

Priority Themes for Swiss Sustainability Research



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SDGs: The international UN Sustainable Development Goals

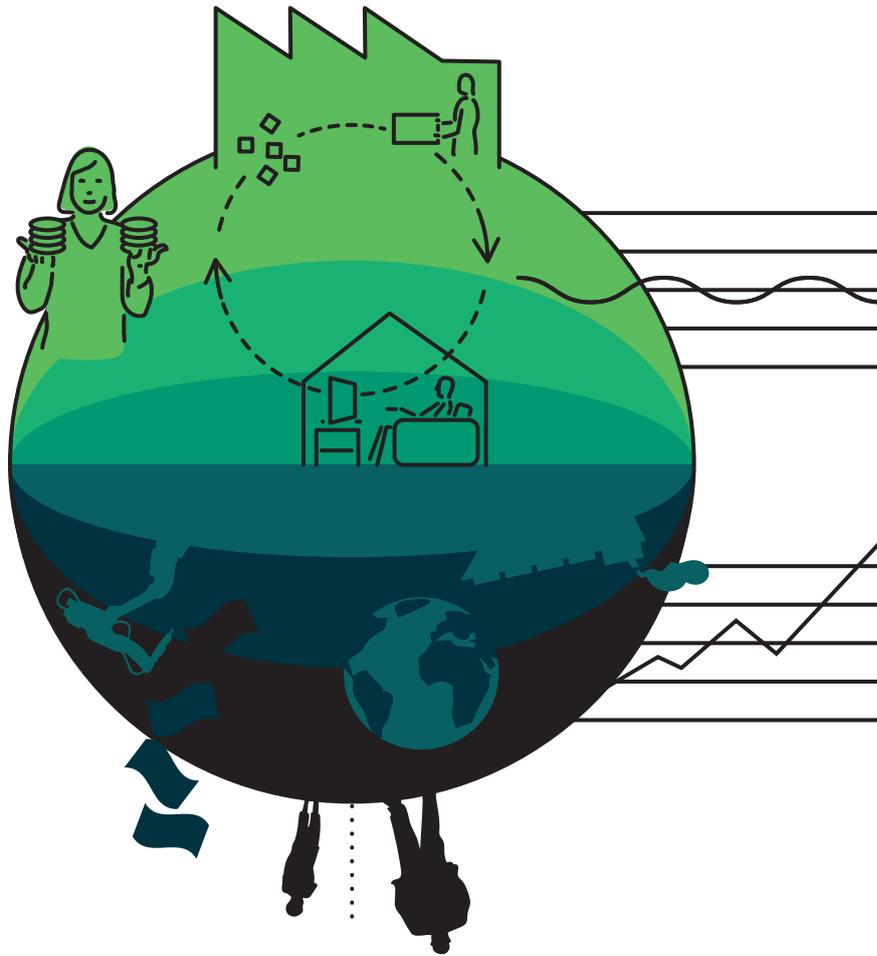
With this report, the Swiss Academies of Arts and Sciences contribute to achieving the SDGs:
With a view to meeting Switzerland's commitments under the 2030 Agenda as a whole, it identifies our country's most urgent research needs.

> sustainabledevelopment.un.org

> eda.admin.ch/agenda2030/en/home/agenda-2030/die-17-ziele-fuer-eine-nachhaltige-entwicklung.html



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5. Economic and Financial Systems for Well-being

Our current economic system tolerates or even encourages highly unsustainable practices. Finance is increasingly disconnected from the real economy and the huge volumes of assets traded in uncontrolled, speculative and manipulated financial markets have contributed to economic and financial instability. The costs of resulting crises, overconsumption, pollution, resource depletion, and social inequalities are far too high, both for present and future generations. Our current economic paradigm must be transformed into one that serves sustainable development.

Marc Chesney (University of Zurich), Christoph Bader (University of Bern), Beat Burgenmeier (University of Geneva), Sergio Rossi (University of Fribourg), Irmi Seidl (WSL)

Problem statement

Today's dominant economic system is globalized, strongly financialized, and oriented towards growth. The incentives inherent in this system foster inequalities, both within and among countries. They also cause increasing damage to the Earth's natural systems – especially to the climate, biodiversity, and natural resources. These inequalities and environmental impacts are exacerbated by legal frameworks that grant property owners broad freedoms to use and exploit natural resources and labour. In all this, the needs of the poor and others who suffer the consequences of environmental degradation are neglected, as are those of future generations.

Economic practice is strongly influenced by the dominant paradigm of neoclassical models, which also inspired the so-called Chicago School of thought. These models are based on rather unrealistic assumptions of efficient markets and rational behavioural patterns (*homo oeconomicus*) that are seldom questioned. Financial markets are modelled as perfect and efficient, ignoring the fact that, in practice, they are both biased and manipulated on a large scale. In the context of sustainability, four aspects of modern economic systems deserve special mention because of their evident consequences for social and environmental well-being.

First, dominant economic models do not consider how the economy is *embedded* in society. Rather, mainstream theories describe the economy largely by and for itself, and evaluate societal and environmental factors in purely economic terms, treating ecological and social problems as ‘externalities’.

Second, the mainstream economic paradigm promotes a form of globalization that increases international competition, pushes down prices of many commodities, and massively increases transportation. To a large extent, this paradigm ignores the negative impacts of globalization, including overexploitation of natural resources, increasing wealth inequalities, pollution, and our growing vulnerability to economic, societal and health crises, such as pandemics.

Third, mainstream economic thinking is infused with an optimistic belief that technological progress coupled with market mechanisms is capable of overcoming all limitations of natural systems and solving all environmental problems. In reality, this optimism is disproved by many examples showing that ‘more, bigger, and better’ technologies can even increase a country’s ecological footprint. Further, the benefits of technological innovations such as digitalization and robotics are unevenly spread across societies and countries, and often generate even greater inequalities.

Finally, all these trends are exacerbated by the increasing disconnection of finance from the real economy. Further, perceived opportunities to earn vast sums rapidly by trading in financial markets have contributed to economic and financial instability and aggravated social inequality.

Given these deficiencies, many researchers and thought leaders have called for the economic system to be transformed so that it reflects the normative aim of ‘sustainable well-being’. Many proposals have been made on how to achieve this, proposed under labels such as circular, flourishing, regenerative, restorative, ecological, common good, and doughnut economics; *décroissance*/degrowth, well-being economy, strongly sustainable business models, *buen vivir*, and thriving. A growing literature, much of it produced through interdisciplinary, policy-oriented research, is showing how such approaches could be implemented. These studies emphasise the need to align investments with long-term sustainability pathways, divest from fossil fuels, and decouple the benefits of economic activities from environmental degradation while aiming for convergence in living standards and opportunities. There is also widespread agreement that sustainable economies need to be based upon indicators that, unlike GDP, support and measure well-being rather than economic growth and profit. Scholars also agree that

sustainable economies must be resilient, in the sense that they are both resistant to shocks and able to recover from them (unlike the economic responses to the 2008 global financial crisis, or the 2020 coronavirus pandemic!).

To date, however, these ideas have had little impact on mainstream economics, whether in Switzerland or elsewhere. Indeed, there is currently no real pluralism in terms of schools of thought, and very little serious discourse about alternative paradigms.⁴ An important goal of the research proposed here is to stimulate a vigorous scientific debate about alternatives. In the view of the SRI working group, this is an essential first step towards transforming the economic system.

Key unresolved questions

Potential models for sustainable economies: There is extensive theoretical literature concerning sustainable economic systems. One main problem is the implementation of such systems. An informed and broadly-based debate on implementation is required to develop innovative policy recommendations. Such a debate should ask how dealing with environmental resources, limits, and societal values can be put at the core of the economic system. To that end, existing theories on growth, capital, property, profit, competition, power, well-being, and the role of the financial sector need to be critically discussed and analysed.

Unresolved questions include:

- What are the main discrepancies between current models of economic systems and the sustainability principles of the UN?
- What are promising understandings, visions, and models of sustainable economic systems? What are their underlying assumptions and paradigms, and what are their key characteristics? How can they be concretized, at different scales and for Switzerland specifically, and how can corresponding transformation be fostered? What are inspiring success stories?
- How can models interlinking economics and finance be constructed to include environmental and social concerns?
- What are scientifically robust arguments substantiating that economic policy and public debates solely guided by GDP and the growth imperative are not compatible with sustainable development and thus need to be complemented with alternative metrics? How can such new metrics be established?

⁴ Attempts to promote interdisciplinarity include the establishment of the Center of Competence for Sustainable Finance at the University of Zurich

Towards altered patterns of production and consumption: Sustainable economic systems will almost certainly entail altered patterns of production and consumption. It would be useful to identify realistic options for change in different sectors and regions. Also, it is unclear what the implications could be for the current, largely globalized division of tasks in these systems.

Unresolved questions include:

- What are concrete options, requirements, and framing conditions for national and global sustainable production and consumption, and for which sectors?
- What are the major tasks in developing technical systems and societal structures to enable altered patterns of production and consumption? What are potentials and limitations of the circular economy? What is the potential of sufficiency in consumption and how can it be fostered?
- Where might increased efficiency be enough to minimize costs to the environment and society, where are major innovations also needed in the supply of goods and services, and where do we need to rethink demand more radically?
- How can the value of common-pool resources and non-commodity ecosystem services appropriately be considered for realizing sustainable production and consumption patterns?

Adjusting public finance systems: The current national and international tax systems and national systems of public finances were set up several decades ago and have not been adequately adapted to meet the challenges of sustainability, globalization, and increasing inequality.

Questions include:

- What elements of the present tax systems contribute to unsustainability or hinder the solutions to sustainability problems?
- What are truly inclusive approaches to public finance, subsidies and taxes, given that e.g. taxing mainly labour or consumption is counterproductive?
- How can the tax system evolve into a mechanism that lessens environmental pressure, contributes to the income generation, reduces social inequality, and stimulates the economy to become sustainable?

The role of finance: The current financial system is largely globalized and its mechanisms are extremely complex. Alternative business models and regulatory reforms for the financial system are needed to turn it into a sector that serves sustainable development.

Unresolved questions include:

- What are the role and core characteristics of a sustainable financial system? What form and degree of global

collaboration would a sustainable financial system ideally feature?

- How would money creation occur in a sustainable economy? What would be the implications for the roles of capital, debt, property, and power?
- What are the contradictions between the financialization of the economy and the principles of sustainable development?
- How can the banking and financial system support the real economy in its transition to more sustainability? What is the role of central banks investments, especially in mitigating climate change?
- How can the considerable systemic risks emanating from toxic financial assets be measured and eliminated?

Enabling public debate about economic systems: To achieve the goal of developing sustainable economic and financial systems, economic research must be conducted in close collaboration with other disciplines and societal actors. The general public, and students in particular, need to understand what is at stake and be involved in a critical debate about our economic and financial systems.

Key questions are:

- How can the scientific discourse about different schools of thought in economics and finance be promoted in research and teaching activities? What conditions and structures need to evolve?
- How can an open debate about the economic and financial system be organized in such a way that it results in policy recommendations serving sustainable development goals? Who needs to be included in this debate, and how can power imbalances be dealt with?
- Which systems of sustainable economies would be preferred by the different relevant actors, and what considerations shape the respective social discourses?
- How can a fruitful interdisciplinary discourse be established between business, scientists, economists, sociologists, political scientists, and philosophers? Which structures need to evolve to link these disciplines again?

Expected relevance for Switzerland and internationally

There is still very little awareness about the role of economic and particularly financial activities in many sustainability crises. Nevertheless, scholars from different fields, such as climate and biodiversity sciences, have begun calling for alternative economic models.

Our research proposal sheds light on fundamental assumptions and mechanisms of current economic systems and takes an interdisciplinary, policy-oriented approach to promoting more sustainable economies. It contributes

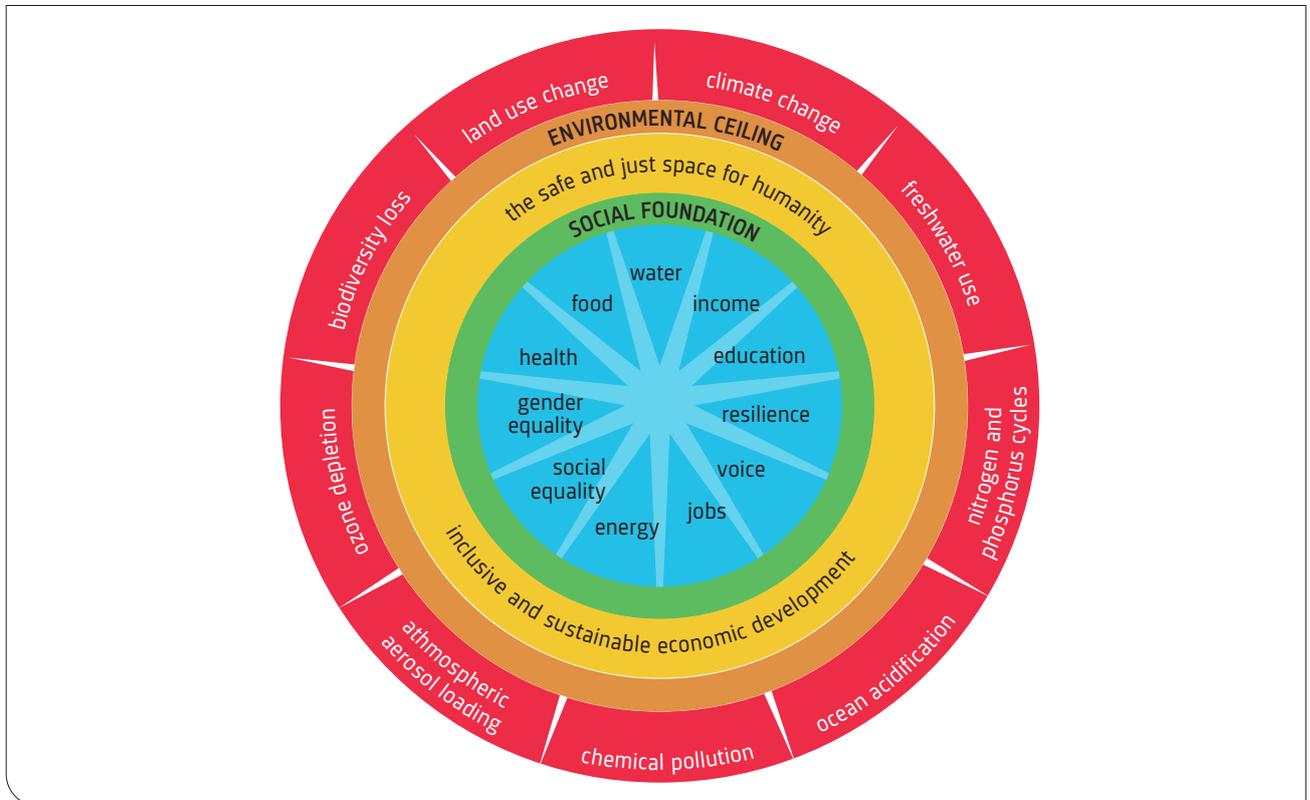


Figure 5.1: The doughnut economic model. The inner ring of the doughnut represents minimum requirements for leading a good life, based on the SDGs. The outer ring represents the ecological ceiling, beyond which human kind damages its natural environment.

The 'dough' in-between is where everyone's needs and that of the planet are met.

Source: Raworth K (2012) *A Safe and Just Space for Humanity: Can We Live Within the Doughnut?* Oxfam, Oxford.

not only to a new open policy design, but also promotes expanding existing work on policy mixes, combining economic policy with social and environmental regulatory tools in an optimal way. Single approaches can no longer be considered adequate. Moreover, our research proposal is aimed at the needs of transformation and recommends systematic policy monitoring that combines economic, social, and environmental instruments.

Such an approach is urgently needed in Switzerland, where mainstream economic thinking dominates policy-making, even though the need for interdisciplinary approaches is increasingly recognized.

Economic instruments for environmental protection must be complemented by social policies. The boundaries and bureaucratic implications of, for example, national and international emissions trading systems have to be clearly designed. Also, the potential contribution of the Swiss financial sector to sustainable development needs to be studied in an open and independent manner that care-

fully examines different policy options (voluntary agreements, incentives, direct control).

Links with the other thematic areas that need to be addressed

Our *food systems* are strongly influenced by economic practices and the economic interests of particular groups. The profitability expectations of food industry actors diverge from agricultural realities on the ground. Farms are generally heavily indebted. High-tech advances and robotics are leading to even higher financing requirements. Global seed and pesticide producers contribute to such trends – in Switzerland and globally. Consequently, farmers are forced to intensify their productivity continuously. At the same time, agriculture is, or should be, a special case, protected from conventional market forces, since it cultivates a public good. Non-commodity ecosystem services still play a critical role in food production, and there is significant scientific work on how to demonstrate the value of such services. Swiss agricultural policy strives

to combine social, economic, and environmental instruments, but our food system continues to produce major negative environmental impacts here and abroad, particularly due to agricultural imports. A possible free trade agreement with Mercosur, for example, would offer governments in South America, in particular in Brazil, even more incentives to continue destroying Amazonia to increase meat and soy sales to Europe.

Economic incentives alone will not be enough to achieve the *target of maximum 1.5° Celsius of warming* set by the Paris Agreement. In this regard, fossil fuel divestment represents an important potential lever of the financial sector globally. The responsibility of banks, the shadow banking sector, the Swiss National Bank – as well as the impact of their activities abroad (and globally) – need to be studied and integrated in models of sustainable economic and financial systems. For the Swiss financial sector to genuinely orient itself towards sustainability, and consolidate its international importance, it will require new business models. The institutional conditions for such reforms must be carefully studied. Overall, financial investment decisions will strongly impact sustainability trends going forward.

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