To the attention of: European ministers for Environment, Energy and Development
European Commissioners for Environment, Energy and Development
Members of the European Parliament of selected committees
The EU Presidency

Re: **The EU Directives on Renewable Energy and on Fuel Quality.**

February 21th 2008

Dear Madam/Sir,

We are writing with regard to the EU Directives on Renewable Energy and Fuel Quality and in particular to the mandatory target set for blending biofuels in transport fuel and for supposed CO2 emissions reduction by biofuels. Alerted by a growing body of (scientific) evidence, we are deeply concerned with the negative sustainability impacts of biofuels, and the incoherence with stated EU policies on climate change, biodiversity and food security. We urgently call for suspending the mandatory blending target of 10% biofuels under the Renewables Directive.
The Fuel Quality Directive aims for a 10 percent reduction of greenhouse gas emissions. We support fully this aim, but feel that, for the time being, this target should be met predominantly by measures taken in the oil industry's practice of conventional production of fossil fuel. Current biofuels are not at all sustainable and hardly deliver greenhouse gas savings (if at all). They should therefore be suspended from the FQD until mandatory sustainability criteria for biofuels and a proper tool to compare the complete well-to-wheel CO2 emissions of any kind of fuel are in place. Only those biofuels should be allowed that have a proven substantial positive greenhouse gas performance and a safeguard guaranteeing the sustainable (i.e. without negative side-effects on natural areas and food security) production of biomass.

Whilst several years ago large-scale biofuel production was identified as one strategy of tackling climate change, recent evidence strongly suggests that the reduction potential of greenhouse gas emissions of some of these fuels is small and in some circumstances even negative. Moreover, it has also become clear that large scale biofuel production has negative side effects in both the social and environmental arenas. Examples of these include accelerated forest/habitat destruction, the undermining and even flagrant violation of land and water rights, and a range of negative effects at the macro level such as competition with food and water. Other strategies, such as higher energy efficiency of vehicles, speed restrictions and the promotion of public transport, are not associated with such negative effects and have shown their contributions to emissions reductions in the transport sector.

Clearly, these developments show the need for a review and reconsideration of current EU strategies. This was also underlined by the Joint Research Committee a few weeks ago, when it commented that "it cannot be stated with any certainty that the EU biofuel target of 10% will have an impact on the total emissions of greenhouse gases". Similarly, the UK House of Commons committee on Environmental Audit criticised the EU strategies as '"reckless", given their failure to prevent the accelerated destruction of tropical forests[1].
Furthermore, the OECD, the World Bank and the FAO have all issued reports stating that the demand for biofuels will create problems with food prices and will increase the pressure on arable lands. Most recently, two US research reports concluded that biofuel production leads to an increase rather than a decrease in CO2 emissions.[2]
Given the increased concern about the implications of the EU mandatory targets, at home and abroad, we urgently call for a thorough impact assessment that would need to, at least, provide answers to the following questions:

- What proportion of the 10% CO2 target contained in the Fuel Quality Directive will be delivered by the fossil chain (flaring, refineries)?
- What volume of biofuels in car fuel would be necessary to complement the performance of the fossil chain; 5%, 10%, 15% or even 20%?

[1] See: http://www.publications.parliament.uk/pa/cm200708/cmselect/cmenvaud/76/7602.htm
[2] See: http://www.sciencemag.org/sciencexpress/recent.dtl

- What is the total land area required to produce the expected volumes of biofuels?
- What is the real and tested average greenhouse gas performance of biofuels? The underlying data for the suggested performances in the EU Directives (typical and default) are from the EU-JRC/CONCAWE/EUCAR study (2007) and are fundamentally flawed by ignoring both the losses of soil organic matter as well as the macro-level effects through substitution of food by fuel. Some biofuels like rapeseed diesel perform even worse than diesel from fossil oil (see Annex with an example of a calculation giving a 2,7 times higher CO2-emission for rapeseed biodiesel than for fossil diesel, a calculation based on EU-data
- What will the huge expansion of hectares for biofuel crop production bring about in terms of expelling local communities from their land in Latin-America, Asia and Africa, pushing them further into forests and nature conservation areas?
- What are the effects on food security as a result of the steep incline of commodity and food prices and the future effects of even higher prices (the FAO agro commodity price index for instance rose 40% in 1 year)? We refer also to the considerations given by UN Special Rapporteur on the Right to Food, Jean Ziegler in his report of August (2007)[3],

Such an impact assessment would need to provide clear answers in order to review current EU strategies and ensure policy coherence (CO2 emissions, food prices, land rights, protected areas and workers rights). In the meantime, we call for a suspension of the mandatory blending target of 10% biofuels under the Renewables Directive. Allowing biofuels to count for the FQD CO2 targets should be suspended until a substantial positive CO2 balance can be guaranteed and mandatory sustainability criteria for the production of biomass are in place.

Kind Regards,

Anne van Schaik

MILIEU DEFENSIE

Mirjam de Rijk

Natuur en Milieu

Ytha Kempkes

National Committee of The Netherlands

IUCN

The World Conservation Union

Tobias Schmitz

Both ENDS

Environment and Development Service

Bob van Dillen

Cordaid

Henk Gilhuis

icco

www.icco.nl

Bram Verkerke

Solidaridad

Nina Holland

CEO

CORPORATE EUROPE OBSERVATORY

[3] United Nations, "The right to food: note by the Secretary-General; Report of the Special Rapporteur on the right to food", 22 august 2007, Sixty-second session of the UN General Assembly, document A/62/289

GHG-performance of car fuels
(Calculations based on EU-JRC/CONCAWE/EUCAR study 2007).

Diesel from rapeseed compared to diesel from fossil sources.

Topic	Kg. CO2-eq./hectare crop (rapeseed)	Kg. CO2-eq/ ton bio diesel	Kg. CO2-eq./ GJ Gr. CO2-eq./MJ EU Directive (proposal 23/1/08)	Kg. CO2-eq./ GJ Gr. CO2-eq./MJ Soil organic matter counted	Kg. CO2-eq./ GJ Gr. CO2-eq./MJ Indirect land use change counted
TTW	-	-			-
WTT-chain/energy	845 (*)	750 (**)	20,2 (***)	20,2	20,2
WTT-N2O industry	411 (****)	365	9,8	9,8	9,8
WTT-N2O farm level	916 (*****)	813	21,9	21,9	21,9
WTT-land management	3080 (V*)	2735		73,5	
WTT-land use change	varies	varies			
WTT-indirect land use change, above-ground		6900 (V**)			185,4
WTT-indirect land use change, under ground	10.000+ (V***)				++
WTT-processing and distribution		-176	-4,75 (V****)	-4,75	-4,75
WTW			**47,2**	**121**	**233+** (VV*)

(*) Based on "WELL-TO-WHEELS" analysis of EU JRC/ CONCAWE/ EUCAR (March 2007), WTT Appendix 1, 9 Farming Processes, including all GHG emissions of Rapeseed Farming like diesel-use and energy for N-fertilizer-production but exclusive the N2O contribution.

(**) Production of rapeseed oil is 1,126 ton/hectare (EU/ CONCAWE).

(***) Heat value for rapeseed diesel (RME) is 37,2 GJ/Ton (EU/ CONCAWE).

(****) Emission in nitrogen-fixation factory of N2O is 1% (9,6 gram of N2O per kg of Nitrogen produced), EU/ CONCAWE, 2007. Rapeseed average N-fertilizer use is 145 kg/ha.

(*****) EU/CONCAWE (2007) used the database-calculation model LUCAS to calculate the EU-average N2O-emission for every crop. For Rapeseed this average N2O-emissionfrom the field is 3,12 kg N2O per hectare (2,6 kg for soil emissions and 0,42 kg from leached N). This 3,12 kg is 2,1% of the emission from N-fertiliser in the field since EU/CONCAWE takes an use of 145 kg N/hectare as an EU-average. Recent scientific progress (P.J.Crutzen et al. Atmos. Chem. Phys. Discuss. 7: 11191-11205, 2007; *"N2O release from agro-bio fuel production negates global warming reduction by replacing fossil fuels"*) indicates that the total N2O-emission on the fields is in thee range of 3-5%. The EU/CONCAWE data seem to be a low estimate.

(V*) Current practices of (arable) land management create a net emission of CO2 to the air. Soil organic matter is depleted by not returning crop residues to the field and not applying enough organic matter sources like manure. An average number of 0,84 ton C loss per hectare. year is given (L.M.Vleeshouwers et al. Global Change Biology 8:519-530, 2002: *"Carbon emission and sequestration by agricultural land use: a model study for Europe")*. Vleeshouwers'study is mentioned in JRC/CONCAWE/EUCAR-study but not used on this point in GHG-calculations for the EU-Directive by DG-TREN! Similar conclusions have been drawn for the USA (S.A.Khan et al. J. Environ. Qual. 36:1821-1832, 2007: " *The myth of nitrogen fertilization for soil sequestration")* pointing to the role of high N-fertilizer use as a reason for carbon depletion;

(V**) The 1,126 ton rapeseed oil will be replaced by another oil, one of the cheapest ones being palm oil. Given the harvest of 3-4 ton of palm oil per hectare, about 0,3 hectare of new palm oil plantation and tropical forest cutting is needed (for palm oil it is assumed that for additional supply of palm oil 100% forest will be cut). Tropical forest cutting release above-ground 190 tonnes of C/hectare (R.Righelato et al. Science, 317: 902 , 2007*:"Carbon mitigation by biofuels or by saving and restoring forest?".* Spread over a period of 20 years (IPCC way of calculating) this means 23.000 kg CO2/hectare.year.

(V***) For under-ground biomass depletion of 0,3 hectare of tropical forest soil no clear data are available. The indicated amount of CO2-loss per hectare is a very low figure since most palm oil trees are grow on peat soil which might add another 20-30.000 tonnes of CO2 emission per year! In the calculations this CO2-loss is not calculated for now which means a large underestimation of the real picture.

(V****) Processing requires drying, transport, FAME manufacturing, distribution, but also gives credits to the by-product rapeseed. Here the by-product glycerine is credited for use as a chemical. If the by-product was used as animal feed the credits would be lower, and the WTT-processing outcome not -4,75 but + 0,50 g CO2-eq./MJ (JRC/ CONCAWE).
(VV) EU/CONCAWE gives a GHG performance of fossil diesel of 83.8 g CO2-eq/MJ. The Heat value for diesel is 43,1 GJ/ton.

(VV*) The GHG performance of rapeseed diesel is worse than fossil diesel if the loss of soil organic matter is counted. If the indirect land use change is calculated rapeseed diesel is at least 2,8 times worse than fossil diesel. EU Commission (DG TREN) takes a GHG performance of rapeseed diesel of 47 g CO2-eq/MJ (typical) and 53 (default) and so concludes to savings of 44% resp. 36%.