

## 1. 1 - 1.3 Feasibility of Possible Way Forward:

### General guideline:

Biofuels are not in general 'good' or 'bad'; or 'better' or 'worse' than other measures to tackle the problem of climate change or fuels shortages. It depends on the specific circumstances.

A biofuel sustainability system can be feasible, but the following criteria are necessary:

### Specific guidelines for our position:

- As the merit of biofuels is dependent on many factors regarding their production, there should be no general mandatory target for the use of biofuels only (like proposed now by the EU).  
A target for the reduction of the problem itself, greenhouse gas emissions is more appropriate.
- The EU should use an emission figure for the use of biofuels, other than zero. This should reflect that the use of biofuels is not at all without emissions.
- Import restrictions on biofuel products with the most negative external effects are desirable, as it is for other products.
- Biofuels should not get the predicate of green energy as long as no effective and reliable certification schemes with good criteria to proof sustainability exist. Unless certified as sustainable, all palm oil should be excluded from supportive measures (such as subsidies, targets).
- Within the certification scheme no distinction should be made whether products such as palm oil or soja are being used for biofuel or for other purposes (such as food or animal feed). For product uses that do not receive any support; this predicate is informative.
- Environmental sustainability criteria (see below)
- Exclude biofuels from areas were indigenous rights or other local land and social rights are violated.
- Forest management operations shall maintain or enhance the long-term social and economic well being of forest workers and local communities.
- A 'track and trace' certification scheme<sup>1</sup> is the most desirable, as it clearly excludes biofuels with negative sides. 'Mass balance'<sup>2</sup> and especially 'book and claim'<sup>3</sup> are less appropriate systems. These two systems will mostly just have an administrative impact. Book and claim works only when almost the entire market adopts these criteria.

## Environmental sustainability criteria

Crucial elements for the environmental sustainability criteria that need to be met in order to justify governmental supportive measures are to:

- Only support biofuels that have a carbon balance that emits at least 50% less greenhouse gasses compared to fossil fuels. The reason to demand a substantial cleaner production is that the negative aspects as changing land use should be compensated.
- Exclude biofuel production in recently cleared high conservation value areas or from areas were the production has a direct negative impact on high conservation value areas. Also include the impact on surrounding high value surrounding areas.

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<sup>1</sup> The labeled products are for 100% produced according to the criteria. Example: fair trade products.

<sup>2</sup> Only part of the labeled product is guaranteed to be produced according to the criteria, example FSC.

<sup>3</sup> No guarantee at all that the labeled products that you receive are produced according to the criteria. All products are mixed at the markets. By purchasing labeled products, you only support that a bigger share is produced according to the criteria. Example: green energy.

- **Exclude all production on areas with large subsoil carbon stocks (like peatlands) that need drainage. This should be a specifically mentioned criterion in policies next to the criterion dealing with the carbon balance. A carbon balance criterion will insufficiently deal with:**
  - **the almost irreversible destruction of peatlands**
  - **the emissions that continue after the end of the plantations and**
  - **the impact on surrounding peat areas**
- The purchase of biofuel from **existing plantations** on large subsoil carbon stocks (like peatlands) should be accompanied by restoration costs. For existing peatlands counts that the carbon dioxide emissions continue, also after the biofuel production has stopped. Without measures to restore the drainage canals, drainage will continue associated by oxidation and annual peatland fires. The degradation of these areas can only be stopped by restoration.

### **1.6 Exceptional biodiversity (in criterion 3)**

This criterion should not be about exceptional biodiversity, but about High Value Biodiversity which focuses on the importance of biodiversity, not necessarily on numbers.

## **2. Monitoring**

The sector itself is responsible for proof; independent monitoring.

## **3. Second-generation Biofuels**

The 'polluter pays principle' should be the leading principle, both for fossil and biofuels. If second generation biofuels are cleaner than other fuels, they will be automatically cheaper under this principle. No subsidies for biofuels with many negative sides. The second generation biofuels are not by definition 'good'.

## **4. Further Action**

The 'polluter pays principle' should be the leading principle, both for fossil and biofuels. No subsidies for biofuels with many negative sides. This will make clean biofuels relatively attractive.

## **Background information:**

Hooijer, A., Silvius, M., Wösten, H. and page, S. 2006. PEAT-CO<sub>2</sub>, Assessment of CO<sub>2</sub> emissions from drained peatlands in SE Asia. Delft Hydraulics report Q3943 (2006).

## **Summary PEAT-CO<sub>2</sub>**

**Forested tropical peatlands in SE Asia store at least 42,000 Megatonnes of soil carbon (twice the total yearly annual emissions). This carbon is increasingly released to the atmosphere due to drainage and fires associated with plantation development and logging. Emissions from South-east Asian peatlands count now already for 8% of the global emissions.**

One important crop in drained peatlands is palm oil, which is increasingly used as a biofuel in Europe. Especially the drainage for this crop is intense and leads to emissions between 70 a 100 tonne carbon dioxide a year for each hectare.

In the PEAT-CO<sub>2</sub> project, present and future emissions from drained peatlands were quantified using the latest data on peat extent and depth, present and projected land use and water management practice, decomposition rates and fire emissions.

Out of 27 million hectares of South-east Asian peatland, 12 million hectares (45%) are currently deforested and mostly drained. Peatlands are drained to enable forestry. After deforestation, drainage is in many areas intensified to establish large scale plantations (oil palm, acacia wood, etcetera). Especially the emissions from these plantations are very high, up to a hundred tonne CO<sub>2</sub> per hectare a year, compared to only a few tonnes from recently logged areas. Natural peatlands do not release any carbon dioxide.

It was found that current likely CO<sub>2</sub> emissions of drained peatlands caused by decomposition only, amounts to 632 Mt/y (between 355 and 874 Mt/y). This emission will increase in coming decades unless land management practices and peatland development plans are changed, and will continue well beyond the 21st century. In addition, over 1997-2006 an estimated average of 1400 Mt/y in CO<sub>2</sub> emissions was caused by peatland fires that are also associated with drainage and degradation. The current total peatland CO<sub>2</sub> emission of 2000 Mt/y equals almost 8% of global emissions from fossil fuel burning. These emissions have been rapidly increasing since 1985 and will further increase unless action is taken. Over 90% of this emission originates from Indonesia, which puts the country in 3rd place (after the USA and China) in the global CO<sub>2</sub> emission ranking.

It is concluded that deforested and drained peatlands in SE Asia are a globally significant source of CO<sub>2</sub> emissions and a major obstacle to meeting the aim of stabilizing greenhouse gas emissions, as expressed by the international community. It is therefore recommended that international action is taken to help SE Asian countries, especially Indonesia, to better conserve their peat resources through forest conservation and through water management improvements aiming to restore high water tables.