

Biomass Sustainability Standards – a Credible Tool for Avoiding Negative Impacts from Large-scale Bioenergy?

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EU biofuel policy has resulted in deforestation, land-grabbing and increased carbon emissions; now serious negative impacts of biomass production in and for the EU are also increasingly being documented. In the southern US, ancient wetland forests are being clearcut to produce pellets for European power stations. In Maranhão, Brazil, biodiverse Cerrado forests has been bulldozed and traditional communities have been deprived of their land for eucalyptus plantations which are associated with a wood pellet supply contract with a UK biomass company. Few without vested interests would argue that biomass sourced this way is climate friendly and should be supported by the EU or Member States. Biomass Sustainability Standards, possibly as part of a broader Biomass Sustainability Framework, have been proposed to prevent wood linked to forest destruction and land-grabs being burnt in Europe. There are, however, serious questions as to whether such an approach would be effective.

1. Standards cannot address the unsustainable scale of the demand for wood

Europe's existing demand for wood, including for paper, is already unsustainable and constitutes a significant underlying cause of deforestation and forest degradation within the EU and worldwide. Europe is currently a significant net importer of wood pulp, industrial roundwood and wood chips. Such imports are directly linked to destructive logging and clearcutting, including of tropical forests and also to plantation expansion, taking place at the expense of forests, grasslands and of Indigenous Peoples, small farmers, pastoralists and other communities. Given that it has so far proven impossible to ensure that Europe's existing demand for wood is met sustainably, it would seem very dangerous to propose that it can now be increased sustainably.

Biomass electricity has by far the largest land footprint per unit of energy of any type of energy except transport biofuels. According to a study by Robert I McDonald et al, generating 1 TWh of electricity from biomass in North America requires 543.4 km², while generating the same from wind requires just 72.1 km² and generating it from solar thermal a mere 15.3 km². This means that the land-use impact of biomass electricity is many times greater than that for other types of energy classed as renewable. The proportion of energy that could be generated from burning wood residues and waste rather than whole trees is extremely limited. Figures compiled by Tim Searchinger, based on US Forest Service figures from published in 2010, show that using 100% of US logging residues for bioenergy would provide a mere 1.1% of US primary energy supply. Furthermore, a large percentage of such residues is already used elsewhere and burning it would push up overall wood demand. Bioenergy's extremely high footprint in terms of land use, water use, soil depletion and energy inputs cannot be significantly reduced because it stems from the basic fact that photosynthesis recycles rather than generates energy.

2. Standards cannot address the indirect impacts of biomass production and demand

There are no credible proposals for addressing the indirect impacts of biomass through standards. NGOs have been trying unsuccessfully for many years to convince the EU to address certain indirect impacts of biofuel production (ILUC) through changes to carbon accounting methodologies. Even if this was politically feasible – which it has proven not to be – it is not clear how such an approach could work for biomass. No relevant scientific studies have been published and no scientist has proposed any methodology for accounting for such impacts. Biomass markets are very different from biofuel ones:

They rely almost exclusively on logging of forests and of conventional timber plantations not specifically established for bioenergy. Dedicated plantations for biomass play a relatively minor role and there are no signs of this changing any time soon. Developing and putting forward the equivalent of a biofuels-ILUC-proposal for biomass would take years, and might well be seriously flawed. We cannot afford to wait for this because in the meantime forest destruction for biomass will continue to escalate.

3. Standards will not be enforceable

Most of the focus in the debate about biofuel and possible biomass standards has been on the criteria. But regardless of how comprehensive and strict standards might appear on paper, they are worth little if there is no effective mechanism for enforcing and monitoring them and holding companies to account. Scandals such as those over horse meat in the British food chain or illegal and harmful breast implants happened even though regulations exist which make food adulteration with unauthorised horse meat or industrial silicone implants illegal. They happened because such regulations have not been properly enforced and companies could get away with breaching them. For biofuels or biomass, regulatory enforcement mechanisms, let alone criminal sanctions, are not even on the agenda. Companies can meet EU biofuel standards by paying a consultancy firm of their choice to write a report which states that standards have been met. The UK plans to introduce biomass standards this April. It is expected that those UK biomass standards will require nothing of US or Canadian pellet suppliers other than to insist that they must provide a letter from the 'forest owner' saying that the wood is "sustainably sourced". Without any prospects of a regulatory mechanism being created (and properly funded) by the EU, discussions as to what exactly criteria should be saying are effectively meaningless.

4. An EU biomass sustainability framework would not be politically feasible given the European Commission's and many Member States' trade liberalisation policies. Stopping State Aid for biomass is far more realistic.

Previous experience with the debate about biofuel standards shows that even if the European Commission and Member States could be persuaded to introduce biomass sustainability and greenhouse gas standards at all, they will be determined to keep them to an absolute and ineffective minimum, not least because they are in the middle of negotiating major new 'free trade' agreements. One of these is with Canada, and the other is the Trans-Atlantic Trade and Investment Partnership (TTIP) with the US. Furthermore, they will not risk any potential WTO complaint against them. Potential WTO complaints have been cited against possible social standards for biofuels. Any genuine and enforced regulations regarding biomass or biofuel sourcing will be unacceptable to policy makers unwilling to risk a WTO complaint and keen on expanding trade liberalisation agreements. Ending State Aid supports for industrial biomass would be far more straightforward and would involve no risk of a WTO or possible future TTIP suit. It would also be in line with the Convention on Biological Diversity's unanimously agreed position on phasing out subsidies harmful to biodiversity, as confirmed in the Aichi Biodiversity Targets.

What about support for small-scale, local biomass production and use?

There may well be scope for sustainable small-scale local biomass use. Such positive projects might for example involve traditional coppicing or plantation clearance to allow for natural forest regeneration. Those are practices which can benefit biodiversity and rural communities in Europe alike. However, supporting such local approaches does not require demand-side subsidies, nor does it require bioenergy to be included in renewable energy definitions and policies. On the contrary, renewable energy subsidies for biomass favour economies of scale and can thus undermine sustainable local biomass projects.