IN BRIEF

Overview
The biofuels policy of industrialized nations was already being criticised by both NGOs and scientists during the global food price crisis of 2008. The excessive biofuels targets had substantially contributed to agricultural goods becoming scarce, and with it to an explosion in food prices. Within a very short time, the number of people going hungry has risen from under 850 million to more than 1 billion people. Welthungerhilfe was already calling for a moratorium on biofuel blends at that time. The massive crop failures of 2012 now threaten a similar scenario. In view of the precarious global food situation, we must put an immediate stop to the expansion of all biofuels (including bioethanol and biodiesel). What’s more, we must reevaluate energy strategies based on biomass imports with consideration for their ecological and social sustainability, and formulate appropriate bioenergy goals.

A biofuels boom triggered by policy
Biofuels are only a very small portion of the global fuel mix: In 2010 they made up merely four percent of fuel use worldwide. What is impressive is their rapid ascent: With a mere 17 billion liters produced in 2000, there were more than 100 billion liters in 2010. This development cannot be explained by enthusiastic consumer demand, as with mobile phones, for example, but is the result of a politically motivated development: Fuel additive quotas and subsidies have kick-started a market that should make it possible to fulfill guidelines for the use of renewable energies.

Biofuels are always competing with food
The production of crops for energy use is just as dependent on the availability water and soil as food production. This creates an unavoidable “food vs. fuel” competition in both cultivation and the use of agricultural products. Even when biofuels are extracted from inedible plants, their production is still competing for the key resources of soil and water. Within the context of food security, then, it does not matter whether clean-energy crops, food crops, or so-called flex crops (agricultural products such as soybeans, sugar cane, and oil palms, where the decision to use them as food or as energy...
sources is not made until they are processed) are used in manufacturing fuel; the pressure on resources and agricultural production is maintained either way. The production of 100 liters of bioethanol requires 230 kg of corn. This means that filling two tanks with pure bioethanol is equivalent to the calories that one person needs in a year.

**Only imports can keep things going**

It is true that the promotion of the use of biofuels has created new income possibilities for farmers in the EU. Another positive development is that the tide of subsidized agricultural overproduction has been stemmed. It is this very overproduction that made it possible to dump food exports into developing countries in recent decades, with the result that the small farmers there could not compete. If the EU were in the position to use its own agriculture to fulfill the biofuel goals it set for itself – obviously without substantially decreasing the domestic capacity to supply food and animal feed – it would serve an important function for highly efficient agriculture. But the additive quotas are already much too high.

Domestic production cannot cover the current German additive quota of 6.25 percent biofuels. The German Advisory Council on the Environment (SRU) estimated in 2007 that doing so would require almost all of the land potential in Germany. What is left is to import agricultural fuels and their source products from developing and threshold countries. In 2010, the EU already was using imports to meet 27% of its bioethanol needs and nearly 18% of its biodiesel needs. At present, 8.2% of the world’s grain harvest is already being used for bioethanol production – and the trend is increasing. The competition between food security and fuel supply is no longer in dispute.

**Increasing demand makes scarce agricultural goods too expensive**

The ambitious biofuels goals are not the only things contributing to the scarcity of agricultural goods. Combined with the declining harvests brought on by climate change, increasing population growth and the increasing demand for meat and dairy products, we are experiencing a competition for land and usage, with grain for food on the one hand and grain for feedstocks and energy production on the other. The pressure on agricultural production is immense. At the same time, the possibilities for increasing production are becoming more limited because of a lack of land and scarce available water. In addition, the agrofuels policy has coupled the prices of crops used for fuel to the price of oil – and thus the prices of staple foodstuffs as well. The result: Food prices are shooting up at a rate that is too fast for poor urban consumers, as well as for small farmers in developing countries. This latter group has been calling for reasonable prices for their harvested crops for decades. But now the prices have risen so high that the small farmers’ connection to the market has become impossible. Necessary investments in cultivation methods and marketing structures cannot keep pace with the meteoric price increases. Most small farmers rely on additional food purchases, but despite the rise in prices they cannot obtain any higher yields.

Rosegrant (2008) has noted that the demand for biofuels already caused grain prices to rise by 30% between 2000 and 2007. How strong an effect a price increase of this type can have on developing countries is clear from an analysis by the Asian Development Bank (2011): A 10% rise in food prices in Asian developing countries could plunge an additional 64 million people into extreme poverty.

**Taking land from the poor, putting fuel before hunger**

Today, 30 million hectares of arable land are already needed for biofuel production; the International Energy Agency estimates that more than 50 million hectares will be needed by 2020 and more than 100 million by 2050. Increasingly, acreage is being claimed from developing countries in order to meet this immense need for land. The demand from industrialized nations for agrofuels is preventing any opportunity for local smallholder agriculture to develop. The possibility does exist of improving their production methods and organization so that they can benefit from the new market. This would be a crucial process in reducing poverty in rural areas, but it will take a long time and therefore cannot be reconciled with the high quotas. The result: Small farmers are driven off their fields to create giant cultivation areas for biofuel crops. Nearly half of all large-scale investments in developing countries are made with the goal of cultivating energy crops. Small farmers are losing their customary or legal access to land through land-grabbing. There are few job alternatives on the new large plantations. In a short time period, mechanisms were created to meet the energy needs of industrialized nations by cultivating land in the global South. Millions of
people are going hungry in developing countries – the same people, ironically, who are suffering from energy poverty.

**Speculators: Sponging off a bad biofuels policy**

The demand for agricultural products is increasing and we will not reach market saturation – if this were even possible, considering the limited natural resources – this century. The increasing demand for agricultural raw materials is a megatrend of the 21st century and therefore of particular interest to investors.

But grain prices do not only depend on actual production: Market pricing is increasingly shaped by negative or positive harvest reports and harvest forecasts. From here there is significant latitude for speculation.

Against this background, it would make no sense for speculators not to have increasing interest in agricultural raw materials, especially since bioenergy goals and biofuels quotas – as political standards – will raise the pressure on farming and agricultural markets predictably and continuously. In view of the global financial crisis, agricultural raw materials have become an especially attractive asset class in recent years. In the year of the global food price crisis, 2008, agricultural speculation drove up food prices by up to 15%. There is another effect as well: Prices become more volatile because of speculation. The poor can hardly compensate for severe price fluctuations under their own power; such fluctuations turn farmers’ investments (seeds, irrigation, etc.) into risks.

**A lack of ecological sustainability going forward**

Getting fuel from the field is not sustainable ecologically either: It makes it necessary for biomass to be removed from the ecosystem or for its creation to be accelerated through human intervention. Nutrients must be supplied through fertilizers in order to compensate. This leads to the emission of nitrogen-based greenhouse gases that have a warming potential of up to 300 times that of CO₂ (Leopoldina 2012). Other factors with negative costs for the environment include the changes in soil quality and biodiversity caused by the contamination of groundwater, rivers and lakes with nitrates and phosphates.

The direct and indirect changes in land use caused by the massive-scale production of biomass also bring serious consequences. When the cultivation of energy crops leads to a clearing of large areas of rainforest or to drainage of marshy areas, it is those imports from developing and threshold countries that have a net negative result for both the environment and the climate. The biofuels industry will invoke so-called sustainability certificates, but these fail to take into account the biological, social and climate-related consequences of changes in land use, or consider these only in part.

**German push is correct, but half-hearted**

In view of the global consequences of biofuels policy, the recent demand of German Minister of Economic Cooperation and Development Dirk Niebel to stop selling the €10 biofuel admixture is correct, but it is not enough. The core of the problem has not been grasped: The current German quota of 6.25% biofuel additives is not being taken out of force completely, nor has there been a change in the increase adopted for after 2015 in the proportion of biofuels added. The lion’s share of biofuels in Germany is not sold via €10, but in other fuels. After all, biofuels are added to diesel and all varieties of gasoline as well; this is how more than 90% of biofuel is sold.

Five years after the introduction of the quota for biofuels, we have seen that the biofuels policy of the German Federal Government has not done justice to its responsibility for global food security and its obligation to the human right to food. The promotion of biofuels is a considerable factor in the exploding food prices, land-grabbing in developing countries and speculation in agricultural raw materials and plots of land. The causes of these are primarily in the increasing global scarcity of agricultural goods that has been aggravated by the strict biofuels quotas. This policy is an obstacle to the realization of the first Millennium Development Goal: to halve, by 2015, the proportion of people who suffer from hunger.

**The EU has not stipulated any biofuels quotas**

In view of the growing criticism of biofuels strategies, politicians of all stripes have claimed that they are merely complying with EU standards on the use of renewable energy and implement the biofuels quotas adopted by the EU. This is simply false. The relevant guideline, 2009/28/EG, adopted a minimum target of 10% biofuel additives by 2020, but this included the express requirement that it be manufactured sustainably and that second-generation biofuels be available commercially. Neither has been the case. The guideline therefore also allows target of 10% that is binding on all member states to be met from renewable sources as a whole, and not from biofuels alone.

**The need to triumph over energy poverty**

While the debates over biomass in industrialized and threshold nations are primarily focused on substitutes for fossil fuels (whether for reasons of climate change, economic viability, or the pursuit of energy independence),
developing countries are transforming their use of fuel. They must take the big step from traditional, resource-hungry uses for bioenergy (as wood, charcoal, crop residues) to a sustainable, efficient, and clean means of gaining and using energy.

This is why the available agricultural potential in developing countries should not be used primarily to substitute for fossil fuels in industrialized nations. First and foremost, it should serve the local energy supply and help to combat poverty. After all, small-scale agricultural circuits are already balancing the cultivation of food and energy crops successfully today: in India, for example, grain fields are being replanted with lines of trees in order to protect against erosion. The leaves of the trees serve as animal feed and compost, while the wood will later be used to produce electricity. Bioenergy can provide an essential contribution to fighting poverty and hunger through such site-appropriate production systems.

Misguided biofuels policy makes courageous political decisions necessary

1. Biofuels goals must be redefined. Under no circumstances should German, European and American energy goals lead to restrictions on the human right to food in developing countries because of increasing demand for biofuels. Governments are responsible for respecting and protecting the human right to food and ensuring its fulfillment. States are not only beholden to their own populations on this issue but must also take care that their measures do not restrict a secure food supply in other countries (states’ “extraterritorial obligations”). When judging state action taken by industrialized nations, we must include the right to food as an important criterion for more political consistency between development goals and environmental, agricultural, and energy policy.

2. Additive quotas must be restricted in how they are formulated, with a flexibility that allows for their suspension in cases where there are clear and recognized gaps between supply and demand for agricultural goods or where food security will be threatened.

3. In Germany, the ministries for development, agriculture, transportation and the environment must jointly restrict biofuels additives to the current quota of 6.25%. When the German Federal Government works out its new mobility and fuel strategy, it must exclude any negative consequences for the global food supply and the fight against poverty that could result from biomass usage.

4. Climate-protection targets in industrialized nations must principally be achieved through energy savings, efficiency increases and innovative procedures for obtaining energy in the countries responsible. The target agreed by the EU of increasing renewable energies in the transportation sector by 10% by 2020 is not a workable solution for society or for the climate if achieved through biofuel admixtures. The relevant EU guidelines explicitly plan for an energy mix. We must make use of this leeway in service of the goal of ecological and global sustainability – including across national borders. In the update of the EU guidelines on renewable energy that are planned for 2014, a correction to the national biofuels strategy must be agreed upon and be applied to all EU member states.

5. Germany and the European Union should exploit the agricultural potential for bioenergy production that is available to them in addition to their self-sufficiency in food supply. Energy from domestic agriculture can be a building block for energy policy transformation in the transition to a post-fossil-fuel era, provided that this energy is produced sustainably and used efficiently. Even so, the use of imported agricultural goods by industrialized countries to obtain energy should be reevaluated in principle, according to criteria for ecological and social sustainability.

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