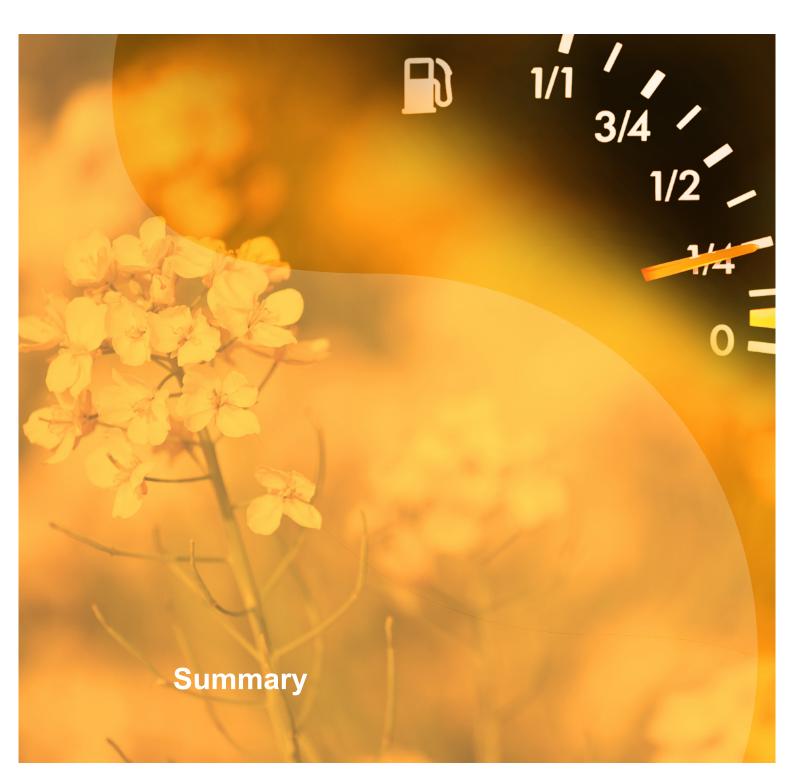


Bioenergy, food and ethics in a globalized world



The report was compiled by a working party on the Danish Council of Ethics consisting of Rikke Bagger Jørgensen (Chairperson), Jacob Birkler, Niels Jørgen Cappelørn, Gunna Christiansen, Mickey Gjerris, Lene Kattrup, Peder Mouritsen, Jørgen Olesen and Christina Wilson as well as external expert member Kasper Lippert-Rasmussen, professor of political philosophy at the Department of Political Science at the University of Aarhus. At the Council of Ethics' secretariat, Anne Lykkeskov was project manager for the working party, and she and Morten Andreasen, with assistance from philosophy student Rune Klingenberg, compiled the manuscript on the basis of discussions on the working party and on the Council.

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## Bioenergy, food and ethics in a globalized world

This report discusses the assumption often put forward that there are great ethical problems associated with using bioenergy. One key criticism is that energy crops can monopolize scarce areas in competition with food production, causing global food prices to rise to the detriment of the poorest people in the world. Another criticism is that an increased requirement for cultivating bioenergy crops can result in less space for nature.

The Danish Council of Ethics considers it important to finesse these considerations and look at bioenergy in a larger context. There are many forms of bioenergy, based on many different types of biomass. Bioenergy can reduce the impact on the climate while contributing to society's energy supplies at the same time. Bioenergy can thus constitute a tool for averting two major crises in which the world currently finds itself, i.e. the climate crisis and the energy crisis. At the same time, however, growing energy crops can compete with food production, as mentioned, and vie with nature for scarce resources, thus being counterproductive to solving the equally acute food and nature crises.

We are in a unprecedentedly serious situation historically, with a number of man-made crises threatening to change living conditions on the planet adversely. In 2030 the world will need 50% more food, 45% more energy and 30% more water—needs that will put pressure on the environment. The current global development is not sustainable, and our behaviour threatens to do irreparable damage to both ecosystems and human society. This is the setting in which the various bioenergy technologies must be judged on their potential as tools for averting these crises.

The Council wishes to highlight the need to make ethical deliberations more explicit in the political decisions concerning the management of such crises. When political decisions in the field of the climate and the environment, e.g. decisions on investing in bioenergy, are based primarily on calculations of short-term financial profitability, they involve ethical choices—or opt-outs. This is the case when such choices are narrowed down to take into account the interests of contemporary Danes at the cost of people who are distant (in time and space) and at the cost of animal life and nature.

The report discusses whether it is defensible to adopt such a narrow view of who to take into account ethically. There is an essential tradition in our part of the world of considering all people equal and entitled to have certain fundamental interests safeguarded—and, as a minimum, to have the right to have others not hurt or injure them. That same view forms the basis of the UN's human rights convention and subsequent international agreements. Many people are bound to endorse these ethical principles, but in a globalized world the principles can be said to take on a new, binding meaning. It is becoming evident that we

are harming people in exposed regions as well as our descendants by emitting green-house gases, and our behaviour is therefore at odds with these principles. In the same way, it is acting contrary to a principle that all people have a right not to starve if growing bioenergy crops on farming land reduces food production, causing the world market price of food to rise to the detriment of the world's poor. Many will feel that we should also be showing consideration for animals and nature, either because they regard them as having a value per se or because destroying them is injurious to the living conditions of man and animal.

The Council's members agree that the knowledge we now have as to how our green-house gas emissions are adversely changing living conditions on the planet generates certain ethical obligations. These considerations should make us all reflect on the way our actions jointly contribute either positively or negatively to the current crises on a daily basis. It can be seen as a desire for a new ethical awareness which we aspire to abide by on a day-to-day basis. Everyone needs to assume greater responsibility for their input to the state of the globe; states and authorities, companies, organizations and individuals alike all have a responsibility.

The members agree, therefore, that short-term economic profitability or supply security must not be the criterion for using a particular type of bioenergy. The Council takes issue with continuing to place such great emphasis on economic profitability in the policies being conducted, at the cost of consideration for environmental, climatic and social sustainability. We should be willing to shoulder certain sacrifices, though in a wider context these must be considered modest, in order to obtain environmentally sustainable energy.

Here it is legitimate for the authorities to implement a price policy that promotes sustainable forms of energy and to raise the price of those that impact on the environment and climate. Carrying on from this, the whole Council endorses the idea of introducing a broader concept of growth, one designed to value the environment and resources, as proposed by many economists, and most recently by the UN secretary-general's high-level panel on global sustainability. Such a growth concept will be a step in the right direction, but it is not sufficient to assess whether any one bioenergy technology is acceptable.

A majority of the members find that the most important principle for using a particular type of bioenergy should be that, overall and even in the short term, it results in fewer greenhouse gas emissions and less impact on the environment, resources and nature than the alternative. Such technologies should be adopted, even if it is not financially profitable to do so. Environmental sustainability must, therefore, be the paramount benchmark for adopting the use of a particular bioenergy technology. Natural areas should not be incorporated for cultivating bioenergy crops, because most likely the total discharge of climate gases and the pressure on such natural areas is increased in the process.

All things being equal, energy that uses biomass which has problematic implications per se should not be taken as a long-term basis either. Examples of this would be discarded foodstuffs or farmyard manure. We should not create a dependence on perpetuating the great food wastage and large-scale livestock production, when the aim must be to reduce wastage and take a critical view of meat consumption. The great consumption of meat in the West and rising consumption of meat in the rest of the world is problematic, given that

it requires more land and other resources to produce animal-based food than it does to produce vegetable food. It will not be possible to feed the world if everyone is to be able to consume the same quantity of meat as we in Denmark do. At the same time, there are problems with the impact livestock has on the climate and the environment, and with animal welfare in intensive livestock production.

A majority of the members further find that work should be done in general to develop green technologies that can offset the crises we are facing. They do not consider changing nature problematic per se, so there is no moral wrong in adopting technologies that will enable us to adapt to the effects of the global crises. This might be, say, the use of certain forms of genetically modified crops. If using technologies can ensure better living conditions, it should be done, provided that such technologies do not pose risks to the environment and health or have other undesirable consequences.

Some of the Council's members, however, consider that the gravity of the situation means that we need to think along the lines of making more fundamental changes to our lifestyle. It is not tenable to carry on with the high energy consumption we have today, just substituting sustainable bioenergy for fossil fuels. Our present way of life is generally unsustainable; the relevant deliberation should therefore be whether, by cutting our consumption, we could use less energy and thus have less impact on the climate and on nature.

The Council of Ethics as a whole considers the present situation to be so serious that it is necessary to appeal to both collective efforts and personal responsibility if it is to be reversed. Unfortunately, we see that the nations' efforts in terms of promoting sustainable development are marred by the difficulties of reaching consensus on joint agreements and failure to comply with those agreements that are concluded. So the full responsibility for taking action cannot be left to them. Countries and individuals alike must assume responsibility for acting in ways that avert the crises posing a genuine threat to life on the globe.

It may be objected, of course, that even if individuals or the Danes as a nation modify their behaviour in order to abide by those values we deem to be important, the positive effects of doing so can risk becoming insignificant if the rest of the world does not act in the same way. One of the aspects of global warming, for example, is that the contribution made to it by every single individual as well as their nation plays only a minimal part. Such reasoning may cause many to give up on doing anything to live according to their ethical values. The Council of Ethics acknowledges that we are in a dilemma here, but in the present, serious situation it is necessary to act, trusting that our actions will make a difference anyway. The Council concedes that any form of solution to the problems must be political and global, bearing in mind the scope of the crises. At the same time, however, it is important to point out that the political will to implement the necessary initiatives will only come when a sufficient number of people or nations choose to join forces to find the solutions.

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