**Committee on World Food Security: High Level Panel of Experts on Food Security and Nutrition draft report: Biofuels and Food Security**

**Comments from Biofuelwatch, EcoNexus and Global Forest Coalition**

The 2011 Report on “Price volatility and food security” by the HLPE on Food Security and Nutrition[[1]](#footnote-2) provided well-researched and high-quality evidence about the role of biofuels in recent food price rises and price volatility.

We had therefore anticipated that the draft report “Biofuels and Food Security” by the HLPE on Food Security and Nutrition would build on and further develop the evidence collated for the 2011 report. Instead, we have been deeply disappointed by the low quality of evidence and inaccuracies contained within this draft report. While some paragraphs and statements are based on convincing evidence, so many are not that we believe the report needs to be sent back to be substantially re-written before being put out to public consultation again. Below are examples of some of the serious flaws we have found in the report followed by key concerns about the draft recommendations.

The report opens with a paragraph that summarizes some of the *in principle* reasons why biofuels could never meet more than a fraction of current energy demand without causing very large-scale negative impacts. In the executive summary it is stated: “one can assume that bioenergy cannot provide a significant source of the world’s total energy”. Yet these facts have not informed the rest of the report or the draft recommendations with any consistency.

Many of the recommendations contradict or undermine the conclusions of other sections of the report. Several of them are extremely weak or have taken no account of the experience of biofuels and simply repeat hopes that policy reforms can address deep-seated inequalities of power and access in the short term. However, we do not believe that strengthening or adjusting them alone would be the answer. Credible recommendations must be based on a convincing strong evidence base and this has not been consistently provided by the report. This is why we believe the entire report, not just the recommendations, requires rewriting.

The report seeks to cover broad issues such as biofuels role in rural development in such a cursory manner that they operate simply as misleading assertions that biofuels can work in the future if certain changes are made. This has been a regular feature of biofuels discussions to date, contributing to biofuel policy lock-in. We refer in particular to paragraph 4.2.4. The Importance of Production Typologies for Identification of Policy Options and recommendation 8, which should be removed.

Perhaps most crucially, we believe that the recommendations and conclusions of the report should be restricted to liquid biofuels and that claims such as those made in paragraphs 5.4 must be omitted entirely. Below are two further examples that illustrate why we believe that the brief discussion and conclusions in and based on paragraph 5.4 should have no place in an evidence-based report by the HLPE.

The report misrepresents current EU biofuels policy

Chapter 1.5 of the report, “Land-Use Change provokes Changes in EU targets and Influences US Policy”, implies that there has been a change in EU biofuels targets, following a new directive “issued by the EU” in October 2012. It discusses potentially major changes to global biofuels investment which the authors believe likely to follow from this alleged EU decision. Draft recommendation 1 also claims that a “recent EU Directive” has moved towards “controlling the growth of biofuels markets”.

This is factually wrong. What happened in October 2012 is that the European Commission, in October 2012 published a proposal for a new directive which, if approved and enacted, would make some changes to the Renewable Energy Directive and Fuel Quality Directive in relation to biofuels.[[2]](#footnote-3) This proposal has not even been considered by the European Parliament or the European Council and any policy decision could be at least another year away. Furthermore, even if the published proposal was adopted unchanged –which is highly unlikely – the policy implications would not be nearly as far-reaching as the authors of this draft report appear to believe. Not only is the 10% renewable energy for transport target retained in the Renewable Energy Directive (with National Renewable Energy Action Plans showing that member states anticipate over 90% of this to be met from biofuels), but all first-generation biofuels would still count fully towards the 6% greenhouse gas reduction mandate established by the Fuel Quality Directive (about equal to a 10% energy content biofuels target).

Such a major misunderstanding of EU policy itself puts the reliability and accuracy of the report into question yet, as the examples below show, this is by no means the only significant flaw in the report.

Separately, we note that the optimistic conclusions about this supposed ‘policy change’ are contradicted by observations elsewhere in the report that non-food biofuels are just as problematic in terms of land use and competition with food and that crops are increasingly being used ‘flexibly’ for different purposes. To distinguish between food and non-food crops for biofuel policy is not helpful as the authors of the report point out elsewhere, for example in draft recommendation 9.

The report also misrepresents current US biofuels policy

The credibility of the report is further undermined by the fact that it misrepresents not just current EU but also current US biofuels policy. The report contains several references to US blenders’ tax credit for ethanol that they claim remains in place. The authors must have been unaware that this tax credit, which had amounted to an annual $6 billion subsidy for US corn ethanol, expired at the end of 2011. Unlike the US tax credit for biodiesel, it has not been reinstated.

A controversial conclusion about the role of subsidies in US biofuels market is based on very limited and selective literature citations.

The draft recommendations state: “*Our Report concludes, however that in the context of persistent high oil prices, biofuels from maize in the US and from sugar-cane in Brazil can be, for different reasons, market competitive.”* In other words, the report suggests that especially US ethanol no longer depends on an artificial market, i.e. on subsidies (with mandatory blending identified as a subsidy). The market-competitiveness of biofuels, and especially US corn ethanol (whose impacts on global cereal prices are particularly well-established) would not justify the continuation of US biofuels subsidies, and the authors do not suggest that it does. However, it would justify the authors’ conclusion that “*in this situation, we must advance beyond the discussion of mandates and subsidies to include mechanisms for controlling the growth of biofuels markets*”. The draft recommendation is largely based on a lengthy discussion in Annex 3, which points to the significance of this ‘finding’: “*A disturbing implication of the link established between the energy and agricultural commodity markets is that the advocated elimination or reduction on the size of the support to biofuel production by development and civil society organizations may not have as large an impact in reducing commodity prices as they might hope*.”

This controversial conclusion is based on very few citations and primarily relies on a single paper published by the International Centre for Trade and Sustainable Development, written by Bruce Babcock.[[3]](#footnote-4) This is the only report cited which focuses on analyzing the effect of US biofuel subsidies, including the blending mandate, on the economic viability and profitability of corn ethanol and on grain prices. Babcock concluded that the effect of corn ethanol subsidies on grain prices has been modest compared to the effects of market-driven corn ethanol expansion on corn and other commodity as well as food prices. He also concluded that corn ethanol expansion would have happened regardless of subsidies, though it may have happened slightly more slowly. Babcock’s methodology relies on modeling price developments and decision-making according to short-term fluctuations in prices and profit margins. Babcock assumed that corn ethanol expansion ahead of the regularly increasing blending mandate (Renewable Fuel Standard or RFS) had to be drive by market factors rather than by that mandate. Yet other researchers, using different methodologies and assumptions, have come to quite different conclusions in relation to the RFS mandate.

For example a 2012 paper by Colin Carter, Gordon Rausser and Aaron Smith[[4]](#footnote-5) concludes that, in the absence of the RFS ethanol mandate, corn prices would have been 30% lower between 2006 and 2011 and that they would have been 40% lower in 2012. This paper argues that ethanol production and price developments, including the refinery construction boom from 2006-09 cannot be explained without looking at inventory dynamics, i.e. at producers ramping up production in anticipation of the RFS mandate increasing. The authors point out that a USDA 10-year projection in 2007 accurately predicted ethanol developments over the next three years when it took account of producers preparing for the mandate to be increased. In 2006, the USDA projection had ignored such a response and underestimated ethanol production considerably.

This is a very different approach and conclusion from that chosen by the authors of this draft report. We are seriously concerned that a far-reaching conclusion about the role of artificial markets in boosting global biofuel production and demand has been reached without a critical and comprehensive discussion of the literature and instead relies primarily on single source.

“Bioenergy for Development” – More conclusions reached without relevant evidence

In recommendation 11, the report speaks of the need to move beyond considering biofuels to bioenergy generally, but it does so in the context of ‘developing countries with vast hinterlands’ where, it claims, the mobilization of biomass for bioenergy policies for energy could be positive. This recommendation is based largely on the discussion “Biofuels and Bioenergy for Development” in paragraph 5.4.of the report.

# We believe that there is a serious need to discuss the effects not just of biofuels but of the cumulative impacts of growing bioenergy demands including on food, land rights, biodiversity and fresh water. Such a discussion would need to look, for example, at the likely effects of EU and North American policies to stimulate the demand for wood pellets and woodchips for power stations. For example, a 2012 EU Parliamentary Report, Impact of EU Bioenergy Policy on Developing Countries[[5]](#footnote-6) warns that EU member states subsidies for biomass threaten to increase land conflicts in regions such as Central and West Africa from which biomass is expected to be sourced in future, as well as serious long-term impacts on food security. The cumulative impacts of different types of bioenergy demands and markets would thus clearly merit a separate report.

# We are seriously concerned, however, to see the report include a perfunctory discussion of the potential ‘benefits’ of bioenergy in rural areas in developing countries, based on little or no evidence. This has not been put in the context of the growing EU and North American demand for biomass for power stations. Developed countries are competing for the same resources that would be required for bioenergy expansion in developing countries in the international trade arena and this demand is shaping policy everywhere. Experience with biofuels shows that declared policy objectives of improving energy access in developing countries are easily pushed aside by investors and often policy makers in favour of supplying fast-growing, lucrative and guaranteed Northern markets. Biomass expansion threatens to repeat this experience.

# As we noted above, given that virtually all of the evidence considered in this report relates to liquid biofuels, we believe that recommendations and conclusions should be restricted to those and that claims such as those made in paragraph 5.4 must be omitted entirely. Here are two further examples that illustrate why we believe that the brief discussion and conclusions in and based on paragraph 5.4 should have no place in an evidence-based report by the HLPE.

# + Paragraph 5.4 states: “*Alongside these large-scale investments, NGOs, private foundations and cooperation programs have been promoting a wider conception of biomass use within the framework of sustainable development, local, rural and urban. Initiatives such as COMPETE, Probec, Re-impact have focused on the multiple uses of biomass for electricity and power generation, for alternative sources of heating and cooking and also for local transport (German et al, 2010, UNDESA, 2007. Maltitz & Stafford, 2010). Many of these projects are specifically geared to the needs of rural communities “off the grid”, which may be quite small now in some regions, such as Latin America, but are often a majority phenomenon in Africa and Asia.*”

# The citations suggest that those three sources have looked at the impacts of the three initiatives listed above and found them to have positive effects. This, however, is not the case. All three sources relate to liquid biofuels only. One (Maltitz & Stafford 2010) includes no case studies. Another (German et al 2010) looks at six case studies of biofuel projects involving industrial plantations and outgrowers and notes some highly negative effects for example of an outgrower biofuel scheme in Zambia which led to 22% higher deforestation. Its most ‘positive’ observations related to jatropha which had been planted with high expectations and promises but which has since been shown to have been a virtually universal failure. The third source (UNDESA 2007), now very outdated, lists a series of biofuel project intentions, without any follow-up and also exhibits strong faith in the potential of jatropha which, as this HLPE draft agrees elsewhere, was misplaced. None of them mention any of the three initiatives listed in the paragraph above and thus no actual evidence of such projects meeting the needs of rural off-grid communities has been provided.

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# + “*Of particular significance are adaptable technologies for cooking, heating and water management. These address themselves to the central issues of health and the subordinate position of women. New cooking technologies have the wider significance of applying equally to the urban population, a large proportion of whom continue to rely on wood and charcoal for cooking, (Slaski & Thuber, 2009, Rai & McDonald, 2009; WHO, 2006;* [*www.worldbanck.org/hnp)*](http://www.worldbanck.org/hnp))*.”*

# The serious impact of energy poverty and reliance on polluting and inefficient forms of biomass cooking are beyond dispute. Yet demonstrating the need for better energy choices is not the same as demonstrating that ‘solutions’ such as supposedly clean and efficient biomass stoves actually work. Studies now show that various stoves promoted as offering the benefits referred to in the HLPE draft report are not meeting such expectations and that modern stoves ‘expected’ to improve women’s health may not actually do so[[6]](#footnote-7). Similarly disappointing evidence has been compiled in relation to small-scale biomass gasification which has been widely promoted to meet the very bioenergy policy objectives for developing countries supported in this draft report. According to a report commissioned by the German government: “*In general, the small-scale power-gasifier technology proved to be unreliable and expensive. Even the few cases where the gasifier plants performed quite well over a prolonged period experienced many technical problems during the first one or two years*”[[7]](#footnote-8).

# These examples show how dangerous policy recommendations about bioenergy which are based on general principles but not on evidence can be and why they must be omitted from this report.

Contradictions between different observations and recommendations/conclusions in the report:

The report summarises some of the *in principle* concerns why biofuels could never meet more than a tiny fraction of current energy demand without causing very large-scale negative impacts. For example, the opening paragraph states: “*If 10% of all transport fuels, to date, were to be achieved through biofuels, this would absorb 26% of all crop production. At present, if we would use the totality of the world´s crops to produce biofuels, it would represent at most only 13% of the world´s primary energy, which, if inefficiencies in appropriation were included, would realistically be closer to 9%, and which in 2050 would only correspond to 4-6% world’s energy. This would further mobilize 85% of the world´s fresh water resources.*” Elsewhere in the Executive Summary, it explains: “*The fundamental problem lies in the relative inefficiency of biomass for energy as plants are unlikely to transform more than 0.5% of solar energy into biomass energy, with a the final fuel energy yield down to only 0.1-0.2%. When food, feed, energy and carbon storage demands have to be considered jointly, given the orders of magnitude at stake, one can assume that bioenergy cannot provide a significant source of the world’s total energy*.” (We note here that on page 2 a 3% figure is cited for photosynthetic efficiency, contrary to the above cited quote and contrary to what is commonly accepted – another example of inaccuracies in the report.)

Yet these facts appear not to have informed the rest of the report and the draft recommendations with any consistency. Given the low energy density and very large land and water requirements of biofuels identified, why do the authors suggest that they can nonetheless play a significant role in ‘sustainable development’ with the right policy framework? Why do they support the development of biofuels standards and frameworks aimed at a supposedly ‘sustainable’ expansion of biofuels worldwide? Those claims appear to repeat old assumptions that date from the very early days of biofuel promotion and which have helped to keep policy locked in to the pro-biofuel path.

Poor and partially flawed evidence citations in relation to second-generation, algal and jatropha biofuels

Chapter 2.3 looks at biomass-to-liquids biofuels/biorefineries, jatropha and algal biofuel. For example, authors merely say that biorefineries “demand major advances in conversion techniques and feedstock processing” without identifying what the hurdles are and why nobody (despite billions of dollars in investments and high levels of public subsidies) appears to have been able to achieve a positive energy balance from biomass-to-liquids fuels. The role of synthetic biology/genetic engineering in second generation biofuel research and development and the implications of this have not been acknowledged in any way. Not one literature source is cited in relation to second generation biofuel conversion.

Similarly, the paragraph on algae contains only scant information about the problems and concerns associated with it and cites not a single of the studies investigating those, such as a study that shows that the water-footprint and energy-footprint of algal biofuels with current technology would be even worse than that of any existing biofuels.[[8]](#footnote-9)

In relation to jatropha, the authors acknowledge that it has been ‘so far a failure’ but nonetheless claim that “*jatropha had the agronomic advantages initially identified*”, attributing the failure to economic requirements for high yields. Yet there is comprehensive evidence that such a statement – i.e. one that widely-made claims about agronomic advantages of jatropha were correct – is untenable. A 2009 report published by the World Agroforestry Centre[[9]](#footnote-10), for example found: “The basic agronomy of growing Jatropha as a plantation crop, instead of as a minor component of an agroforestry scheme, is not well understood or documented.” It adds to other evidence that claimed ‘agronomic advantages’ such as supposed resilience to pests and diseases, low water requirements and resilience have so far been non-existent. Jatropha has been shown to be vulnerable to pests and diseases, susceptible to large-scale crop failures when grown in monocultures and requiring more water than most other biofuel crops.[[10]](#footnote-11)

**Comments on draft recommendations:**

The draft recommendations are based on the wider discussions in the report which, as we have shown above, are in parts based on an insufficient, selectively cited and at times clearly inaccurate evidence base. This is why we believe the report itself needs to be re-thought and re-written, not simply the draft recommendations.

Nonetheless we would like to comment on some of those draft recommendations, and especially the contradictions between some of these recommendations.

Recommendation 1: This states that there is “*enough evidence to call in question the use of mandates/targets together with subsidies and tariffs where these artificially stimulate biofuels production*” but also says: “*We must advance beyond the discussion of mandates and subsidies to include mechanisms for controlling the growth of biofuels markets*”. We have shown above that this is largely derived from the authors’ conclusion that the US corn ethanol market no longer depends on subsidies (including the Renewable Fuel Standard mandate) and that that conclusion is based on very limited and selectively cited evidence. The conclusion thus appears highly premature. On the other hand, the report cites no evidence to support the continued existence of biofuel mandates/targets and subsidies, particularly in North America and Europe. We thus cannot understand why the authors do not call outright for such incentives to be abolished – after all, the fact that a particular biofuels mandate or subsidy might not actually be effective in ‘artificially stimulating biofuels production’ is not a reason to retain it.

We thus believe that the report should call for an end to mandates and all other subsidies and incentives, which work singly and together to provide a secure environment to encourage continuing investment in biofuels. Indeed, ideally the report could go further and set broader parameters for a vital debate by calling for measures to stop land-grabbing and genuinely address the serious challenges we face regarding food, biodiversity, water, soils and climate, with over-consumption of energy, agricultural goods and wood in the global North being a main cause of those crises.

Recommendation 2: “The principle of prior, informed consent and full participation of all concerned in land investment deals must be effectively implemented as preconditions for any land deals.” Firstly, the vital word ‘free’ is missing, and as far as Indigenous Peoples are affected this would be in contradiction with the UN Declaration on the Rights of Indigenous Peoples. Secondly general support for the principle of Free, Prior and Informed Consent, which has proven to be very challenging to implement in practice, is not sufficient for addressing the fact that rights to millions of hectares of land in developing countries are being transferred to companies seeking to grow biofuel feedstocks, usually for Northern markets. Those land grabs are happening in a context of huge asymmetries of power and of many governments being complicit in handing over land. Trying to set conditions for biofuel land grabs avoids the question whether such transactions can ever be justified (in view, for example of the *in principle* problems with biofuels highlighted in the Executive Summary). It thus delays action and thus perpetuates the unjust and harmful process of land grabbing.

Recommendation 3: This calls for land concessions being conditional on an evaluation of the impacts of land use on water resources. Please see our concerns expressed above about conditions for biofuel land transactions. We would also point out that especially for jatropha many reports promising low impact on water resources were published and used to justify jatropha concessions, yet jatropha has since been shown to require even more water than many other biofuel feedstocks. This illustrates how difficult it is to base such evaluations on actual evidence instead of assumptions, especially when relatively new crops or even technologies are promoted (e.g. in the context of second generation biofuels like genetically engineered trees).

Recommendation 4: “*Policies must ensure that women participate fully in land negotiations and that their land ownership rights are recognized*.” See our comments above. Furthermore, women are far less likely to have formal land titles in the first place and there are other major and deep-seated social, cultural and political barriers to women being able to participate fully in such negotiations. This call is thus inadequate for addressing women’s special vulnerability to land-grabs. To address the unequal rights of women requires societal changes that cannot be brought about with a rapid policy fix. The proposed recommendation thus does not credibly address the issues.

Recommendation 5: “*Adhesion to the broadly-owned RAI principles, envisaged in the CFS consultation process, and to the voluntary guidelines should be established as a precondition for participating in land deals involving biofuels production plans*.” Again, please see our general comments above. Furthermore, the CFS-RAI process has only just begun and no agreement has been reached, which means that there are as yet no CFS-RAI principles to be endorsed. The voluntary guidelines on land tenure are weak in relation to markets, investments and redistributive reform (i.e. chapter 4 of the Guidelines).

Recommendation 6: This supports mandatory biofuel certification based on multi-stakeholder, participative and transparent certification schemes. This recommendation is based on Section 5.3 of the report which we believe to be a very cursory and deeply flawed discussion. A certification scheme could at most address the quality of a certain product, it cannot never address the quantity. By definition, certification schemes are unable to address indirect land use change impacts, impacts on food prices, or other problems related to the quantity rather than the quality of biofuel production. Nor do the authors examine in how far voluntary certification ‘principles’ are being or can be enforced, especially in the many countries that have shown they lack the capacity to monitor the implementation of, and enforce legally binding and non-legally binding standards. By defining EU biofuel certification as a regulatory instrument, they ignore the fact that the verification procedure of these certification schemes relies entirely on market transactions between two private companies – in this case a company purchasing biofuels paying a consultancy company for a biofuel ‘sustainability’ certificate. There is no regulatory oversight or independent auditing of such certificates, i.e. there are no independent checks by public authorities as to whether principles and criteria set out in these certification schemes have indeed been met. The authors warn in this respect that: “*A further limitation of certification schemes is the difficulty (cost, logistics) of ensuring enforcement*.” In reality, neither the EU biofuels criteria nor any of the other certification schemes which have been or are being developed, such as the Roundtable on Sustainable Biofuels foresee any enforcement. The fact that the authors’ concern is limited to costs and logistics indicates to us a lack of awareness of the complete absence of independent enforcement and verification by regulatory authorities of these, often very controversial, private sector-driven schemes.

Recommendation 7: This supports certification of broader commodity markets. Please see our concerns under Recommendation 6. No evidence has been provided to show that sustainability certification schemes have ever succeeded in preventing or even reducing any of the serious negative impacts of different types of monoculture plantations, nor that this approach can work in future. Nor are we aware that any such evidence exists. To call to increase the reach of certification schemes to cover broader commodity markets when there is no evidence that such schemes have tackled or are even able to tackle any of the problems associated with the expansion of biofuels and monoculture plantations in general appears misguided. Overall, we are deeply concerned that calls for different or ‘better’ certification’ have long delayed any action to tackle the demand for biofuels and especially the targets, subsidies and other incentives. Given the scale of the evidence of the harm caused by biofuel policies already, no further delay through expanding ‘certification’ must be allowed.

Recommendation 8: “*We have suggested in our Report that the elaboration of typologies of countries’ situations based on land availability, population density and per capita income can provide a preliminary orientation on the advisability of developing a biofuels policy and the type of policies which would be most appropriate*.” This relates to 4.2.4 of the report. As we have pointed out above, this recommendation appears based on the assumption that shifting biofuel policies in a way that “*gives priority to rural development goals, to the objectives of energy security and is premised on strategies for sustainable land use*” can make the promotion of biofuels desirable. This completely contradicts the observations on the fundamental problems with biofuels for example in the Executive Summary. Furthermore, we cannot see how such national policies could be effectively implemented in the context of the current existing global trade and market in biofuels.

Recommendation 9: “*Non-food-competing crops for biofuels should, therefore, be assessed with the same rigor with respect to their direct and indirect food security impact as food-competing feedstocks, since they also compete for land, water, labor, capital and other food-related inputs and investments.*” The observation that the impacts of biofuels from non-food crops will be no less severe than those of biofuels from food crops is correct and essential (it also applies to tree plantations for biomass electricity). What is needed, however, is not simply better ‘assessment’ but urgent and effective policy changes based on that observation. The report fails to make a concrete recommendation in this respect. Instead it fully contradicts these conclusions with recommendation 11.

Recommendation 10: This cautions against reliance on second-generation biofuels and calls for ‘alternative policy measures’, such as improvements in fuel efficiency. This demand is essential and we believe needs to go further to include significant overall reductions in energy use and other consumption, particularly in industrialised countries.

Recommendation 11:”On the other hand, the wealth of biofuels case-studies reviewed in our Report shows the importance of shifting from a narrow biofuels to a more comprehensive bioenergy policy approach. In developing countries with vast hinterlands, the mobilization of biomass for different forms of bioenergy can be the most effective development strategy to provide electricity and alternative power for cooking, water management, and local productive facilities in addition to transport fuel.” As we have shown above, the report provides no evidence whatsoever to back up this recommendation. Rather, under recommendation 9 and 10 it reaches opposite conclusions about broadening the scope biofuel policies. A report which only cites evidence about biofuels should not be making recommendations about supposedly ‘positive’ other types of bioenergy.

Important areas not covered by the report:

We would recommend that a new draft report should look at additional issues such as:

+ Repeating patterns of biofuel policy developments: It would seem important to investigate in how far policies supporting biofuel expansion have been kept in place due to corporate and other economic interests, once negative impacts of first generation biofuels became widely acknowledged, for example through yet to be substantiated promises of next generation biofuels and how ‘policy lock in’ is being entrenched as more countries adopt biofuel mandates.

+ The report suggests that in land investment deals, customary rights are generally exchanged for leases which then, instead of reverting to communities, may become state land. This would appear to merit further investigation and evidence.

+ The report mentions that “*although the IFC considers that involuntary resettlement should be avoided, it recognizes that it may be unavoidable…”.*

There is a growing tendency to use assertions about major challenges e.g. the asserted ‘need to feed 9 billion people in the context of rapid climate change’ and the thus implied need to make agriculture “more intensive, efficient and smart” as a justification to further undermine and destroy ‘inefficient’ small scale farming, community rights to land, food and water. The report could usefully critique this.

Conclusion:

***For the reasons set out above, we believe that there are such serious concerns over inaccuracies, contradictory conclusions, and key conclusions being based on scant and selectively cited evidence if any in the report that it requires to be entirely re-written prior to a new public consultation.***

1. <http://www.fao.org/fileadmin/user_upload/hlpe/hlpe_documents/HLPE-price-volatility-and-food-security-report-July-2011.pdf> [↑](#footnote-ref-2)
2. <http://ec.europa.eu/clima/policies/transport/fuel/docs/com_2012_595_en.pdf> [↑](#footnote-ref-3)
3. The impact of US biofuel policy on agricultural price levels and volatility, Bruce A. Babcock, ICTSD Issue Paper 35, June 2011, <http://ictsd.org/downloads/2011/12/the-impact-of-us-biofuel-policies-on-agricultural-price-levels-and-volatility.pdf> [↑](#footnote-ref-4)
4. The Effect of the US Mandate on Corn Prices, Colin Carter et al, September 2012, <http://agecon.ucdavis.edu/people/faculty/aaron-smith/docs//Carter_Rausser_Smith_Ethanol_Paper_Sep18.pdf> [↑](#footnote-ref-5)
5. Impact of EU Bioenergy Policy on Developing Countries, EU Parliament, Directorate-General for External Policies, 2012, <http://www.ecologic.eu/files/attachments/Publications/2012/2610_21_bioenergy_lot_21.pdf> [↑](#footnote-ref-6)
6. Up in Smoke: The influence of household behaviour on the long-run impact of improved cooking stoves, Rema Hanna et al, NBER Working Paper, 18033, May 2012, <http://ideas.repec.org/p/ess/wpaper/id4962.html> and Real-Time Assessment of Black Carbon Pollution in Indian Households Due to Traditional and Improved Biomass Cookstoves, Abhishek Kar et al, Environmental Science and Technology, February 2012, <http://pubs.acs.org/doi/abs/10.1021/es203388g> [↑](#footnote-ref-7)
7. Small-scale electricity from biomass, Part I: Biomass Gasification, GTZ and HERA, Aujgust 2010, <http://www.gvepinternational.org/sites/default/files/resources/gtz2010-en-small-scale-electricity-generation-from-biomass-part-i.pdf> [↑](#footnote-ref-8)
8. # Environmental Life Cycle Comparison of Algae to Other Bioenergy Feedstocks, Andres Clarens et al, Environmental Science and Technology, January 2010

   [↑](#footnote-ref-9)
9. Jatropha Reality Check: A field assessment of the agronomic and economic viability

   of Jatropha and other oilseed crops in Kenya, World Agroforestry Centre, 2009, http://www.worldagroforestry.org/downloads/publications/PDFs/B16599.PDF [↑](#footnote-ref-10)
10. See for example The Water Footprint of Bioenergy, W. Gerbens-Leenes et al, Proc Natl Acad Sci U S A, June 2009 [↑](#footnote-ref-11)