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RESEARCH ARTICLE

Justainability

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Abstract

Sustainability, properly understood, is an existential moral ideal. The United Nations, however, defines it in terms of 17 indivisible sustainable development goals. This definition changes the core idea of the concept. It turns sustainability from a moral ideal into a set of economy-based political aspirations. The European Union's bioeconomy strategy demonstrates the shift aptly and reveals its main problem. When economy is prioritized, social and ecological concerns become secondary. This has been the United Nations line since the Brundtland Commission's report, *Our Common Future* in 1987. Considerations of justice illustrate the inadequacy of the approach. Equality and justice require that all those affected by decisions are heard in making them. Under the current operationalization, decisions related to the natural environment and climate change are currently being made without hearing voices that advocate deeper social and ecological equality. After an explication of the problem and the state of the art as outlined above, a new notion of justainability is introduced and it is argued that assuming it would be a step in the right direction in taking also noneconomic values properly into account in international decision making.

Keywords: Brundtland; European Union; green shift; just transition; justice; sustainability; sustainable development goals; United Nations

Background

There is a major flaw in the current United Nations (UN) thinking about sustainability. Our aim is to draw attention to this flaw by describing its nature, emergence, and implications. Unless a more appropriate approach is chosen, climate policies do not achieve their important goals.

The source of our concern is that according to the UN, the sustainable development goals (SDGs), formulated in 2015, provide the answer to all economic, social, and ecological challenges that face humanity. They do not. They provide solutions to economic problems but do not protect people, societies, or the environment.

Sustainability is always, in some sense, rational. Contrary to popular and academic belief, however, it is not always ethical, moral, or just. We conducted a philosophical analysis to specify *how* and *why* this is the case, and *what could be done*, in theory, to remedy the situation. We answered the "How?" question by using the example of bioeconomy as seen by the European Union (EU) in its strategies. To answer the "Why?" question, we recounted the history of sustainability from eighteenth-century scientific forestry to the 2015 UN climate summit in New York.

In the 1980s, sustainability thinking was at a crossroads. It could have become an instrument of change for the better had it kept economy and ecology apart. Instead, it became a guardian of the status quo by lumping the two together and giving economy the pride of place. The decision, we claim, was made in the 1987 Brundtland Commission report. To illustrate this, we drew a map of justice, sketching ideal types of Western political moralities. We used the map to show what we believe is wrong with the Brundtland legacy and its current interpretation.

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We rounded up our analysis by answering the "What could be done?" question, also in the framework of the map of justice. Comprehensive sustainability, or *justainability*, requires attention to dimensions of justice that are now ignored, namely care, downsizing, and shared responsibility. Our aim is to expose an overlooked tension. In political declarations and academic keynote speeches, sustainability is a moral ideal and derives its strength from this. In implementation and practice, however, it is an economic tool that ignores the underlying ethical concerns. We are not the first to point out this tension, or discrepancy—there have been others before us.[1,2,3,4] We try to be the first to explain its existence plainly and its problematic nature neutrally. Seen through the lens of justice, it becomes evident that the issue is structural, independent of our substantive moral views.

Before plunging into environmental policies, different meanings of sustainability, and theories of justice as expressions of political moralities, however, a word concerning our approach and theoretical framework is in order. In short, ours is an exercise in applied moral and political philosophy. We apply moral and political concepts to an archetypal environmental strategy and its relationship with notions of sustainability as they are expressed in popular science literature, environmental advocacy, and international agreements. The intent is critical and the knowledge interest is emancipatory. The moral and political concepts that we employ are ideal types, which are explicated and explained as the narrative progresses. The words used mean what we postulate them to mean and, for the economy of the presentation, no comprehensive engagement with extant terminological disputes is involved. Nor do we engage with the innumerable varieties of sustainability thinking in the concrete world of policy and practice. As philosophers, we deal with the categories of "all," "none," "some," and, as a specification of the last, "there is a case." Our case is the European bioeconomy strategy and no empirical quantification is included. As a result, our conclusions are conceptual and, at best, assertively hypothetical.[5]

The Case of Sustainability in a European Bioeconomy Strategy

Bioeconomy as a Bridge to the Future

Sustainability is an important principle in international environmental policymaking.[6,7,8,9] The overall idea is that current generations should not deplete the planet's natural resources or cause ecological degradation so that there is not enough left for those who come after. One major factor in depleting resources and degrading the environment is fossil economy. The continued use of fossil materials and fuels (coal, oil, and gas) increases carbon monoxide and other greenhouse gases in the atmosphere and accelerates the already ongoing climate change.[10]

Climate change is a challenge that has to be met in some way. One option would be to take it as a given and adjust to it. More and higher dams, no building on flood regions, and so on. The UN and the EU have, however, decided that the change should be stopped or at least stalled. One would imagine that the best way to do this would be to ban polluting activities, control population growth, and reduce consumption where it is at its highest. But the UN, and in its wake the EU, has chosen another route—the route of "sustainable development."[11,12]

We shall return to this in more detail, but just briefly for now, sustainable development, at least since the New York and Paris climate conferences in 2015, has been seen as clever economic activity that secures continued material growth. Innovative technology and business solutions halt climate change—[13] "green shift" and "just transition" being the latest buzzwords.[14] As the innovations have not yet been made, humanity needs a bridge from the present chimney inferno to the future technological paradise. Bioeconomy, according to EU strategies, provides the bridge. Biomaterials and biofuels temporarily replace fossils in a sustainable way.[15] Traditional fossil-dependent industries will suffer in the process, and this may cause financial damage, social issues, and political unrest. In EU thinking, technology and business innovations in the bioeconomy will compensate the expected losses and alleviate the uncertainties.[16]

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The EU Bioeconomy Strategy as a Sustainability Instrument

In the EU, attention to sustainability peaked in the 2018 updated bioeconomy strategy, *A Sustainable Bioeconomy for Europe: Strengthening the Connection between Economy, Society and the Environment*. From an ethical viewpoint, this is a document that brings up a pivotal question. The introduction cites several concerns that are related to sustainability's moral dimension. The world has limited resources, climate change and ecosystem degradation present challenges, and the growing population threatens to transcend the boundaries of the planet. On a general level, the demands made in the strategy are well in line with these concerns. We must, according to the document, respect ecological limits and aim at sustainability. When it comes to the means of achieving the goals, however, the language changes dramatically. The emphasis shifts from preserving the natural environment to modernizing industries and innovating new production and consumption methods. The goals related to ecological matters and climate change are forgotten, and their place is taken by a new target, prosperity for Europe.[17]

The requirement of modernization is partly a response to a criticism. At the early stages, advocates of bioeconomy seemed to claim that all the fossil materials and fuels consumed today could be replaced by corresponding, renewable biomass. This is not, strictly speaking, true. The supply of biomass is endless for as long as photosynthesis works and there are appropriate species, nutrients, and light. It is not, however, infinite at any given point in time, and it is not abundant enough for a straightforward one-to-one fossil-to-biomaterial switch.[18] In EU thinking, this means that the bioeconomy needs improved methods of creating and utilizing biomass and help from neighboring fields such as renewable energy production, recycling, and changes in production and consumption habits. Otherwise, there will be no material growth.[19]

This raises our focal question to the fore. How do we get so seamlessly from the protection of a livable planet, an existential moral matter, to retaining material growth in Europe, a local economic concern? The answer has its roots in the history of sustainability thinking.

Two Ways of Approaching Sustainability

Scientific Forestry as an Early Example of Economic Sustainability

We noted at the outset that sustainability is always rational. Let us explain what we mean by that. We shall take our cue from scientific forestry, as it emerged first in Germany and then in other countries. It was the first bioeconomy-related methodical attempt at sustainability. In the eighteenth century, European decision makers became concerned about deforestation and the scarcity of timber. As a solution, they began treating forests systematically as measurable resources. This was enabled by scientific calculations, still the backbone of modern forestry today. Woodlands, they reasoned, need meticulous attention to yield the best crops over long periods of time. With accurate knowledge, this is economically rational. It allows the optimal use of perishable resources now and in the foreseeable future. It is also economically sustainable.[20]

The entity to be sustained can, however, be defined in other ways. In addition to the economy, social and ecological dimensions could and probably should be taken into account. What happens to people, communities, and the environment in the wheels of perpetual economic growth? Scientific forestry evicted, in many cases, the general publics from their traditional gathering and hunting grounds. This was not an unintended side effect, either. It was an intended outcome, meant to secure that the original inhabitants do not stand in the way of perceived progress. This social and political issue is still alive in regions where indigenous populations have been or are forced off their traditional habitats and livelihoods to make room for industrial forestry. Such regions range from northern Scandinavia to South American countries.[21]

Environmental decay presents another problem. Forests can be turned into genetically engineered tree fields for the sake of financial efficiency, but this may come at an ecological cost. Carbon sinks may diminish, biodiversity can decrease, and endangered species become extinct.[22]

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End-of-the-World Prophecies and Population Control

Pollution and overpopulation were topical themes in popular science literature after the Second World War. Three books in particular kept the issues visible: Fairfield Osborn's *Our Plundered Planet*, William Vogt's *Road to Survival*, and Paul and Ann Ehrlich's *The Population Bomb*. These Neo-Malthusian authors believed that the natural environment has been corrupted, perhaps irredeemably; that this is due to the activities of the ever-growing human population; and that controlling the size of that population would be the only way out of the disaster.[23] Thomas Malthus was a political economist who famously argued that unchecked human populations always outgrow their resources. This leads to violence, famine, and misery. The unlucky ones keep dying until the population is again at a level that the resources can sustain.[24]

The suggested solution, population control, was well received in many circles during the twentieth century. Neo-Malthusians wanted to reduce misery, eugenicists wanted to steer human reproduction, and feminists saw birth control as an opportunity to promote women's autonomy.[25] For reasons that are not entirely clear, however, population control lost its appeal toward the century's end. Factors include that eugenics as a discriminative doctrine was rightly abandoned, China's one-child policy sank into disrepute, and feminism found new ways to boost women's procreative self-rule.

These alone would not have given sufficient grounds to ignore the rapidly growing population. The rise of so-called Cornucopian thinking lent it support, though. According to this, Earth can support any number of people, provided only that we can find a way to share resources equitably.[26]

A lone voice for population control has been the Club of Rome with its regular warnings: *The Limits to Growth*, *Mankind at the Turning Point*, and so on until this day.[27,28,29] The recurring theme is that unless something drastic is done, the planet's resources will be exhausted by … The ellipsis (…) may mark the reason why the Club of Rome has not always been taken as seriously as their meticulous meta-analyses would warrant.[30] Humanity did not run out of oil and gas by the end of the millennium as predicted, so why should we listen to them now?

The Battle of Norway

Deep Ecology and Nature's Intrinsic Value

The Neo-Malthusians and the Club of Rome approached environmental degradation primarily as a threat to humanity. Since the 1970s, another front emerged around the ideas of deep ecology and the intrinsic value of nature. Respecting the planet can be important in and by itself.[31] These ideas were already brewing in Paul and Anne Ehrlich's work and in Rachel Carson's seminal *Silent Spring*, but they were given an authoritative formulation in 1973 by the Norwegian philosopher Arne Naess.[32]

Naess distinguished two types of ecology movement: shallow and deep. "The shallow ecology movement," according to him, "is concerned with fighting against pollution and resource depletion. Its central objective is the health and affluence of people in the developed countries." This, Naess argues in his pivotal contribution, is not enough. "The deep ecology movement," he goes on, "has deeper concerns, which touch upon principles of diversity, complexity, autonomy, decentralization, symbiosis, egalitarianism and classlessness." "This," he states, "is what we should aim at."

The view rests on radical assumptions, though. The principles of diversity and symbiosis require the recognition and equal respect of all cultures and all species, a "live and let live" instead of an "either you or I" attitude in Naess's words. Humanity should try to live in harmony with other species, not at their expense or peril. Complexity demands that relationships between living beings are observed on a systems level. We are all interdependent and anything can have an effect on anything else. In future plans, this requires precaution that purely technological and business solutions standardly lack. Autonomy and decentralization are principles that protect local life, human and nonhuman, against the perils of globalization. Naess believed that ecological units that have adapted to their own lives in their own environments should not be disturbed by external influences. Biospherical egalitarianism entails that all life forms are respected alike. In practice, Naess admits the necessity of "some killing, exploitation, and suppression." As an aspirational rule, however, all species should be respected and given sufficient space

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to live their lives. Classlessness supports egalitarianism but may turn against nature in conflict situations. Naess cites the example of energy policies that pollute less but are a financial burden to those with lower incomes. In such cases, deep ecologists must look beyond the environmental concern.[33]

The ideas of deep ecology and the intrinsic value of nature were much to the fore when, during the 1980s, the foundations of our present sustainability policies were laid. Two important reports summarized the situation in different ways; alas, only one of them survived.

World Conservation Strategy Versus the Brundtland Report

In 1980, the International Union for Conservation of Nature (IUCN) published their report, *World Conservation Strategy: Living Resource Conservation for Sustainable Development.*[34] This document introduced the term *sustainable development* but in a sense that was soon lost. The IUCN noted that economic development alone cannot guarantee environmental protection. Technology and business are in conflict and contradiction with the conservation of living resources in multiple ways. Only detailed studies can reveal all the connections and causal chains. This matches deep ecology's principles of complexity and, to an extent, egalitarianism. It recognizes the interrelations of living beings and reminds us that clashes have to be identified, exposed, and resolved one by one. Had the UN chosen this path, things could be different now.

The UN did not, however, choose the IUCN path. Instead, they established their own advisory body. The Brundtland Commission was named after its chair, the former Norwegian Prime Minister, Gro Harlem Brundtland, and it presented its report, *Our Common World* in 1987.[35] The Commission adopted the term *sustainable development* from the IUCN document but changed the meaning. They rejected the view that economies and the nature are in conflict and argued, instead, that economic, social, and ecological goals can be achieved simultaneously.[36] The idea was to focus on nonpolluting, equitable economic activities especially in the Third World. The definition was, "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."[37]

Brundtland stressed pollution and the Third World for a reason. Experts already knew about global warming but disagreed on its causes. Some believed that the culprit was simply the volume of greenhouse gases. Others thought that the problem was in bad environmental management.[38] The Commission went for the latter. All nations were entitled to economic development and poorer countries needed industrialization more than others. They could not, however, be allowed to improve their lot at the cost of environmental damage that would affect future generations.[39]

A more mundane reason for Brundtland's concentration on polluting industries in the Third World was that Norway had just began drilling oil in the North Sea and started collecting unforeseen riches. That would have been at risk if other interpretations had been chosen.[40] Also, "future generations" in the equation has a definite First World flavor, which has drawn some attention in the ensuing commentaries.[41] It seems that "their" development should be guided and controlled to reduce environmental risks that would befall "our" children and grandchildren.

Impeccable Goals and Their Problematic Indivisibility

Sustainable Development Goals

In subsequent UN climate meetings, the Brundtland approach was extended to cover, more explicitly, economic activities everywhere. This came with the growing realization that business as usual suffices to cause environmental damage even without particular local disasters.[42,43,44] Faith in economy's power to solve all problems remained, however, and business as usual was replaced by technological innovations. Declaration language continued to underline social and ecological aspects, and all concerns were combined in the sustainable development goals—SDGs.[45]

The 17 SDGs were forged and adopted in the 2015 UN meetings in New York and Paris.[46,47] Their impact on policymaking has been considerable, ranging from national and regional energy, land use, and

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bioeconomy strategies to development aid and corporate social responsibility.[48] The SDGs are an impressive list of good things, ending poverty and hunger; ensuring well-being, education, water, sanitation, and clean energy for all; achieving gender equality; reducing inequality; promoting peace and justice; and striking global partnerships.[49] Who can disagree? Also on the agenda are promoting economic growth and decent work, industrialization, and innovation; taking action against climate change; conserving oceans and seas; and protecting terrestrial ecosystems and biodiversity.[50] These are serious matters, too. But here comes the turn.

According to the official UN interpretation, the SDGs are indivisible. Every one of them is equally important and every one of them must be taken into account with the weight they deserve.[51] This logic also applies to the UN's Universal Declaration of Human Rights.[52,53]

In the case of human rights, the requirement is feasible. As long as the entitlements are seen as negative, they can all be respected simultaneously. People must not actively interfere with right-protected parts of each other's lives. This can be accomplished universally. The same does not, however, apply to the SDGs. Poverty, for instance, cannot be eradicated without definite positive action, and some action alternatives will probably threaten, say, biodiversity. When everything cannot be accomplished in one stroke, choices become necessary.[54]

Interpretations of Indivisibility

Since the Brundtland report, the main dimensions of sustainability have been economic, social, and ecological. Indivisibility could be achieved by naming one of them as the master factor. Promoting it promotes all. Or not promoting it makes the promotion of the others impossible. The Brundtland Commission chose economy in the form of sustainable development.[55] The UN adopted the approach,[56,57] and other international actors, including the EU,[58] have followed suit. Societies and nature, they assert, cannot be maintained and safeguarded without material growth.

The assertion is not, however, self-evidently true. Human societies have survived without perpetual expansion, arguably with better relations with their environment. The challenge is to create an economic and political system that does not rely on growth like capitalism currently does.

Deep ecology seems to advocate a nature-first alternative.[59,60] Without a habitable environment, neither nonhuman nor human animals can thrive, and societies and economies in their present form will collapse. Life's resilience may secure bare survival, but in miserable conditions. Brundtland rejected this view as overly alarmist and idealistic.[61] The environment is a worry, but political decisions made between people and nations cannot ignore social and economic factors. Even Naess himself, the architect of deep ecology, admitted that trade-offs must be made.[62]

Putting society first is an option that seems to have support at least on a local level. Only a strong community can take proper care of its environment.[63] This idea was already present in the Brundtland report: judiciously targeted aid to developing countries reduces pollution.[64] A global extension of this model is possible, but the ideological premises would have to be patently critical. Anomie and alienation lead to an all-consuming revolution, the economy collapses, and the environment is destroyed. The likelihood of such a scenario remains to be seen.

The problem with these ideas is that they try to claim a hegemony in a matter that is naturally pluralistic. The economic, social, and ecological dimensions all have their legitimate places in sustainability considerations. A brief survey of views on justice demonstrates this.

The Idea and Possibility of Justainability

Dimensions of Justice

Let us present the survey by first outlining a map of justice and explicating its contents. The map (Figure 1) shows the relative positions of Western political moralities or ideologies or their ideal types and hints at their mutual attractions, repulsions, and tensions.[65,66]

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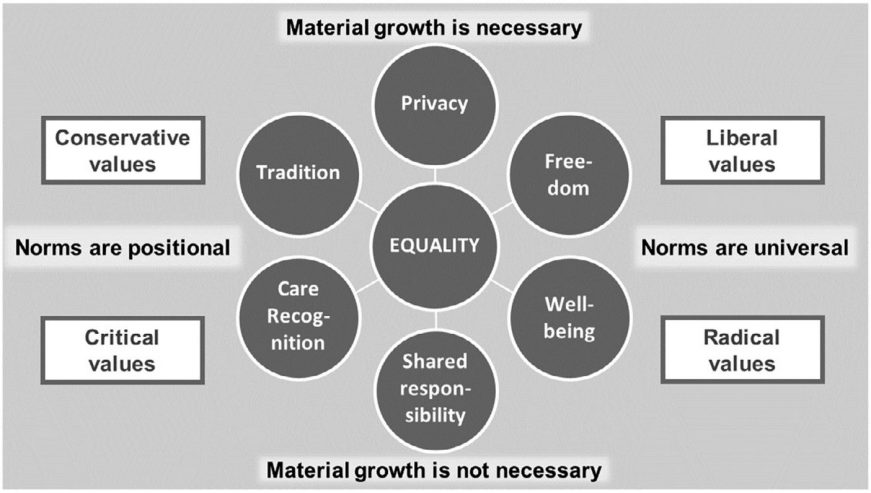


Figure 1. Dimensions of Western political moralities on a map of justice.

At the core of any Western view of justice is equality. People (and perhaps nonhuman animals)[67,68,69] should be treated with equal respect, everybody should count as one and no one as more or less than one in political life, and all those affected should be heard in decision making. Beyond these simple truths, opinions diverge, first on two main lines (the highlighted phrases in Figure 1). Some believe that material growth is necessary for human flourishing; others disagree. And some maintain that values and norms are positional, and others that they are universal.

Positions on material growth distinguish two types of thinking. Support is strong in the UN, the EU, the United States, and other champions of privacy, private property, and corporate capitalism. It is, however, also strong in state capitalist systems like *communist* China. This makes naming the opposite challenging. *Communism* would be theoretically apt, but in practice, China has confused the concept. *Socialism* would work, too, except that the term is overused in the context of redistributive health and welfare measures—hence just "shared responsibility" as opposed to economic power in the hands of the few.

The attitudes toward the nature of norms also distinguish types of thinking. Universalists believe that rights and duties are the same for all, based on our individuality. Positionalists think that they can differ according to our membership in—possibly intersecting—groups. The "novelty" of the map is to divide these further (the rectangles in Figure 1). On the universal side, some hold liberal (freedom) and others radical (well-being) values. On the positional side, values can be either conservative (tradition) or critical (care and recognition).

Popular views on justice (the circles in Figure 1) neatly find their places on the map. Conservative communitarianism and radical utilitarianism clash, as do critical care ethics and standard liberalism. Libertarians root for privacy and egalitarians for shared responsibility. The charm here is not, however, in theory names. It is in the emergence of two blocks around the main stands on material growth, the conservative-liberal, and the critical-radical. These make visible the aspects of sustainability that political moralities are likely to support.

Comprehensive Sustainability and Justice

Sustainability in the UN, SDG, and EU bioeconomy strategy senses is economic. It takes only material growth seriously and offers a trickle-down effect as the only solution to ecological and social issues. Justice means compensation for obsolete industries (upper half of Figure 2).

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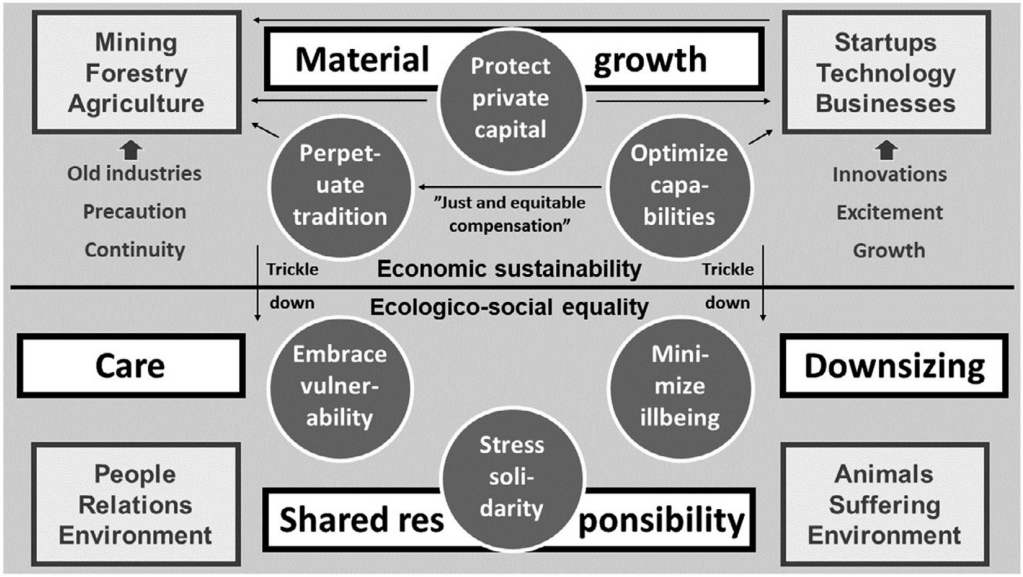


Figure 2. The main aspects of comprehensive sustainability on a map of justice.

The protection of private (including state-controlled) capital can join forces with the perpetuation of tradition, and the result is support for old industries like mining, forestry, and agriculture. Forms of compensation in use include subsidies for climate-changing activities. The protection of private capital can also be combined with a more progressive pursuit of optimizing capabilities on individual, national, and regional levels. Technological and business innovations, including startups, are then the primary target of backing and funding.

Economic sustainability is in and by itself fine and an integral part of comprehensive sustainability, or *justainability,* if the coinage is allowed. We need to make a living, now and in the future. Support for old industries also addresses some social issues, helping these sectors and their workers through the transition period. The approach ignores, however, views on justice (lower half of Figure 2) that prompt us to embrace vulnerabilities and relations between people and the environment, to take account of human and nonhuman animals who may suffer as a result of our activities, and to stress mutual solidarity that goes beyond mere group cohesion and looking after one's own interest groups.

These views, calling for care, downsizing, and shared responsibility, do not form the whole picture any more than economic sustainability. Paying heed to ecologico-social equality for its own sake is, however, also required in considerations of justainability. Taking our lead from equality, all those affected by decisions should be heard in making them. This is not the case with the current UN, SDG, and EU bioeconomy approaches. To make it the case, all parts of the map, all views on justice, should be taken into account.

In practice, the task is formidable. Abandoning the current interpretation of indivisibility would mean time-consuming calculations, comparisons, and assessments in all policy matters that involve economics, society, and the environment. A truly systemic approach would be needed. The laboriousness of such an undertaking naturally dampens interest, but we seem to have no other way out of the present impasse. Comprehensive sustainability cannot be defined merely economically. Ecological and social considerations are equal ingredients of justainability. The value of our observation is indirect. We know that the current indivisible SDG approach is not stopping climate change. We suggest that a different approach is possible. If we are right, we must turn the clock back 40 years and define our sustainability aims more inclusively.

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