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ROUTLEDGE HANDBOOK OF FOOD AS A COMMONS

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Chapter 24

FOOD AS COMMONS

Towards a new relationship between the public, the civic and the private

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Why this book?

This book was motivated by the need to approach with a fresh look what we regard as perhaps the most embarrassing predicament of the Anthropocene/Capitalocene (Capra and Mattei, 2015, Altvater et al., 2016, Moore, 2017). We live in an era with roughly the same number (about one billion) of over-fed people and of people lacking access to nutritious food (which means that do not know in the morning if they will be able to feed themselves and their children during the day). Our era also stands out by the remarkable amount of food that is wasted in some parts of the world and by the unprecedented number of livestock that populates this planet (Patel and Moore, 2017). Moreover, in the current phase of neoliberal capitalism that dominates in the Anthropocene/Capitalocene, the ecological footprint is out of control; some rich people (the majority in the Global North and the elite in the Global South) can enjoy every day food shipped from thousands of miles away on gas gulping aircrafts and boats that pollute the environment beyond imagination. Such luxury, the result of the worldwide colonization of diets, would be impossible without a very significant environmental subsidy; if all the externalities had to be internalized, eating Nile Perch would be unaffordable to most people everywhere. The subsidy is ultimately paid by the poor in the South and, in general, will certainly be paid by future generations. Unless we deal with and avoid the hidden social and environmental costs that are so far unaccounted for in the hegemonic food system (TEEB, 2018)

While the rich eat healthy fruit salads of organic mangoes in Stockholm and Palo Alto, poor people (in the North and in the South) are fed, when at all, with industrially made high-calorie junk food, such as chicken nuggets or cheeseburgers, that produce, among other things, resistance to antibiotics that are widely given to the unlucky martyrs of this capitalist food chains. This ultra-processed food (Monteiro et al., 2018) produced by the Big Food industry is basically made up of food components from cash crops (e.g. maize, wheat, soybean) that are extracted, ultra-processed and re-amalgamated again or that feed industrially-raised animals that are then slaughtered in the millions after having suffered beyond imagination and produced massive amounts of greenhouse gas. These horrors are not the response to the needs of the billions of people who live in the Anthropocene/Capitalocene. They are the necessary and inevitable imperatives of capitalist extraction in a context where food is understood not as the fundamental depository of use value, but as a commodity considered in its exchange value only. Food as a

commodity is exclusively represented through a quantitative approach which has its own scientific measure system: the calories, which fuel both cars and human bodies to ensure they are fit for work. Quality is expelled from this approach and so is any non-mechanistic systemic vision of the food chain. Introducing the commons as a way of thinking is an attempt to introduce quality and holistic and systemic thinking as well as a phenomenological, rather than positivistic, approach in addressing the catastrophic consequences of capitalist logic applied to food. The capitalist food industry in its full reach is actually the horror story this book has tried to tell (though incompletely) in order to bankrupt the current system and seek new avenues. This book is thus part of a broader search for sustainable institutional arrangements that, as humankind, we urgently need to develop before it is too late for us and for the planet (Capra and Mattei, 2015).

This collection of essays explores the consequences of the commodification of food, and it seeks to identify whether food can instead be redefined as a "commons", and what this redefinition might entail. This may sound like a provocative thesis. First, the commodification of food has such a long and hegemonic history that it has become difficult to even imagine that it could be conceptualized differently; recent archaeological discoveries suggest that the production and storage of food at the individual household level, rather than at the level of the larger social group - the tribe or the community -, started some 6,000 years ago, with the first urban settlements in Mesopotamia, which corresponds to modern-day Iraq (Shepperson, 2017). Obviously, capitalism, and corporate-capitalism in particular, has imposed the logic of exchange value to such an extent that these remote episodes of commodification may seem of mere archaeological interest in a phenomenology of the present; yet they do illustrate, at the same time as the historical weight of the dominant paradigm, the possibility of alternatives (Polanyi, 1957). Secondly, food is par excellence a good that is both excludable and rival; access can easily be fenced off from food as a material object and what one person eats is not left to be consumed by others. Therefore, following the classic typology of Paul Samuelson (1954), food is a private good and there would, in principle, be no reason to believe that market mechanisms would not be appropriate to ensure optimal allocation of resources for its production.

These are precisely the misunderstandings that the essays on this book aim to dissipate. Redefining food as a "commons" is not to negate that either food itself (the calories and micronutrients we ingest) or most of the factors required for its production (including in particular land and human labour) can be privatized and that they have been so historically. It is to suggest, rather, that treating food as a mere commodity, while ignoring its multiple dimensions and the various other functions it fulfils, stifles our institutional imagination as to how its production and consumption could be governed. That would not only ignore the various social innovations that today, often at the grassroots level, are challenging this approach, at least implicitly. It would also be problematic on efficiency and equity grounds if the purpose is to save capitalism from itself, and on structural grounds in a full-fledged critique based on the material conditions of the present. In these conclusions, we explore the problems associated with treating food as a commodity to be distributed by market mechanisms. We then ask whether turning to state bureaucracy offers a better solution. Next, we turn to the idea that framing food as a commons may be an alternative to both. We conclude with a proposal to redefine the relationships between the state, the community and the market (or the respective logics of the public, the civic and the private) in order to create the space necessary for commoning practices to expand.

Why food cannot be treated as a mere commodity

Treating food as a mere commodity implies that the choices about how much to produce and what to produce are meant to respond to demand. In the perfectly functioning markets that neoclassical economic models still rely on, supply follows price signals; higher prices caused by

a rise in demand therefore should lead to increase production, in turn bringing prices down to an "equilibrium" price (which Smith called the "natural" price). However, this idealized view presents a number of problems.

Food markets' imperfections

First, it is entirely unrealistic. Food markets are, in fact, imperfect to the point of caricature. Concentration of power has significantly increased at various segments of food chains, both as a result of the industrialization of agricultural production and of food processing and as a result of globalization. In the mid-twentieth century, the problem of concentration concerned primarily the big commodity traders - ADM, Bunge, Cargill or Louis Dreyfus - dominating the networks of international trade, particularly for the major cereals. Today, concentration has increased significantly not just in the middle segment, but also at the two ends of the chain. On the side of the input providers, the 130 billion USD-valued merger between the US agro-chemical giants Dow and DuPont Pioneer (now Corteva), combined with Bayer's buyout of Monsanto for 67 billion USD and ChemChina's acquisition of Syngenta for 43 billion USD (and the planned merger with Sinochem) will result in 70% of the total agrochemical industry being in the hands of only three megacorporations (IPES-Food, 2017). On the side of retailers, global retailers, using their superior logistical abilities and bargaining power in upstream markets, now increasingly supply not only rich consumers - ten supermarkets supply half the food in the European Union, according to recent estimates (Oxfam, 2018) – but also the urban middle class in emerging economies (Reardon and Berdegué, 2002; Reardon et al., 2012).

Moreover, concentration at one segment of the chain leads to concentration at the other segments. Large retailers tend to prefer to source from large wholesalers and large processing firms; this allows them to reduce transaction costs and to have access to a diversity of product types in a "one-stop shop"; the invoicing system is formalized, allowing the retailers to discharge their accounting obligations for value-added tax accounting and product liability; and the packaging and branding of products is superior to that which smaller processors or wholesalers would be able to achieve. This leads to what some authors have called a "mutually reinforcing dual consolidation": the more large retailers dominate consumers' markets, the more large commodity buyers tend to dominate the upstream markets.

Imperfect markets are not a new phenomenon, of course; economist Joan Robinson had already conceptualized such imperfections in the 1930s. But the positive feedback loops (or selfreinforcing mechanisms) that now exist between the ability of the largest and more powerful players of the food systems to control the logistics and strengthen their dominant position (as buyers) by extracting favourable conditions from their suppliers or (as sellers) from their clients, are now threatening to put the system off balance (IPES-Food, 2017). Indeed, this process leads to a race towards the bottom: it results in lower wages for farmworkers and in a lower remuneration for independent agricultural producers that supply raw materials. Large buyers can obtain from sellers a number of concessions that reflect their dominant buyer power, such as discounts from the market price that correspond to the savings made by the seller due to increased production or passing on to the seller certain costs associated with functions normally carried out by the buyer, such as grading of livestock or stocking of shelves. These concessions only make it more attractive for the retailers to source from these dominant buyers, since they may benefit from this superior buyer power that such larger suppliers have. It also further strengthens the position of the dominant buyers, who can acquire a competitive advantage over less dominant buyers in downstream markets, leading to acquisition by larger agribusiness firms of dominance on both the buying and selling markets.

The end consumer may benefit from these trends, both because of the economies of scale achieved by the dominant players and because the abuse of buyer power may lead to lower prices at the end of the chain. But such gains are purely quantitative and arguably are paired with important qualitative losses. As to small food producers, they systematically lose. These farmers buy their inputs at retail prices and they sell their produce at wholesale prices. Moreover, as a narrow set of large firms increasingly act as gate-keepers to the high-value markets of rich countries, small-scale farmers find it increasingly difficult to join these supply chains and the gap is growing between large and small producers in a context in which both categories of producers compete for access to resources, credit and political influence. Larger producers have easier access to capital and thus to non-land farm assets such as storage, greenhouses or irrigation systems. They can more easily comply with the volumes and standards requirements that the agrifood companies the commodity buyers, the processors and the retailers, depending on which sources directly from the producer of raw materials - seek to impose. Small farmers can only compensate for these disadvantages by their lower labor costs, or because they are a less risky sourcing option to the buyers, since the larger farmers have more market options and thus can be less reliable. The disturbing consequence is that small farmers pay a high entry fee into global supply chains; because of these structural obstacles they face, they can only compete by a form of self-exploitation for instance by agreeing to low wages for those (often family members) working on the farm and by agreeing to be locked into a situation of high dependency towards the buyer. This is one major reason why undernutrition persists in many parts of the developing world, often as a result of extreme deprivation in rural areas. Only a small segment of the farming population still manages to thrive in an increasingly competitive environment, in which farmers can survive only by achieving economies of scale. They must get big or they must get out; many stay small and barely survive.

The idealized picture of well-functioning agricultural and food markets driven by price signals is unrealistic in another way; most food producers don't respond easily. Often price increases lead them to make production choices that, six or eight months later, lead to oversupplying the markets, which generates the price slumps that eventually result in a loss of income for them, since all farmers respond to the same price signals. Rather than fixing the issue and improving the market, pure price signals degenerate in the "hog cycle" well known to agricultural economists (Haas and Ezekiel, 1926, Hanau, 1928, Coase and Fowler, 1935). Or, instead, farmers cannot adapt. When the prices of coffee or cocoa go down on international markets, for instance, the small producers of coffee or cocoa beans do not reduce production: they increase it in order to compensate for the resulting losses and because they have to meet a number of expenses – for education, healthcare or housing – that cannot be reduced. Often, switching to something else is simply not an option, since they depend on the soil, weather conditions, access to knowledge and seeds and markets, which are fixed. While the "hog cycle" is more a characteristic of commodity markets dominated by large and relatively highly capitalized producers and the second problem (called the "commodity problem") is more usual for tropical crops and for relatively smaller-sized farms, what both cases have in common is that prices cannot efficiently direct production. To believe they could do so entirely ignores both the agronomic and the economic modus operandi that are typical of agricultural production.

Obliterating inequalities

A second problem with this idealized view that sees food as a commodity that should be produced and allocated on the basis of price mechanisms alone is that such a view is blind to the impacts of inequalities. Inequalities within countries are reaching levels unheard of since the 1930s, and despite all the talk about globalization allowing nations to catch up, even inequalities

between countries remain high (Atkinson, 2015; Bourguignon, 2015; Stiglitz, 2015). However, as long as food supply is driven by market demand (and that is what drives food production since food is treated as a commodity), it is the purchasing power of the rich, not the essential needs of the poor, that directs how resources are used - which foodstuffs are produced, under which conditions and for which markets. Food prices do not necessarily reflect human needs. Rather, prices are an indicator of demand, as expressed by those with purchasing power; the richer you are, the more votes you have in influencing the allocation of resources. As noted by Scitovsky, the representation of the world into prices and its commodification means that the marketplace is analogous to a plutocracy; it is "the rule of the rich", he wrote, "where each consumer's influence on what gets produced depends on how much he spends" (Scitovsky, 1992: 8). This is perfectly illustrated by the surface of land required in Argentina or Brazil to produce soy or maize for animal feed in industrial livestock processes or by the deforestation resulting from oil palm plantations in Indonesia or Malaysia to compensate for the diversion of colza or sugar beet for energy in Europe. In a globalized world in which food is traded across borders and investments flow freely, the poor may be priced out from the use of resources, while the purchasing power of the rich may guide the direction of agricultural development.

Such distortions are also the price we pay for inequality. Indeed, the reason that large areas of farmland can be dedicated to producing feedstock to satisfy the overconsumption of meat in affluent societies or to fuel their cars, is because consumers in rich countries can command the resources that will allow their lifestyles to continue unchallenged. This fundamental inequity is reflected in the fundamental structure of property and contract law, though these areas of law generally obfuscate their complicity in achieving such a result (Mattei and Quarta, 2018). Similarly, the huge amounts of retail and consumer waste in rich countries is correlated with the fact that, as incomes have grown, the proportion of the household budget spent on food has diminished.1 This correlation highlights the limits of the reasoning according to which the expansion of trade in agricultural commodities leads to efficiency gains by encouraging a division of labor according to comparative advantage; in fact, the expansion of trade has also resulted in the luxury tastes of the richest parts of the world being allowed to compete against the satisfaction of the basic needs of the poor (Lambin and Meyfroidt, 2011). This trend is particularly concerning in terms of competition for natural resources needed for food production, particularly land. While it is true that a purely Malthusian view of land as finite oversimplifies the issue of competition for scarce resources, as the productivity of land can be increased to a certain extent and as some land can still be brought into production, recent research has highlighted the considerable social and ecological costs of doing so. Once these tradeoffs are taken into account, this research shows, there is significantly less cropland available for future expansion than has been traditionally assumed in most scenarios (Lambin, 2012; Lambin et al., 2013). Here, again, the structure of property rights on land facilitates and legitimizes these impacts, in the name of its apparent neutrality, as already noted by J.R. Commons in 1927 in his Reasonable Value: A Theory of Volitional Economics (see Hiroyuki, 2018; see also De Schutter, 2015).

Dismissing the planetary boundaries

A third problem with treating food as a mere commodity is that the economic logic guiding production choices – including the allocation of resources and research and development programs of large firms – entirely ignores the ecological logic. Agricultural production that maintains soil health and resilience in the face of a changing climate should prioritize diversity through mixed cultures and frequent rotations, biological control of pests (rather than reliance on pesticides) and minimize the use of external (non organic) inputs (IPES-Food, 2016).

But the markets command to do the exact opposite; the negative externalities resulting from unsustainable forms of agricultural production and from a heavy reliance on fossil energy are not counted in the costs of production and farmers are pressured to become providers of cheap raw materials to the food manufacturing industry, since that's how profits are made for shareholders – by "adding value". The result is industrialized farming on large areas of land to allow for the mechanization of production.

The environmental impacts are now well understood, but they have not led to questioning the mechanism through which production choices are guided by an exclusively profit-maximizing logic, incentivized by legal and financial systems (Clapp and Isakson, 2018). The spread of monocultures, though they allowed and were allowed by mechanization, resulted in a significant loss of agrobiodiversity; crop species, such as indigenous leafy vegetables, small-grained African cereals, legumes, wild fruits and tree crops, are now gradually disappearing as they are displaced by the production of rice, maize and wheat (Jacobsen et al., 2013). Indeed, biodiversity loss, for which the spread of industrial agriculture is chiefly responsible (FAO, 1997: 33, FAO, 2010: 15–16), is the domain in which the world has moved furthest beyond the "safe operating space" for humanity (Steffen et al., 2015). Largely as a result of unsustainable farming practices, an estimated 33% of soils worldwide are moderately to highly degraded due to erosion, nutrient depletion, loss of organic matter, acidification, salinization, compaction and chemical pollution (FAO, 2015). The resulting loss of natural soil fertility forced an ever-greater reliance on chemical (nitrogen-based) fertilizers to maintain yields (Loveland and Webb, 2003), but this in turn polluted freshwater (Parris, 2011) and as phosphate and nitrogen water pollution reaches the oceans, natural fertilization processes are stimulated spurring algae growth that absorbs the dissolved oxygen required to sustain fish stocks (Paerl and Huisman, 2012, Chislock et al., 2013).

Moreover, mainstream food systems are now a chief contributor to the growth of greenhouse gas emissions. In 2005, it was estimated that agriculture accounted for approximately 10-12% of total man-made greenhouse gas emissions, in the form of nitrous oxide from the use of fertilizers, methane from flooded rice fields and livestock and carbon dioxide from the loss of soil organic carbon in croplands and, due to intensified grazing, on pastures (Smith et al., 2007). But it is not agricultural production alone, it is food production more broadly - food processing and packaging and the logistics of food distribution - that consumes large amounts of energy; approximately 2,000 litres per year in oil equivalents are required to supply food for each American, which accounts for about 19% of the total energy used in the United States (Pimentel et al., 2008). Indeed, the production of fertilizers, herbicides and pesticides, the tillage, irrigation and fertilization and the transport, packaging and conservation of food all require considerable amounts of energy, so that as much as one-third of greenhouse gases from human activity are linked to how food systems developed (HLPE, 2012; Vermeulen et al., 2012; FAO, 2017). Not only is food production itself threatened by the pressures it exercises on ecosystems, including by the apparently uncontrollable growth of emissions responsible for global warming, but it also has developed a huge dependency on fossil energies - the gas needed for the production of fertilizers and the oil needed for machinery and the processing and transport of food -, which makes it unsustainable.

The statist alternative

Food, therefore, cannot be treated as a mere commodity. Indeed, as abundantly shown by the materials in this book, accepting such a purely quantitative (and reductionist) framing of food produces catastrophic results on efficiency, equity and sustainability grounds. This is not to imply, however, that such governance should be centralized in hands of a state bureaucracy. In the

commons approach, in fact, the state, just like the capitalist market, is more part of the problem than of the solution. Indeed, state bureaucracies are notoriously ill-equipped to ensure an effective coordination of complex systems, such as food systems. Although states can and must fulfil a number of roles that are essential both for the smooth functioning of markets and for social justice - from providing infrastructures and enforcing food safety regulations and from combating cartels and abuses of dominant positions to ensuring redistribution through taxes and subsidies -, their centralized knowledge cannot be a substitute for the dispersed knowledge and practices of the actors of food systems, whose relationship to the context in which they operate and ability to adapt to changing local circumstances are an essential element of the resilience of the system; for all the naivete of their belief in markets, this, at least, was a key insight of libertarians such as Hayek or (Michael) Polanyi, whose ideas about the virtues of "spontaneous" or "polycentric" orders (Hayek, 1960; Polanyi, 1951) are now echoed in references to polycentric governance in Elinor Ostrom's work (Ostrom, 1990) or in Yochai Benkler's discussion of commons-based peer production (Benkler, 2006). As much as these authors disagree on essential aspects of how societies should be governed, they share the core intuition at the basis of the Hayek-Polanyi line of libertarianism; that the pretence of the state to have privileged access to the kind of knowledge that is required to steer society is similar in kind to, and hardly less preposterous than, the pretence of divine monarchs of the past to have a direct relationship with God. States are not gods and they do not have god-like powers to know what each individual should be ordered to do in order for the common good to emerge.

Nor is this all. The claim of state bureaucracies to command the course of societies also fails on empirical grounds. Recent scholarship has highlighted the extent to which political elites are attentive to the expectations of economic elites, rather than to those of ordinary citizens. These "political elites" include, in particular, elected representatives and not just the technocrats populating public administrations; the problem, it seems, is not so much (or not only) that administrations have too much power and that they escape the control of politicians, but that the politicians themselves are captured (Gilens, 2012; Gilens and Page, 2014). The disproportionate influence which corporations exercise in the political system is only marginally related to the selling out of politicians, whether in the extreme form of corruption or in the more subtle and socially acceptable forms of electoral campaign financing and revolving doors. It has to do, primarily, with the ability of corporations to serve politicians with a convincing narrative, which portrays them as champions of the 'low-cost' economy, in which efficiency gains associated with economies of scale and the division of labour across different jurisdictions in global supply chains allow them to serve mass consumption, provided they are left free to organize production and are not forced to internalize the full range of negative externalities caused by their operations.

Political elites are also poorly equipped to respond to concerns about long-term ecological impacts of industrial production models. In part, this is due to the short-termism associated with electoral cycles; it is this "democracy failure", this gap between the myopic preoccupations of electoral politics and the requirements of intergenerational justice, which had led a number of authors to propose that democracy be "circumscribed" or made more "reflexive" by introducing a longer-term perspective in the form, for instance, of the establishment of a "higher chamber" of non-elected experts with a veto power that they are to exercise as representatives of future generations (Bourg and Whiteside, 2010). Perhaps even more importantly, recent research in cognitive psychology examining risk perception has highlighted that elites are hard-wired to ignore environmental risks that could question their individualistic and meritocratic worldview — one which, as they occupy a dominant position within society, they are likely to adhere to. Indeed, this research shows that information about risks associated with unsustainable types of food production, particularly environmental risks, should be processed by various groups of the

population in order to reduce the cognitive dissonance between the data with which they are provided and the cultural values they entertain (Kahan et al., 2007). The so-called "White male effect" in risk perception is such that, for those occupying a dominant position in society, more and better information improving their scientific literacy or their numeracy does not lead them to assess risk in accordance with the warnings of scientists in areas, such as climate change, where the risk tends to be underestimated: quite to the contrary, it seems that they would rather use this gain to strengthen their scepticism, as if unwilling to recognize information that runs counter to their interests (Kahan et al., 2011). While this may be comforting to the individual (and may be said, therefore, to be "rational" from the individual's point of view, as the discomfort of cognitive dissonance is minimized), the consequences for society are clearly sub-optimal, presenting us with a collective action problem which Kahan et al. (2011) have called the "tragedy of the risk-perception commons"; it calls for a science of communication about risk that can take into account the fact that we live in culturally diverse and pluralistic societies and that each sub-group within society may have to be addressed differently for social norms within the sub-group to evolve (Higgs, 2015).

A final limitation of reliance on state action to transform food systems is that, as anticipated many years ago by what social psychologists labelled "reactance" theory (Wicklund, 1974), individuals resist adopting conduct that they perceive to be imposed on them from without. In response, researchers now insist on a shift of attention from extrinsic to intrinsic motivations. The work of Richard Ryan and Edward Deci provides perhaps the most explicit attempt to demonstrate the importance of intrinsic motivations in explaining individual behavior (Ryan and Deci, 2000a and 2000b; Moller et al., 2006). The so-called "self-determination theory" they pioneered emphasizes that lasting behavioural change depends on individuals acting on the basis of their own values and deeply held beliefs, rather than external rewards or penalties. Interventions "from above", whether in the form of top-down regulation or in the form of economic incentives, may be insufficient to disrupt routines in eating behaviour and to bring about change at the desired scale. State bureaucracies, using tools of regulatory injunctions or economic incentives, treat individuals like objects, rather than as subjects of their own history (Arendt, 1958) and members of a broad and universal community of citizens. Individuals on whom rules are imposed, to whom subsidies are promised or who are threatened with having to pay taxes will comply with the rule, capture the subsidy or avoid paying the tax – but they will otherwise pursue their own life objectives, deviating as little as possible from such objectives that they have set for themselves. In contrast, behavioural changes that rely on the intrinsic motivations of the individual shall be resilient; because they are based on the individual's identity or self-image or on the values that the individual treats as his/her own, such changes will persist in time, even though the context (and the external incentives it provides) may have evolved. To change the food system is is thus essential to work against the fragmentation of individual identities and strengthen the imaginary of community as a source of reward and space of emancipation.

Food as commons

It is thus that we arrive at the conclusion that, because of the failures of both "the market" and "the state", a different dimension, that of the commons, should be introduced to approach the predicaments of the Anthropocene/Capitalocene that the global food catastrophe shows in all its immediate drama. As already shown in the introduction and unfolded in multiple chapters, the commons present a complex epistemology. Considering the commons as a sort of civic sector, capable of coexisting with the fundamental capitalist institutions, already betrays a political choice that is questionable and indeed has been questioned (Hardt and Negri, 2009; Mattei, 2011;

Dardot Laval, 2015; De Angelis, 2017). Moreover, a number of understandings co-exist as to what is implied by reframing food as a commons. While all these understandings share the view that neither unaccountable markets nor state bureaucracies are appropriate mechanisms to exclusively guide production choices, to allocate resources or to ensure equitable access to food, they range from the least to the most radical versions. The revival of commoning practices, indeed, has two distinct sources. Some stem from social innovations, which emerged in a relatively recent past, primarily in urban settings and at the initiative of upper-middle class activists. Others develop in traditional communities that have hitherto resisted the full commodification of food, and maintained customary forms of governance of natural resources as well as non-commoditised means of food production and distribution despite the expansion of the capitalist frontier. It would go beyond the ambition of this chapter to deepen the inquiry as to how to subsume the practice (customary and contemporary) of commoning into a broader theory of the commons. However, we do offer a few hints in the concluding section.

Food as commons and the right to food

One approach – the least radical – is to insist on the need to guarantee the right to food as a human right, whereby an absolute human need (see Chapter 7 in this volume) is framed as a mandatory entitlement. The right to food is the right of every individual, alone or in a community with others, to have physical and economic access at all times to sufficient, adequate and culturally acceptable food that is produced and consumed sustainably, preserving access to food for future generations (Committee on Economic, Social and Cultural Rights, 1999: paras. 6-7). Thus understood, the right to food can be secured (i) by obtaining incomes from employment or self-employment; (ii) by social transfers from the state or from family and community networks; or (iii) by own production, for individuals who have access to land and other productive resources. Through these channels, that often operate in combination with one another, the right to food should ensure that each person has access to a diet that, "as a whole ... contains a mix of nutrients for physical and mental growth, development and maintenance, and physical activity that are in compliance with human physiological needs at all stages throughout the life cycle and according to gender and occupation" (id., para. 9). Thus, a convenient way to summarize the normative content of the right to food is by referring to the requirements of availability, accessibility, adequacy and sustainability, all of which must be built into legal entitlements and secured through accountability mechanisms.

Such an entitlements approach suggests that states be held accountable in a range of areas which influence the ability for each individual to have access to a healthy diet – from minimum wage legislation to social protection floors and from access to productive resources for food producers to the provision of subsidized food items in support of poor consumers or directly providing food to those who cannot afford it through food banks or food pantries. The right to food thus may serve to control state bureaucracies as well as to ensure that markets are not allowed to deprive people of access to at least the amount of food essential to lead active and healthy lives. However, it also has a number of limitations. It does not question the commodification of food, the production of which still relies on market mechanisms (and on price signals in particular) and access to which still depends on purchasing power; although, in a perspective built on the right to food, food buyers shall be supported in having access to food by being guaranteed decent wages or social protection, the dominant paradigm for food production and access remaining unchallenged. This approach can thus perfectly co-exist with capitalist markets (Ferrando, 2016).

Moreover, the language of human rights and the mechanisms through which human rights are monitored and enforced remain specialized, sometimes perceived as neglectful of social

and economic justice (Moyn, 2018) and Western-centric; the language is that of human rights experts and it is experts who populate the mechanisms with all the political limits of professionalism (Sarfatti-Larson, 1977). Even the most robust legal and policy frameworks designed to support the right to food may lack any self-instituting dimension; they tend to proritize individual above collective rights, they impose obligations mostly on states and not on other individuals or corporate actors and they require the prior approval of states to become operational (it is in that sense that they remain state-centric) (Charvet and Kaczynska-Nay, 2008; Claeys, 2014). For all these reasons, human rights, although they ensure an indispensable protective function, may also be seen in other respects as disempowering – as robbing rights-holders from their ability to define the objectives of their struggles for justice and to define the pathways towards realizing them (Kennedy, 2002, 2012; Hopgood, 2013).

Food as commons and customary forms of tenure

But may human rights reinvent themselves? Are we now witnessing a form of "re-commonification" at work in this field of law? Indeed, the revival of the "commons" based on the recognition of customary forms of tenure and governance of resources that traditional communities have developed, forms a remarkable development in recent international law. Indigenous or traditional communities have, until now, lived at the external limits of the market society. Their livelihoods have been supported by the organisation of solidarity and care within their community (see, for example, Chapter 8 in this volume) and their livelihoods exhibit a non-instrumental relationship to Nature, one that recognizes our interdependence with Nature and does not see it simply as a resource to exploit or as a free dumping site (Chapter 4 in this volume). The common property regimes that these groups rely on are increasingly referred to in recent instruments, with a view to ensuring that such regimes shall be protected from encroachment. They are spectacularly endorsed, for instance, in the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (VGGT), adopted in 2012 by the Committee on World Food Security (CFS). These guidelines note that "there are publicly-owned land, fisheries and forests that are collectively used and managed (in some national contexts referred to as commons)", and that "States should, where applicable, recognize and protect such publicly-owned land, fisheries and forests and their related systems of collective use and management, including in processes of allocation by the State" (guideline 8.3).

Two years after the adoption by the CFS of the VGGT, another intergovernmental committee of the FAO, the Committee on Fisheries (COFI), adopted the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (SSF guidelines). The guidelines, the outcome of a three-year-long participatory process conducted between 2010 and 2013, encourage states to recognize forms of co-management of fisheries based on customary forms of tenure: "Local norms and practices, as well as customary or otherwise preferential access to fishery resources and land by small-scale fishing communities including indigenous peoples and ethnic minorities, should be recognized, respected and protected in ways that are consistent with international human rights law" (guideline 5.4). This illustrates a significant shift in perspective. In contrast to the dominant view, according to which a clarification and strengthening of access rights, including by the use of transferable fishing quotas, would increase economic efficiency and avoid overfishing (see, for instance, World Bank, 2004 or Cunningham et al., 2009), the SSF guidelines suggest that priority should go to improving access to fishing rights to the communities who need it most - and who could be best placed to manage the common-pool resources concerned and to monitor catches at the local level.

The shift to co-management of fisheries vesting collective rights with fishing communities is also based on the broadly positive assessment made of the establishment of fishing zones (whether in lakes or coastal areas in seas), reserving fishing in these areas for local communities, allowing them to manage access rights (Sharma, 2011; Special Rapporteur on the right to food, 2012, para. 58; Ratner et al., 2014). A 2011 study comparing 130 co-management schemes (covering 44 developed and developing countries) thus demonstrated how local communities have often been able to develop legitimate institutions of self-governance and establish sustainable approaches to managing fishing intensity and ecosystems impacts, provided strong community leaders emerge and robust social capital exists to monitor compliance with individual or community quotas (Gutiérrez et al., 2011). Other studies highlighted that co-management schemes could be successful, provided certain conditions are present (Townsend, 2008; Béné et al., 2009), including, in particular, an enabling institutional environment at the national level (Nielsen et al., 2004; Lewins et al., 2014) and a tradition of cooperation within the community (Jamu et al., 2011). The SSF guidelines express this new consensus.

Finally and most recently, the revival of the commons in international human rights law can be seen in the proposal for a Declaration on the rights of peasants and other people working in rural areas, initially submitted by Bolivia within the Human Rights Council, and strongly inspired by the Via Campesina, the transnational network of small-scale food producers (for background of this attempt, see Claeys, 2015 and Golay, 2015). At the time of writing, the proposal was under negotiation within an Intergovernmental Working Group of the Council. Article 5(1) of the draft Declaration refers to the right of peasants and other people working in rural areas 'to have access to and to use the natural resources present in their communities that are required to enjoy adequate living conditions' and to their right 'to participate in the management of these resources and to enjoy the benefits of their development and conservation in their communities'. Under the heading 'Right to land and other natural resources', Article 17(1) provides that 'Peasants and other people living in rural areas have the right, individually and collectively, to the lands, water bodies, coastal seas, fisheries, pastures and forests that they need to achieve an adequate standard of living, to have a place to live in security, peace and dignity and to develop their cultures' (emphasis added); and in wording clearly inspired by the 2012 VGGT, Article 17(3) adds:

States shall provide legal recognition for land tenure rights, including customary land tenure rights, not currently protected by law. All forms of tenure, including tenancy, must provide all persons with a degree of tenure security that guarantees legal protection against forced evictions. States shall recognize and protect the natural commons and their related systems of collective use and management.³

Thus, a counter-movement is emerging within international human rights law, as a reaction to the push towards privatization and enclosures of which, for centuries, international law has been an instrument (see also Bakker, 2007). Needless to say, the long history of plunder (Mattei and Nader, 2008) and of constantly changing legal lingo deployed for centuries to hide its establishment and continuation, should warn us against the risks of patronizing and essentializing the "local communities" by old and new carriers of the white man's burden. It is a fact that the corporate-driven transformation of land tenure systems from commons institutions (serving the long-term interest of a community that includes future generations) into capitalist institutions (serving the imperatives of capital accumulation for private individuals in this generation) has erased our capacity to study and understand the most resilient institutional alternatives (Ferrando, 2017). The regeneration of commons institutions of land tenure may be

the most crucial prerequisite of a meaningful institutionalization of the idea of food as commons (Chapter 21 in this volume). The establishment of this conversation in international law is therefore welcomed; though in the absence of a systemic critique and a comprehensive reconfiguration of the premises of the international legal system, it still seems highly insufficient.

Food as commons and social innovations

Contemporary developments within human rights support, therefore, some form of re-commonification. But they still do so largely in a defensive mode, rather than in a mode that empowers. In contrast, the more radical approach to "re-commoning" insists on the selfinstituting dimension that human rights lack. In all world regions, a range of social innovations are developing that re-invent how food is produced, processed, distributed and valued, developing alternatives to the dominant paradigm that sees (and treats) food as a commodity. These innovations include community gardens maintained by neighbors, community-supported agriculture, in which the risk is shared between the farmer and the eaters and in which the eaters express solidarity with the farmer; vegetables grown for the community members to pick, referred to as "incredible edibles"; cooperative supermarkets or social groceries. Such social practices challenge not only the dominant representation of food as a commodity, but also the representation of the individual that accompanies it - a representation both implicit and powerful, indeed, powerful precisely because often left implicit. These social practices refuse to see individuals in Hobbesian terms, as guided by appetites and aversions, and constantly searching to satisfy the former and to avoid the latter, for the selfish maximization of their utility. C.B. Macpherson perfectly summarized the relationship between that view of the individual and the bourgeois society that was emerging as Hobbes was writing the Leviathan in the mid-seventeenth century:

We live in a market society. Our behaviour, our values, are largely shaped, directly or indirectly, by the requirements of the market. We are bourgeois men. So were the men Hobbes described and analysed. ... His scientific method required him to build up a model of man and of society, and the models he constructed were bourgeois models. Since the main body of his science was produced by deduction from these models, it is a science of bourgeois society.

(Macpherson, 1968: 11-12)

This science of society we inherited from Hobbes is as much normative as it is positive; by becoming the dominant reconstruction of how we (i.e. some people in Western civilization at a specific moment of history) have come to act with one another, it also prescribes how we should behave.

Instead, these social innovations introduce a diagonal dimension between the horizontality of market relationships mediated by prices and the verticality of the state imposing regulations on the individual; on this diagonal axis, individuals relate to one another not as market agents seeking to conclude a transaction, nor as competitors, but as members of a community collaborating in pursuing a collective action for the commonwealth. Food is a "commons" in that its production and distribution responds to a logic of solidarity and mutual help, rather than to a logic of competition and exclusion, because people recognize mutual neediness and the essentiality of eating (again Chapter 7 in this volume). Even more importantly, the rules governing food production and allocation are set by the individuals who are involved in this collective action: as such, it is not only the state bureaucracy that is democratized and held accountable, it is society

itself that is democratized, as the rules resulting from self-governance replace the rules of the market (see for example Chapter 14, Chapter 15 or Chapter 19 in this volume). Thus private law, after the parenthesis of modernity, is recognized again as the *law of the privates* that, outside of the reductionism of possessive individualism, self-regulate their transacting in the interest of nature and community (see Capra and Mattei, 2015). This bottom-up generated law of the commons serves a crucial counter-hegemonic function (Mattei and Quarta, 2018).

This perspective overlaps only partly with the analysis provided by Elinor Ostrom of "common pool resources" in her seminal contribution of 1990 (Ostrom, 1990). For what we have in mind when referring to food as a commons is not a physical entity exploited according to rules a community has chosen for itself. More precisely, this is not the *only* form that "commoning" may take; the term encompasses a much broader set of social innovations by which relationships around food are redefined, by the social actors themselves, who occupy a space between the state and the market, escaping both bureaucratization and commodification, a space that these actors seek to democratize by inventing the rules by which it shall be governed (Dardot and Laval, 2015; Hardt and Negri, 2009). Although the re-writing of the rules carried out by innovative civic food actions and alternative imaginations can include food being traded for profit (therefore still working as a tradeable good, but not only and not primarily) (Vivero-Pol, 2017a), the commodification of food erases any trace of commonality, as philosopher Michael Sandel (2013) explained for other goods. As a phenomenological expression, food plays multiple functions depending on specific circumstances and commodification is incompatible with this plurality.

Food as commons moves us far away from the positivistic approach that dominates Ostrom's work as well as that of modern social science. Indeed, like water, food entirely defeats the neat separation between the subject and the object, the positive and the normative and the objective scientific description and the subjective political preferences. We are the food we eat as well as the water we drink. We cannot observe food from a perspective detached by the material conditions in which we operate. Similarly, food and the food system are co-defined by natural circumstances, human decisions and anthropocentric practices. The commons approach shows us that there is no resource (private, public or collective) that becomes such without human inputs and therefore dependent on political conditions and choices (food as a social construct). There is no abstract subject separated from an abstract object. The commons allow us to observe food, as everything else, in an ecological way that connects the dots of the interdependent material conditions that compose the web of life. There is no luxury without starvation, no starvation without luxury; that is the challenge of the commons to the transcendent and naturalizing vision of positive science.

A prospective scenario: the tri-centric scheme to steer a different transition pathway

Deconstructing food as a commodity and reconstructing it as a commons requires establishing a tri-centric governance system recombining market rules, public regulations and self-regulated collective actions, re-arranged to maximize the potential of each. Food would be produced, consumed and distributed by agreements and initiatives formed by state institutions, private producers and companies, together with self-organized groups under self-negotiated rules. Those agreements would include not only private—public partnerships (PPPs), but also public-commons partnerships (PCPs), a new institution that deserves to be further explored (Piron and Cogolati 2016) and that the city of Turin (Italy) and its administrazione condivisa exemplifies

(Bottiglieri et al. 2016). Those governing agreements serve commoning practices by enabling access and promoting food through a multiplicity of open structures and peer-to-peer practices enabling sharing and co-producing food-related knowledge and edible products. The development of this tricentric governance would combine civic collective actions for food, an enabling state and socially-responsible private enterprises (see Figure 24.1).

The civic collective actions for food are already happening, with people producing food by themselves or getting organized in food buying groups, community-supported agriculture or sharing meals clubs. The fast-growing constituency involved in this transition can value food as a commons (Chapter 22 in this volume). It calls for a different kind of state, with different duties and skills to steer that transition. Such a state would aim at partnering and at stimulating social and just innovation, rather than at steering by command-and-control via policies, subsidies, regulations and the use of coercion. That would be a "partner state" acting as an enabling supervisor and considering food as a public good (Chapter 5 in this volume). The private sector itself should be supported in its diversity, as there is a need to count on a different breed of private enterprises in order to satisfy the needs unmet by collective actions and state guarantees. This private sector shall be driven by a different ethos while making profit, bound by the requirements to contributing to social aims and the satisfaction of the needs of the community rather than moved by the goal of profit-maximization at any cost. In that sense, the market would be seen as a means towards an end (wellbeing, happiness, social good) with a primacy of labor and natural resources over capital. We will expand on these three roles below.

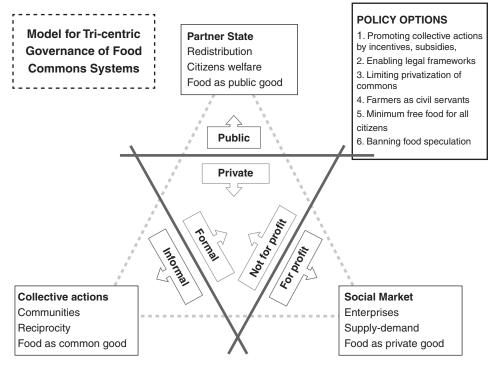


Figure 24.1 The ideational tri-centric governance model for transition in food systems. Source: Vivero-Pol (2017b).

Civic collective actions to govern food as commons

Civic food networks generally emerge at the local level and aim to preserve and regenerate the commons that are important for the community. There have been two streams of civic collective actions for food running in parallel. In rural areas, small-scale food producers, relying on low-input or agroecological production, seek to develop types of farming (as well as local processing and marketing) that evade the constraints of long supply chains controlled by large food manufacturers or retailers. In urban and peri-urban areas, alternative food networks (AFNs) are emerging, for instance in the form of community-supported agriculture (CSAs) or urban agriculture. These AFNs are led, on the one hand, by concerned food consumers who want to reduce their food footprint, produce (some of) their own food, improve the quality of their diets and free themselves from corporate-retail control and, on the other, by the urban poor and migrants motivated by a combination of economic necessity and cultural attachments. Over the last 20 years, these two transition paths have been growing in parallel, both increasingly relying on the vocabularies of food sovereignty and agroecology. They remain to a certain extent disconnected, however, divided by geographical and social boundaries. But the maturity of their technical and political proposals and reconstruction of "rururban" connections have paved the way for a convergence of interests, goals and struggles. Large-scale societal change requires broad, cross-sector coordination. It is to be expected that the movement for the revival of peasant agriculture and AFNs will continue (and need) to grow together, beyond individual organisations, to knit a new, more finely meshed and wider food commons capable of confronting the industrial food system for the common good (Ferrando and Vivero-Pol, 2017).

The partner state to govern food as a public good

The state has an essential role to play in providing an enabling framework for re-commonification. The transition towards a food commons regime will need a different kind of state, however, with different duties and skills to steer that transition. These desirable functions are shaped by partnering and innovation rather than command-and-control via policies, subsidies, regulations and the use of force. This enabling state plays a role as shaper and creator of markets and facilitator for civic collective actions to flourish. This state presents characteristics that borrow both from the partner state (as theorized by Kostakis and Bauwens, 2014) and from the Entrepreneurial State (as described by Mazzucato, 2013). The partner state has democratic public authorities playing a sustaining role (enabling and empowering) in the direct creation by civil society of common value for the common good. Unlike the Leviathan paradigm of top-down enforcement, this type of state sustains and promotes commons-based peer-to-peer production. Among the duties of the partner state, Silke Helfrich⁴ mentioned the prevention of enclosures, triggering of the production/construction of new commons, co-management of complex resource systems that are not limited to local boundaries or specific communities, oversight of rules and charts, care for the commons (as mediator or judge) and initiator or provider of incentives and enabling legal frameworks for commoners governing their commons. The entrepreneurial state, meanwhile, fosters and funds social and technological innovations that benefit humanity as public ideas that shape markets (e.g., in recent years, the Internet, Wi-Fi, GPS), funding the scaling up of sustainable consumption (like the Big Lottery Fund supporting innovative community food enterprises that are driving a sustainable food transition in the UK) and developing open material and non-material resources (knowledge) for the common good

of human societies. Public authorities will need to play a leading role in support of existing commons and the creation of new commons for their societal value.

The non-profit maximizer private sector

The private sector presents a wide array of entrepreneurial institutions, encompassing family farming with just a few employees (FAO, 2017), for-profit social enterprises engaged in commercial activities for the common good with limited dividend distribution (Defourny and Nyssens, 2006) and transnational 'too-big-to-fail' corporations that exert near-monopolistic hegemony on large segments of the global food supply chain (van der Ploeg, 2010). The latter are managed on behalf of unknown (or difficult to track) shareholders whose main goal is to maximize their (short-term) profits rather than equitably produce and distribute sufficient, healthy and culturally appropriate food to people everywhere. The challenge for the private sector is to adjust direction, to be driven by a different ethos while making profit - keeping, indeed, an entrepreneurial spirit, but also focusing much more on social aims and satisfying needs. Or, put the other way around, the private sector role within this tri-centric governance will operate primarily to satisfy the food needs unmet by collective actions and state guarantees. The market will be seen as a means towards an end (wellbeing, happiness, social good, climate change mitigation, etc.) with a primacy of labour and natural resources over capital. Thus, this food commons transition does not rule out markets as one of several mechanisms for food distribution; it does reject market hegemony over our food supplies, however, emphasizing that other avenues are available.

Local transitions towards the organisation of local, sustainable food production and consumption are taking place today across the globe (e.g. Ghent in Belgium,⁵ Torino in Italy,⁶ Toronto in Canada,⁷ Fresno in the US⁸). Inspired, often unwillingly, by principles along the lines of Elinor Ostrom's (1990, 2009) poly-centric governance, food is being produced, consumed and distributed by agreements and initiatives formed by state institutions, private producers and companies, together with self-organised groups under self-negotiated rules that tend to have a commoning function by enabling access to and promoting food in all its dimensions through a multiplicity of open structures and peer-to-peer practices aimed at sharing and co-producing food-related knowledge and items. The combined failure of state fundamentalism (in 1989) and so-called 'free market' ideology (in 2008), coupled with the emergence of these practices of the commons, has put this tri-centric mode of governance back on the agenda.

The transition period for this regime and paradigm shift should be expected to last for several decades, a period where we will witness a range of evolving hybrid management systems for food similar to those already working for universal health/education systems. The era of a homogenized, one-size-fits-all global food system will be replaced by a diversified network of regional foodsheds designed to meet local needs and re-instate culture and values back into our food system (The Food Commons, 2011). The Big Food corporations will not, of course, allow their power to be quietly diminished, and they will, inevitably, fight back by continuing to do what has enabled them to reach such a dominant position today: legally (and illegally) lobbying governments to lower corporate tax rates and raise business subsidies, combating the adoption of restrictive legal frameworks (related to GMO labelling, TV food advertising, local seed landraces, etc.) and generally using the various powers at their disposal to counter alternative food networks and food producing systems. To emphasize, the confrontation is likely to continue over decades: paralleling and reversing the industrialization and commodification path that led us to this point is not a matter of days. Imagination and motivation are essential, along with a self-reflective attitude that allows the movement to get stronger and more aware.

Conclusions

This book has a double purpose with regard to the valuation of food and the exploration of alternatives. The authors and editors aimed to get free from the mental straitjacket imposed on thinkers, practitioners and activists by the dominant narrative of capitalism, founded on neoclassical economics and absolute propietary schemes, which has done so much to delay the search for alternatives to the multiple crises our societies are facing at the beginning of 21st century. By proposing that food could be valued, enacted, produced, distributed and governed as a commons, we want to reject the historical and present commodification of food. We are tired of the practice of simplification, expropriation and appropriation that deprives such an essential resource of its multiple non–economic dimensions and that treats it according to an economic logic in disregard of its ecological impacts. Secondly, we want to lay the foundations for an alternative normative imagination of food and food systems: a vision deeply rooted in history – though disruptive and innovative – at the same time that enables the exploration of other policy options to build just, sustainable and democratic food systems.

As the British economist John Maynard Keynes once wrote in what has since become a cliché in the social sciences, "[t]he difficulty lies not so much in developing new ideas as in escaping from old ones" (Keynes, [1936] 2016). In that sense, we have tried to get rid of the entrenched understanding of food as a commodity (and as a private good in economic terms). In doing so, we have posited that commons are at the same time a very ancient and rather innovative framework to govern natural resources that are essential to human survival. Thus, food commons can easily be perceived as an emancipatory alternative, a knowledge carrying a moral purpose to combat exclusion and create conditions for human flourishing (Wright, 2013) or a disruptive narrative that challenges the power relations in the industrial food system and deepens food democracy.

The challenge for the future is to develop political, cultural and institutional conditions that allow the aggregate of predicaments addressed by the label "food as commons" to imagine and materialize solutions capable of making the global (dis)order regain a modicum of decency and legitimacy. The narrative of food as commons may unlock practices and policies that were discarded, forgotten or simply not permitted by the hegemonic mainstream because they were not aligned to the capitalist mantra. Such practices and policies have been generally dismissed as too radical, too naïve or too expensive.

Modernity, through the ideological and repressive apparatus of the State (Althusser, 1973) made of law, education and scientific professionalism, has systematically transformed commons into capital in a very successful way; it achieved this transformation successfully not only for food itself, but also for land, seeds and labour, and increasingly for knowledge, water and even, with the introduction of "rights to pollute", clean air. Individualization and competition have been the outcome of and the fuel for this process. Food, an absolute and universal need for humans, has shared the fate of every other commons (assuming that we can disentangle them from each other). It has been transformed into capital to be understood as an abstract naturalized entity, disembedded from its social relations, places of production and consumption and separated from the material conditions of life that can be produced and reproduced only within the capitalist logic.

This logic has divided the world into two spheres, the public (state) and the private (market), while insisting that these spheres are of an ontologically different nature and that their various combinations exhaust the repertoire of institutional possibilities. Where, however, there is neither state nor private property (which, however, always requires the state even to exist), there are the commons. The commons were described by Garrett Hardin as places of no law and then rescued, a generation later, by Elinor Ostrom through the idea of material common-pool

resources better run by communities, as something worth scientific inquiry. Both Hardin and Ostrom, however, share the same positivistic logic aimed at an objective ontology of the commons. For them, the commons were ontological; for us, the commons are phenomenological; they are located in place and time and continuously re-created and co-constructed by the inextricable ecology of the web of life.

The binary logic of modernity was easy to challenge when it became abundantly clear that the private and the public sectors do share the very same logic of plunder through mechanisms, such as revolving doors, regulatory capture and the military industrial complex already denounced by President Eisenhower in 1955 (Mattei and Nader, 2008). The insurrection of the Zapatistas in Chiapas and the struggle against the privatization of the provision of water services in Cochabamba opened the way for the global challenge of the conspiracy between political institutions and global transnational corporations that victimize the commons. Significantly, food and water have long been priority issues in the Global South. The last round of extraction and commodification that we are experiencing in its full-fledged forms today (i.e. land and water grabbing in the Global South (De Schutter, 2011), fish stocks overexploitation, pollution of the sea with plastic and the atmosphere with industrial by-products) started after the global crisis of 2008 and is becoming truly global in its victimization, also involving the weak inhabitants of the Global North plundered of every previous conquest of democracy and public welfare. In this grim global scenario, the commons provide an inspirational and aspirational tool of resistance and a theoretical challenge to the binary vision of the state and market duopoly. The theoretical challenge must be morphed into institutions, policies and laws to provide a generative alternative to the current extractive scenario (Capra and Mattei, 2015). Practices of collective food production, sharing and consumption, customary and contemporary, stemming from subsistance agriculture as well as from the new possibilities offered by the internet-based circular economy have to be promoted and developed as a robust counter-narrative.

Again, there are different levels of ambition. Some of the civic alternatives that are in the process of being developed as local forms of direct participation in the administration of certain cities (e.g. Naples, Ghent, Barcelona, Brussels, Turin, Porto Alegre, most of them being termed as commons alternatives) are already tailored to food predicaments in order to make the civic sector more robust. Think about the possibility to apply the participatory logic developed in the case of the Naples acqueduct to food supply (private or public) or to the case of the Mondeggi Bene Comune and the establishment of a commonly managed farm based on the principles of agroecology, accessibility, anti-patriarchy and decolonization (Chapter 21 in this volume). In this case, an institutionalized "civic sector" could complement rather than substitute the public and the private, perhaps ultimately providing some desirable transformations. It is, however, crucial to understand that a thriving social solidarity economy, if it is not supported by a strong educational effort, is at high risk of being itself co-opted by the state or the market, as it happened to ideas such as the Green Economy, organic food or the distribution of surplus food through partnerships between large retailers and charities. Capitalism has a fantastic mimetic power and unless confronted with permanent political pressure from social movements, is very unlikely to allow genuine alternatives to coexist with its loyal cronies.

A more ambitious move is therefore to deploy the *fundamental need* of food as a powerful counter-hegemonic weapon in an international war of narratives of the Gramscian type. Politically speaking, this is not a reformist but rather an openly revolutionary approach (either counter- or alter-hegemonic). The civic constituencies in both the Global North and the Global South might be mobilized on an issue as universal, direct and dramatic as hunger. Most revolutions started on issues of food scarcity and food rebellions are still taking place in recent years throughout the world (Holt-Gimenez and Patel, 2012). Such a war of narratives, positions and

cultural hegemony requires subjectivities endowed with an aspirational vision and an inspirational plan. The vision is not abstract but rather embeddeed in the material conditions of the Anthropocene/Capitalocene, whose structural imperatives are leading to a catastrophe which appears increasingly inevitable; four out of nine planetary boundaries have already been surpassed (Steffen et al., 2015) and an increasing number of people live unbearable lives of deprivation and domination. Since the early times of the Huguenot constitutional theory, a right/duty to resist is triggered in front of a model of sovereignty leading to the destruction of the political community (Menkel-Meadow, 2012). The ecological thinking embedded in the commons provides a standard of evaluation of law and policy in the political choice that is open to everybody: obey or resist. Resistance against ruinous laws or policies, if it remains an individual act, may at best give us a hero often dead or imprisoned. Collective resistance can change the world, which makes it crucial to work hard in a process of collective subjectivization based on eco-literacy and systemic thought, the only way to even see through the fog of the capitalist propaganda. It is our hope that the alternative imaginations of food and food systems offered in this book may contribute to the kind of vision and horizon that are needed to subvert the deadly logic of global state-corporate capitalism.

Notes

- 1 A 2011 study prepared at the request of the FAO estimates that 1.3 billion tonnes of food produced for human consumption about one third of the total are lost or wasted (Gustavsson et al. 2011). The levels of waste per capita of households are much higher in rich countries than in developing countries; while consumers in Europe and North America waste 95–115 kg/year, this figure is only 6–11 kg/year in Sub-Saharan Africa and South/Southeast Asia.
- 2 Public choice theory provides, in this regard, a description of politics that is not without foundation (Buchanan and Tullock 1958, Stigler 1971) and should call for a reaction precisely from those, the believers in the strength of democracy, who are suspicious of its normative prescriptions.
- 3 Article 21(3) uses a similar formula with respect to access to water: 'States shall respect, protect and ensure access to water, including in customary and community-based water management systems'
- 4 In a text quoting her to be found here: http://wiki.p2pfoundation.net/Partner_State (accessed on 27 July 2018).
- 5 https://stad.gent/smartcity-en/news-events/expert-michel-bauwens-researches-ghent-%E2% 80%98commons-city-future%E2%80%99 (accessed on 21 August 2018).
- 6 https://iucfood.wordpress.com/2017/08/06/making-sustainable-food-policies-a-reality-first-ipes-food-local-lab/ (accessed on 21 August 2017).
- 7 http://tfpc.to/ (accessed on 21 August 2017).
- 8 http://www.thefoodcommons.org/ (accessed on 21 August 2017).

Bibliography

Althusser, L. 1973. Lo Stato e i suoi apparati. Editori Riuniti, Roma.

Altvater, E., Crist, E., Haraway, D., Hartley, D., Parenti, C. and McBrien, J., 2016. Anthropocene or Capitalocene?: Nature, History, and the Crisis of Capitalism. Pm Press, Oakland.

Arendt, H. 1958. The Human Condition. Chicago: University of Chicago Press.

Atkinson, A.B. 2015. Inequality. What Can Be Done?., Harvard University Press, Cambridge.

Bakker, K. 2007. The 'Commons' versus the 'Commodity': Alter-globalization, Anti-privatization and the Human Right to Water in the Global South. *Antipode*, 39 (3), 430–455.

Béné, C., Belal, E., Ousman Baba, M., Ovie, S., Raji, A., Malasha, I., Njaya, F., Na Andi, M., Russell, A. and Neiland, A. 2009. Power Struggle, Dispute and Alliance Over Local Resources: Analyzing 'Democratic' Decentralization of Natural Resources through the Lenses of Africa Inland Fisheries. World Development, 37 (12), 1935–1950.

Benkler, Y. 2006. The Wealth of Networks: How Social Production Transforms Markets and Freedom, Yale University Press, New Haven.

- Bottiglieri, M., Pettenati, G. and Toldo, A. 2016. Toward the Turin Food Policy. Good Practices and Visions. Milan: Franco Angeli.
- Bourg, D. and Whiteside, K. 2010. Vers une démocratie écologique. Le citoyen, le savant et le politique, Seuil, Paris. Bourguignon, F. 2015. The Globalization of Inequality, Princeton University Press, Princeton.
- Buchanan, J. and Tullock, G. 1958. The Calculus of Consent: Logical Foundations of Constitutional Democracy. Liberty Fund, Indianapolis.
- Capra, F. and Mattei, U. 2015. The Ecology of Law. Berrett Khoeler, Oakland.
- Charvet, J., and Kaczynska-Nay, E. 2008. The Liberal Project and Human Rights: The Theory and Practice of a New World Order. Cambridge University Press, Cambridge.
- Chislock, M.F., Doster, E., Zitomer, R.A., and Wilson, A.E. 2013. Eutrophication: Causes, Consequences, and Controls in Aquatic Ecosystems. *Nature Education Knowledge* 4 (4), 10.
- Claeys, P. 2014. Vía Campesina's Struggle for the Right to Food Sovereignty: From Above or from Below? In Rethinking Food systems. Structural Challenges, New Strategies and the Law, eds. N.C.S. Lambek, P. Claeys, A. Wong, and L. Brilmayer, 29–52. Dordrecht, Heidelberg, New York, London: Springer.
- Claeys, P. 2015. Food Sovereignty and the Recognition of New Rights for Peasants at the UN: A Critical Overview of La Via Campesina's Rights Claims over the Last 20 Years. *Globalizations*, 12 (4), 452–465.
- Clapp, J. and Isakson, R. 2018. Speculative Harvests. Financialization, Food, and Agriculture. Halifax, Nova Scotia: Fernwood Publishing.
- Coase, R. and Fowler, R.F. 1935. Bacon Production and the Pig-Cycle in Great Britain. *Economica*, 2 (6), 142–167.
- Committee on Economic, Social and Cultural Rights. 1999. General Comment No. 12: the Right to Food. UN doc. E/C.12/1999/5.
- Committee on World Food Security. 2009. Reform of the Committee on World Food Security. U.N. Doc. CFS:2009/2Rev. 2.
- Cunningham, S., Neiland, A.E., Arbuckle, M. and Bostock, T. 2009. Wealth-Based Fisheries Management: Using Fisheries Wealth to Orchestrate Sound Fisheries Policy in Practice. *Marine Resource Economics*, 24 (3), 271–287.
- Dardot, P. and Laval, C. 2015. Commun. Essai sur la révolution au XXIème siècle. La Découverte, Paris.
- De Angelis, D.M., 2017. Omnia sunt communia: On the Commons and the Transformation to Postcapitalism. Zed Books Ltd, London
- De Schutter, O. 2011. The Green Rush: The Race for Farmland and the Rights of Land Users. *Harvard International Law Journal*, 52 (2), 503–559
- De Schutter, O. 2015. The Role of Property Rights in the Debate on Large-Scale Land Acquisitions. In *Large-Scale Land Acquisitions: Focus on South-East Asia, International Development Policy series No. 6*, eds. C. Gironde, C. Golay, and P. Messerli, 53-77. Geneva: Graduate Institute Publications, Boston: Brill-Nijhoff.
- Defourny, J. and Nyssens, M. 2006. Defining social enterprise. In *Social Enterprise. At the Crossroads of Market, Public Policies and Civil Society*, ed. M. Nyssens, 3–26. London: Routledge.
- FAO. 1997. The State of the World's Plant Genetic Resources for Food and Agriculture. Food and Agriculture Organization of the United Nations, Rome.
- FAO. 2010. Second Report on the State of the World's Plant Genetic Resources for Food and Agriculture. Food and Agriculture Organization of the United Nations, Rome.
- FAO. 2015. Status of the World's Soil Resources. Food and Agriculture Organization of the United Nations, Rome.
- FAO. 2017. The Future of Food and Agriculture. Trends and Challenges. Food and Agriculture Organization of the United Nations, Rome.
- Ferrando, T. 2016. Il Sistema Cibo Bene Comune. In *Beni Comuni 2.0. Contro-egemonia e nuove istituzioni*, eds. A. Quarta and M. Spanò. Milan: Mimesis.
- Ferrando, T. 2017. Land Rights at the Time of Global Production: Multi-Spatiality and 'Legal Chokeholds'. *Business and Human Rights Journal*, 2 (2), 275–295.
- Ferrando, T. and Vivero-Pol, J.L. 2017. Commons and 'Commoning': a 'New' Old Narrative to Enrich the Food Sovereignty and Right to Food Claims. In *Right to Food and Nutrition Watch 2017*, ed. FIAN International, 50–56. https://www.righttofoodandnutrition.org/commons-and-commoning-new-old-narrative-enrich-food-sovereignty-and-right-food-claims (Accessed on August 21, 2018).
- Gilens, M. 2012. Affluence & Influence: Economic Inequality and Political Power in America. Princeton University Press, Princeton.

- Gilens, M. and Page, B. 2014. Testing Theories of American Politics: Elites, Interest Groups and Average Citizens. Perspectives on Politics, 12 (3), 564–581.
- Golay, G. 2015. Academy In-Brief No. 5: Negotiation of a United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas. Geneva Academy of International Humanitarian Law and Human Rights, Geneva.
- Gustavsson, J. et al. 2011. Global Food losses and food waste. Extent, causes, and prevention. Swedish Institute for Food and Biotechnology (SIK) and FAO, Rome.
- Gutiérrez, N. L., Hilborn, R. and Defeo, O. 2011. Leadership, Social Capital and Incentives Promote Successful Fisheries. *Nature*, 470 (7334), 386–389.
- Haas, G.C. and Ezekiel, M. 1926. Factors Affecting the Price of Hogs. US Department of Agriculture, Washington DC.
- Hanau, A. 1928. Die Prognose der Schweinepreise. Vierteljahrshefte zur Konjunkturforschung/Sonderhefte, 18 (1930), 46.
- Hardt, M. and Negri, A. 2009. Commonwealth. Harvard University Press, Cambridge.
- Hayek, F. 1948 (1937). Economics and Knowledge. In *Individualism and Economic Order*, 33-46. Chicago: Chicago University Press.
- Hayek, F. 1960. The Constitution of Liberty. Chicago University Press, Chicago.
- Higgs, S. 2015. Social Norms and Their Influence on Eating Behaviours. Appetite, 86, 38-44.
- HLPE. 2012. Food Security and Climate Change. HLPE Report No. 3. High-level Panel of Experts on Food Security and Nutrition Rome. Committee on World Food Security.
- Hiroyuki, U. 2018. John R. Commons's Criticism of Classical Economics. *Journal of Economic Issues*, 52 (2), 396–404
- Holt-Gimenez, E. and Patel, R. eds., 2012. Food Rebellions: Crisis and the Hunger for Justice. Food First Books, Oakland.
- Honneth, A. 2017 (2015). L'idée du socialisme (orig. Die Idee des Socialismus). Gallimard, Paris.
- Hopgood, S. 2013. The Endtimes of Human Rights.: Cornell University Press, Ithaca.
- Horkheimer, M. 1930 (1974). Débuts de la philosophie bourgeoise de l'histoire (orig. Anfänge der bürgerlichen Geschichtsphilosophie). Payot, Paris.
- Human Rights Council. 2017. Draft Declaration on the Rights of Peasants and Other People Working in Rural Areas. Presented by the Chair-Rapporteur of the Working Group, U.N. Doc. A/HRC/WG.15/4/2.
- IPES-Food. 2016. From Uniformity to Diversity. A Paradigm Shift from Industrial Agriculture to Diversified Agroecological Systems. International Panel of Experts on Sustainable Food Systems, Brussels.
- IPES-Food. 2017. Too Big to Feed. Exploring the Impacts of Mega-Mergers, Consolidation and Concentration of Power in the Agri-Food Sector. International Panel of Experts on Sustainable Food Systems, Brussels.
- Jacobsen, SE., Sørensen, M., Pedersen, S.M. and Weiner, J. 2013. Feeding the World: Genetically Modified Crops versus Agricultural Biodiversity. *Agronomy for Sustainable Development*, 33 (4), 651–662.
- Jamu, D., Banda, M., Njaya, F. and Hecky, R.E. 2011. Challenges to Sustainable Management of the Lakes of Malawi. *Journal of Great Lakes Research*, 37 (1), 3–14.
- Kahan, D.M., Braman, D., Gastil, J., Slovic, P. and Mertz, C.K. 2007. Culture and Identity-Protective Cognition: Explaining the White Male Effect in Risk Perception. *Journal of Empirical Legal Studies*, 4 (3), 465–505.
- Kahan, D.M., Wittlin, M., Peters, E., Slovic, P., Ouellette, L.L., Braman, D. and Mandel, G. 2011. The Tragedy of the Risk-Perception Commons: Culture Conflict, Rationality Conflict, and Climate Change. Cultural Cognition Project Working Paper No. 89.
- Kennedy, D. 2002. The International Human Rights Movement: Part of the Problem? *Harvard Human Rights Journal*, 15, 101.
- Kennedy, D. 2012. The International Human Rights Regime: Still Part of the Problem? In *Examining Critical Perspectives on Human Rights*, eds. Dickinson, R., Katselli, E. Murray, C. and Pedersen, O.W., 19–34. Cambridge: Cambridge University Press.
- Keynes, J.M. (1936) 2016. General Theory of Employment, Interest and Money. Atlantic Publishers & Dist, New Delhi
- Kostakis, V. and Bauwens. M. 2014. Network Society and Future Scenarios for a Collaborative Economy. London: Palgrave MacMillan.
- Lambin, E. and Meyfroidt, P. 2011. Global Land Use Change, Economic Globalization, and the Looming Land Scarcity. *Proceedings of the National Academy of Sciences*, 108, 3465–3472.
- Lambin, E. 2012. Global Land Availability: Malthus versus Ricardo. Global Food Security, 1, 83–87.

- Lambin, E., Gibbs, H.K., Ferreira, L., Grau, R., Mayaux, P., Meyfroidt, P., Morton, D.C., Rudel, T.K., Gasparri, I. and Munger, J. 2013. Estimating the World's Potentially Available Cropland Using a Bottom-Up Approach. Global Environmental Change, 23 (5), 892–901
- Lewins, R., Béné, C., Baba, M.O., Belal, E., Donda, S., Lamine, A.M., Makadassou, A., Mamane Tahir Na., A., Neiland, A.E., Njaya, F., Ovie, S., and Raji, A. 2014. African Inland Fisheries: Experiences with Co-Management and Policies of Decentralization. Society and Natural Resources, 27 (4), 405–420.
- Lind, D. and Barham, E., 2004. The Social life of the Tortilla: Food, Cultural Politics, and Contested Commodification. *Agriculture and Human Values*, 21 (1), 47–60.
- Loveland, P.J and Webb, J. 2003. Is There a Critical Level of Organic Matter in the Agricultural Soils of Temperate Regions a Review. *Soil and Tillage Research*, 70, 1–18.
- Macpherson, C.B. 1968. Introduction. In Leviathan, Hobbes, T. London: Penguin Books.
- Mattei, U. and Nader, L. 2008. Plunder: When the Rule of Law is Illegal. Blackwell, Oxford.
- Mattei, U. 2011. Beni Comuni. Un Manifesto. Laterza, Bari.
- Mattei, U. and Bailey, S. 2013. Social Movements as Constituent Power. The Italian Struggle for the Commons. *Indiana Journal of Global Legal Studies*, 20 (2), 965–1013
- Mattei, U.and Quarta, A. 2018. The Turning Point in Privale Law. Ecology, Technology and the Commons. Edward Elgar, Cheltenham.
- Mazzucato, M. 2013. The Entrepreneurial State. Debunking Public vs. Private Sector Myths. London: Anthem Press.
- Menkel-Meadow, C. 2012. Introduction and Coda: International Dispute Resolution. In *Complex Dispute Resolution: Volume III*, ed. Carrie Menkel-Meadow, #. Farnham: Ashgate Press.
- Moyn S. 2018. Not Enough: Human Rights in an Unequal World. Harvard University Press, Cambridge.
- Moller, A.C., Ryan, R.M. and Deci, E. 2006. Self-Determination Theory and Public Policy: Improving the Quality of Consumer Decisions Without Using Coercion. *Journal of Public Policy and Marketing*, 25 (1), 104–116.
- Moore, J.W. 2017. The Capitalocene, Part I: On the Nature and Origins of Our Ecological Crisis. The Journal of Peasant Studies 44 (3), 594–630.
- Monteiro, C.A., Cannon, G., Moubarac, J.C., Levy, R.B., Louzada, M.L.C. and Jaime, P.C. 2018. Ultra-Processing. An Odd 'Appraisal'. *Public Health Nutrition* 21 (3), 497–501.
- Nielsen, J.R., Degnbol, P., Viswanathan, K.K., Ahmed, M., Hara, M., Raja Abdullah, N.M. 2004. Fisheries Co-Management—an Institutional Innovation? Lessons from South East Asia and Southern Africa. *Marine Policy*, 28 (2), 151–160.
- Ostrom, E. 1990. Governing the Commons: The Evolution of Institutions for Collective Action. New York: Cambridge University Press.
- Ostrom, E. 2009. A Polycentric Approach for Coping with Climate Change. Policy Research working paper WPS 5095. Washington, DC: World Bank. https://openknowledge.worldbank.org/bitstream/handle/10986/9034/WPS5095_WDR2010_0021.pdf (Accessed on August 12, 2018).
- Oxfam. 2018. Ripe for Change. Ending Human Suffering in Supermarket Supply Chains. OXFAM. https://policy-practice.oxfam.org.uk/publications/ripe-for-change-ending-human-suffering-in-supermarket-supply-chains-620418.
- Paerl, H. W. and Huisman, J. 2012. Climate Change: Links to Global Expansion of Harmful Cyanobacteria. Water Research, 46, 1349–1363.
- Parris, K. 2011. Impact of Agriculture on Water Pollution in OECD Countries: Recent Trends and Future Prospects. International Journal of Water Resources Development, 27, 33–52.
- Patel, R. and Moore, J.W. 2017. A History of the World in Seven Cheap Things: A Guide to Capitalism, Nature, and the Future of the Planet. Univ of California Press, Berkeley.
- Pimentel, D., Williamson, S., Alexander, C., Gonzalez-Pagan, O., Kontak, C. and. Mulkey, S. 2008. Reducing Energy Inputs in the US Food System. *Human Ecology*, 36, 459–471.
- Piron, J. and Cogolati, S. 2017. Vers des partenariats publics-communs. June 2017. http://www.etopia.be/spip.php?article3209 (Accessed on August 21, 2018).
- Polanyi, M. 1951. The Logic of Liberty. Liberty Fund, London. Reprinted by Routledge.
- Polanyi, K. 1957. The Economy as Instituted Process. In *Trade and Market in the Early Empires: Economies in History and Theory*, eds. K. Polanyi, C. Arendberg and H. Pearson, 244. Free Press, New York.
- Ratner, B.D., Åsgård, B. and Allison, E.H. 2014. Fishing for Justice: Human Rights, Development, and Fisheries Sector Reform. Global Environmental Change, 27, 120–130.
- Reardon, T. and Berdegué, J.A. 2002. The Rapid Rise of Supermarkets in Latin America. Challenges and Opportunities for Development. *Development Policy Review*, 20 (4), 317–334.

- Reardon, T., Timmer, C.P. and Minten, B. 2012. Supermarket Revolution in Asia and Emerging Development Strategies to Include Small Farmers. *Proceedings of the National Academy of Sciences*, 109 (31), 12332–123337.
- Ryan, R.M. and Deci, E.L. 2000a. Internal and External Motivations: Classic Definitions and New Directions. *Contemporary Educational Psychology*, 25 (1), 54–67.
- Ryan, R.M. and Deci, E. 2000b. Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being. *American psychologist*, 55 (1), 68–78.
- Samuelson, P.A. 1954. The Pure Theory of Public Expenditure. *Review of Economics and Statistics*, 36 (4), 387–389.
- Sandel, M.J. 2013. What Money Can't Buy: The Moral Limits of Markets. Farrar, Straus and Giroud, New York.Sarfatti-Larson, M. 1977. The Rise of Professionalism: A Sociological Analysis. University of California Press, Berkeley.
- Scitovski, T. 1992. *The Joyless Economy: The Psychology of Human Satisfaction*. Oxford: Oxford University Press. Sharma, C. 2011. Securing Economic, Social and Cultural Rights of Small–Scale and Artisanal Fishworkers and Fishing Communities. *Journal of Maritime Studies*, 10 (2), 41–62.
- Shepperson, M. 2017. How Ancient Lentils Reveal the Origins of Social Inequality. The Guardian, 11 October 2017.
- Smith, P., D. Martino, Z. Cai, D. Gwary, H. Janzen, P. Kumar, B. McCarl, S. Ogle, F. O'Mara, C. Rice, B. Scholes and O. Sirotenko. 2007. Agriculture. In Climate Change 2007: Mitigation. Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, eds. B. Metz, O.R. Davidson, P.R. Bosch, R. Dave and L.A. Meyer, #. Cambridge and New York: Cambridge University Press.
- Special Rapporteur on the right to food. 2012. *The Fisheries Sector and the Right to Food*. Interim Report of the Special Rapporteur on the right to food, Olivier De Schutter, to the 67th session of the General Assembly, UN doc. A/67/268.
- Steffen, W., Richardson, K., Rockström, J., Cornell, S.E., Fetzer, I., Bennett, M.E., Biggs, R., Carpenter, S.R., de Vries, W., de Wit, C.A., Folke, C., Gerten, D., Heinke, J., Mace, G.M., Persson, L.M., Ramanathan, V., Reyers, B. and Sörlin, S. 2015. Planetary Boundaries: Guiding human development on a changing planet. Science, 347 (6223), DOI:10.1126/science.1259855
- Stigler, G.J. 1971. The Theory of Economic Regulation. The Bell Journal of Economics and Management Science, 2 (1), 3–21.
- Stiglitz, J. 2015. The Great Divide. W.W. Norton and Company, New York.
- TEEB. 2018. Measuring what matters in agriculture and food systems: a synthesis of the results and recommendations of TEEB for Agriculture and Food's Scientific and Economic Foundations report for The Economics of Ecosystems and Biodiversity. UN Environment, Geneva.
- The Food Commons. 2011. *The Food Commons 2.0. Imagine, Design, Build.* October 2011. http://www.thefoodcommons.org/images/FoodCommons_2-0.pdf (accessed on August 21, 2018).
- Townsend, R., Shotton, R. and Uchida, H., eds. 2008. *Case Studies in Fisheries Self-Governance*. FAO Fisheries Technical Paper No. 504. Food and Agriculture Organization, Rome.
- van der Ploeg, J.D. 2010. The Food Crisis, Industrialized Farming and the Imperial Regime. *Journal of Agrarian Change* 2(10): 98–106.
- Vermeulen, S.J., Campbell, B.M. and Ingram, J.S.I. 2012. Climate Change and Food Systems. *Annual Review of Environmental Resources*, 37, 195–222.
- Vivero-Pol, J.L. 2017a. Food as Commons or Commodity? Exploring the Links between Normative Valuations and Agency in Food Transition. *Sustainability*, 9 (3), 442.
- Vivero-Pol, J.L. 2017b. How Do People Value Food? Systematic, Heuristic and Normative Approaches to Narratives of Transition in Food Systems. PhD Thesis. October 2017. Faculty of Bioengineers. Universite catholique de Louvain, Belgium. https://dial.uclouvain.be/pr/boreal/object/boreal:191763
- Wicklund, R. A. 1974. Freedom and Reactance. Oxford: Lawrence Erlbaum.
- World Bank. 2004. Saving Fish and Fishers: Toward Sustainable and Equitable Governance of the Global Fishing Sector. World Bank, Washington, DC.
- Wright E.O. 2013. Transforming Capitalism through Real Utopias. 2011 Presidential Address. American Sociologist Review, 78, 1–25.