

Time for Germany To End Its Malthusian Biofuels Policy, So People Can Eat

by Georg Neudecker

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Two years after the introduction in Germany of Super E10 gasoline (which contains 10% ethanol), it still only accounts for about 18% of car fuel.¹ The proportion is still rising, but it is far from the 80% expected by the German government. The majority of motorists continue to shun Bio Super (15% ethanol). It seems the petroleum and biofuels industries have been unable to provide convincing evidence that biofuels provide environmental benefits, because their provenance and processing cannot be documented. Skepticism prevails: Some fear damage to their cars, because it is not clear whether this Bio-soup attacks the fuel system and wrecks the engine; while others confront the ethical dilemma of “food or fuel.” No normal person wants people to starve somewhere in the world, just because you fill up your tank with biofuel. Rising global food prices are causing hunger, as well as a huge and worsening shortfall in absolute tonnage of food output, and declining capacity to produce food. This ultimately will affect everyone.

The production of biofuels is not an innovation of the last 30 years. Around the year 1900, when the automobile engine was still in its infancy, an alcohol fuel for motor vehicles was already being produced. The infrastructure was at that time very poor, with oilfields not at all developed in the modern sense. The modest refined petroleum products that existed, such as kerosene, were used mainly for lighting. Just think of Bertha Benz, the



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wife of the inventor of the first motor car: When she took the first journey from Mannheim to Pforzheim, the only places she could buy fuel were in pharmacies. The future was not yet determined, and people were experimenting in all directions. Sometimes there were more electric cars and trucks than vehicles with internal combustion engines. Only when the starter motor was invented for the engine in the 1920s, did circumstances favor the further development of engines powered by fossil fuels.

Biofuels production began in Brazil in 1925, in Recife, in the state of Pernambuco. By 1931 there were 5.4 million liters produced, mainly sold in northeastern Brazil. With the Great Depression of the 1930s, the Brazilian sugar market collapsed. In order to protect investments in sugar production, alcohol production was increased to 50 million liters, and an emergency law required fuel importers to mix 5% alcohol with their product. This law was maintained up to the 1950s. About 15 metric tons of cane are needed for the production of 1,000 liters of fuel, and after pressing out the cane juice, about three metric tons of dry, pulpy residue, called bagasse, remain, which can be used for heating. However the heat from burning the bagasse is not suf-

1. Total EU 2012 consumption of biofuels, as a share of volume of transport fuel, is 4.5-5%. The EU instituted a “Biofuels Directive” in 2007, calling for 10% of transport fuel to be biofuels by 2020; but in September 2012 the goal was changed to include a cap at 5% from food sources; the other 5% would come from non-food sources, such as straw.



When Bertha Benz, wife of motor car inventor Karl Benz, drove from Mannheim to Pforzheim to visit her mother (104 km), in 1901, she stopped at pharmacies to buy alcohol for fuel. Her real purpose was to convince the dubious Karl that the invention would sell, if the public became aware of it.

ficient to distill the ethanol from the fermented sugar juice; additional fuel is needed.

The social impact of this monoculture in Brazil is discussed in Jean Ziegler's 2011 book, *Destruction massive. Géopolitique de la faim [Mass Destruction. The Geopolitics of Hunger]*. He describes the story of Josué de Castro, author of *Geografica da fome* (The Geography of Hunger). De Castro, a world famous fighter for the right to food, had studied the effects of undernourishment and child malnutrition. When the economic situation returned to normal, the alcohol program lost its meaning.

Oil Crisis and 'Limits to Growth'

Biofuels production experienced an upsurge after the oil shock of 1973-74, an important step in the overall realignment of Western policies since the early '70s. After the possibility had opened up in the '50s and '60s that hunger might be ended through scientific and technological progress, and the "Green Revolution," as it was called then, was all the rage, the Club of Rome's famous book *The Limits to Growth* came out in 1971. The basic message was that raw materials, and also the opportunities for economic development, are limited.

The Club of Rome distributed its book throughout the world, and this propaganda in industrialized nations created the so-called "environmental movement,"

which no longer saw hunger as the enemy to be defeated, but instead found a new enemy, in alleged overpopulation: People were the enemy. The real motive for this attitude is apparent in U.S. National Security Study Memorandum (NSSM) 200, which was developed around the same time by National Security Advisor Henry Kissinger, and became the basis of American policy. The premise of NSSM-200 is that the world's raw materials are limited, and therefore, the developed nations—especially the United States—must secure unhindered access to them. The Third World countries should be kept in a state of dependence and their population growth should be suppressed. This was a declaration of war on the Third World.

Part of this realignment, and a means for the enforcement of this policy, was the reorganization of global financial flows, starting with the takedown of the Bretton Woods Agreement in 1971. This was followed in 1973, in the wake of the "oil shock," by a 400% increase in oil prices, which had been arranged at a conference of the Bilderberg Group at Saltsjöbaden in Sweden. The chairman of the Bilderbergers was Prince Bernhard of the Netherlands, who, in 1961, had co-founded the World Wildlife Fund, along with Britain's Prince Philip.

The oil price increase of 1973 meant that a large part of countries' export earnings had to be used to buy fuel. In Brazil, the cost of fuel imports increased in a few years from \$710 million to \$10 billion in 1980, accounting for 43.5% of the total import bill of \$23 billion.

The developing countries were completely ruined by the second oil shock and the high-interest-rate policy of U.S. Federal Reserve chairman Paul Volcker in 1981, and many of them traveled the same road as Brazil, using a large part of their export revenues to pay for oil and to repay their debts. Many countries, due to soaring oil prices, were forced to switch production to export-oriented products, in order to pay their bills.

'Overproduction' of the '70s and '80s

The problem was that many countries were able to export only agricultural products—coffee, bananas, citrus fruits, grains, and, increasingly, animal feed. As a result, large quantities of food and fodder came into the European Economic Community (EEC).² Germany had always needed a certain amount of imports, because its food self-sufficiency was only about 60%, and various

2. The EEC was renamed the European Union in 1993; Germany was reunified in 1990.

products are not grown here. But the markets of the industrialized nations could not cope with such a large increase in imports, and so, an agricultural policy was introduced that aimed to curb agricultural production in the European Community.

The initial response was to expand German meat production, to utilize the imported animal feed. Hog and cow barns, dairy farms, and hen batteries were built throughout West Germany, and processing plants such as slaughterhouses, and dairies and warehouses were created. Through intensive dairy and meat production, the problem of excessive feed imports was temporarily solved. Every kilo of meat required the consumption of about 5 kg of feed—not the same for all species, but something along those lines.

Soon they realized, however, that the problem of the apparent “oversupply” had not actually been solved, but had merely shifted to other domains: the mountains of butter and beef, and the lakes of milk, which were the talk of the newspapers and TV at that time. The “surplus” dominated public debate for years.

The crisis was used to dramatically change the structure of agriculture. Back in 1968, the Mansholt Plan³ had envisioned a halving of the farming population in ten years, and a shift toward larger farms. “Grow or give way” were the new bywords: For one farmer to grow, another had to go out of business.

To speed up this process, the EEC, in 1971, introduced a so-called farmer pension levy (*Landabgaberechte*). Farmers could now retire early and receive a pension at age 60, provided that they leased their land to a larger, eligible farm. This had the effect of driving their family members off the land and into the broader labor market.

But when making new investments, people think about how to produce things better, more easily, and



European Milk Board

Dairy farmers dump milk in protest against production quotas and prices below the cost of production, at the European Commission in Brussels, Sept. 9, 2009.

with less manpower. Technology set the pace. Fewer farmers produced more food now than before. The limiting factor was no longer human labor, but rather the capital with which you could buy whatever technology you needed, all the way up to a fully automated system in agriculture. But it quickly became clear that the opportunities offered by technology to farms in Germany, especially in the South, were much too limited.

In 1984, the milk quota was introduced, and the permitted volumes of grain production were reduced, first on a voluntary basis, then, a mandatory one in 1992, when 15% of the arable land in the European Economic Community was idle. By the end of the 1980s, the total amount of food and fodder imported to West Germany corresponded to the amount produced in the area under cultivation, roughly 6 million hectares.

The Renaissance of Biofuels

The remaining farmers now had to increase their land holdings, buying or leasing additional land. This was done less to produce more feed—which could still be bought in large quantities as denatured cereals—but rather, to distribute the dung and liquid manure in compliance with the environmental regulations.

This was a much bigger problem. There were, at that time, already factory farms in northern Germany, and especially in the Netherlands; these let the excrement run off into the North Sea, but the authorities banned

3. European Agriculture Commissioner Sicco Mansholt wanted 5 million farmers to give up agriculture, redistributing their land to make for larger farms. Faced with widespread protests, the EEC plan was scaled back for the time being.

the practice due to the problems it created. The law required that the number of farm animals be linked to the area under cultivation.

An attempt was made to situate food processing in areas that were not adjacent to food markets. Production in the non-food sector was the topic of the day: food processing, but without generating additional food. The tentative plan was also to burn grain, but that did not make for good public relations. In looking for other options, the production of biofuels began.

During the mid-1970s, at a farm run by the Bavarian State Institute for Animal Breeding, half a dozen cattle had been prepared for a scientific study of the digestion of ruminants. It looked as though the cows had a sort of porthole in their rumen (the first of the cow's stomachs), similar to a washing machine—not quite as big, about 20 centimeters in diameter—which could be opened with a lid. A few years later, the first experimental biogas plant was built on the site of the research institute, and by 1981, there was a plant in Ismaning, near Munich, which was the largest of its time, with a capacity of 500 cattle.

Biogas (methane) was nothing new; it had previously been produced on a large scale as a by-product at municipal wastewater treatment plants. Methane has a variety of uses, not only to generate electricity. Initially, the facilities were also operated using wastes and manure, but those did not produce favorable economic results. The boom occurred only when the legal conditions were appropriately shaped by the European Economic Community, and the plants were fed with high-energy corn, like a cow.

At the same time, the Federal Ministry of Agriculture set up some research programs to look into the economic production of ethanol and its use as fuel. In 1983, at the sugar factory in Ochsenfurt, a pilot plant was built for ethanol production from sugar beet molasses, and in 1985, a facility was introduced in Ahaus-Eversen for maize, potatoes, and chicory, with a total annual capacity of 13,000 metric tons. By 1986, there were 120 plants in operation, and by 2000, there were 630. In 2002, at a combined heat and power plant in Haimhausen, a small ethanol-fueled turbine was used for the first time, instead of a diesel engine to generate electricity. Also, a fuel cell using purified biogas operated successfully.

By 2012, Germany had 7,590 biogas plants with a capacity of 3,000 MW. Currently, the largest plant in the world, the NAWARO, in Gustrow in Mecklenburg-



Germans are not crazy about biofuels, but the government and the EU want them to buy them anyway.

Prepomera, produces 46 million cubic meters of methane gas, which is upgraded to natural gas and fed into the German natural gas network. Operation of the plant requires 400,000 metric tons of corn silage. One hundred farmers within a 50 km radius deliver the corn; with a yield of 40 metric tons per hectare, this corresponds to an area of 10,000 hectares or 100 square kilometers.

If all the plans for the use of biomass that are required to achieve the EEC's objectives, were to be realized, about half of German agricultural land would have to be used for the production of fuels instead of food, and the remaining food would need to be imported.

Food or Fuel

The fact is that there never really was an “oversupply” of food, and at least since the 2008 global food crisis, this argument is off the table. The production of biofuels is now justified on different grounds: “man-made global warming,” an argument just as specious as was the idea of the overproduction of food.

What remains is the intention to reduce “overpopulation”: Britain's Prince Philip, the father of the environmental movement, wants to reduce the world population from the current 7 billion people to only 1 billion. The fastest way to achieve this is with a shortage of food. The question is whether, after 40 years, we are finally ready to break with this policy. An “exit” from biofuel production is the first step.

Translated from German by Daniel Platt