

agrofuels



Friends of the Earth International

## Food not fuel: agrofuels, food prices and hunger

### 1. introduction

This briefing gives a summary of how agrofuels impact food prices and what this means for the world's poorest people. When food prices – and with it, hunger – began to rise dramatically in 2008, researchers and scientists started to look at the role agrofuels might be playing. Food prices shot up again in 2011 and in 2012, pushing over 40 million extra people into poverty. The use of agrofuels has risen through government targets and mandates such as the European Union (EU) 10 per cent renewable transport fuel target. Numerous studies and models have looked at the impact of agrofuels on global food prices and the impact of high food prices on poverty and hunger.

### 2. what's happened to food prices?

Food prices fluctuate on a global, regional, national and local level. Globally, food prices are monitored by several bodies including the UN Food and Agriculture Organisation (FAO).

High global prices have often translated into high prices locally, making more people hungry and pushing more people into poverty (living on less than US\$1.25 a day).

Since the food price spike of 2008, food prices have remained historically high and spiked again to record levels in early 2011 and autumn 2012 – this is shown in Figure 1 below. This is having disastrous consequences for the world's poorest and most hungry people. After the 2008 food price spike, the Food and Agriculture Organisation of the UN estimated that 100 million more people were pushed into chronic hunger and poverty.<sup>1</sup> The World Bank estimates that 44 million people were pushed into poverty between June and December 2010 as a result of high food prices.<sup>2</sup> The Asian Development Bank estimates that food price rises of 20 per cent and 30 per cent would create 128.8 million and 193.2 million more poor people in Asia alone.<sup>3</sup>

Global food price is only one factor influencing national and local food prices and hunger. Often **volatility** in prices is as important as the price itself, and volatility affects poor people hardest, and women and children harder still. The FAO/OECD say that volatility “*threatens both farm viability (low prices) and food security (high prices)*.”<sup>4</sup> Unfortunately, the likely



Figure 1: FAO Food price index

prediction in the short to medium term is that **food prices will be increasingly volatile, against a backdrop of high prices.**

### 3. what causes food price rises and volatility?

Food prices are dependent on several interrelated factors that affect supply and demand, including:

**the weather:** The growth of crops, and therefore their availability, is affected by the weather. For example, unexpected weather in 2010 (drought in Russia and Ukraine, too much rain in Northern Europe and Canada and a hot US summer) meant reduced harvests and was one key reason for high food prices in early 2011; price spikes in autumn 2012 have been precipitated by drought in the US corn belt. Climate change is likely to be a major contributor to price volatility from now onwards.

**oil prices:** The price of oil influences and drives all commodity prices. Oil products - for machinery, to produce pesticides and fertilisers, for transportation of crops - are a major financial input for agriculture

**national trade and export policies/bans:** Restricting food exports is quite common practice by many countries in response to high food prices and low supply and can have a dramatic effect on food prices, pushing them up further.

**financial speculation:** Banks, hedge funds and pension funds are betting on future food prices in commodity derivative markets. This creates volatility and higher prices.

**income growth:** Economic growth in China, India and other developing countries means their populations eat more, including more meat, which increases demand and therefore prices.

**grain stock levels/inventories:** Stocks of food (eg grain) act as a buffer against changes in supply when demand is strong.

For example, decreased crop production because of adverse weather will have less of an impact on the price if there are high reserves of stock.

**agrofuels:** There has been much debate and research on the role the increased uptake of agrofuels is playing on food price rises and volatility. Although they vary in methodology, time scales, crops and geographical regions, the vast majority of studies conclude that agrofuels are increasing food prices. As the UN Committee on World Food Security says, "After some initial debate, hardly anybody today contests the fact that biofuel production was a major factor in the recent food price increases".<sup>5</sup>

#### how agrofuels affect food prices

**agrofuels create extra demand:** Agrofuels create extra demand on land and crops, which are diverted from food production – ie less food is available and so prices rise.

**agrofuels further tighten the market for individual crops:** When the supply and demand equation is "tight", as it is for many food crops, a small amount of extra demand (eg from agrofuels) can cause a big inflation in prices and an increase in volatility.

**agrofuels strengthen the link between food prices and oil prices:** As oil is now an output from agriculture as well as an input into agriculture (fertilisers, fuel for transportation etc) fluctuations in energy (oil) prices are more likely to be transmitted to food markets.

**agrofuels strengthen links between prices of individual crops:** As all these crops – eg maize, wheat, palm oil, rape seed - are competing against each other for the agrofuels market.

An elderly woman holds strongly to the fence separating her land, where she rears goats, from the advancing soya plantations, in Córdoba, Argentina.



#### 4. agrofuels targets must be scrapped: they cause food price rises

There is ongoing debate and research about the importance of agrofuels compared to other factors in food price increases. Friends of the Earth has assessed the body of research and we have concluded that, although an exact figure can never be known, agrofuels play a significant role – significant enough that agrofuels targets, mandates and subsidies should be scrapped.

We are not alone in reaching this conclusion. Many of the world's biggest and most influential international institutions including the World Bank, OECD and the WTO have concluded that food prices are “*substantially higher than they would*

*be if no biofuels were produced*”<sup>6</sup> and that this impact is so damaging that **governments should scrap agrofuel targets and mandates:**

*“G20 governments [should] remove provisions of current national policies that subsidize (or mandate) biofuels production or consumption”*  
IFAD, IMF, OECD, UNCTAD, WFP, World Bank, WTO<sup>7</sup>

#### 5. impacts of agrofuels on poverty and hunger

Agrofuels cause hunger and poverty by contributing to increases in food prices and increased food price volatility. However, food

#### myths behind the agrofuel industry's claims that agrofuels do not affect food prices

**Despite the overwhelming evidence, there are still people in industry, governments and elsewhere who claim that agrofuels do not adversely affect food prices. Below is a selection of some of their claims and Friends of the Earth's response:**

**claim 1:** There is such a tiny percentage of land under agrofuel cultivation / agrofuels use such a small percentage of food crops that they can't possibly have such a large impact on food prices.

**claim 2:** The co-products of some agrofuels can be used to make cheap animal feed, so they actually lower the cost of meat and dairy.<sup>9</sup>

**claim 3:** Agrofuels will help reduce dependence on fossil fuels which will reduce food prices because the oil price is so important in determining food price.<sup>10</sup>

**claim 4:** Additional demand from agrofuels can be met by increasing yield. Investment in infrastructure and yields will benefit food production.

**claim 5:** Agrofuel crops such as jatropha and camelina do not compete with food crops because they are inedible/ not used much for food and can be grown on degraded and marginalised land

**reality 1:** Since 2001 agrofuel has represented 70 per cent of the incremental demand for maize, 13 per cent for wheat, 90 per cent for rapeseed, 47 per cent for soybean oil, and 22 per cent for palm oil. 15 per cent of maize production goes to ethanol. 16 per cent of cumulated rapeseed, soybean, sunflower and palm oil goes to biodiesel.<sup>8</sup> In markets where supply and demand are tight, small changes in demand can have big impacts on prices.

**reality 2:** This is true to a limited extent, but does not counteract the main problems with price rises of staples, grains and oilseeds - the essential diet of the world's poorer people. Any lower cost of meat and dairy mostly impacts richer people who can afford meat and dairy.

**reality 3:** Actually many models find that agrofuels increase the link between food prices and oil prices by making oil an output from agriculture as well as an input to agriculture – so as oil prices rise and there is further demand for agrofuel, the closer link to food prices reinforces the rise.

**reality 4:** Growth in agricultural yield has almost halved since 1990, and is set to decline further in the next decade if current agricultural models are maintained.

**reality 5:** All current agrofuel crops, whether edible or not, directly compete with food crops for land and water, forcing food production to reduce or be displaced elsewhere. Jatropha and camelina plantations are being grown on land previously used to grow food in order to attain profitable yields. So-called 'degraded' or 'marginal' lands are often important for subsistence farmers and local communities, as well as biodiversity.



price is not the only factor in achieving food security - which refers to the availability of food and level of access to it.

**Food sovereignty** is the right of peoples to define their own food, agriculture, livestock and fisheries systems, in contrast to having food largely subject to international market forces. Agrofuels being produced on large scale plantations can directly undermine attempts to achieve food sovereignty. Friends of the Earth is concerned that local communities are being deprived of their livelihoods and access to land and natural resources – forced to move to urban slums, where they have become less self-reliant and more vulnerable to food price spikes – as a result of the growth of agrofuels. There are many cases of ‘land grabbing’ for agrofuels across Africa, where land traditionally used by local communities is leased or sold to outside investors (from governments and corporations, which are often Western or Chinese). Friends of the Earth has documented that 5 million hectares of land, an area the size of Denmark, was acquired for agrofuels across 11 African countries.<sup>11</sup> Other studies have estimated worldwide land grabs for agrofuels at 37 million hectares.<sup>12</sup>

Friends of the Earth has also documented many cases of human rights abuses and disregard of traditional land rights in the establishment of palm oil plantations in Indonesia<sup>13</sup>, jatropha plantations in India<sup>14</sup> and for various agrofuel crops across Latin America.<sup>15</sup>

## 6. summary and recommendations

The majority of studies show that the increased uptake of agrofuels through targets, subsidies and mandates, causes increased food prices and contributes to food price volatility. This has been recognised by key international institutions such as the World Bank, WTO, OECD and FAO who have called for an end to agrofuel subsidies and mandates because of their impact on food prices. High food prices since 2007 have put millions of people into poverty.

In order to eliminate these impacts Friends of the Earth recommends:

- That the full impacts of agrofuels are legislated for (for example, the impacts of indirect land use change)
- The elimination of agrofuel targets and subsidies (for example the EU's target) – instead prioritising energy efficiency in transport and food sovereignty principles
- An end to land grabbing by ensuring communities land rights are upheld and a stop to financial speculation of food commodities.

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Fruit market stall in Uruguay

Title photograph: E10 bioethanol  
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Palm Oil Plantation in Recency Landak, West Kalimantan, 2008

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**friends of the earth international** is the world's largest grassroots environmental network, uniting 76 diverse national member groups and some 5,000 local activist groups on every continent. With approximately 2 million members and supporters around the world, we campaign on today's most urgent social and environmental issues. We challenge the current model of economic and corporate globalization, and promote solutions that will help to create environmentally sustainable and socially just societies.

**our vision** is of a peaceful and sustainable world based on societies living in harmony with nature. We envision a society of interdependent people living in dignity, wholeness and fulfilment in which equity and human and peoples' rights are realized. This will be a society built upon peoples' sovereignty and participation. It will be founded on social, economic, gender and environmental justice and free from all forms of domination and exploitation, such as neoliberalism, corporate globalization, neo-colonialism and militarism.

We believe that our children's future will be better because of what we do.

**friends of the earth has groups in:** Argentina, Australia, Austria, Bangladesh, Belgium, Belgium (Flanders), Bolivia, Brazil, Cameroon, Canada, Chile, Colombia, Costa Rica, Croatia, Curaçao (Antilles), Cyprus, Czech Republic, Denmark, El Salvador, England/Wales/Northern Ireland, Estonia, Finland, France, Georgia, Germany, Ghana, Grenada (West Indies), Guatemala, Haiti, Honduras, Hungary, Indonesia, Ireland, Italy, Japan, Korea, Latvia, Liberia, Lithuania, Luxembourg, Macedonia (former Yugoslav Republic of), Malaysia, Malawi, Mali, Malta, Mauritius, Mexico, Mozambique, Nepal, Netherlands, New Zealand, Nigeria, Norway, Palestine, Papua New Guinea, Paraguay, Peru, Philippines, Poland, Scotland, Sierra Leone, Slovakia, South Africa, Spain, Sri Lanka, Swaziland, Sweden, Switzerland, Tanzania, Timor Leste, Togo, Tunisia, Uganda, Ukraine, United States, and Uruguay.

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