## Biofuels do not solve but only worsen climate change

The volume of fossil fuels burnt by the "oil" civilization in one year contains an amount of organic matter equivalent to four centuries of plants and animals.

"We must break our addiction to oil" President George W. Bush said in his State of the Union address, but he wasn't advising people to use less oil. Instead, he launched the "Advanced Energy Initiative," that would increase the federal budget by 22 percent for research into "clean" fuel technologies, including biofuels such as ethanol and biodiesel obtained from conventional agricultural crops (such as soy and maize) or other oil-seeds (particularly oil palm), sugar cane or other cereals.

Faced by the problem of global warming caused by the enormous carbon emissions, the governments of the industrialized countries do not consider reducing demand but are trying to fix things on the supply side. Substitution of oil by biomass implies the occupation of vast tracts of land with monoculture plantations.

The European Union hopes that by the end of 2007, 2% of the use of fuel it now uses will come from biodiesel, rising to 6% by 2010 and 20% by 2020. However it is very unlikely that it will devote its land to this type of crops: the cost of biofuel is considerably lower if the energy crops are produced in other countries, and not only due to cost. As pointed out by the British journalist George Monbiot: "In order to move our cars and buses with biodiesel, we would require 25.9 million hectares. There are 5.7 million hectares in the United Kingdom. If this were to happen all over Europe, the consequences on food supply would be catastrophic: enough to tip the scales from being excess producers to becoming net losers. If, as some environmentalists claim, this were to be done on a world scale, most of the arable surface of the planet would have to be given over to producing food for cars, not for people. This outlook would seem, at a first glance, to be ridiculous. If the demand for food could not be covered, wouldn't the market ensure that crops be used to feed people instead of cars? Nothing is sure about this. The market responds to money, not to needs."

Thus the following stage of colonization has started and the industrialized world is aiming at the countries of the Third World, where companies can appropriate vast tracts of land, find cheap labour and neglect the serious negative environmental impacts involved in the establishment of large monoculture plantations, from which biofuels will be refined at the expense of forests and lands suitable for food growing.

Thus the soy bean plantations in Argentina are displacing, little by little, the quebracho forests in the Chaco, while in Paraguay they are replacing the Pantanal, the Mata Atlantica and the Chaco, and in Brazil, the Pantanal, the Mata Atlantica, the Cerrado and the Caatinga. Between 1990 and 2002, the planted area of oil palm on a world level increased by 43 percent. Most of this growth took place in Indonesia and Malaysia. Between 1985 and 2000, oil palm plantations have been responsible for 87 percent of the deforestation in Malaysia and there are plans to occupy another 6 million hectares of forest. In Sumatra and Borneo, some 4 million hectares of forests have been evicted from their lands and Indonesian workers suffer from the rigorous working conditions and brutal trade unions repression

(see WRM bulletin No. 109). The forest fires that so often cover the region with smoke are mainly caused by palm tree growers (see WRM bulletin No. 97). The whole region is becoming a gigantic vegetable oil field. In Uganda the destruction of tropical forests and indigenous forest lands has begun in order to produce palm oil and sugar, and since the forests of the Bwendero peninsula were felled, the Ssese Islands are being destroyed by strong winds and low salaries (see WRM bulletin N<sup>o</sup> 109).

The argument about the "goodness" of biofuels is that they do not contribute to carbon emissions; burning them simply returns to the atmosphere the carbon dioxide the plants took out when they were growing in the field, so they would be "carbon neutral." However this is only true depending on what was there before the plantation was established. Burning and slashing forests to give way to plantations of oil palm releases enormous carbon reserves. In marshy forests, where there is peat, once the trees are cut the plantations dry out the soil. When the peat dries, it oxidizes and releases even more carbon dioxide than the trees.

Furthermore, research carried out by David Pimentel, a professor at Cornell University New York and Tad Patzek, a professor of chemical engineering at University of California Berkeley, reveal that with current processing methods more fossil energy is used to produce the energy equivalent in biofuel. Even when research includes in its calculations the energy necessary to build processing plants, farm machinery and labour – usually not included in this type of analysis – it has not included the cost of waste treatment or the environmental impact of intensive bio-energy crops, such as the loss of soils and environmental pollution due to the use of fertilizers or pesticides. All this demolishes the neutrality of biofuel regarding carbon emissions.

Biofuels do not set out to change the present model of unsustainable energy production aimed at unsustainable consumption, and would do no more that add new problems to humanity. But their worst sin is that they are disguised as a solution.

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