A Convivialist Solution for the Multiple Crisis of Biodiversity, Climate, and Public Health

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We are facing multiple crises, but so far only the climate crisis has triggered public debates. The global loss of biodiversity is still largely considered to be a minor problem that for most people does not require a profound transformation of the economy and their lifestyles. Yet, as early as 1997 the Union of Concerned Scientists, founded by the Nobel laureate Henry Kendall, tried to raise awareness of this issue. In their *Warning to Humanity*, this group (Union of Concerned Scientists 1997: 1) wrote that the irreversible loss of species might lead to "unpredictable collapses of critical biological systems." Unfortunately, there was nothing but rhetorical reaction to the warning. In 2017, more than 15,000 scientists repeated Kendall's alert. In their *Warning to Humanity: A Second Notice*, they wrote that no problem except for the restoration of the ozone layer had been solved in the meantime. "Moreover, we have unleashed a mass extinction event, the sixth in roughly 540 million years, wherein many current life forms could be annihilated or at least committed to extinction by the end of this century" (Ripple et al. 2017: 1026). Two years later, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) stated that one million species were likely to go extinct within the next few decades (IPBES 2019). Despite all this scientific weight, most people are still unaware of the importance of the continuing loss of biodiversity and its consequences for life on Earth (Busse 2019: 115 ff.).

There is another global crisis that is still not getting enough attention: a global food and nutrition crisis. It is not only hunger that is

making people sick but also the very food they eat. Even though on a global level enough food (as calculated in calories) is produced for everyone, billions of people are malnourished or even suffering from famine. Global warming will change that for the worse. At the same time, there has been an enormous increase of diet-related diseases combined with an obesity epidemic, mostly in industrialized countries. More and more people are eating too much food, too much salt, too much sugar, and too little dietary fiber. Most of these people are living in affluent societies, and yet the choices they make for their diets make them ill. This is not, as the media too often suggest, an individual weakness of character. It is rather a structural problem that is causing this enormous increase in diet-related diseases such as diabetes, cardiovascular problems, and obesity. Neoliberal consumer societies encourage people to buy unhealthy foods, and too many people simply do not have enough time, knowledge, or money to prepare fresh and healthy dishes. Public health experts call this an obesogenic environment.

The global food system plays a crucial role in all three of these crises. Industrial agriculture and especially the mass production of meat is responsible for about a quarter of the global greenhouse gas (GHG) emissions. Even if fossil fuel emissions were to be halted, the greenhouse gases caused by the global food system alone would make it impossible to limit warming to 1.5 degrees Celsius (Clark 2020).

Industrial agriculture is also responsible for the loss of biodiversity across large parts of the world. The United Nations Environment Programme (UNEP) has called the global food system the primary driver of biodiversity loss (UN Environment Programme 2021). It is the global demand for meat that has led to massive land-use changes in Brazil, where rainforests have been destroyed to make space for the production of soybeans, which are used to make biodiesel fuel and as animal feed for livestock in Europe and China. Large portions of the rainforests of South-East Asia have been cleared to create plantations of oil palms because the industry has a huge demand for palm oil as a cheap and convenient ingredient for processed food and care products.

The global food system is controlled by a very few global players. Just four of them—ADM, Bunge, Cargill, Dreyfus—dominate

the global commodity markets, and three of them—Corteva, ChemChina/Syngenta, Bayer/Monsanto—control the seed and pesticide production. There are even multispecies animal breeding companies with large shares in the global markets. All of these companies have economic and political influence that has hindered ecological reforms. Farmers throughout the world have lost their independence.

1. Diversity in the Fields and on the Plates

The crises of biodiversity, climate change, and nutrition are deeply interlinked. This offers a huge chance for multi-solution policies that could simultaneously help to produce healthy food and beautifully diverse landscapes with a rich biodiversity and soils that act as carbon sinks (Herren/Haerlin/IAASTD+10 Advisory Group [eds.] 2020). In January 2021, together with the British think tank Chatham House and the NGO Compassion in World Farming, the UNEP launched a report that calls for a transformation of the global food system to support biodiversity (Benton 2021). These organizations propose a shift to more plant-heavy diets, the restoration of whole ecosystems, and a shift from monoculture to more diverse crops—which could make both human food and ecosystems healthier.

The EAT-Lancet Commission, an international team of medical experts and earth-system researchers, has made a very similar proposal for the question of how to produce healthy food for ten billion people in the year 2050 without risking the health of the planet. Their concept of planetary health includes both humans and the biosphere that we depend on, that is, clean air and water, fertile soils, and biodiversity. For them, food is the most important driver to improve both human health and the environment. The planetary health diet that the EAT-Lancet Commission has proposed consists of less sugar and red meat and more fruit, vegetables, legumes, and nuts compared to the today's food consumption in most Western countries. The basic idea is that more diversity in the fields can help to support biodiversity and can also deliver more diversity on the plates.

2. Agroecology as an Ecological and Social Solution

A reimagined agricultural system is another important change to bring about a convivial future. This is because supporting biodiversity in our fields and diversity on our plates can also support the increase in humus content of the soils. There are a number of scientists and farmers throughout the world who are experimenting with a more diverse agriculture that does not harm ecosystems but works symbiotically with nature instead. They try to combine sustainable farming systems such as organic farming or permaculture with the protection of wildlife and ecosystems. Agroforestry, which is the smart combination of fields and pastures and trees and shrubs that are also used to produce food or animal feed, is a good example of this.

The umbrella name for all these ideas is *agroecology*. This approach comprises not only the linkage between agriculture and ecosystems but also the protection of rural livelihoods, social wellbeing, and the rights of peasants. Agroecology thus can be seen as a multi-dimensional approach that tries to combine social and ecological solutions. This makes it quite the opposite of agro-industrial farming, with its hierarchical structures where exploitation of farm laborers and also of farmers is common. In Germany, for example, there are plenty of farmers who are working as independent entrepreneurs but are completely dependent on companies in the 'big meat' industry that determine the conditions of, say, what breed, feed, and medical treatment they have to use as well as the price for their livestock. This kind of agriculture is based on standardized farming systems, on specialization, monoculture or close crop rotations, and a high degree of reliance on technology. It is a system where the principles of industry have been applied to agriculture. To begin farming, young farmers have to invest huge amounts of money, which makes it nearly impossible for them to change their farming system once they have chosen one. This system minimizes the independence of the farmers. They are forced to meet the demands of the big companies or traders. As the so-called modern farmers do not produce unique and special food for local customers but rather commodities for global markets, they depend on the global market price. Their products

are replaceable. The global food companies buy commodities irrespective of where they were grown. For them, wheat is wheat regardless of whether it comes from the fertile Magdeburger Börde in Saxony-Anhalt or from the Ukrainian black earth. And chicken is chicken no matter where it was raised; South-East Asia is as good as Lower Saxony. Most consumers end up accepting whatever supermarkets offer. They buy standardized food that is not at all linked to the soil where it was grown. The supermarkets do not tell their costumers about ecosystems and ecological and social diversity. Instead they present their products as if they had no history and no link to the biosphere. In fact, most citizens would agree that the orangutan has to be saved from extinction, yet their consumption of processed food and care products containing palm oil makes them accomplices in the destruction of the orangutan's habitat.

All this makes it quite clear that the triple crises of biodiversity, climate, and nutrition cannot be solved by technological fixes. Rather, there is a need for social changes and different economic rules and structures. Most companies that are addressing ecological challenges are aiming at higher efficiency in their production processes (e.g., more yield per acre with less input, more meat per animal with less feed), but these improvements do not solve the structural problems that cause the extinction of species and livelihoods at the same time.

This is why agroecology can be seen as a model for a convivialist food production. It is a holistic approach that includes biodiversity, climate action, health, fair rules, and participation in decision-making processes for farmers, agricultural workers, producers, and consumers—and all of it mostly on a local level.

3. Food Sovereignty as a Convivial Concept

As it happens, there are projects all over the world that are working on the realization of agroecological ideas. Most of them follow the ideas of convivialism even though the people might not be familiar with the concept and do not use the term. The international peasants' movement

La Vía Campesina coined the term *food sovereignty*, which comes very close to the concept of convivialism. It is used as an alternative term to *food security*, which means that all people should at all times have access to sufficient and safe food (International Food Policy Research Institute 2021). Food sovereignty, by contrast, means that the very people who produce, distribute, and consume food also determine which food is produced and how. So, in a simplified sense, food security would involve a sack of rice being delivered to hungry people, whereas food sovereignty would involve these same people having access to land, water, and other resources to produce their own food, which may or may not be rice. This is a question of empowerment of local communities, and it needs strict rules to be realized. In the Global South, peasants often lose the land they have been cultivating for generations because they have no formal claim to it. As a result, they cannot reclaim their land when governments decide to give it to investors. Food sovereignty is also of great significance to farmers in industrialized countries. Their right to produce organic food is threatened when other farmers use genetically modified seeds or pesticides that are banned in organic farming. Both seeds and pesticides can be transported from one field to the other and ruin the organic farmers' harvest. Corporate patent law threatens the traditional rights of farmers to reproduce their own seeds. And, of course, the economic power of big companies makes it very hard for farmers to gain access to markets. The global corporate food regime limits food sovereignty.

4. Food Policy Councils and Agriculture in Solidarity

If we follow the ideas of agroecology and food sovereignty, what would a convivialist food system look like? Food policy councils in which farmers, fishers, growers, and consumers organize the production and distribution of local food on a grassroots level are a good starting point. The idea was born in the 1980s in the United States and then spread to many countries. In Germany, the first of these councils, or *Ernährungsräte*, were founded more than 20 years later, but in recent

years the movement has gained a great deal of influence, having grown to comprise more than 45 councils and a nationwide network (Netzwerk der Ernährungsräte 2021). So far, only a few *Ernährungsräte* have gained anything like transformative power, and this has mostly taken place where local governments have supported the organizations' volunteers, but the idea of linking producers and consumers is nevertheless essential for any transformation. These food policy councils remind the municipalities to develop their own food policy—a task that has been neglected in the era of the corporate food regime where food policy was limited to the provision of space for local supermarkets. In this regard, the city of Copenhagen in Denmark is a European pioneer, followed by Berlin. Both cities use public procurement of food for public cafeterias to strengthen the demand for regional organic food and to facilitate access to healthy food for school children and public employees.

Another starting point for a convivialist food system is community supported agriculture (CSA) or solidary agriculture (*Solidarische Landwirtschaft*, *Solawi*) as it is called in Germany. CSA consists of a group of consumers and farmers who operate a farm together. The basic idea is that instead of buying products, the consumers pay a monthly contribution to the farm, often depending on the individuals' budgets. The group also takes part in decision-making processes as well as some of the farm work itself, and it shares the risks of production. In May 2021, the nationwide Netzwerk Solidarische Landwirtschaft had more than 360 members.

5. Regional Councils for Food and Biodiversity

With so many people already engaged in food policy councils or CSAs and other new models for agriculture and food production, there is already a considerable amount of experience and knowledge to support a convivialist food system. There are enough projects to learn from.

It is the dominance of the corporate food system, entrenched by the set of established funding policies and laws, that is preventing major change. What is needed now is a political process to scale up the

impact of these pioneering initiatives and to kickstart the necessary socio-ecological transformation. As a new convivialist food system has to respond to multiple crises, a great deal of expertise will be needed.

But this is not enough. Convivial food also needs a new conception of nature and the way humans relate to their environment. As Jason Moore (2016) has explained, the idea of nature being a simple resource that humans can exploit as they like without providing anything in exchange has a long tradition in capitalism and beyond. What we need in the future is a conception of us humans being a small part of the web of life that we must not destroy if we want to survive. This "common naturality," as the *Second Convivialist Manifesto* calls it (Convivialist International 2020: 7 et passim), is not easy to experience for citizens of industrialized countries who have been trained in human supremacy, speciesism, and the exploitation of natural resources. We need a process of re-learning how to conceive of ourselves as part of the web of life or, as Donna Haraway (2016) puts it, being entangled with all the other living beings.

Indigenous peoples who have not lost sight of their roots might help us gain this understanding, as could some earth-system scientists or ecologists as well as peasants in Western countries who have resisted the industrialization of agriculture. Surmounting the humans-versus-nature dichotomy would be a good starting point to overcome a corporate food system that has severed the links between people and their food.

My proposal is to establish regional councils where farmers, market gardeners, fruit growers, bakers, butchers, and chefs meet experts on climate adaptation and mitigation, public health, ecology, nature conservation, water management, finance, urban and spatial planning, and education, as well as citizens. They should develop a vision of a fair food system that delivers ecosystem services as well as healthy food and also the necessary knowledge about the process of transformation into this new convivialist model. This idea is similar to the economy of common goods that proposes a citizens' convention to democratize the economy by enabling citizens to take part in economic decision-making and to redefine the goals of economy (Felber 2018; Felber 2019). The regional

councils for food and biodiversity would bring more expertise to these conventions. Ecologists should explain what kind of biodiversity was lost in the particular region and what kind of land use is needed to re-establish it. Climate scientists and water-management experts should explain the opportunities for carbon sinks and what has to be done to protect the drinking water reserves. Food producers have to explain what they need to produce food for the particular region on this basis to have a fair income. Public canteens and restaurants should be linked as closely as possible to local farms and market gardens. Partnerships between schools and farms should help to children to learn where their food comes from and how it is interlinked with ecosystem services.

Of course, a great deal of public funding will be needed to start and run this process. But more importantly, the system of political regulations has to be adjusted, because currently it allows individuals and companies to make private profits by causing environmental and social harm. This has to be changed as soon as possible. A large number of proposals have been made to compel the internalization of external costs or put the *polluters pay* principle into effect—for example, by introducing a sugar tax, meat tax, pesticide fee, or putting a price tag on carbon emissions. What is also needed are simple regulatory laws that prohibit deceptive advertising and harming animals in nature. These laws also have to be applied to imported products.

But, of course, a convivial food system comprises more than a new set of rules. The basic idea would be to link people to the food they eat and re-establish a shared responsibility among people to value the landscape they live in, the food they eat, and the environment they create together.

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