with Monsanto for developing switchgrass for cellulosic ethanol.
- + joint venture with Mendel Biotechnology, Inc. to develop cellulosic biofuels, which commenced in 2007. BP has acquired shares of Mendel and is on their Board. The aim is to accelerate a plant breeding programme for perennial grasses which have been genetically engineered specifically for ethanol production.²³
- + A \$200 million joint venture with DuPont, called Butamax, to build the world's first demonstration plant to produce biobutanol. The joint venture was agreed in 2006 and the refinery is expected to open in 2012/13 and to produce 20,000 litres a year. Biobutanol is a biofuel made from solid biomass which could be used for aviation. Commercialisation depends on genetically engineering bacteria (synthetic biology). BP expects sugar cane to be the main feedstock for their biobutanol production worldwide.²⁴
- + In August 2009, BP entered into a joint development agreement with Martek Biosciences Corporation to convert sugars into 'microbial biodiesel' through fermentation. BP has committed \$10 million to the initial phase.

²⁰ www.bp.com/sectiongenericarticle.do?categoryId=9030047&contentId=7055177

²¹ www.syntheticgenomics.com/media/bpfaq.html

²² www.thepetitionsite.com/1/international-petition-on-bps-500m-project-to-genetically-engineer-biofuels

²³ www.seedquest.com/News/releases/2007/june/19528.htm

²⁴ www.taz.de/nc/1/zukunft/wirtschaft/artikel/1/wir-sind-pioniere