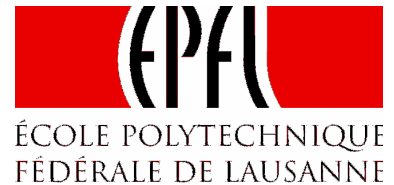


Roundtable on Sustainable Biofuels

An initiative of the EPFL Energy Center



8th Virtual Meeting of the Working Group on Environment, 7th May 2008

Principle and Criteria on Soils and Air - Minutes

1. Background and Goals of this Teleconference

As the deadline of our first release of the draft Principles and Criteria is approaching fast (June 2008), the Working Group needed to progress on the issues related to soils and air. The **Expert Panel on Soils** has worked on this chapter since February and the background document received by all the Working Group ENV members prior to the conference was the synthesis of its intense and fascinating discussions.

The question of **air pollution** (GHG are not included as they are covered in another chapter) was not likely to necessitate much debate at first sight, given that the other standards were including short sections on this chapter. Unlike for other topics (conservation, soil, etc...), the Secretariat could not identify potential Experts on Air to be part of a panel through the answers provided by participants to the questionnaire and with the limited time at hand, it was initially decided to directly develop the Principle and Criteria on Air with the whole Working Group.

2. News

- **Regional outreach in India:** 12-13th June 2008, in collaboration with the UN Environment Programme and the Indian Institute of Technology Delhi. Suggestions of participants from the subcontinent are welcome!
- The recent meetings of the **Steering Board and Implementation Working Group** provided interesting feedbacks, which will tentatively be integrated into the Principle and Criteria. Remarks were mainly made regarding the possible problems auditors might face while assessing the degree of compliance with criteria. The minutes from these two meetings will be available shortly.

3. Discussion on Principle on Soils

- Several participants consider **“appropriate”** a vague term, difficult from an auditor perspective. Some participants suggest replacing by **“best practices”** but the Working Group already considered **“best”** controversial and not the most appropriate language. The Working Group agrees on the proposition: **“Soil management practices shall be implemented to improve soil health.”**
- The Working Group agrees that **any agricultural practices will have an effect on soil** and change it, but degradation is not unavoidable and it does not seem too unrealistic to aim for a continuous improvement of soil health. The Expert Panel on Soil reached a strong consensus on the idea that soil could always tend to reach a locally optimal level of health, even while large scale agriculture would be going on.

- Some participants consider there is a **contradiction between the 2 sentences** of the principle (firstly, not degrading soils; secondly, improving soil health). The second sentence should maybe include “maintain or improve” soil health. Not degrading is one thing, improving health is another one. Some participants do not see the contradiction between these two statements.

Suggestion: As principles can remain aspirational, the word ‘**seek**’ could be introduced to soften the contradiction, although, as ‘appropriate’, it is not an auditable parameter (but audits will be performed against criteria).

- One participant considers that the whole set of Principle and Criteria on Soil is really from an **“on-farm” perspective**, whereas we need to make sure that the on-farm activities do not indirectly spill over ecosystem services. Soil loss and erosion should appear more clearly in the aspirational goal as well, although it is already part of the physical health parameters and management practices. It seems that the formulation of physical health criterion leaves the impression that there is nothing requesting that “soil stays where it is”.

Suggestion: So far, soil erosion was considered being captured under criterion 8c (physical health – by physical, the soil structure was considered as a whole, not from a molecular or particulate perspective) and 8f (preservation of soil services including regulation of erosion). However, if the group agrees that more focus should be put on erosion, this should be highlighted in various ways, including possibly having a separate criterion dedicated to soil erosion.

4. Discussion on Criteria on Soils

The participants did not express any strong disagreement with the content of the table and, except for the lack of emphasis on erosion, which will be taken into account, no major points were considered missing in the proposition formulated by the Expert Panel on Soils.

Remarks received from participants prior to the conference

- *Are the impacts happening over downstream production (processing) be considered “indirect effects”?*

Answer: By ‘indirect’ we mean ‘completely nothing to do with on-farm practices’. So, we would call downstream impacts a ‘direct’ impact too, like air pollution is always direct, even though it blows off-factory. Indirect really means macroeconomic (displacement, food price impacts). **This aspect will be emphasised in the list of definitions.**

- *What is ‘unnecessary burning’ (8b)? Is it in contradiction with 10d (air criterion of “no burning”)?*

Answer: in 10d, it is stated that some unavoidable burning might occur, under some conditions (trade-off with workers safety or employment). Anything else would be considered unnecessary, but if the Working Group is to decide that NO burning at all must be the rule, the criterion 8d will be adapted accordingly.

- *Are the FAO guidelines sufficient to restrict the use of hazardous pesticides? How about refereeing to World Health Organization Type IA and IB and chlorinated hydrocarbon pesticides; pesticides that are persistent, toxic or whose derivatives remain biologically active and accumulate in the food chain beyond their intended use; as well as any pesticides banned by international agreement like the FSC?*

Answer: the FAO guidelines on pesticides are indeed comprehensive but quite complex. The RSB will thoroughly study the possibility to refer to this, the sources mentioned by the FSC, the Rotterdam Convention, and others...in order to select the best option. An Expert Group might be set to deal with this aspect later on. The good practices will be consequently modified.

- *Are worker safety issues surrounding the use of chemicals included?*

Answer: SOC criteria on worker rights will include a ref. to chemical use & safety.

Discussion held during the teleconference:

- *Is Criterion 8f redundant with the other criteria, given that direct and indirect GHG emissions are addressed in the GHG emissions principle and other soil services are captured in criteria 8b-8e?*

- Some participants mention that **soil erosion is not connected to services**, but rather to soil mismanagement. Practices regulate soil erosion, not soil itself. More generally, the criterion is rather about management, i.e. how we overcome and mitigate the negative impact of biofuel and mismanagement. Services are benefits related to the functions and processes so criteria are not the good place to mention them.

- Although it is true that if criteria are fulfilled, soil services should be fine, it is important to have **a reminder that soil provides services beyond biomass**. Appropriate practices shall be implemented to improve soil health, we cannot compartmentalise to on-farm effects only.

- The **distinction between direct and indirect effects is still nebulous**. Removing 8f may make us lose offsite impacts.

Answer from Secretariat: ‘Indirect effects’ mean something farm has nothing to do with, e.g. displacing another type of culture, which would have – for several possible reasons- negative impacts on soil. Even erosion happening off-farm, but directly due to biofuel production is considered a DIRECT effect.

Suggestion: Replace the first sentence by “Ecosystem services affecting soils”, including nutrient uptake, etc... + an additional sentence “Soil management needs to be approached from a landscape scale”, so that it takes beyond the individual farm and looks at ecosystem services in a broader sense. The downside of that is that might take us away from the direct issues with soil and looking at other ecosystem services that affect soils.

Another suggestion is to expand soil/ecosystem services at the principle level as they are linked to soil functions.

- *How shall organic matter be protected, given the potential use of organic waste as second-generation feedstock?*

- One participant explained that the term ‘waste’ here (in the question) is not appropriate and soil is not a dumping ground, better use ‘by-products’. In the criterion itself, ‘residual products’ is used. 8g is rather focused on processing wastes, which mainly concerns biomass processing units, factories, etc... Ideally, the approximate amount of residues needed by type of crop would be a precious safeguard. The Secretariat will look for a standard on that, if any.

The Working Group supports the idea of prioritizing the use of agricultural residues and by-products as amendments.

- Pests, weeds, invasive species and herbicide management. Is it all well covered as it is now? Would it be the best place to emphasize this aspect? E.g, the RSPO standard:

Criterion	Indicators and Guidance	Guidance for National Interpretation
Criterion 4.5 Pests, diseases, weeds and invasive introduced species are effectively managed using appropriate Integrated Pest Management (IPM) techniques.	<p>Indicators:</p> <ul style="list-style-type: none"> • Monitoring of pesticide toxicity units (a.i. x LD 50 / tonne of FFB). • Monitoring extent of IPM implementation / total ha. • A programme to monitor pests and diseases must be in place. <p>Due to problems in the accuracy of measurement, monitoring of pesticide toxicity is not applicable to smallholders.</p> <p>Guidance:</p> <p>Growers should apply recognised IPM techniques, incorporating cultural, biological, mechanical or physical methods to minimize use of chemicals.</p> <p>Native species should be used in biological control wherever possible.</p>	National interpretation should provide further guidance on what practices are most appropriate for a particular country, and where needed, on practices which are appropriate to smallholders.

Answer from the Secretariat: Invasive species are already covered under the Conservation Principle but is it sufficient to prevent damages on soil specific species? E.g. exotic earthworm species have overcome the native species and create a lot of problems on forest in the North of the USA.

So far, IPM is only mentioned in the good practices. Shall we bring IPM into the criteria on soil, or even more generally? **The guidance of the Expert Panel on Soil will be requested on this aspect and the decision will be made by the Working Group during the 9th Virtual Meeting.**

- 8a should specifically request a ‘continuous’ monitoring so that it is not interpreted as a need for initial assessment and nothing else afterward.

5. Discussion on Principle and Criteria on Air

- The Secretariat wants to remind that GHGs are already covered under a specific principle, so the principle and criteria on air are referring to local source of immediate pollution other than greenhouse effect.

- A principle aiming at **zero pollution might be too aspirational**, as all activities have an effect on air; some participants suggest rewording into “should not increase air pollution” and “should take credible continual measures to reduce air pollution wherever possible”.

- We must be more specific regarding **burning**, because, in order to minimise their GHG balance, many biofuels producers may perform cogeneration (electricity and heat) through burning or boiling of agricultural by-products. This is something we might want to encourage, whereas it should be specified that **only “open air” burning would need to be minimised. This suggestion will be proposed for validation during the 9th Virtual Meeting.**

- *Criterion 10b: Why is the compliance with national law only mentioned for air and not for soil. Shouldn't it be included somewhere else?*

Suggestion from Secretariat: as a separate principle deals with the compliance with law, the criterion 10b should be removed. Specific points on air, soil, water etc...should be added under the principle and criteria on compliance with the existing laws.

- *Is compliance with **national laws** sufficient? What if international requirements are stricter (e.g. WHO norms vs. national norms)?*

Several participants already supported the idea to use international references in order to overcome possibly weak national regulations and raise the bar but meanwhile, it might be difficult for producers from countries that have not ratified international conventions. Furthermore, local laws are also more strongly enforced in several cases.

- *10c. The '**optimal level**' mentioned in several criteria, including air quality, will request country specific indicators. Is the 'optimal air quality' a workable concept regarding evaluation?*

- **Secretariat:** taking the example of burning of forests in Indonesia or Malaysia, this is causing considerable damages in neighbour countries (e.g. plane landing more difficult). This is hence an international issue but there is no international legislation to prevent it. Air pollution is hence a more complicated issue than originally expected.

- *What would be the **technical constraints** for evaluating air pollution?*

One participant suggests requesting guidance from the US EPA or the California Air Resource Board. If we assume that the process will go through a local adaptation, it could be stated in the criterion that "critical air pollution issues (e.g. sugarcane burning in Brasil or peat soils in East Asia) within a specific region are explicitly identified and managed in a proactive way". Some participants will enquire among some of their contacts at the CARB, whether some expertise could be provided to the Working Group on that.

- *10a. The assessment of sources is requested but we should also mention potential improvement measures (environmental management system).*

Suggestion: add a criterion on this aspect.

We could aim at reduced Air pollution over some baseline, with the aim of continuously improve the quality of air. There may be ways of reducing air pollution, even without totally eliminating it.

The principle and criteria on air need some more work and discussion. Further contributions through emails are very much welcome on this aspect.

Based on the suggestions provided by the Working Group on Environment and the Expert Panel, the Secretariat will shortly send an updated version of the Principles and Criteria on Soils and Air, to be validated over the 9th Virtual Meeting (End of May), along with the forthcoming P&C on water.

THANKS TO ALL THE PARTICIPANTS FOR THEIR CONTRIBUTION!
