

BIOFUEL

WHAT IS BIOFUEL?

First generation biofuel is any fuel made from the products of living things or their wastes. Examples of biomass are the residues of agricultural crops like oil palm, rape, corn, soybean, sugarcane, straw, timber, manure, rice husks, sewage, biodegradable waste and more recently switchgrass. Compared to fossil fuel, biofuels are renewable energy source that potentially do not emit net CO₂.

In recent years, "biofuel" largely refers to petrol and diesel substitutes made from crops. Ethanol, an alcohol, is usually mixed with petrol, while biodiesel is either used on its own or blended with diesel. At present, commercial ethanol is made through the fermentation of corn and sugarcane while biodiesel is primarily made through a variety of chemical processes from vegetable oils and to a lesser extent, recycled edible oils.

Driven by the agenda to reduce dependency on fossil fuels and greenhouse gas emissions, the United States, European Union and, more recently, other countries are implementing biofuel policies that require a minimum volume of biofuels to be blended with fossil fuels.

BIOFUEL POLICIES IN KEY REGIONS

EU25

5.75% by 2010 but proposed revision to 5% by 2015 (of which 4% from agricultural biofuels and 1% from 2nd generation and other renewables).
10% by 2020 (Mandatory, proposed by EU commission in January 2008. Proposed review in 2014).

US

9 billion gallons by 2008, rising to 36 billion by 2022 (M). Of the 36 billion gallons, 21 billion to be from advanced biofuels (of which 16 billion from cellulosic biofuels).

Brazil

Mandatory blend of 20–25% anhydrous ethanol with petrol; minimum blending of 3% biodiesel to diesel by July 2008 and 5% (B5) by end of 2010.

Canada

5% renewable content in petrol by 2010 and 2% renewable content in diesel fuel by 2012.

Japan

500 000 kilolitres, as converted to crude oil, by 2010 (V).

China

15% of transport energy needs through use of biofuels by 2020.

Indonesia

2009: Transport sector - mandatory blend of 1% percent palm-based biodiesel while industry and power plants must use a blend of 2.5% and 0.25% respectively. By 2010, the palm biodiesel content will be increased to between 2.5 percent and 3 percent for transportation, 5 percent for industry, and 1 percent for power plants.

Malaysia

Producing a bio-diesel fuel blend of 5% processed palm oil with 95% petroleum diesel and the use of biofuel among the public.

Sources: *The State of Food and Agriculture. Biofuels: Prospects, risks and opportunities.* (FAO, 2008)

http://www.mpoc.org.my/biofuel_151008_01.asp

http://www.mpoc.org.my/news_archive_readnews.asp?url_NewsID=200810141743



CURRENT BIOFUEL DEBATE

There is concern that the growing demand of palm oil for biodiesel could lead to rapid and ill-managed expansion of palm oil production and result in serious environmental and social consequences. The problem however is not peculiar to palm oil and could in fact be aggravated should the demand for biodiesel be largely met by lower yielding oil crops such as rapeseed and soybean, which require more land than oil palm to produce the same quantity of oil.

Food versus Fuel

There is concern that the competing uses of vegetable oils for food and fuel could drive up agricultural commodity prices and encourage farmers to replace their lower earning food crops with biofuel crops, which could eventually lead to higher food prices and food shortages for the poor. Biofuel crops also compete with food crops for land and water.

Deforestation and land conflicts

In Southeast Asia, the conversion of forests into oil palm plantations could threaten the rich biodiversity in these ecosystems.

New oil palm plantations have also given rise to social conflicts with local communities forcibly displaced from their land without consent or compensation.

These problems are also common in other regions where other oil crops are used as feedstock for biofuel.

How green is biofuel?

When a biofuel is burnt, the carbon dioxide released is offset by the amount of the gas absorbed by the biofuel plants during their growing season. In principle, biofuels are carbon neutral (i.e. do not add any carbon to the atmosphere nor abstract from it and so, do not contribute to global warming).

However, some environmentalists argue that the production, transport and processing of biofuel consumes just as much fossil fuel as the biofuel replaces. They also fear that the clearing of forests and drainage of peat for planting the biofuel crop would lead to a net increase in carbon dioxide emissions, rather than the decrease that biofuels are supposed to deliver.

Contact us

RSPO Secretariat
Suite A-06-04, Plaza Mont Kiara
2, Jalan Kiara
50480 Kuala Lumpur
Malaysia
Tel: +603-6203 5969
Fax: +603-6203 5869
Email: rspo@rspo.org

RSPO Indonesia Liaison Office
Suite 217
Wisma Metropolitan II, 6th Floor
Jalan Jendral Sudirman Kav. 29
Jakarta 12920
Indonesia
Tel: +62 21 3004 8080
Fax: +62 21 3004 8081
Email: desi@rspo.org

RSPO'S POSITION ON BIOFUEL

In response to the aforementioned issues, the EU is developing standards for sustainable production of biofuel. There is a risk the EU will not favour palm oil for biodiesel or remove tax support for palm biodiesel until palm oil meets the minimum sustainability criteria.

This underscores the criticality of RSPO's Principles and Criteria in addressing the legal, economic, environmental and social requirements of producing sustainable palm oil.

RSPO believes that the use of RSPO certified palm oil should provide clear greenhouse gas benefits after considering the entire life cycle of the raw material, i.e. the emissions related to producing the oil.

RSPO also recognises that for palm oil produced on peat additional criteria may have to be developed to address the greenhouse gas balance factor.

While it is outside the scope of RSPO to determine the allocation of palm oil for food, fuel and other uses since palm oil trades on an open market, RSPO's Principles and Criteria where implemented will give biofuel producers and consumers the confidence that the RSPO certified palm oil they are buying has been produced sustainably and responsibly.

RSPO's position on biofuels is available at www.rspo.org.