

ECOLOGICAL PERSPECTIVES FOR SCIENCE AND SOCIETY
ÖKOLOGISCHE PERSPEKTIVEN FÜR WISSENSCHAFT UND GESELLSCHAFT



CITIZENS' PERSPECTIVES ON CLIMATE NEUTRALITY
TESTING IN-MIGRATION TO REVITALIZE GÖRLITZ
WHY SUFFICIENCY MATTERS

GAIA is available online at www.ingentaconnect.com/content/oekom/gaia www.oekom.de | B 54649 | ISSN print 0940-5550, online 2625-5413 | GAIA 33/3, 269–332 (2024)



Sufficiency as a "Strategy of the Enough": Curbing ecological crises and injustices.

A summary of the German Advisory Council on the Environment's discussion paper

A recent discussion paper Sufficiency as a "Strategy of the Enough": A Necessary Debate by the German Advisory Council on the Environment (SRU) aims to intensify the debate on sufficiency, a central but neglected element of future-oriented policy. It defines sufficiency as the need to limit the consumption and production of ecologically critical goods and services, mainly by the economically rich, as a basis for reducing distributional injustices and environmental impacts. Rather than proposing specific measures, the paper deliberately aims to explain the need for sufficiency from various scientific disciplines, and invite discussion. Here, the authors of the discussion paper provide a short overview of the analyses and arguments in English.

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Sufficiency as a "Strategy of the Enough": Curbing ecological crises and injustices. A summary of the German Advisory Council on the Environment's discussion paper | GAIA 33/3 (2024): 275–281

Keywords: circular economy, low-carbon technology, planetary boundaries, resource limitation, sufficiency, sustainability

Necessity: Sufficiency is required to overcome the socio-ecological crises of the 21st century

Humanity is facing global ecological crises and enormous social inequalities. Six out of nine planetary boundaries have been exceeded, some substantially; and the impacts are becoming increasingly felt (Richardson et al. 2023). The Great Acceleration continues in many areas: CO₂ emissions are still rising (IPCC 2021, Friedlingstein et al. 2022), around one million animal and plant species (out of an estimated eight million) are threatened with extinction, and the stability of entire ecosystems is at risk (IPBES 2019). Corresponding trends can be observed at the national level: for example, 17 out of 25 environmental targets set by Germany's *Sustainable Development Strategy* are not on track for 2030 (see SRU 2024, figure 3, p. 13).

The ecological crises are associated with glaring inequalities and injustices – between and within countries. These inequalities relate to access to environmental resources as well as to causing, being affected by and being able to adapt to environmental crises. The resource-intensive consumption patterns and lifestyles of the global middle and upper classes are the main drivers of the environmental crises (WBGU 2014, p. 7f.). The richest

nothing to cause them (IPCC 2023).

Taken together, these trends indicate an increasing risk of dangerous ecological changes on the planet, while the time to act is running out. This leads to a societal emergency. So far, appropriate solutions have not been applied to the extent required. The UN reports that only "17 per cent of the SDG targets are on track, nearly half are showing minimal or moderate progress, and progress on over one third has stalled or even regressed" (UN DESA 2024, p. 2). Environmental strategies pursued by governments, industries and the public have largely focussed on "efficiency" (less input per output) and "consistency" (more environmentally friendly inputs). In addition, the circular economy is seen as an

important means of reducing dependence on critical raw materials. While these strategies are indispensable to mitigate ecolog-

ical damage, it is becoming increasingly clear that they are not

10% of the world's population own around three quarters (76%)

of global wealth (Chancel et al. 2021) and emit almost half of all CO₂ emissions (Khalfan et al. 2023). Financial wealth remains

highly concentrated in the industrialised countries, while a sig-

nificant proportion of humanity lives in precarious conditions.

Nearly 700 million people live in extreme poverty (World Bank

2022), unable to meet their basic needs. Immense injustices are

also projected between generations. It is mainly the younger and

future generations who will suffer from the negative consequenc-

es of environmental crises, even though they have done little or

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Received September 16, 2024; revised version accepted September 25, 2024 (editorial-board peer review).

1 www.bundesregierung.de/breg-en/issues/sustainability/germany-s-sustainable-development-strategy-354566 sufficient to address the ecological crises. In many areas, an adequate decoupling of energy and raw material consumption from harmful environmental damage has not been achieved. There is no indication that this will change in the near future (see SRU 2024, box 2, p. 38).

To return to "a safe operating space for humanity" as a basis for the sustainable development of societies around the world (Rockström et al. 2009), proper reflection and honest debate about the change needed is essential. The volume and quality of today's material and energy flows between societies and their environment (social metabolism) are causing considerable damage to the planet's environment. For an ecologically sustainable development, these flows must be regulated (see SRU 2024, Thesis 1, p. 19) (figure 1). Governance of the social metabolism must maximise efficiency and consistency but it must also include measures aimed at sufficiency, especially in ecologically critical dimensions. In this context, we understand (the ecological part of) sufficiency as an absolute reduction in the production and consumption of certain goods and services to mitigate harmful environmental impacts.

Institutions, infrastructures and cultural patterns: Establishing practices of sufficiency also requires structural change

Sufficiency is often reduced to changes in individual behaviour. However, this narrow view ignores fundamental factors that influence lifestyles and consumer behaviour. Individual consumption and production patterns are interrelated with social, economic and political contexts. They are shaped by various types of infrastructures. These are given by the legal framework and the economic system and are expressed, for example, in the development of institutions, but also in administrative processes. But infrastructures are also physical, for example in the built environment, means of transport and energy supply (UBA 2023, Kühl 2019). Internalised values that affect individual decisions are part of the so-called mental infrastructures (Welzer 2011) and have a socio-psychological and cultural dimension.

As the current structural conditions favour environmentally damaging behaviour or impede more ecological alternatives, even environmentally conscious consumers often do not live sustainably. Sufficiency-oriented forms of production and consumption can only be widely established if the individual, the political-structural and the cultural level co-evolve towards sufficiency. With regard to the structural level, policy-making has a special responsibility as it shapes the framework conditions that influence people's social practices and the associated consumption patterns as well as the modes of production in the economy. These conditions should enable and foster energy- and resource-light practices and lifestyles, while preventing undersupply (see, e.g., UBA 2023). Although these conditions alone do not automatically lead to sufficiency-oriented behaviour, they are an important prerequisite for initiating social change in this direction.

But sufficiency goes beyond the political-structural level: it also develops through a fundamental cultural and value shift within the economy and society. Social practices are deeply integrated into and (co-)shaped by social structures. However, they also have the capacity to shape the structures in which they are embedded. Sufficiency is therefore also a cultural practice and societal guiding principle.

In an actionable and operationalizable sense, sufficiency should be understood primarily as a sustainability strategy. It becomes effective through framework conditions that promote and favour sufficiency-oriented practices. As a "Strategy of the Enough", it seeks to achieve "enough" in two ways: First, "not too much" means reducing excessive resource consumption to keep it within critical ecological impact limits and adhere to basic principles of distributive justice. Second, "not too little" means ensuring that everyone has sufficient access to energy and natural resources to meet basic needs. For people in precarious circumstances, "enough" often means "more".

Legitimacy: Sufficiency policy is morally and legally legitimate and can be considered a moral or possibly legal obligation

Although sufficiency is essential to address the key challenges of today's crises, particularly from a socio-ecological perspective, some view sufficiency-oriented policies as an unacceptable restriction of freedom (cf. Amlinger and Nachtwey 2022, Lepenies 2022, SRU 2023 text number 36 f.). This view implicitly asserts that personal rights of freedom can be exercised without any significant consideration of the ecological (and hence social) impacts of one's lifestyle on others. But herein lies a fallacy: if everyone acts without considering the consequences for others, individual freedom may well be restricted as a result. In fact, the democratic state was founded, inter alia, precisely for the purpose of regulating those areas of public life where the common good does not emerge naturally from the sum of individual decisions. Here, the idea of sufficiency makes a crucial contribution to safeguarding freedoms: it aims to ensure that an ecologically sustainable lifestyle respects the present and future rights and freedoms of others, rather than unjustifiably restricting them.

An analysis of the three central intellectual schools of thought of normative moral philosophy (deontological and eudaimonistic ethics, and consequentialism) supports this view. They provide no basis for arguments that morally justify passing on the harmful consequences of one's lifestyle to others (see SRU 2024, Thesis 6, p. 32) (figure 1). This does not imply a moral obligation for the individual to act in a certain way, particularly given the difficulty of assessing the full impact (including long-term and long-distance effects) of one's own individual actions. But there is a collective moral obligation at the level of democratically organised societies. In cases where it is clear that resource-intensive lifestyles are harming others, a discussion of sufficiency is a moral obligation at the systemic level.



- Sufficiency is essential for stabilising the Earth within planetary boundaries
- 2 Sufficiency is a prerequisite for a life in dignity for all within planetary boundaries



- 3 Sufficiency is a necessary part of a strategy to contain harmful inherent dynamics of the technosphere
- 4 Sufficiency can reduce the demand for raw materials and contribute to their long-term availability
- 5 The spread of sufficiency practices also requires structural change
- 6 Resource-intensive lifestyles jeopardise the freedom of others and there is no moral right to ignore this
- 7 Sufficiency confronts society with the contradictions of Western modernity



- 8 Sufficiency requires a more comprehensive understanding of welfare and a precautionary economic system
- A sustainable circular economy requires sufficiency
- A policy of sufficiency is constitutionally possible and even necessary under certain conditions
- 11 Cultural change is a prerequisite for and result of sufficiency policy
- Sufficiency can be a building block for a satisfied and successful life
- 13 Economic analyses of ecology and distributive justice enrich the sufficiency
- 14 Sufficiency policy will meet social resistance
- Sufficiency policy must be designed in a socially just way and can reduce inequality
- An agreement is needed on central fields of action for pursuing measures for sufficiency

The challenges: Five theses on opportunities for and obstacles to sufficiency

FIGURE 1: Overview of the 16 theses on sufficiency, set out in the discussion paper Sufficiency as a "Strategy of the Enough": A Necessary Debate by the German Advisory Council on the Environment (SRU 2024).

An active policy pursuing sufficiency is also permissible, in principle, under German constitutional law and, under certain circumstances, can even be understood to be mandated by this law. The German Basic Law² obligates the state to safeguard the natural foundations of life, both for present and future generations (Art. 20 a Basic Law). The state is further obligated to protect other fundamental rights such as the right to life and physical integrity (including those of future generations) from the adverse effects of environmental degradation. At the same time, the state is committed to other objectives, such as an economic objective, which has been interpreted as a provision to promote prosperity. However, the juxtaposition of economic and environmental imperatives is no longer an adequate description of the problem today, as the destruction of the natural foundations of life jeopardises prosperity and economic development in the long

In principle, the legislator is free to rely solely on technical innovations to achieve environmental protection goals. However, the obligation to protect the environment enshrined in Article 20 a of the Basic Law may make sufficiency strategies necessary in order to avert serious and irreversible damage to the ecological foundations of life and thus to society as a whole. This is the case if measures in certain areas are demonstrably inappropriate or inadequate. Given the serious environmental changes already underway, it is increasingly likely that there are areas where the legal system not only enables, but even requires a policy of sufficiency. This requirement is evident in the climate decision of the German Federal Constitutional Court (BVerfG, Order of the First Senate of 24 March 2021 - 1 BvR 2656/18 -, paras. 1-270),3 particularly with regard to the state's obligation to provide adequate climate protection. The Court's basic argument is also worth exploring in relation to other serious environmental problems (see case studies on land use, phosphorus and energy in SRU 2024).

The European legislation also does not impose fundamental constitutional hurdles that would prohibit legislators from implementing well-justified measures that promote greater sufficiency (see Reimer 2023 on EU law in particular). In other words, the pursuit of strategies to increase sufficiency-oriented lifestyles and practices is a legitimate form of democratic policy-making. However, there are a number of unresolved issues, and the legal debate on which legal instruments can be used to implement sufficiency is still in its ear-

ly stages. Thus, there is a considerable need for legal research and discussion (Reese 2023, p. 11 and 62 f.). This is of particular importance as existing law often does not enable or incentivise sufficient behaviour (Markus 2023, SRU 2023 text number 41 f.).

Challenges: Sufficiency faces systemic resistance and structural barriers

In order to achieve the ecologically necessary reductions in demand, modern industrialised societies need to fundamentally reposition themselves towards the principles of sufficiency. However, numerous structural barriers and systemic resistances challenge the very idea of sufficiency and impede the transformations it entails. Barriers that emerge as challenges in the cultural, political and economic spheres are interconnected,

² www.gesetze-im-internet.de/englisch_gg

³ www.bverfg.de/e/rs20210324_1bvr265618en.html

creating a complex web of interrelated systemic obstacles to sufficiency.

Among the greatest obstacles to sufficiency are the growth orientation and dependencies of modern capitalist societies, their economies and the companies operating within them. This orientation is deeply engrained in the culture, politics and economic systems of modern societies and manifests itself in multiple ways, including cognitive skills such as problem-solving strategies (Adams et al. 2021, Juvrud et al. 2024). The growth orientation is accompanied by a strong materialistic focus in the conceptualisation of wealth – illustrated by the fixation on GDP as the indicator of wealth and development – and a predominant idea of progress as technological improvement and innovation. The perception of nature as controllable and manageable by humans is intertwined with a pervasive optimism about technology. New and improved technologies are expected to make it possible to adequately decouple economic activities from environmental damage.

To date, basic institutions of the welfare state, such as social insurance systems and the labor market, depend on economic growth. Economic growth is not in itself problematic, but it frequently has material implications in the physical world that cause environmental damage. In the current economic framework, the principles of sufficiency are often in conflict with established business models, practices and interests, leading to resistance from economic actors such as corporations, associations and lobby groups (Lage et al. 2024). The transnational character of markets further complicates efforts to shift business logic towards sufficiency.

sufficiency (policies). In a political and societal climate shifting to the right, the resistance and reluctance to consider sufficiency and sustainability are likely to increase further.

In addition to the systemic barriers mentioned above, both physical and institutional infrastructures constitute potentially persistent obstacles to sufficiency-oriented policies and practices. Combined with mental infrastructures (i. e., norms, values, beliefs, etc. that both shape and are shaped by physical and institutional infrastructures), these factors can create lock-in effects.

Societal learning processes: Modern societies must re-orientate towards sufficiency to become truly sustainable

Given these barriers to systemic change, profound changes at the cultural level are indispensable. In this respect, sufficiency can be viewed as a comprehensive societal learning process: It requires of us to adapt our collective ways of thinking, living and doing business to planetary and ecological limits. Sufficiency is much more than an additional instrument in the policy-makers' toolbox. It challenges narrow conceptions of sustainability limited to technological solutions. Moreover, it questions the self-image of Western modernity. Since the Enlightenment, Western modernity has been characterised by values and norms aimed at putting in practice individual freedom, democracy, the rule of law, the separation of powers, political pluralism and social solidarity (Winkler 2016). Ideally, Western modernity claims to bring about universal and continuous progress towards these goals

Sufficiency strives for a democratic, more ecological civilisation, still rooted in the goals and values of the Enlightenment. It seeks to secure and extend freedom of action for the future, and is part of a historical project aimed at the democratic ecologisation of the socially responsible constitutional state.

The notorious drive for "more", "bigger", "better", "newer", "faster" remains culturally dominant and is continuously fuelled by advertising and other forms of marketing. Such notions are embedded in pervasive narratives about (material) growth, acceleration, progress, personal success or individual freedom. For instance, the fashion industry – particularly fast fashion (not only in clothing) – contradicts the principles of sufficiency. In modern societies, consumption often serves as a means of belonging or distinction, and as a way of defining and expressing identity (Veblen 1991).

These economic and cultural barriers to sufficiency are reflected and partly amplified in the political discourse. For example, political decisions tend to be biased towards the preferences of wealthier socio-economic groups (Elsässer et al. 2017) whose lifestyles and consumption patterns would be the primary focus of

(Wagner 2018). However, accelerating ecological crises and social inequalities (amongst other trends) contradict this self-image, as also highly critical evaluations by non-Western voices point out; they also refute naïve narratives of progress presuming that modernity will inevitably achieve its goals in the long run.

The sufficiency discourse encourages critical reflections on these issues: it highlights the consequences of resource-intensive lifestyles and business models, and points to the possible successes of other forms of society beyond growth-dependent consumer societies. The sufficiency discourse draws on a rich foundation in the history of ideas from diverse cultural backgrounds (e.g., Buen Vivir in South America, Ubuntu in Southern Africa or the principles of modesty and solidarity central to all three major monotheistic religions). It can also build on and connect with various contemporaneous social movements (e.g.,

the Slow Food, Voluntary Simplicity or Community-Supported Agriculture movements). Overall, cultural change is both a prerequisite and a result of altered social practice and sufficiency politics.

It is crucial to understand that sufficiency is explicitly not a backwards-looking concept opposed to modernity. Rather, the sufficiency discourse should be understood as an update to Western modernity: It implies a societal learning process aimed at purposeful material self-limitation in areas of critical importance to sustaining freedoms and human dignity. In other words, sufficiency strives for a democratic, more ecological civilisation, still rooted in the goals and values of the Enlightenment. It seeks to secure and extend freedom of action for the future, and is part of a historical project aimed at the democratic ecologisation of the socially responsible constitutional state (SRU 2019).

What can be gained: Sufficiency helps to overcome socio-ecological crises and can foster freer, fairer and happier societies

For societies, sufficiency is both: very demanding and very consequential. The goal is a collective reduction in consumption and production, which must be thought through with all effects on the economy, prosperity and society. How can such a far-reaching transformation succeed? This challenge requires a broad social exchange of arguments, positions and ideas. The discussions will be difficult, sometimes confrontational, and on many issues, a quick agreement cannot be expected. However, even if sufficiency is an uncomfortable topic and may be perceived as politically risky in view of growing polarisation, such a discourse is necessary. It should include the following questions: In which areas and to what extent do we need sufficiency in order to solve the ecological crises? How can environmental resources be distributed more fairly (within and across nations and generations)? How changeable is the current economic system? What are viable, sustainable lifestyles and how can they be established? How can sufficiency policy be legally implemented?

While acknowledging that sufficiency comes with substantial challenges, the discourse should also elucidate what there is to gain. Unlike most efficiency and consistency measures, sufficiency has the potential to be a multi-solving strategy. This means that sufficiency can address multiple dimensions of the socioecological crises while limiting negative side-effects. For example, in the decarbonisation of the energy system, consistency (i.e., replacing fossil energy source with renewables) is essential. As energy demand increases, conflicts with other ecological and social objectives are exacerbated by the higher demand for land (and sea) area and for resources. Sufficiency aims to reduce energy demand, thereby mitigating negative side-effects associated with renewable energy production. It is important to note that the potential negative side-effects associated with high and increasing energy and resource demand in the Global North go beyond local acceptance problems ("not in my backyard") and competing land (and sea) uses (e.g., with nature protection/restoration, agriculture). In fact, high energy and resource demands in the North are likely to contribute to "green colonialism" (Lang et al. 2024). This involves a (re-)intensification of colonial patterns of power and exploitation as well as unequal gains and losses resulting from (alleged) sustainability efforts in the Global North.

In theory, demand reductions could be relatively easily achieved with strong price signals for environmentally harmful products and services (e.g., a high ${\rm CO_2}$ tax). However, such approaches tend to have regressive distributional effects, exacerbating existing inequalities. Rather than accepting negative social side-effects, sufficiency has the potential to address ecological and social issues in an integrated manner. It seeks to ensure that both ecological (upper) and social (lower) limits are respected in access to and consumption of goods and services.

Sufficiency policies can bring further co-benefits, both through locally focused measures and through broader society-wide changes. For example, a more sufficiency-oriented organisation of mobility would likely have positive effects on health, for example, through more active mobility, less noise exposure, less air pollution or fewer serious accidents. At the local level, quality of life can be improved through more liveable public spaces and cities. A more sufficiency-oriented diet, with less meat and dairy products, protects natural resources and tends to be healthier. Sufficiency-oriented housing policies can potentially reduce costs of living and social isolation as well as alleviate housing shortages.

Seen as a key principle for modern sustainable societies, sufficiency also harbours emancipatory potential. It has the capacity to counter some of the dynamics of modernity that are discussed as major contributors to widespread mental and physical health issues. These include dynamics of acceleration and alienation, which are at least partly intertwined with the economic growth paradigm (e. g., Rosa 2016) discussed above as a barrier to sufficiency. In a society organised around the principles of sufficiency, achieving a healthier and more satisfying balance between material, temporal and relational wealth might be more feasible than in current Western economies (Linz 2013). Competition and rivalry could be reduced, while cooperation and solidarity could be strengthened.

While we argue that sufficiency must be widely practiced to meet critical ecological and social sustainability goals, we wish to reiterate that this does not make sufficiency a "necessary evil". Instead, we are convinced that a sufficiency-oriented transformation can and should be envisioned and narrated as one that reduces ecological and social damage, increases overall life satisfaction, and can bring us closer to the ideal of the "good life for all".

Acknowledgements: The discourse about sufficiency is not new and has many deserving pioneers and thought leaders. We would like to particularly acknowledge Wolfgang Sachs and the German parliament's Enquete Commission on Growth, Prosperity and Quality of Life. Together with many others, their analyses have provided an excellent foundation and much-needed impetus for the sufficiency debate. We thank our former colleague Andrea Bues and the external experts we consulted for their valuable input, as well as the SRU's administrative staff for their invaluable support. SRU is mandated by the

German government to provide scientific advice on environmental policy issues. It is fully independent in its analyses and recommendations. The authors would like to thank the editorial board for the helpful comments. **Funding:** This work was produced as part of the SRU's advisory activities. There was no extra financial support.

Competing interests: The authors declare no competing interests.

Authors' contributions: This work contains the core messages of the SRU discussion paper Sufficiency as a "Strategy of the Enough": A Necessary Debate, published in March 2024 at www.umweltrat.de. All authors were involved in writing this discussion paper and supported the writing process of this summary, too.

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