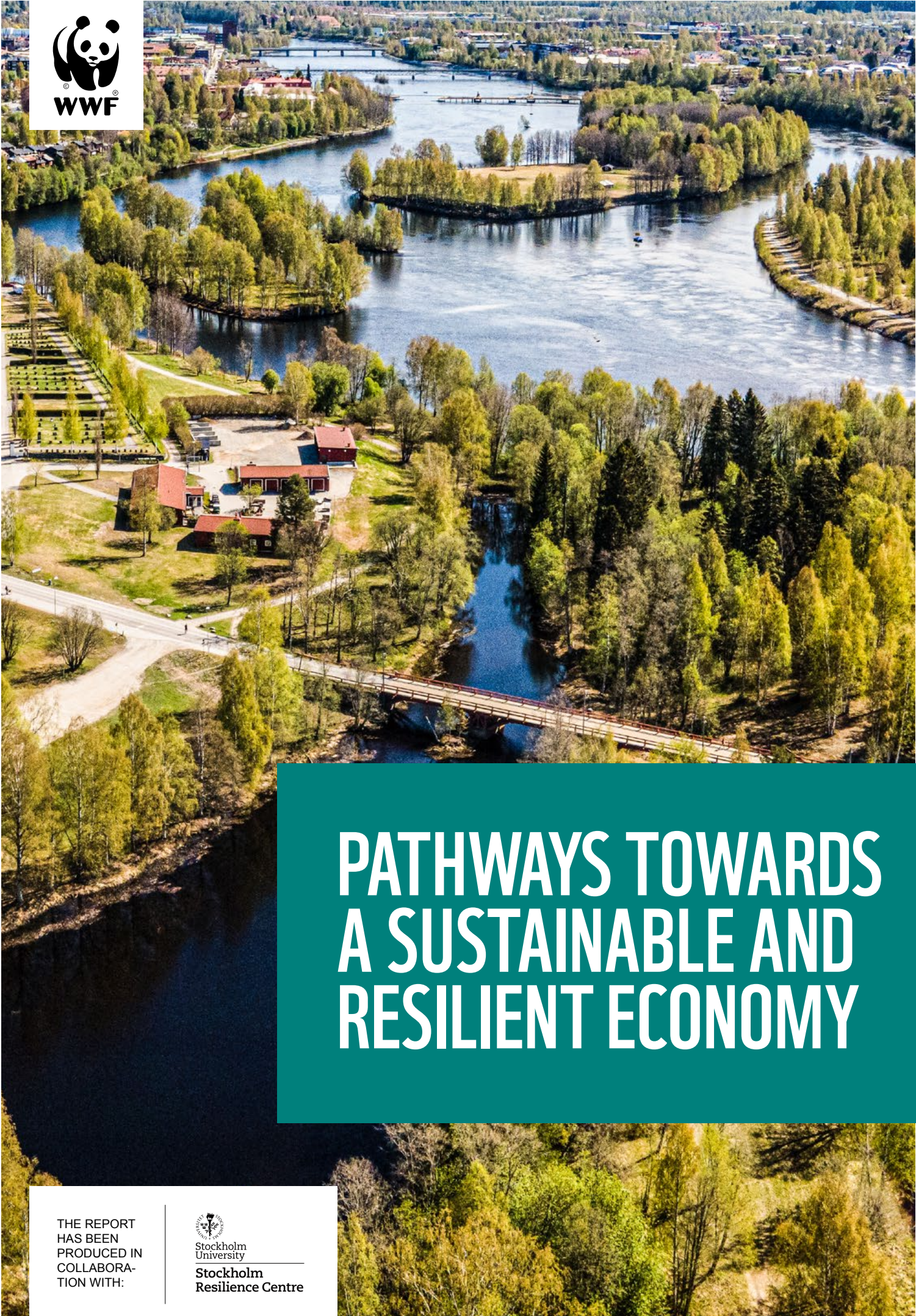


An aerial photograph of a river flowing through a lush green forest. The river has several small islands and is surrounded by dense trees. In the foreground, there is a small cluster of red-roofed buildings and a bridge crossing the river. The background shows a town with more buildings and a bridge.

PATHWAYS TOWARDS A SUSTAINABLE AND RESILIENT ECONOMY

THE REPORT
HAS BEEN
PRODUCED IN
COLLABORA-
TION WITH:



Stockholm
University
**Stockholm
Resilience Centre**

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Disclaimer

The content presented in this report consists of various existing proposals put forward by researchers and practitioners alike, and, as such, do not necessarily reflect the views of WWF, the authors, or the External Advisory Group members or their respective organizations.

About WWF Economic Forum

This report is part of WWF Economic Forum, which brings together decision-makers, researchers and businesses to advance knowledge and dialogue on the interdependence between nature and the economy.

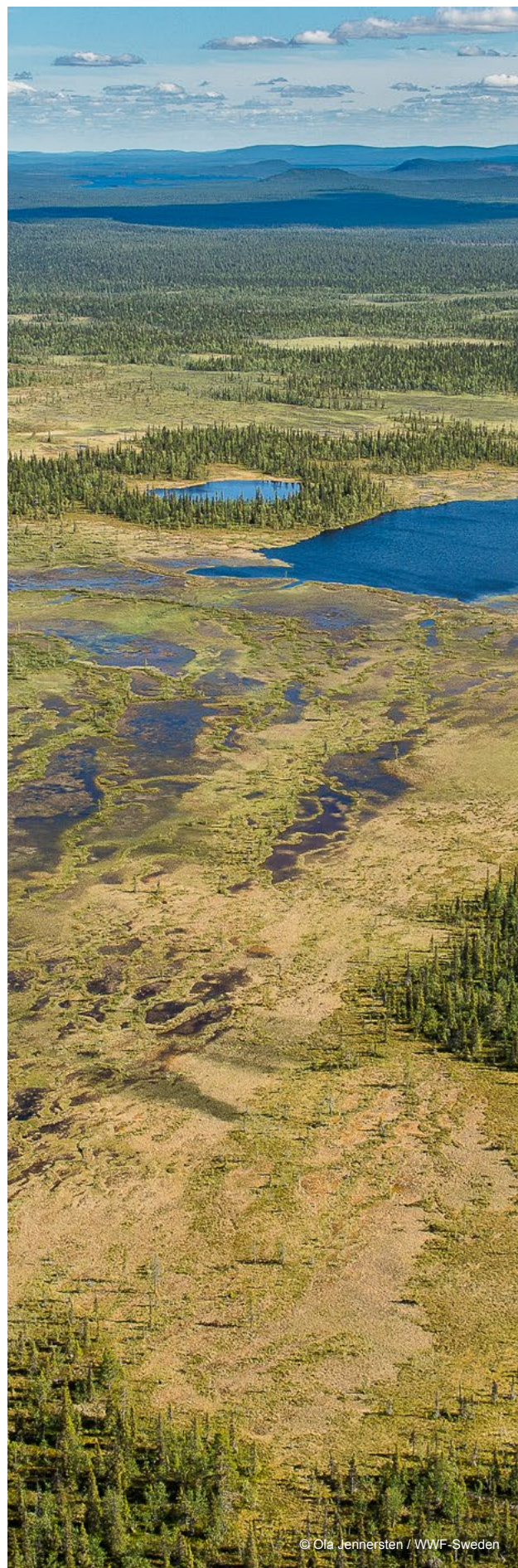
For more info, visit: wwf.se/wwfs-ekonomiska-forum

This report was produced in collaboration with Stockholm Resilience Centre on behalf of WWF Sweden, as part of WWF Economic Forum.

About WWF

WWF is an independent conservation organization, with over 40 million followers and a global network active through local leadership in over 100 countries. Our mission is to stop the degradation of the planet's natural environment and to build a future in which people live in harmony with nature, by conserving the world's biological diversity, ensuring that the use of renewable natural resources is sustainable, and promoting the reduction of pollution and wasteful consumption.

Find out more at: panda.org





FOREWORD

Nature is the foundation of all life—of our societies, our economy, and our prosperity. At the same time, we are facing a nature and climate crisis that is already affecting quality of life, businesses’ long-term prospects, and society’s resilience. Turning this trajectory around requires decisive, purposeful action.

One of the driving forces behind this trajectory lies in how our economic system functions; what incentives it creates, what it rewards, and which costs are accounted for. To create a future where both people and nature can thrive, we need to develop new ways of thinking about our economic system, value creation, and prosperity.

The WWF Economic Forum was created to highlight research, promote dialogue, and bring together actors from different parts of society to explore pathways toward a more sustainable economic system. Around the world, many promising initiatives are already underway, along with a growing body of knowledge on how to build an economy within planetary boundaries. The critical question is how these ideas can be implemented at the scale and pace required. What changes are needed? Who does what? And which positive tipping points can help accelerate the transition?

For the second year in a row, the WWF Economic Forum, this year in collaboration with the Stockholm Resilience Centre (SRC), presents a report on the interplay between nature and the economy. This year’s report explores possible pathways toward a sustainable economy within planetary boundaries, how these pathways complement and challenge one another, and how they contribute to a resilient economy in which both people and nature can flourish.

A big thank you to FORMAS, whose support has been essential to this project. I would also like to extend my warmest thanks to the Stockholm Resilience Centre (SRC), the WWF Economic Forum Advisory Board, the WWF team, and all researchers, experts, decision-makers, and other stakeholders who have contributed their knowledge, perspectives, and engagement in the development of this report.

A special thanks also to the participants of the WWF Economic Forum, whose insights and discussions have been invaluable. We look forward to continuing this dialogue with all of you.

The report is only the beginning. Its value lies in how these insights are used – in decisions, collaborations, and action. The opportunity to steer this course in a more sustainable direction exists here and now. Let us seize it.

Solna, September 30, 2026



A stylized, handwritten signature in black ink, appearing to read 'Gustaf Lind'.

Gustaf Lind
Secretary General,
WWF Sweden

FÖRORD

Naturen är grunden för allt liv, för våra samhällen, vår ekonomi och vårt välstånd. Samtidigt står vi mitt i en natur- och klimatkris som redan påverkar människors livskvalitet, företags långsiktiga förutsättningar och samhällets motståndskraft. Om utvecklingen ska vändas krävs att vi agerar kraftfullt och målmedvetet.

En av drivkrafterna bakom dagens utveckling finns i hur vårt ekonomiska system fungerar; vilka incitament det skapar, vad det belönar och vilka kostnader som räknas. För att skapa en framtid där människor och natur kan blomstra behöver vi utveckla nya sätt att tänka kring vårt ekonomiska system, värdeskapande och välstånd.

WWFs Ekonomiska Forum skapades för att lyfta fram forskning, främja dialog och samla aktörer från olika delar av samhället för att utforska vägar mot ett mer hållbart ekonomiskt system. Runt om i världen pågår redan många lovande initiativ och det finns en växande kunskap om hur ekonomin kan utvecklas inom planetens gränser. Den avgörande frågan är hur dessa idéer kan omsättas i den omfattning och takt som krävs. Vilka förändringar behövs? Vem gör vad? Och vilka positiva tippningspunkter kan bidra till att påskynda omställningen?

För andra året i rad presenterar WWFs Ekonomiska Forum, i år i samarbete med Stockholm Resilience Centre (SRC), en rapport om samspelet mellan naturen och ekonomin. Årets rapport utforskar

möjliga vägar mot en hållbar ekonomi inom planetens gränser, hur vägarna kompletterar och utmanar varandra, och hur de bidrar till en resilient ekonomi där både människor och natur kan utvecklas.

Ett stort tack till FORMAS, vars stöd har varit avgörande för detta projekt. Jag vill också rikta ett varmt tack till Stockholm Resilience Centre (SRC), WWFs Ekonomiska Forums expertråd, teamet på WWF samt alla forskare, experter, beslutsfattare och andra aktörer som har bidragit med sin kunskap, sina perspektiv och sitt engagemang i arbetet med att ta fram denna rapport.

Ett särskilt tack går också till deltagarna i WWFs Ekonomiska Forum, vars insikter och diskussioner varit värdefulla i arbetet med rapporten. Vi ser fram emot att fortsätta denna dialog.

För rapporten är bara början. Värdet ligger i hur insikterna används; i beslut, samarbeten och handling. Möjligheten att styra utvecklingen i en mer hållbar riktning finns här och nu. Låt oss ta vara på den.



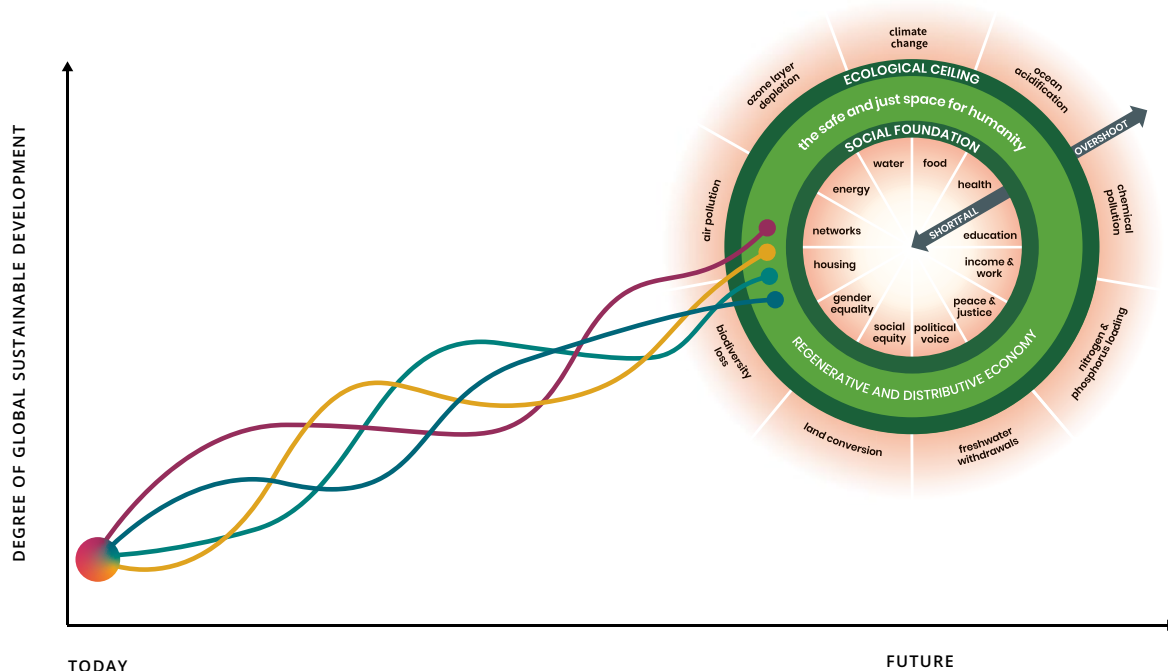


Figure 1: Multiple pathways can lead to resilient and just economies.

Illustration: Erik Rosin / WWF (CC BY-SA 4.0)
Doughnut diagram: DEAL 2026 (CC BY-SA 4.0)

EXECUTIVE SUMMARY

Today's economic system is driving nature degradation and biodiversity loss, while at the same time depending on healthy ecosystems to exist.

Addressing these intertwined challenges requires transformative change that tackles the underlying drivers of nature loss, including profound shifts in economic structures to embed both human well-being and nature stewardship at the core of how the economy is designed and operates.

Collective visions for sustainable and resilient economies are needed to guide action today. The Doughnut Economy framework and Wellbeing Economy principles provide a conceptual foundation for such an economy. This vision entails designing economic systems that meet the social foundations of human well-being within planetary boundaries, while ensuring dignity, fairness, purpose, and participation for all.

The economy, societies and ecosystems interact in complex ways. This entails that there is no silver bullet for achieving this vision. Multiple proposals exist, which seek to guide economic transformation towards more sustainable and resilient economies. In this report, we investigate four such proposals, and their potential to provide pathways for change. A pathway is in this context a model that describes a set of concrete steps and changes that must be undertaken in the economic system in order to meet everyone's needs within ecological limits.

A pathway also explains how those changes would lead to sustainable outcomes.

Four pathways are described in this report: the Circular Bioeconomy, the Laghum Economy, the Nature-Positive Economy, and the Not-for-Profit Economy. The pathways can complement and reinforce each other, while causal interdependence between the pathways may make coordinated action across them more powerful than the sum of their parts. Pursuing them in deliberate combinations, rather than in isolation, raises the prospect of a transition that gathers momentum rather than stalling due to the accumulated resistance of incumbent systems. At the same time, deep reflection regarding the pathways is essential, as all present limitations, tensions and trade-offs, which require careful navigation.

The intertwining between nature stewardship, human wellbeing and resilient economies points towards the need for concerted efforts across a range of actors to pursue transformative change. The pathways illuminate how businesses can redesign what they value and how they operate, finance can engage with businesses to support their transition and redirect capital towards activities which support healthy living systems, policymakers can set real, science-based limits for resource extraction and pollution, and civil society can continue holding different actors to account.

SAMMANFATTNING

Dagens ekonomiska system driver på utarmningen av naturen och förlusten av biologisk mångfald, samtidigt som det är beroende av friska ekosystem för att fungera.

Att hantera dessa utmaningar kräver en transformativ förändring som adresserar drivkrafterna bakom naturförlusten, vilket även innebär förändringar i ekonomiska strukturer så att både mänskligt välbefinnande och naturvård blir en central del av hur ekonomin utformas och fungerar.

Gemensamma visioner för hållbara och resilienta ekonomier behövs för att vägleda arbetet redan idag. Ramverket Doughnut Economy och principerna för en Wellbeing Economy utgör en konceptuell grund för en sådan ekonomi. Visionen innebär att utforma ekonomiska system som tillgodoser människors grundläggande sociala behov inom planetens gränser, samtidigt som värdighet, rättvisa, mening och delaktighet säkerställs för alla.

Ekonomin, samhällen och ekosystem samverkar på komplexa sätt, vilket innebär att ingen enskild åtgärd räcker för att uppnå denna vision. Det finns flera förslag på hur den ekonomiska omställningen mot mer hållbara och motståndskraftiga ekonomier kan se ut. I den här rapporten undersöker vi fyra sådana förslag och deras potential att fungera som vägar till förändring. I detta sammanhang är en väg en modell som beskriver en uppsättning konkreta steg och förändringar som behöver genomföras i det ekonomiska systemet för att tillgodose allas behov inom planetens gränser. En väg förklarar också hur dessa förändringar kan leda till hållbara resultat.

Fyra vägar beskrivs i rapporten: cirkulär bioekonomi, Laghum-ekonomi, naturpositiv ekonomi och icke-vinstdrivande ekonomi. Vägar kan komplettera och förstärka varandra. Eftersom de också är beroende av varandra kan samordnade insatser få större genomslag än om varje väg drivs separat. Att kombinera dem ökar möjligheten att omställningen tar fart, i stället för att bromsas av motstånd från rådande system. Samtidigt är det viktigt att kritiskt granska de olika vägar, eftersom de alla innebär begränsningar, motsättningar och målkonflikter som behöver hanteras med omsorg.

Den nära sammankopplingen mellan ansvarsfull förvaltning av naturen, mänskligt välbefinnande och resilienta ekonomier pekar på behovet av samordnade insatser från olika aktörer för att driva en transformativ förändring. Vägar visar hur företag kan skapa långsiktigt ekonomiskt värde och framtidssäkra sina verksamheter inom planetens gränser, samtidigt som de omprövar vad de värdesätter och hur de bedriver sin verksamhet. De visar också hur finanssektorn kan stödja företagens omställning och styra kapital mot verksamheter som främjar friska och levande ekosystem, hur beslutsfattare kan sätta vetenskapligt baserade gränser för resursutvinning och föroreningar samt hur civilsamhället fortsatt kan hålla olika aktörer ansvariga.





INTRODUCTION

The evidence is unequivocal that our economic activities are driving nature degradation, threatening the living world and our societies (IPBES 2019).

The eroded resilience of natural systems is evident through the continued decline in species diversity and worsening climate change (WWF 2024a). These ecological crises are already translating into tangible economic and social costs, as ecosystems lose their capacity to provide for food production, water regulation, climate resilience, and disease control. This implies increased risks to livelihoods that are directly dependent on nature, such as farming, fisheries, and forestry, alongside rising food insecurity. It also comes with severe impacts which limit human wellbeing by posing existential threats to our societies and economies through greater exposure to climate shocks, deteriorating human health, and escalating economic instability that disproportionately affect the poorest and most vulnerable communities.

At the same time, growing recognition of these threats is catalysing efforts across sectors to explore pathways for transformative change. In this report, we explore four such pathways – Circular Bioeconomy, Laghum Economy, the Nature-Positive Economy and Not-for-Profit Economy – examining how these pathways seek to address social and ecological crises, as well as the synergies and tensions between them. These pathways were chosen because they target interventions for the economy as a whole – i.e. are not sector-specific – are relevant for the Swedish context, and offer actionable insights.

In this introductory section we offer a brief overview which explains why we need to transform the economy for sustainability. The report will then explore two complementary interpretations of sustainable

and resilient economies (Section 2), followed by detailing potential pathways to reach these by turning towards four theoretical proposals (Section 3). In Section 4, the report brings the four pathways together by analysing synergies and tensions between the proposals compared with the status-quo. Finally, in Section 5 we explore options for action for key actors and decision-makers, with the aim of sparking a broader discussion with and among these actors.

This report synthesises and builds on existing academic literature and global assessments, and is complemented by insights from consultations with experts across business, policy, academia and civil society, and an expert workshop held at the Stockholm Resilience Centre. The consultation sought feedback from individual experts on the pathways and potential synergies and tensions between these (Section 4). We have included quotes from these consultations to help bring the concepts in the report to life. The workshop collected input on options for action for each pathway and for different actor groups, from private sector businesses and finance, to policymakers and civil society (Section 5).

Planetary health and the state of nature

The Planetary Boundaries framework summarises Earth System science to provide a planetary health check (Richardson et al. 2023). The boundaries denote the ‘safe operating space for humanity’, that is the planetary conditions within which human civilizations have been able to develop and thrive over time (Rockström et al. 2009). The further we overshoot these boundaries, the higher the risk of planetary disruptions. As the boundaries are interconnected, breaching one has amplifying effects on others (Gerten et al. 2025).

The latest Planetary Health Check report concluded that humanity has already pushed beyond the safe levels of seven out of nine boundaries and pressures continue to grow (Sakschewski et al. 2025).



The overstepped boundaries include climate change, biosphere integrity, changes in land use, growing stress on freshwater systems, excessive pollution from nitrogen and phosphorus, the spread of synthetic chemicals and plastics, and increasing ocean acidification. Only two boundaries, aerosol pollution and depletion of the ozone layer, remain within safe levels. Operating outside of the 'safe operating space' implies a heightened risk of abrupt, non-linear, and potentially irreversible environmental change, with severe consequences for societies in both the short and long term. These risks are already manifesting in the increasing frequency and severity of extreme weather events such as hurricanes, floods and droughts, which both exceed the limits of conventional forecasting and act as early warning signals of a destabilising Earth system (Barnosky et al. 2012).

Biodiversity loss directly compromises the integrity of the biosphere, and is a critical consequence of crossing other planetary boundaries. The transgression of multiple planetary boundaries is already driving severe degradation of natural ecosystems, with potentially far-reaching and irreversible consequences for

the living world. WWF's Living Planet Report (2024) reveals a 73% decline in the average size of monitored vertebrate wildlife populations (mammals, birds, amphibians, reptiles and fish). Today, the survival of around one million species is threatened (IPBES 2019). Five key drivers contribute to biodiversity loss:

- Habitat loss resulting from changes in land and sea use (including deforestation, agricultural expansion, river damming, unmanaged coastal recreation);
- Unsustainable exploitation (for example hunting, fishing, and logging);
- Climate change;
- Pollution (such as chemicals, plastic, eutrophication); and
- Invasive non-native species (IPBES 2019). All these drivers are direct results of economic activities.

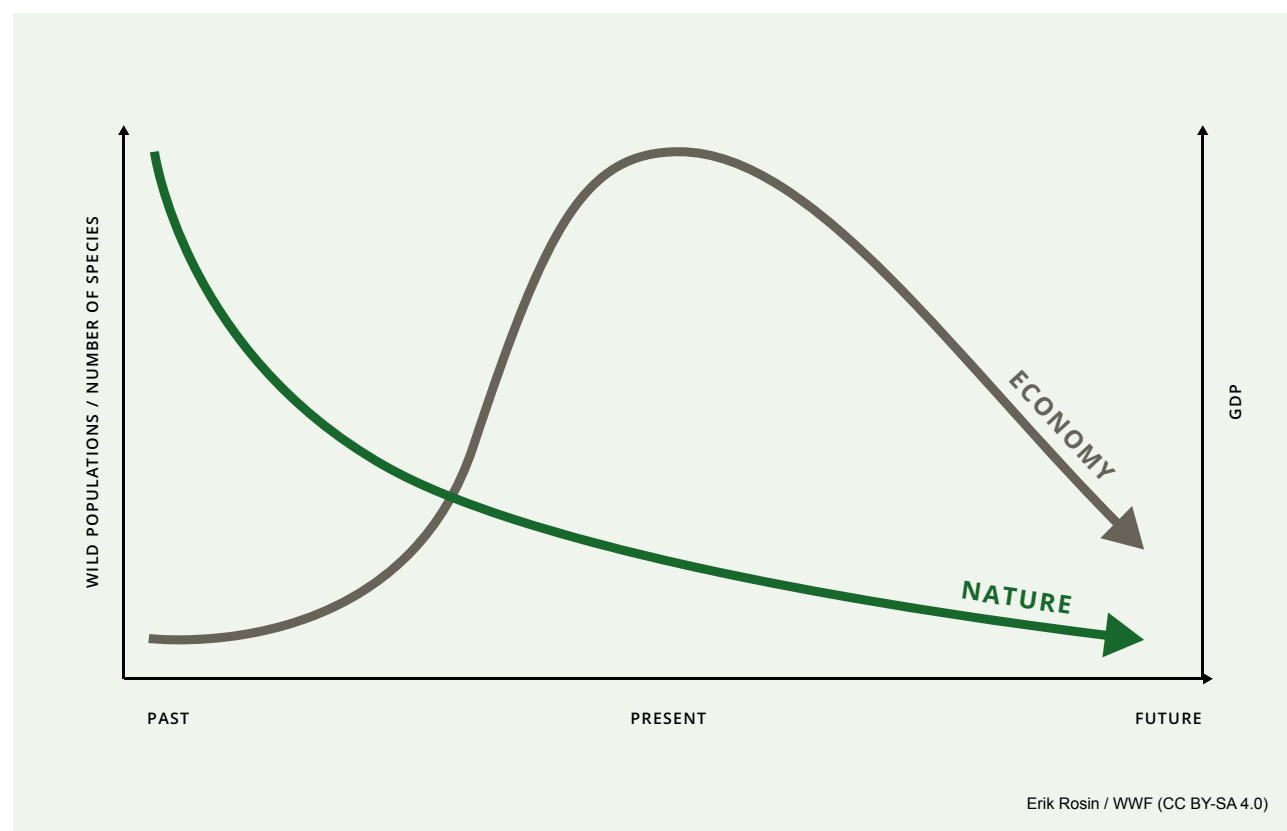


Uncovering a crucial feedback loop: how the economy depends on and impacts nature

Economic activities have significantly altered 75% of terrestrial surfaces, including degrading nearly half of the world's forests, over 85% of wetlands, and 66% of the ocean, leading to the fragmentation of over two-thirds of Earth's natural habitats (Haddad et al. 2015). Nature loss around the world impacts the livelihoods of billions of people and puts over half of the global GDP at risk (WWF 2024a). Yet, despite this, the extent to which all businesses depend on nature remains poorly recognised. In reality, economic activity relies fundamentally on ecosystem functions, ranging from pollination and

soil fertility in agriculture to water regulation and flood protection in the built environment. This dependence can be illustrated by the decline of insect populations: the widespread use of pesticides and herbicides, agricultural intensification, habitat conversion, and light pollution have led to significant reductions in common insect species. This is particularly concerning given that around two-thirds of human crops depend on insect pollination (Cardoso et al. 2020; IPBES 2016). In dollar value this corresponds to annual contributions of over half a trillion dollars or 1-3 % of global GDP in food production (Ranger et al., 2023), although such monetary valuations overlook intrinsic and relational dimensions of nature values (see Box 2) and underestimate the ripple effects these dependencies are likely to cause throughout the economy. Moreover, central banks have assessed economic value underpinned by nature in national financial systems and found that between 36-98 % of national banks' portfolios are dependent on nature's contributions to people, such as water, climate regulation, flood protection, soil erosion control (Egoh et al., 2026).

Figure 2: Conceptual illustration of the interdependence between nature and the economy, showing how the decline of nature lead to economic decline in a business-as-usual pathway (based on fictitious data).



Nature degradation translates back into macroeconomic and financial risk through physical, transition and liability risks (CISL 2021; NGFS 2023; TNFD 2023; Figure 2). Meanwhile, an estimated \$7.3 trillion of global finance flows to nature-negative activities, through investments and subsidies, while only \$220 billion is allocated to nature conservation – a 30:1 ratio (UNEP 2023a; IPBES 2026). Economic models have systematically undervalued or excluded nature from national accounts, business balance sheets, and investment decisions, while economic theories have framed nature loss as an “externality” (Dasgupta 2021), not recognising that it is at the very foundation of economic activity. Furthermore, economic policies and corporate strategies often prioritise economic growth and profit maximization at the expense of recognising their dependence on healthy and well-functioning ecosystems, thereby eroding the ecological foundations that sustain economic activity itself. For example, clear cutting forests and monocropping agricultural fields make them less resistant to disease, in turn making it harder to continue logging or growing food in that area. Similarly, climate change exacerbates extreme weather events such as droughts, floods and heatwaves, impacting agricultural yields, infrastructure and human productivity. In 2024, economic damages from natural disasters already

“We have developed or constructed an economic model which has to grow all the time, [...]. And at the same time, we know if we continue with this kind of growth model, we will destroy the life support system.”

**ANDERS WIJKMAN, CHAIRMAN,
VIALE CITIES**

reached US\$318 billion (SwissRe 2025). Beyond creating an insurance protection gap (WWF 2026), this feedback loop (see Figure 3) is deeply embedded in the structures of the dominant global economy, and has reached a critical systemic risk threatening the economy itself, financial stability and human wellbeing (IPBES 2026).

Floods in Ostrava, Czech Republic, 2024. Munich Re, a German multinational insurance and reinsurance company, estimates the total damage for the 2024 Central European floods to have been approximately \$4.3 billion, of which approximately \$2.1 billion were insured (Munich RE 2025).

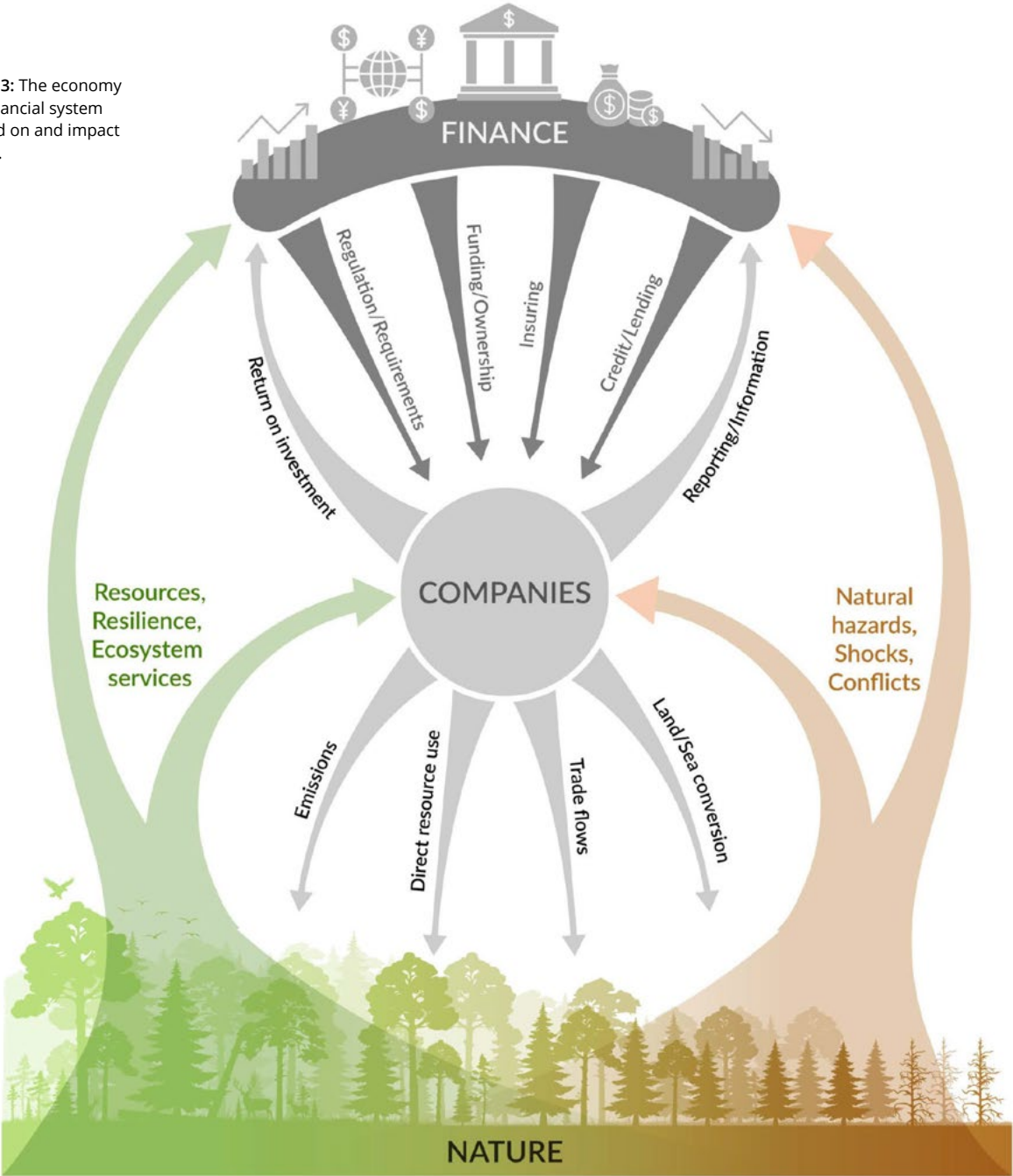


Kamil Czajński (CC BY-SA 4.0)

In response to this, governments agreed to halt and reverse nature loss in the Kunming-Montreal Global Biodiversity Framework (GBF), adopted in December 2022. Despite this milestone agreement, progress has been slow with little evidence of easing pressures on nature. For example, the World Benchmarking Alliance’s Nature Benchmark found that only 2% of the 750 benchmarked companies disclose a nature transition plan aligned with the Global Biodiversity Framework or nature-positive principles, underscoring the need for greater ambition and action at all levels.

There is increasing consensus that the dominant economic system needs to fundamentally change in order to address the multiple crises our societies are facing. A key question thus emerges: “What types of economic structures can support human wellbeing and nature-positive futures, while providing economic resilience?” There are diverse approaches emerging from different economic schools of thought which seek to respond to this question. In this report, we explore some of these options.

Figure 3: The economy and financial system depend on and impact nature.



© Azote for Mistra FinBio at Stockholm Resilience Centre

Need for transformative change

According to the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), biodiversity loss is driven by three underlying systemic causes: (a) disconnection from and domination over nature and people; (b) concentration of power and wealth; and (c) prioritisation of short-term, individual and material gains (IPBES, 2024). These interconnected drivers are closely linked to the economic thinking from earlier centuries that have shaped modern societies, developed in times when nature was widely perceived as abundant, while labour and capital were considered scarce resources.

First, the domination over nature originates from a prevalent worldview of humans as separate from and superior to nature. This perceived disconnection between nature and people enables the destruction of nature, as it is

conceived as a resource to be exploited without consequences. Second, the concentration of power and wealth refers to how the majority of benefits from economic activity are reaped by a small proportion of the global population (IPBES, 2019). Third, the prioritisation of short-term gains describes the belief of human beings as driven primarily by self-interest and material gain, with limited regard for collective outcomes, long-term consequences, or ethical responsibilities, also known as ‘Homo economicus’. This belief, although not rooted in empirical evidence (Zak 2008), has informed numerous policies, including measuring progress primarily in terms of GDP growth, framing wellbeing in terms of material accumulation alone, and encouraging a focus on economic incentives to protect nature, without recognising a systemic failure (Liebenberg et al., 2015; Turnhout et al., 2014). These underlying causes reinforce each other and further drive biodiversity loss and nature’s decline (IPBES, 2024), as well as increasing economic and political inequalities (IPBES 2025).

Deforestation in the Amazon rainforest, Amazonas, Brazil, where land has been cleared for cattle ranching.



© Paralaxis / iStock



Addressing these root causes requires systemic approaches and transformation with a focus on nature and equity. The IPBES Business and Biodiversity Assessment (2026) identifies current economic, financial, political and social systems as creating the conditions which perpetuate business governance, strategies and structures in line with business-as-usual. This means that concomitant changes in these systems are necessary to support business transformation.

There is a wide range of strategies which could be employed by governments, businesses, and non-governmental actors to contribute to transformations towards sustainability, from incremental to disruptive changes (IPBES 2025). Changing dominant economic structures is a particularly powerful lever to pull, and actions can range from increasing taxes and fines on environmentally-harmful activities, implementing redistributive

policies, supporting the not-for-profit sector, or revisiting the goals, metrics and indicators of progress (IPBES 2026). Shifting towards sustainable business models can help reduce pressures on nature and lead to new business opportunities, from agroecology to green urban infrastructure, blue economy and social enterprises. On the other hand, the more we delay action, the more costly it will be to change course towards sustainability.

The intertwinedness between nature, society and the economy hints that a resilient economy must also be sustainable, thus supporting human wellbeing and limiting pressures vis-a-vis planetary boundaries (Randers et al. 2018). This requires moving away from the expectation of singular solutions and narrow visions which primarily place faith in technological advancements, to exploring strategies and redefined roles at all levels of society, including for policy-makers, businesses, and civil society.



PRINCIPLES FOR RESILIENT AND JUST ECONOMIES

What is an economic system? A common understanding is essential before exploring pathways to transform it.

As portrayed by Raworth & Mihotich (Figure 4), the economy consists of four key domains: the market, households, commons, and the state. Money, goods, services, and labour flow within and between these different domains. Crucially, the economy is embedded in society, which is itself embedded in the biosphere.

Key financial flows in the economy include wages, taxes, consumer spending, government spending, investments, savings, and profit. All these monetary transactions occur to pay for (or to be paid for) work, goods, and services, including imports and exports. These material aspects of the economy come from other functions of society and nature. For instance, production, consumption, and government provisioning can only operate effectively when supported by social and political institutions that protect and serve the population. Likewise, all production requires material and

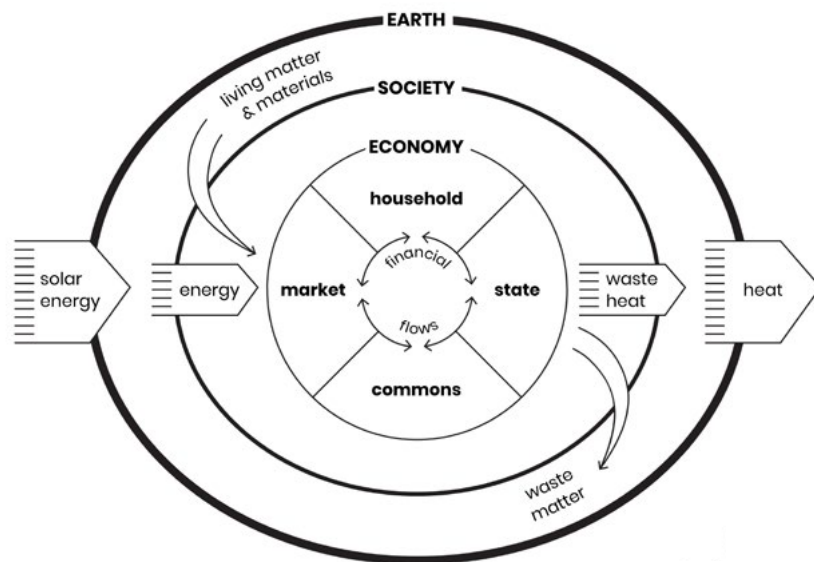


Figure 4: The Embedded Economy.

Kate Raworth and Marcia Mihotich (CC BY-SA 4.0)

energy from nature, and produces waste that goes back into nature.

Against this backdrop, we draw on two complementary frameworks to define what a sustainable and resilient economy entails: the Doughnut

Economy and the Wellbeing Economy. The Doughnut Economy framework suggests that economies need to operate within the safe and just space for humanity, meeting everyone's needs within the

planetary boundaries (DEAL, 2026). That is, on the one hand, a sustainable economy must ensure that there is no critical deprivation in terms of key necessities. The social foundation for a sustainable economy has been met when everyone has adequate health, water, food, energy, housing, education, social cohesion, equality, peace and justice, political voice, and connectivity. On the other hand, these needs must be met within the ecological ceiling, which is defined in terms of the nine planetary boundaries. When combined, the social foundation and the ecological ceiling can be visualised as a doughnut (Figure 5).

If an economy falls short of the social foundation or exceeds the ecological ceiling of the doughnut this means that it is not operating within the safe and just space for humanity. Such an economy cannot be sustained in the long-term as it undermines the stability of the social and/or ecological systems it depends on to exist. Currently, no economy fits within

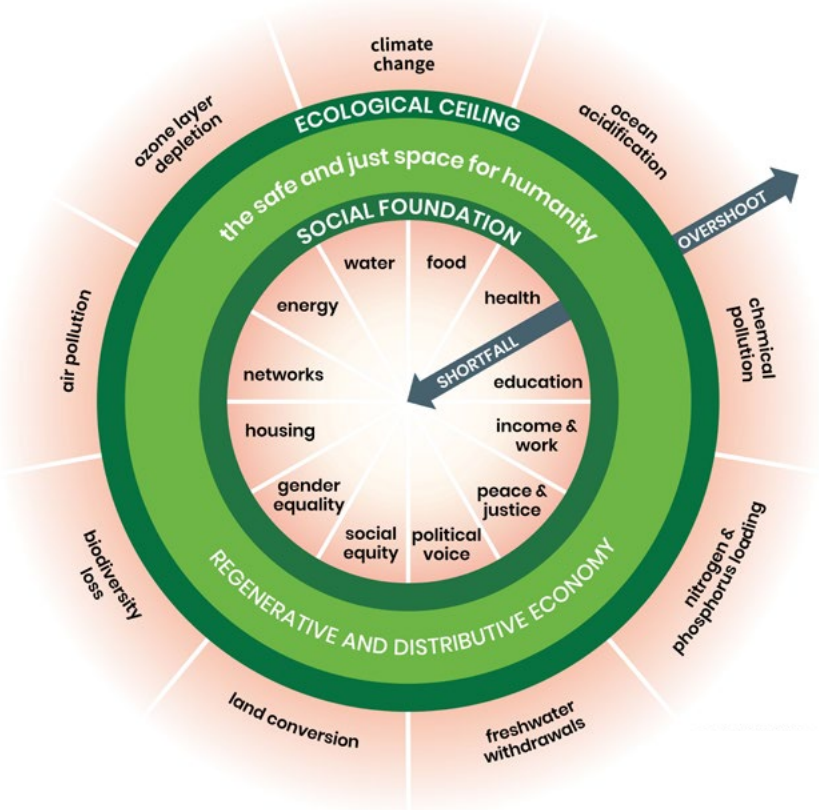


Figure 5: Doughnut Economy framework. DEAL 2026 (CC BY-SA 4.0)



Figure 6: Core dimensions of a well-being economy according to the Wellbeing Economy Alliance. WEALL (CC BY-SA 4.0)

the doughnut given the thresholds that the model prescribes: the richest 60% of countries are both falling short of the social foundation and overshooting the ecological ceiling (Fanning & Raworth, 2025). Even the very richest countries are failing to prevent critical deprivation. On the other hand, while the poorest 40% of the world’s countries are operating within all but one planetary boundary (nutrient pollution from agriculture), their populations are in a state of critical deprivation on many fronts as people lack access to necessities such as food, clean water, healthcare, energy, housing, or social equity (ibid).

Drawing from the Wellbeing Economy and Doughnut Economics frameworks, a sustainable and just economy is one that meets the social foundations within planetary boundaries, in a way that provides dignity, fairness, purpose, and participation for all.



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PATHWAYS TOWARDS TRANSFORMATION OF ECONOMIC SYSTEMS

Drawing from the Wellbeing Economy and Doughnut Economics frameworks, a sustainable and just economy is one that meets the social foundations within planetary boundaries, in a way that provides dignity, fairness, purpose, and participation for all.

Each pathway offers a different diagnosis of the problem and focuses on different kinds of solutions. The descriptions offer short overviews of the different pathways, presenting the overarching vision of the pathway, followed by the pathway's particular diagnosis of the problem, the prescription it offers for making the economy more sustainable, how to get from here to there, and illustrative examples of existing initiatives that are already incorporating the kinds of changes the pathway proposes, referred to as 'seeds of change' (Bennett et al. 2016). The pathways were derived from recent and current debates across ecological and environmental economics (see Box 1).

The pathways provide options for policies and strategies, rather than precise blueprints. We selected pathways which target interventions for the economy as a whole (i.e., are not sector-specific), that are relevant for the Swedish context, and that offer actionable insights. The pathways are not intended to be exhaustive, but rather a small and deliberately diverse selection chosen to stimulate thinking and inspire further exploration of alternative economic futures.

BOX 1

Environmental or ecological economics?

Environmental and ecological economics offer different starting points for understanding the relationship between the economy and nature. Environmental economics, rooted in neoclassical theory, treats environmental problems primarily as market failures and focuses on improving existing, typically profit-driven, markets through pricing instruments and incentives to internalise environmental costs (“externalities”), including by assigning or adjusting property rights. Ecological economics, by contrast, views the economy as embedded within society and the biosphere, emphasising biophysical limits, value pluralism, and the need for broader systemic change. This includes not only the use of economic, typically

market-adjustment-based, instruments, but also rethinking the purpose, design, and governance of economic systems, including how markets function (for example, shifting from profit-driven to needs-based approaches). The pathways explored in this report draw on elements of both perspectives to varying degrees. While the Laghum Economy and Circular Bioeconomy primarily apply market-adjustment-based and efficiency-oriented tools associated with environmental economics, the Nature-Positive Economy combines these with elements of ecological economics, such as value pluralism and ecosystem regeneration, whilst emphasising that economic growth may occur in sectors and activities aligned with planetary boundaries. In contrast, the Not-for-Profit Economy more explicitly aligns with ecological economics by directly rethinking economic purpose, ownership, and the role of markets in relation to social and ecological goals.

Circular Bioeconomy

Overarching vision

The Circular Bioeconomy aims to depart from the linear “take-make-dispose” industrial model based on non-renewable resources and synthetic chemicals towards a closed-loop system, based on natural, renewable resources. The circular economy and the bioeconomy ideas have been around for quite some time. However, due to the high level of compatibility between the two models, there have been increasing efforts to combine them (e.g., D’Amato and Korhonen 2021; Formenti et al. 2025).

Diagnosis: What’s causing the problem?

From the perspective of the Circular Bioeconomy, there are two key ways in which the economy is currently causing environmental harm. First, today’s economy is arranged in a linear way that uses raw materials for production processes that create goods, like computers, cars, and plastic bottles, which are then thrown away at their end-of-life. This is sometimes called “cradle to grave” or “take-make-dispose” design and includes single-use and





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disposable products, like plastic shopping bags. It can also be seen in planned obsolescence: when companies design products to become obsolete or break down in order to generate more sales. This has been documented in many different sectors, ranging from fast fashion to electronics (Guiltinan, 2009; Rivera and Lallmahomed, 2016; Aakko and Niinimäki, 2022). For example, every year, it's estimated that billions of mobile phones are discarded and only a small portion of them are recycled, contributing to 48 million metric tons of annual unrecycled electronic waste (WEEE Forum, 2022; WHO, 2024). Indeed, some mobile phones are explicitly designed and marketed to be disposable, also known as “burner phones”.

This linear economy leads to the wasteful and unsustainable use of natural resources as well as an unnecessarily high level of waste, pollution, and greenhouse gas emissions. Between 2016 and 2021, the global economy consumed 582 billion tonnes of materials — nearly as much as the 740 billion consumed in the entire 20th century. One study estimates that 93% of materials entering the global economy come from virgin sources (Circle Economy, 2026), leading to about 100 billion tonnes of materials being extracted per year (Circle Economy, 2025). All of that resource extraction puts incredible pressure on habitats and ecosystems. Furthermore, one-fifth of the virgin, non-renewable materials used as inputs for production are destined for the landfill (Circle Economy, 2025).

The second way in which the economy drives environmental problems, according to this perspective, is that it is based on synthetic, non-renewable resources, such as fossil fuels instead of renewable resources. Most of the energy required for the production, transportation, and distribution of goods in the global economy comes from fossil fuels, which greatly contributes to greenhouse gas emissions and climate change (UNEP 2021). Along similar lines, because so many of the inputs for these production systems are fossil-based synthetic chemicals, like dyes and plastics, they result in a lot of toxic waste (McCormick and Kautto, 2013).

Prescription & mechanism: What needs to change?

The bioeconomy proposes replacing harmful fossil-based inputs, like oil and coal, with naturally occurring renewable ones like biomass and biofuels (European Commission, n.d.a). It also uses biomimicry design, an approach that develops solutions inspired by nature, and biotechnology, instead of heavy chemical and industrial processes, for services like water purification and waste management (McCormick and Kautto, 2013).

The circular economy aims to keep raw materials circulating in the economy for as long as possible while generating as little waste and pollution as possible. The

three key design principles of the circular economy are: eliminate waste and pollution, circulate products and materials, and regenerate nature (Ellen MacArthur Foundation, 2023). As such, it emphasises designing products for disassembly and reuse, prioritising the “inner loops” of the circularity hierarchy by sharing, leasing, reusing, repairing, and refurbishing products before recycling (Ellen MacArthur Foundation, n.d.). An illustrative example of this includes the United Repair Centre in the Netherlands, which offers scalable repair and refurbishing services to fashion brands (DEAL 2025b). In production processes, it includes using the byproducts and waste created by one process as inputs for other processes.

By combining the circular and bioeconomy approaches, a Circular Bioeconomy uses renewable natural resources as energy and inputs for circular production processes (Formenti et al., 2025). A Circular Bioeconomy would include the kinds of circular and bioeconomy activities described above, as well as activities that combine these principles, like organic waste such as wood offcuts, sugar cane stalks, pineapple tops, and sewage sludge (European Circular Economy Stakeholder Platform, 2025).

Circular economy and bioeconomy processes can work in tandem to reduce greenhouse gas emissions, toxic

pollution, and the extraction of virgin resources, as well as contribute to the regeneration of ecosystems.

This pathway emphasises the importance of biodiversity and nature preservation, with end-of-life products designed as far as possible to be reusable, repairable, or biodegradable (see Box 3). As compared to the linear fossil-based economy, a Circular Bioeconomy would reduce the need for new raw materials, lowering the amount of waste, greenhouse gas emissions and pollution that result from production, as well as decrease the amount of toxic and harmful substances.

How to get from here to there

Government policies and voluntary business initiatives are a key focus of this pathway. When it comes to top-down policies, governments could create financial incentives by levying taxes on fossil fuels and non-renewable resources and by subsidising biobased renewable resources. Governments could shape public procurement protocols to favour and encourage Circular Bioeconomy practices, while policies can ban planned obsolescence and implement “right to repair” laws, which require companies to design products to be easily repairable by consumers. The EU Right to Repair Directive followed other early initiatives, the first one of which was adopted in

Recycling workers in Butwal, Nepal.



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France (HOP 2025). Another important policy is to require businesses to take back products at the end-of-life and to reuse, repair, or upcycle the items so they can be sold or leased again. At a minimum, products and their parts can be recycled or disposed of in the least environmentally harmful way possible.

To support the transition to a Circular Bioeconomy, businesses can design their products for durability, repairability, recoverability, and re-manufacturing (Formenti et al., 2025). This includes making products modular and flexible. For example, Fairphone, a Dutch phone company, design their phones to be long-lasting, modular, and easily repairable by the users themselves (Fairphone 2026). Businesses can also switch to a product leasing business model, as has become more common with bicycles, cars, and office equipment (like lighting fixtures and printers), as well as industrial and agricultural machinery. For instance, Signify, a lighting company, sells lighting-as-a-service to Amsterdam's Schiphol Airport, which

means Signify owns and maintains the lighting fixtures throughout the airport. This incentivises them to make the fixtures durable and easily repairable. If possible, businesses can collaborate with other companies who might be able to use their waste as inputs for their processes or vice versa, also known as industrial symbiosis. For instance, in Frövi, a locality in Västmanland, Sweden, the waste heat produced by a paper mill is used for growing tomatoes in a nearby greenhouse, which significantly reduces the amount of energy needed for the tomato production, and thus its CO₂ emissions (The Swedish Network for Industrial and Urban Symbiosis n.d.). Companies can shift their supplies and inputs away from fossil-based inputs and energy to naturally occurring, renewable resources. All of these actions could shift business practices away from a linear, non-renewable economy to a Circular Bioeconomy.

The modular phone Fairphone 6.



Fairphone (CC BY-SA 4.0)

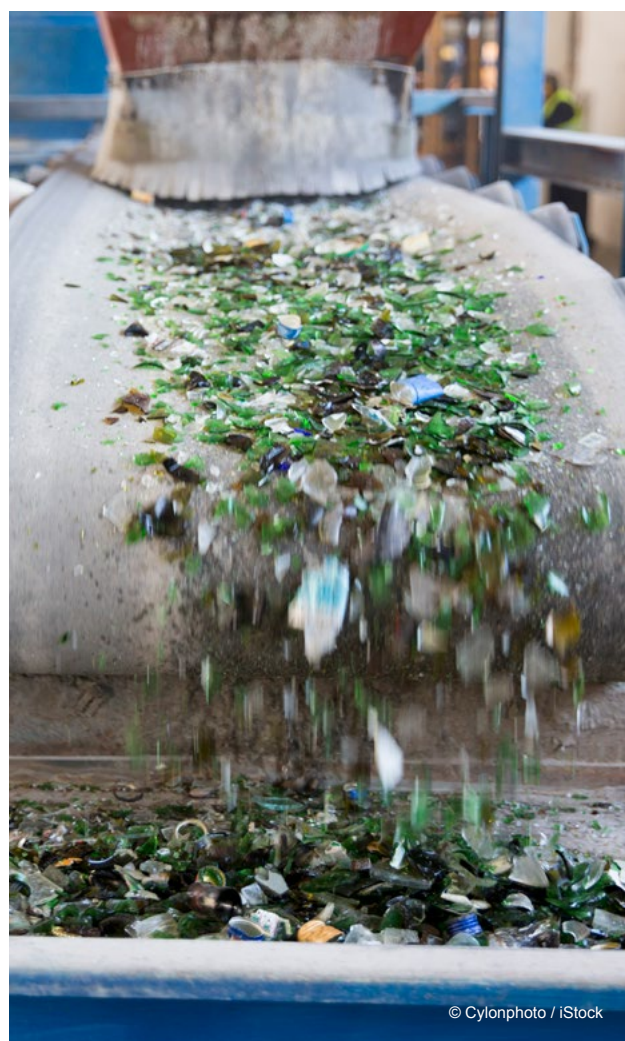
Seeds of change

There are signs that the economy is already slowly moving towards circularity. As of May 2025, 52 countries around the world already had national circular economy strategies, another 4 had bioeconomy strategies, and 20 had both circular and bioeconomy strategies (Formenti et al., 2025). Sweden has taken steps in this direction through its National Strategy for a Circular Economy, coordinated by the Swedish Environmental Protection Agency (Naturvårdsverket 2025). The strategy aims to reduce the use of virgin materials, promote circular product design and consumption, and support innovation and circular business models across key sectors such as plastics, textiles, construction, and bio-based materials. This work is complemented by ongoing efforts to strengthen Circular Bioeconomy innovation at the national level. Vinnova, Sweden's publicly owned innovation agency, is currently working on a national Circular Bioeconomy

strategy for Sweden. Furthermore, Thailand launched its BCG Economy Model (Bio-Circular-Green) in 2021, which is a national strategy for “sustainable growth” through Circular Bioeconomy innovations in four key sectors: agriculture and food, medical and wellness, bioenergy/biomaterials, and tourism. The model aims for Circular Bioeconomy activities to account for 24% of GDP by 2027 (World Bank Group 2024; OECD 2025). Even so, the United Nations Environment Programme estimates that only 8.6% of the global economy is circular (United Nations Environment Programme, 2021). The Circle Economy's 2026 annual report estimates that €25.4 trillion ($\pm$ €4.7 trillion) in economic value is lost unnecessarily every year due to linear material use, which is equivalent to almost 31% of global GDP (Circular Economy 2026). This represents a significant financial incentive for businesses and governments to support a Circular Bioeconomy shift. If enough support for the above policies is gained so that they are implemented more broadly, a positive tipping point could be reached, in which more and more production moves towards a Circular Bioeconomy.



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Laghum Economy

Overarching vision

The Laghum Economy (2025), developed by the Swedish entrepreneur Stefan Krook, calls on states to set the rules of the game in ways that incentivise more sustainable business models. To do this, it proposes two key changes to the economy: removing taxes on labour and introducing taxes on the use of raw materials at the point of consumption. The Laghum Economy is a relatively new proposal based on previous scholarship examining how tax systems can be restructured to support sustainable societal outcomes (often referred to as “green tax reform”), as well as literature that seeks to assess businesses’ impacts and dependencies on nature.

Diagnosis: What’s causing the problem?

The Laghum Economy posits that our worsening environmental crises are driven by inadequate tax incentives, particularly the high taxation on labour and low taxation on natural resource use. This makes labour expensive relative to materials, thus incentivising businesses to cut costs by replacing people with energy and material inputs, and in turn driving increasing resource use. This issue comes from dominant economic ideas and structures, which were formulated by classical economists

centuries ago, but still inform today’s economic principles. These ideas and structures have become outdated in the face of population growth and the ‘great acceleration’ in exploitation of natural resources. The current economic system needs upgrading to account for planetary limits. Nature needs to be seen as scarce, with clear rules set by governments to constrain harmful economic activities.

“The operating system that we have now was formulated [when] nature was in abundance and [...] labour was a scarce resource. So then the taxation as we have it now would make sense. But you know now we can’t pretend that we’re a small society on a huge planet anymore, it’s the other way around.”

**DAVID EKLUND, CO-FOUNDER,
ICEBUG**

Prescription & mechanism: What needs to change?

The main proposal of the Laghum Economy is to reform the tax structure of economies, by shifting the tax burden away from labour towards the consumption of material throughput, through a Sustainable Consumption Tax. Lower or no taxes on labour have the potential to incentivise different types of paid work, particularly in labour-intensive sectors such as care work and repair and services, all of which tend to be relatively low in resource and energy intensity, but valuable for increasing societal wellbeing (Krook 2025).

The tax shift away from labour towards a tax on material throughput is meant to both maintain public revenue, by shifting its source, and serve as a price-signal reorientation for economic activities. Taxing resource use and material throughput is one of the most consistently recommended instruments in both the ecological economics and environmental economics literature (see Box 1; Bernow et al. 1998; Alexander 2012; Kallis and March 2015). The theory presented in the Laghum Economy also points to the opportunity for incentivising the circular economy, with the proposed tax reform benefiting business models which focus on reuse and repair.



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“The first step in all kinds of transformation, all pathways, should be to reduce consumption.”

**INGE RØPKE, PROFESSOR,
AALBORG UNIVERSITY**

A tax on consumption, rather than on resource extraction, as proposed within the Laghum Economy, is also meant to prevent shifting production away from some countries that implement a tax on resource extraction, to others that do not implement such tax. Secondly, taxing consumption would help address the key issue of high demand for materials in affluent societies. Through this, the aim is to connect to the broader goal of changing consumer behaviour and making high-material lifestyles visibly more expensive (Krook 2025).



Olena Bohovyk / Unsplash (CC0)

How to get from here to there

The proposal set out within the Laghum Economy urges nations to lower labour taxes and implement taxes on resource-intensive consumption. The reasoning behind this is twofold. Firstly, lower taxes on labour would reduce the costs of labour for firms and would boost competitiveness by making labour comparatively cheaper in countries like Sweden, thus providing a clear incentive for policy support even in today's context. This could also help governments counteract the risk of labour being reduced as a consequence of artificial intelligence. Secondly, it is particularly important that rich countries apply the Sustainable Consumption Tax first, as that is where material consumption, and hence environmental footprints, are highest. The Laghum Economy also identifies consumers as a powerful lever of change, as they can shape demand and, hence, influence upstream decisions about what gets produced and how.

Essentially, the Sustainable Consumption Tax is meant to make products with short lifespans and high resource use more expensive than more durable and

sustainable options. By increasing the cost of material- and resource-intensive products, the tax shifts relative prices in favour of products that require fewer inputs and last longer. This changes the incentives facing producers: as consumers gravitate towards more affordable, lower-impact options, firms are encouraged to compete by reducing material use, extending product lifetimes, and designing goods that are modular, repairable, and recyclable. To achieve this goal, the Sustainable Consumption Tax requires supply chain transparency and thorough accounting of impacts on nature. The Laghum Economy proposes a “digital product declaration”, which contains: CO₂ equivalent emissions; land use and biodiversity impacts; water consumption; use of virgin and recycled materials; distance shipped and mode of transport; and energy use and sources. The proposal also distinguishes between end-use products (including those used by businesses) and products which are used as an input for other goods, with the Sustainable Consumption Tax applying only to the former. All changes proposed can be phased in, potentially starting with specific resources, or industry-by-industry.



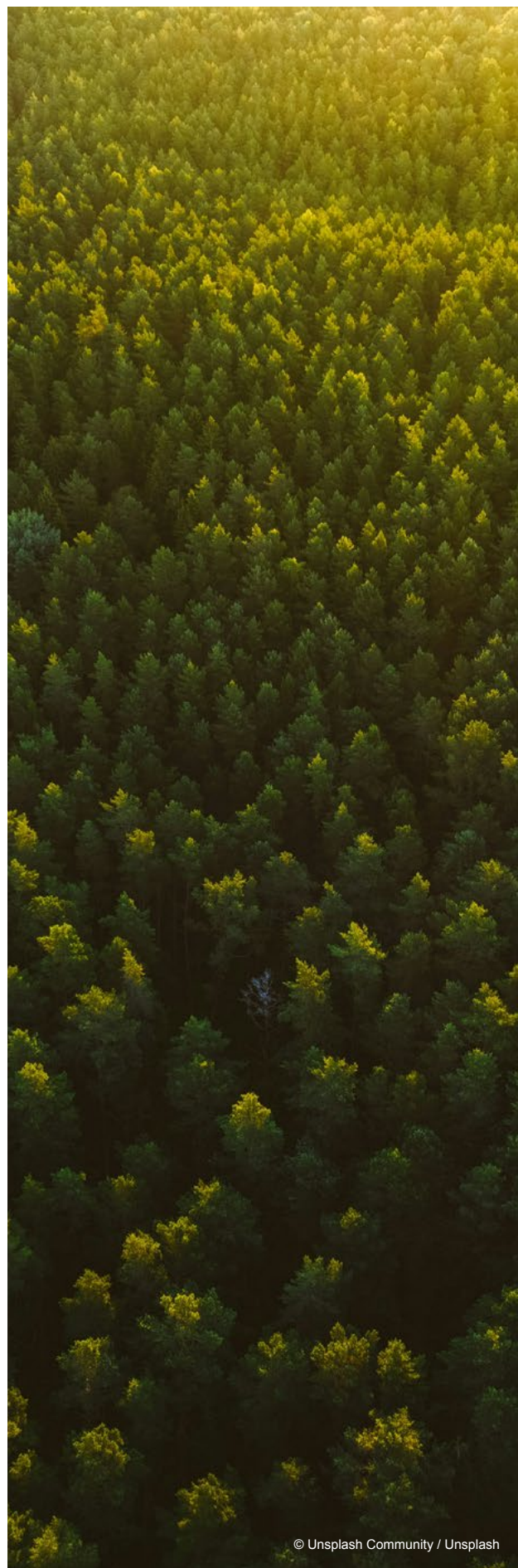
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Seeds of change

The recently mandated EU Digital Product Passports (2024), as well as recent advances in biodiversity footprinting through life cycle assessments, natural capital accounting, and the recent disclosure requirements could help inform taxes on resource-intensive consumption. Biodiversity footprint assessments aim to help businesses and organisations to measure the extent of land use change, pollution, resource extraction and greenhouse gas emissions behind their activities, with methods currently being developed, tested and improved (Marques et al. 2021; Bull et al. 2022). Approaches also need to account for where activities take place, as the environmental impact of the same activity can differ significantly depending on the local ecosystem. On the other hand, the System of Environmental-Economic Accounting equips nations with a framework for organising statistics on the environment and its relationship with the economy, with the potential to help calibrate tax rates to actual rates of natural capital stock depletion (Clarke et al. 2023). Both biodiversity footprinting for business activities and national natural capital accounting are examples of approaches which offer a foundation for the ecological tax reform as proposed in the Laghum Economy.



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Nature-Positive Economy

Overarching vision

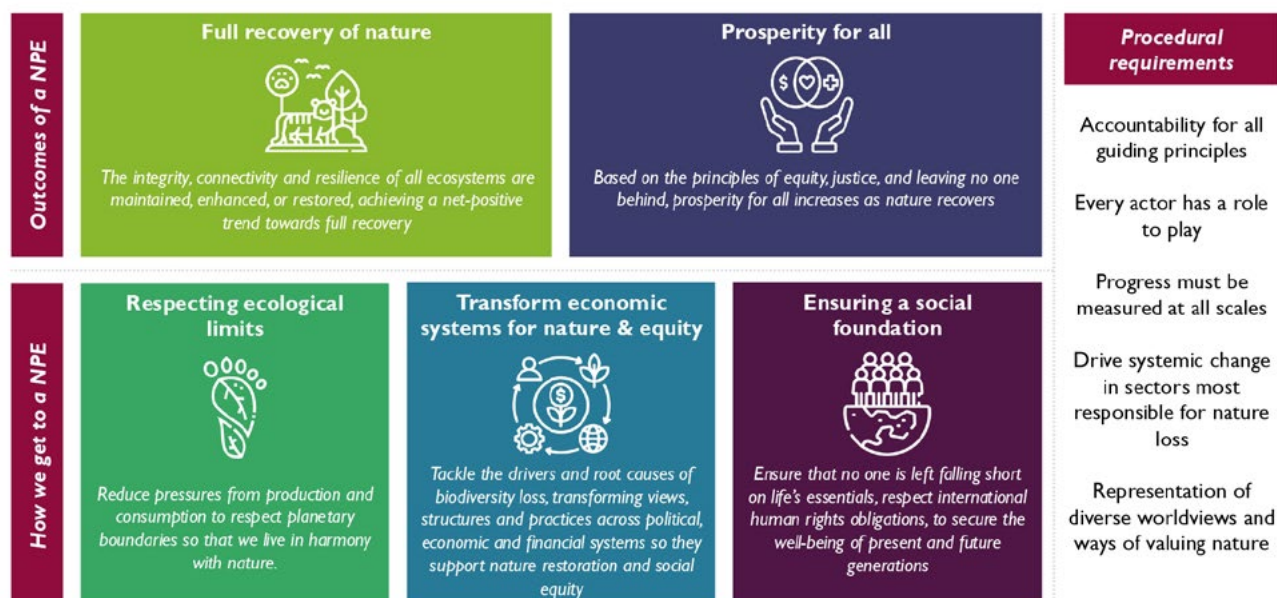
The Nature-Positive Economy promotes an economy in which the overall outcome of economic activities are full recovery of nature and prosperity for all. This results in a net gain for nature – meaning that human activities restore and regenerate ecosystems rather than degrade them (Koh et al., 2025). It builds on the Nature Positive goal used by businesses, governments, and non-governmental organisations to indicate their biodiversity commitments and align with global environmental objectives. Momentum around this goal is growing. Hundreds of non-state actors and political leaders have called for a Global Goal for Nature to ‘Halt and Reverse Nature Loss by 2030, compared with 2020 levels, and achieve full recovery by 2050’. This means ensuring there is more nature in the world by 2030 than in 2020, followed by continued recovery in the decades that follow (NPI, 2023).

The Nature-Positive Economy’s guiding principles are structured in three complementary dimensions: (i) Outcomes of a Nature-Positive Economy; (ii) How to get to a Nature-Positive Economy; and (iii) Procedural requirements (Figure 7). Together, they provide an understanding of what actors aim to achieve, how these outcomes can be reached, and under which conditions this transformation can occur.

Diagnosis: What’s causing the problem?

The Nature-Positive Economy posits that “nature-negative” economic activities are causing unprecedented biodiversity loss and nature’s decline. Direct drivers of nature loss are driven by high-impact sectors like agriculture, forestry, fisheries, electricity, energy, mining, construction, infrastructure, and transportation. Indirect, systemic drivers of loss are embedded in society and the economy, such as unsustainable production and consumption, harmful incentives and subsidies, and a prioritisation of short-term, material gains.

Figure 7: Guiding principles to measure progress towards a Nature Positive Economy.



© GoNPI 2025



Prescription & mechanism: What needs to change?

The Nature-Positive Economy outlines a framework for action to: (i) Reduce negative impacts on nature; (ii) Increase positive actions on nature; and (iii) Enact transformative change. First, reducing negative impacts on nature requires addressing drivers of nature degradation. Businesses can assess their nature-related impacts, dependencies, risks and opportunities, following internationally recognised frameworks such as outlined by the Taskforce on Nature-Related Financial Disclosures, Science-Based Targets Network and others. This includes nature-positive roadmaps with target-setting, actions, and metrics for actors such as governments and businesses, as well as sectors such as agriculture, mining, finance and more (Business for Nature, 2024).

Second, nature-based solutions and nature-based businesses contribute to increasing positive actions on nature (Kooijman et al., 2021). As defined by the UN Environment Assembly, nature-based solutions are actions to protect, conserve, and restore ecosystems, as well as to address social, economic, and environmental challenges (UNEA 2022). Examples of nature-based solutions include restoring wetlands and (re)planting forests on degraded lands. Third, to enact transformative change, the emphasis of a Nature-Positive Economy is to: (i) Transform economic systems for nature and equity, and (ii) Drive



A Baka subsistence hunter in Central African Republic uses smoke to pacify bees while opening nest.

systemic change in sectors most responsible for biodiversity loss (IPBES, 2024). Activities include adopting more holistic metrics of progress beyond economic output (such as the Index of Sustainable Economic Welfare, Composite Measure of Wellbeing and the Human Development Index); reforming subsidies and incentives for harmful sectors to be less profitable; and increasing private sector accountability through reporting of the economy's impacts on nature (Liu et al., 2024; Pagiola, 2008).

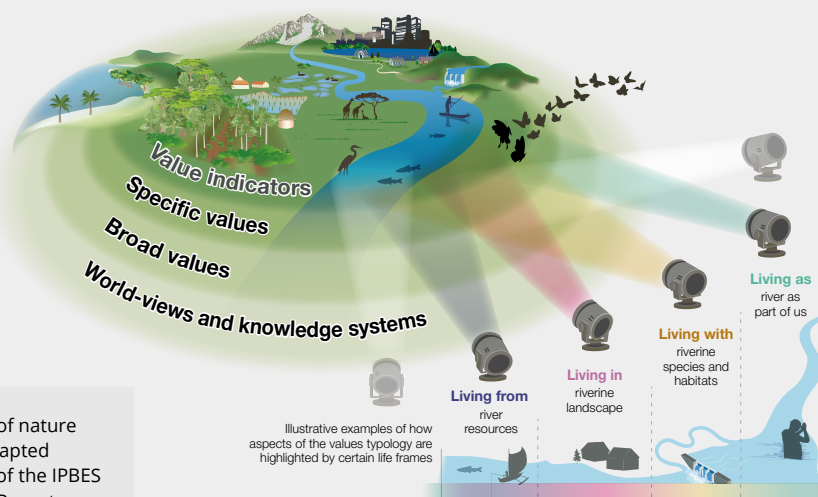


Figure 8: Summary of nature value typologies. Adapted from: Figure SPM 2 of the IPBES Values Assessment Report.

IPBES (CC BY-NC 4.0)

BOX 2

Diverse values of nature

People value nature in many ways, and this needs to be recognised in effective policies that halt biodiversity loss and restores ecosystems. Drawing on evidence from more than 50,000 scientific publications, policy documents, and Indigenous and local knowledge sources, the IPBES Methodological Assessment of the Diverse Values and Valuation of Nature (2022) identifies three broad ways in which people relate to and value nature:

- **Intrinsic values:** nature has value in its own right, independent of human use or benefit;
- **Instrumental values:** nature provides goods and services that support human wellbeing, such as food production, water purification, and climate regulation; and,
- **Relational values:** people value nature through cultural, spiritual, identity-based and place-based relationships, including stewardship, care, and responsibility.

Many public policies and corporate decisions rely heavily on economic and monetary valuation approaches, which aim to “put a price on nature” by estimating the economic values of ecosystem services – for example, the contribution of pollination to agriculture or of wetlands to flood protection. Some experts argue that these approaches can play an important role by making nature’s benefits more visible in financial and policy decision-making, helping to reveal

costs that have historically been ignored. However, monetary valuation captures only a narrow set of nature’s values, primarily instrumental ones. When used in isolation, it risks sidelining intrinsic and relational values, as well as marginalising Indigenous and local knowledge systems and communities that have acted as stewards of ecosystems for generations. A narrow focus on economic metrics can also reinforce short-term decision-making and overlook long-term ecological integrity, cultural significance, and social equity considerations. The IPBES Values Assessment identifies this imbalance in how nature is valued as a driver of biodiversity loss in itself. When decisions prioritise short-term economic returns alone, the broader ecological and social fabric that sustain human wellbeing is gradually eroded.

To address this, IPBES highlights the importance of value pluralism, which requires reflecting nature’s diverse values in a range of valuation approaches and indicators. These include multiple valuation methods, such as biophysical, socio-cultural, monetary, participatory and integrated approaches, and a combination of indicators that capture ecological, social, cultural and economic dimensions.

By combining these approaches, decision-makers can better reflect the full spectrum of human-nature relationships and support policies and investments that are socially just, ecologically resilient, and aligned with long-term sustainability goals (IPBES, 2022).

How to get from here to there

Recognising diverse worldviews and the multiple ways people value nature is essential to ensure that the transition to a Nature-Positive Economy reflects how different communities understand, relate to, and depend on nature (Box 2). Most decisions about nature currently rely on a limited set of market-based or instrumental values that treat nature as a commodity, while overlooking cultural, relational, and intrinsic values that are equally important for sustaining both nature and human wellbeing (IPBES, 2022). Actors should seek to recognise, include, and balance multiple value perspectives when defining objectives, assessing trade-offs, and measuring progress. This may involve engaging with a diverse range of interest groups and knowledge systems – including local communities, Indigenous Peoples, practitioners, and scientists – and incorporating their perspectives equitably on what matters for nature and society. The IPBES Values Assessment

provides a practical reference with typologies of nature's values, participatory valuation methods, and approaches to integrate these into decision-making processes (IPBES, 2022; Box 2). Other examples include the previously mentioned System of Environmental-Economic Accounting, and the Capitals Coalition Integrated Decision-making Framework (Kelemen et al., 2022).

Managing businesses' impacts and dependencies can help to reduce risks and create opportunities for businesses (IPBES, 2026). The ACT-D framework by Capitals Coalition advises businesses to assess impacts and dependencies on nature, commit to science-based targets, transform through the mitigation hierarchy (i.e. companies should prioritise avoiding environmentally harmful activities before they consider trying to compensate for harm with instruments like carbon credits), and disclose information about impacts on nature. In these ways, businesses can take action on their nature-related reporting and target-setting. This includes investing in circular business models, reducing impacts on nature across their





supply chain, divesting from assets that degrade nature and redirect resources towards sustainable use, resilience, and restoration. Businesses such as H&M, Puma, Rio Tinto, Nestlé, and Vattenfall have assessed their nature-related impacts and dependencies, as well as pledged actions to restore impacted ecosystems and reduce greenhouse gas emissions (World Benchmarking Alliance, 2026).

For priority actions on major sectors, organisations such as Business for Nature and the Taskforce on Nature-related Financial Disclosures (TNFD) provide comprehensive sector specific nature-positive guidance for over 15 sectors (Victurine et al. 2024). The World Economic Forum's Nature Positive Transitions report identifies actions for sectors including automotive, chemical, cement and concrete, household and personal products, mining and metals. Another WWF report released by WWF-US outlines nature-positive pathways in ocean sectors such as offshore wind, coastal and marine tourism, shipping, and seafood (WWF 2025).

Sector-specific actions in high-impact sectors are crucial. The GoNaturePositive project is operationalising the Nature-Positive Economy concept (Figure 8) with its sectoral partners in agri-food, blue economy, tourism, green buildings, and forestry, demonstrating collaboration between diverse actors for mutually beneficial goals.

Governments have a key role to play in a Nature-Positive Economy. Policymakers, legislators, and regulators need to reform and improve existing rules and mechanisms that enable harm to biodiversity, and implement policies that are aligned with nature-positive goals (Groot et al., 2024). This includes reforming harmful subsidies for fossil fuels, fertiliser, fisheries and plastics (Alvarez et al. 2025). Global supply chains can also be regulated to reduce their reliance on ecologically harmful extractive processes and reduce negative impacts of trade on nature. This can be supported by positive incentives such as adjusting taxes, subsidies, payments for ecosystem services, permits, standards, and regulations (IPBES 2024).

Seeds of change

There are already business models and financial flows that regenerate rather than deplete natural systems. Nature-based enterprises are enterprises for which nature retention and/or restoration is a core element of their product or service (EU Commission, 2022; Kooijman et al., 2021). Nature-based enterprises would become a larger component of multiple sectors under the Nature-Positive Economy, in service of nature recovery. Examples include agroecology (farming methods that minimise chemical inputs, conserve water, and restore soil health), regenerative forestry (forest management that restores biodiversity and carbon stocks), blue economy (sustainable use and restoration of marine and coastal ecosystems), and green or blue infrastructure (nature-based solutions for climate, water, and urban resilience). Adequate investment, regulation, incentives, and support are needed for the widespread operation of nature-based enterprises, in order for net-positive outcomes for nature to be feasible.

At the EU level, the Nature Restoration Regulation, adopted in 2024, sets legally binding targets to restore at least 20% of the EU's land and sea areas by 2030 and all ecosystems requiring restoration by 2050. The regulation supports the transition to a Nature-Positive Economy by reducing harmful activities (including phasing out environmentally harmful subsidies through market-based instruments, green budgeting, and financing tools); scaling up ecosystem restoration across terrestrial, coastal, freshwater habitats, and urban green spaces; and linking nature restoration to job creation, climate resilience, and stronger public participation. Despite its ambition, the regulation faces key challenges, particularly concerning a lack of clear funding mechanisms, administrative capacities, and potential land-use conflicts. Adequate financial support, governance capacity, and cross-sectoral coordination are needed by EU member states for effective implementation (Kupilas et al. 2025).

A WWF project in Stockholm, Sweden, restoring coastal habitats to support local fish populations such as perch and pike.



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Not-for-Profit Economy

Overarching vision

The Not-for-Profit Economy replaces the profit-driven market composed of for-profit businesses, with a needs-based market composed of not-for-profit businesses (Hinton, 2020, 2026). It is a relatively new economic model that offers a viable pathway beyond both the profit-driven economy and the state-planned economy because it includes businesses, markets, and profit, but they are re-oriented to social benefit instead of private financial gain (Hinton and Maclurcan, 2017). This shift can enable businesses and markets to stop driving sustainability problems and start addressing them instead.

Diagnosis: What's causing the problem?

According to this perspective, the pursuit and accumulation of financial gain by major for-profit businesses and their owners drives overconsumption, environmental degradation, and inequality (Hinton, 2021).

The global economy is predominantly composed of for-profit businesses. This is a category of legal structures that has two key features: a financial gain

purpose, and private financial ownership that entitles investors to receive the profit and assets of the business. This category includes the most common forms of business, such as publicly traded corporations, limited liability companies, and partnerships.

The drive to sell more products leads profit-seeking companies to use strategies like advertising and planned obsolescence. The more firms use these strategies, the more all players feel pressure to use them to stay afloat in the market. This leads to overconsumption and the environmental degradation that comes with it. Similarly, there is an inherent incentive to suppress wages, as a key cost of business that takes away from profit. This has led to the wage stagnation that characterises the global economy (ILO, 2016; OECD, 2018, 2023a). Meanwhile, the surplus is distributed to business owners who tend to only reinvest a small part of the dividends they receive (Capgemini Research Institute, 2023). The combination of wage stagnation for workers and wealth accumulation by owners generates inequality. The accumulation of the economy's surplus by a relatively small number of people also contributes to environmentally harmful luxury consumption and puts pressure on the economy to grow in order to compensate for the extracted wealth (Stratford, 2020; Cappelli and Di Bucchianico, 2025). This entails efforts to further increase consumption and production, which have unavoidable environmental impacts.

Policies like environmental regulations, worker protections, and redistributive taxes could, in theory, prevent or constrain these kinds of actions in the market. However, it is difficult for governments to regulate such profitable strategies, because they threaten the very purpose of companies in the profit-driven market: financial gain. The system can easily become locked into these patterns because financially successful companies are inherently incentivised to use their power to influence policy in a way that is profitable for them (Chesterfield et al. 2025). This is evident when agribusiness, car, and fossil fuel companies have successfully lobbied against or watered down EU regulations that would cost them money (Cann and Balanyá 2019). It becomes a race to the bottom, which is why environmental problems and inequality continue to worsen despite increasing awareness. According to the Not-for-Profit Economy's diagnosis, this system is accomplishing what it is set up to do: enrich capital owners. However, it does so at an enormous cost to people and the planet.

Prescription & mechanism: What needs to change?

The Not-for-Profit Economy is a model of an economic system in which the market is made up of not-for-profit businesses that use all their resources to achieve social and environmental goals. The “not-for-profit” legal category has two defining features: a social benefit mission, and a non-distribution constraint. This means that all surplus and assets must be used and reinvested for public benefit and none can be distributed to private owners. This makes it different from “triple bottom line” or not-only-for-profit business models that try to balance private profit as a goal alongside social and ecological goals (often summarised as “people, planet, profit”). In addition to the legal difference from for-profit businesses, there is also an important distinction between not-for-profit businesses and charities (Hinton, 2020). The former category generate most or all of their revenue from the sale of goods and services, rather than depending on donations and grants.



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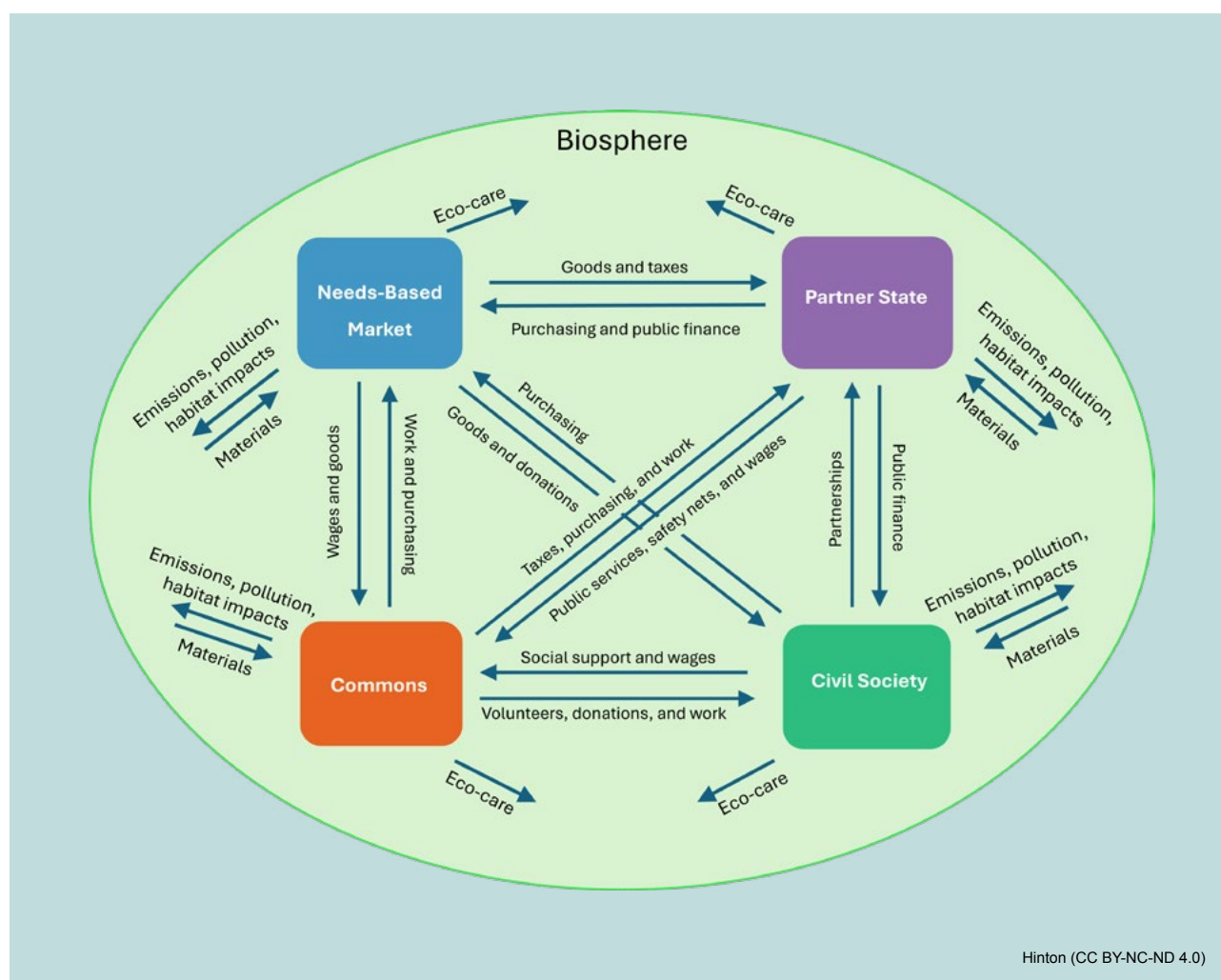
Not-for-profit businesses include businesses that are:

- fully owned by foundations, such as the GodEl energy company in Sweden and the international Zeiss optics technology company,
- fully owned by associations, such as Friskis&Svettis gyms in Sweden and the YMCA recreational company,
- mutual companies, such as Folksam insurance in Sweden and State Farm insurance in the US,
- consumer cooperatives, like Coop grocery stores in Europe and renewable energy cooperatives like Som Energia in Spain,
- credit unions, like EkoBanken in Sweden and Caja Popular Mexicana, which has operated in Mexico for 75 years, and
- state- or municipality-owned businesses, like Skellefteå Kraft energy company in Sweden and the innumerable public transportation, water, electricity, and healthcare companies around the world.

Not-for-profit businesses cannot sell private equity or shares of ownership, but there are still plenty of sources of finance available to them. Investment in these companies can come from bank loans (with a non-exploitative interest rate and repayment terms), peer-to-peer lending, bonds, public finance, crowdfunding, and donations. If necessary, they can sell shares to other not-for-profits (but not private individuals or for-profit companies).

The Not-for-Profit Economy model features a Needs-Based Market composed of only these kinds of businesses. In such a market, investment and production respond to societal and environmental needs rather than pursuing financial returns for owners. Beyond the Needs-Based Market, the model includes three additional spheres of the economy: a Partner State, Civil Society, and the Commons (which includes all unpaid work done by households and communities). Money, resources, goods, and services flow between and within these spheres, with different actors collaborating to meet needs in harmony with nature (Figure 9).

Figure 9: The Not-for-Profit Economy model.



This kind of economic system would lead to very different dynamics compared to today's economy. First, the constant reinvestment of profit and assets would keep resources going to where they're needed. This is due to the structure of not-for-profit businesses: no private distribution of profit is allowed and all surplus must be reinvested for business operations or social benefit. Not-for-profit companies also tend to focus on paying fair wages and pricing products for affordability (Bishow and Monaco, 2016; OECD, 2023b; Social Enterprise UK and Living Wage Foundation, 2024). This would thus lead to more equality, which in turn better allows the economy to meet everyone's needs in harmony with nature. Without a financial gain mandate pressuring companies to increase sales, and with a better circulation of wealth, the Needs-Based Market could grow or shrink according to needs without going into recession. Communities that are overconsuming today could decrease their consumption, which would take pressure off of the environment. This would be complemented by the Partner State in this model measuring progress in terms of public health and environmental indicators, instead of GDP.

With a market-wide focus on public benefit instead of private profit, it would be easier for businesses to offer sustainable, durable, and easily repairable products, as well as affordable repair and refurbishing services. The Commons in this model also plays a key role in facilitating the reuse, repair, sharing, and swapping of existing goods. The Partner State also intervenes with policies for

sustainability. For instance, to ensure a higher level of material circularity and regeneration of nature, the government could ban planned obsolescence, require companies to take back products and packaging at the end-of-life, and provide public finance for restoring damaged ecosystems. The fact that not-for-profit companies exist for public benefit aligns better with regulations and taxes to protect workers, consumers, and nature, compared to the current system's focus on private financial gain.

In all these ways, this kind of not-for-profit economic system would be a more fair, circular, and regenerative economy than the system we have today (Hinton, 2021, 2026).

“[The Not-for-profit economy] really goes to the root of the problem. [...] It's more of a holistic perspective”

**MARIT WIDMAN, MANAGEMENT STRATEGIST,
NATURSKYDDSFÖRENINGEN**



How to get from here to there

Concerted efforts from different spheres of society can shift organisations, build social momentum, and implement policies that enable these shifts. All for-profit businesses can move in this direction, changing their ownership to be fully not-for-profit, as Patagonia famously did by transferring its ownership to a trust and a non-profit foundation to ensure that all profits are used to protect nature. It is a one-way transition that can happen very rapidly. Organisations like the Doughnut Economy Action Lab and the Purpose Economy are helping companies make this transition by incorporating a social purpose, distribution caps, and asset locks into their legal documentation, via tools like Steward Ownership. This kind of social entrepreneurship is driven by a desire to address society's needs and challenges.

The rapidly evolving ecological, social, energy, and economic crises may generate a new eagerness to transform the economy. Indeed, a recent international survey conducted by Pew found that 72% of people think the economy needs to be changed in a significant way (Wike et al., 2025). Likewise, a survey conducted by the London School of Economics found that 86% of surveyed professionals in the UK, most of whom work in profit-driven firms, support the not-for-profit principles of business discussed above (Miles et al. 2025). Social and environmental movements are increasingly pushing for people and the planet to be prioritised over profit. Along with the rise of social entrepreneurship, ethical finance, conscious consumption, and a purpose-driven workforce, this wider social support could contribute to a positive tipping point for this kind of transformation.



Glenna Haug / Unsplash (CC0)

“A market that’s in service of needs rather than creating wants and then extracting from them [...] it goes beyond the binaries of profit and state planned economy.”

**KATHERINE TREBECK, PROGRAM DIRECTOR,
THE NEXT ECONOMY**



Samuel Chenard / Unsplash (CC0)

Seeds of change

The Social and Solidarity Economy represents a firm foundation for this kind of transformation. It brings together cooperatives, mutual organisations, social enterprises, associations, and other forms of economic activity that place social and environmental goals at their core. The Social and Solidarity Economy is commonly defined in terms of economic activity that “prioritises the welfare of people and planet, over profits and blind growth” (RIPESS, 2015) and it is gaining traction around the world, with the EU, OECD and United Nations all forming task forces to track and support it (Rijpens and Hermanson,

2023; ILO 2025; European Commission, no date b). The European Commission estimates there are 2.8 million social economy enterprises in Europe, accounting for 10% of all businesses and about 6.2% of all employees in the region (European Commission, n.d.b). Across the world, there are more than 10 million social enterprises (British Council 2022), selling goods and services while prioritising social and environmental goals. From a bird’s-eye view, these initiatives and movements go beyond individual organisations, pointing instead towards a system-level transition to an entirely not-for-profit economy, in which meeting human and ecological needs becomes the primary purpose of economic activity as a whole.

Farmers from the Farmer Veteran Coalition, a non-profit based in Waco, Texas, USA. Their mission is “mobilizing veterans to feed America.”



Meg Haywood Sullivan / Climate Visuals Countdown (CC BY-NC-ND 4.0)



Enrique / Pexels (CC0)

SYNERGIES AND TENSIONS

The Circular Bioeconomy, the Laghum Economy, the Nature-Positive Economy, and the Not-for-Profit Economy pathways can complement and reinforce each other, revealing potentially productive overlaps.

Yet, important tensions and trade-offs remain, which should be navigated with care. In this section, we explore the limitations of each pathway, as well as the synergies and tensions which might arise from combining specific proposals.

Limitations

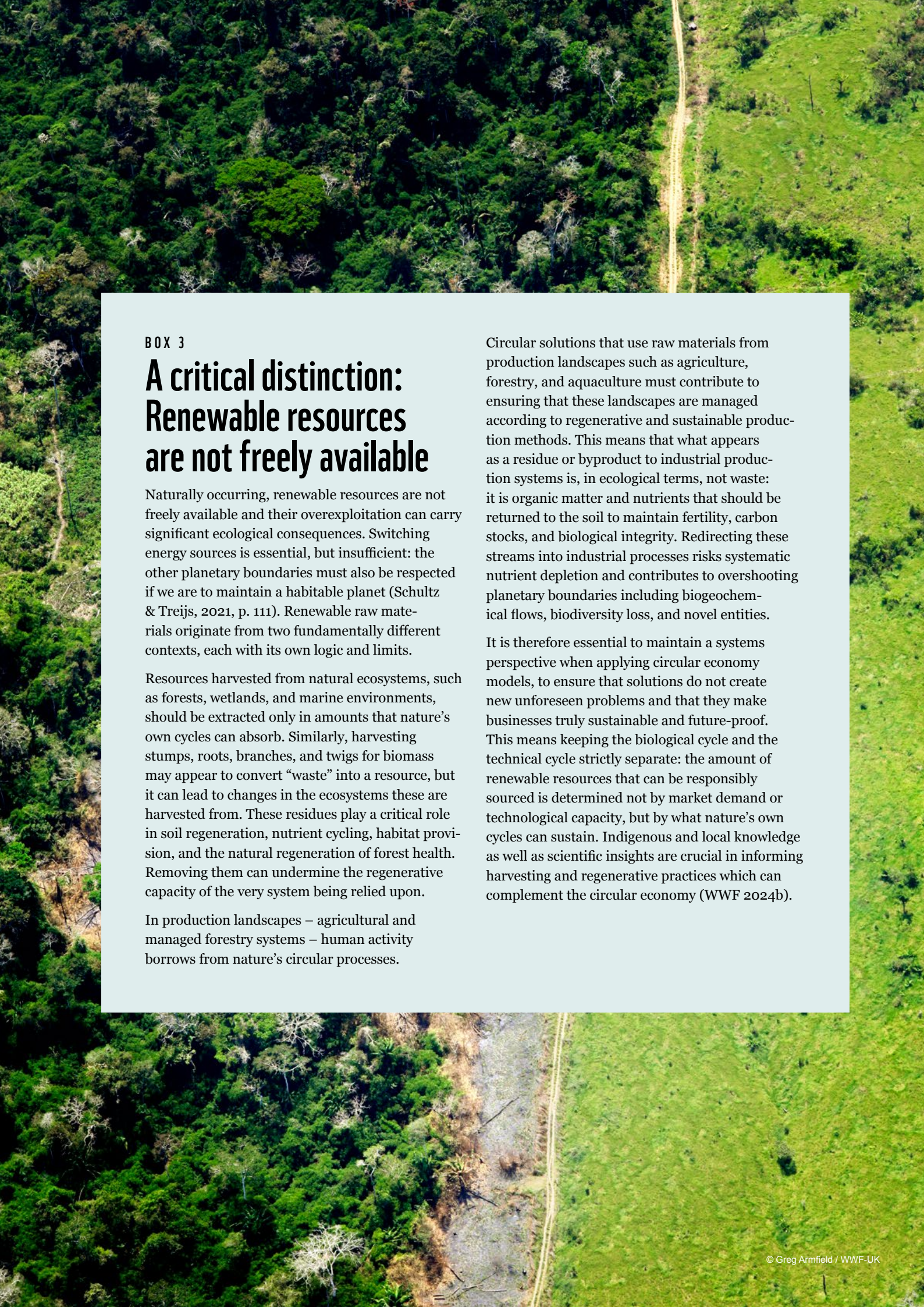
In our consultations with experts and practitioners, several limitations of the proposed pathways were identified. To begin with, the Nature-Positive Economy is still emerging, with relatively few real-world examples. For example, there are limited applications of managing trade-offs between nature-negative and nature-positive activities, measuring overall progress across scales, or participatory processes for balancing ecological recovery with societal needs.

The Laghum Economy aims to increase repair and circularity – key goals which are also central to the Circular Bioeconomy. However, both pathways face practical limits, particularly related to recycling and upcycling, which can be technically challenging and energy-intensive. In addition, both approaches may be undermined

by continued expectations of economic growth, which can offset resource savings (see Box 3). For the Circular Bioeconomy pathway, a key challenge is reducing the overall input of new materials, as ongoing economic growth tends to drive increased material use. Similarly, the Sustainable Consumption Tax in the Laghum Economy does not, on its own, guarantee that total consumption stays within sustainable limits, especially if it is not possible to determine a “sufficient” tax level to curb material consumption or if governments and businesses continue to prioritise economic expansion.

“None of them on their own will be enough to transform the whole economy, they’re all levers that can help contribute”

**KATHERINE TREBECK, PROGRAM DIRECTOR,
THE NEXT ECONOMY**

An aerial photograph of a dense, green forest. A narrow dirt road or path runs vertically through the center of the image, separating a darker, more densely wooded area on the left from a lighter, more open area on the right. The trees are vibrant green, and the overall scene is a natural, undisturbed landscape.

BOX 3

A critical distinction: Renewable resources are not freely available

Naturally occurring, renewable resources are not freely available and their overexploitation can carry significant ecological consequences. Switching energy sources is essential, but insufficient: the other planetary boundaries must also be respected if we are to maintain a habitable planet (Schultz & Treijs, 2021, p. 111). Renewable raw materials originate from two fundamentally different contexts, each with its own logic and limits.

Resources harvested from natural ecosystems, such as forests, wetlands, and marine environments, should be extracted only in amounts that nature's own cycles can absorb. Similarly, harvesting stumps, roots, branches, and twigs for biomass may appear to convert "waste" into a resource, but it can lead to changes in the ecosystems these are harvested from. These residues play a critical role in soil regeneration, nutrient cycling, habitat provision, and the natural regeneration of forest health. Removing them can undermine the regenerative capacity of the very system being relied upon.

In production landscapes – agricultural and managed forestry systems – human activity borrows from nature's circular processes.

Circular solutions that use raw materials from production landscapes such as agriculture, forestry, and aquaculture must contribute to ensuring that these landscapes are managed according to regenerative and sustainable production methods. This means that what appears as a residue or byproduct to industrial production systems is, in ecological terms, not waste: it is organic matter and nutrients that should be returned to the soil to maintain fertility, carbon stocks, and biological integrity. Redirecting these streams into industrial processes risks systematic nutrient depletion and contributes to overshooting planetary boundaries including biogeochemical flows, biodiversity loss, and novel entities.

It is therefore essential to maintain a systems perspective when applying circular economy models, to ensure that solutions do not create new unforeseen problems and that they make businesses truly sustainable and future-proof. This means keeping the biological cycle and the technical cycle strictly separate: the amount of renewable resources that can be responsibly sourced is determined not by market demand or technological capacity, but by what nature's own cycles can sustain. Indigenous and local knowledge as well as scientific insights are crucial in informing harvesting and regenerative practices which can complement the circular economy (WWF 2024b).

The tax reform proposed in the Laghum Economy also raises potential concerns about fairness and distribution in relation to how the Sustainable Consumption Tax impacts consumers. This is similar to value-added taxes (VAT), which are typically regressive, meaning that lower-income households tend to spend a larger share of their income on consumption and therefore bear a heavier relative burden than higher-income households. The Laghum Economy therefore advocates for more progressive taxation to counteract this. On top of this, other policy proposals could complement the ecological tax reform with resource taxes tied to income floors and ceilings, citizen dividend payments (returning revenue directly to citizens), or expanded public services that reduce the need for private consumption (Fitzpatrick et al. 2022).

Across all of the first three pathways, there are risks associated with the practice of “pricing nature” giving consumers the impression that all ecological impacts have been incorporated into the price of the products they buy, and downplaying remaining impacts. However, it is notoriously difficult, if not impossible, to calculate accurate prices for complex ecosystem services (Campanella 2025). Furthermore, pricing mechanisms often overlook intrinsic and relational values of nature, obscuring other forms of value loss.

Finally, while there is support for not-for-profit business models, scepticism exists about implementing such models across the entire economy. Some contributors pointed out that while it is easy to imagine certain sectors becoming completely not-for-profit, such as education, childcare, and healthcare, other sectors might be much more difficult, such as energy, construction, and agriculture. Others expressed concern about whether there is enough motivation or incentive to shift the whole economy in this direction.



“The current discourse around internalising externalities has lost important arguments about the ethical issues of pricing mechanisms, such as that being able to pay your way out of accountability can legitimise harm”

LINA ISACS, RESEARCHER,
UPPSALA UNIVERSITY

“[The Not-for-Profit] was the one I first initially had most problems coming to terms with and I think [...] not having any companies that are for profit it’s a bit extreme. But [...] so is the concept of ‘the business of business is business’ and [...] of nature as an externality which shouldn’t be priced in.”

DAVID EKLUND, CO-FOUNDER,
ICEBUG

Diverging diagnoses generate tensions

All four pathways identify structural patterns and incentives within the current economic system as a core cause of ecological degradation and social inequality. However, the diagnoses vary in depth of critique from questioning dominant values, organisational purpose, and ownership structures, to focusing on alternative business models and incentive structures. While the Laghum Economy and the Circular Bioeconomy focuses on incentives and production processes, the Nature-Positive Economy highlights the role of regenerative business models. The Not-for-Profit Economy, in turn, centres legal business structures as the core lever of change, requiring businesses to have social and ecological missions to drive their activities and investments, rather than private gain. While this does not necessarily guarantee nature-positive outcomes at the aggregate level, it can be addressed by policies from what is referred to as the Partner State in the model.

As mentioned above, a key tension between the pathways is how they approach the issue of economic growth. The first three pathways generally accommodate continued economic growth, with limited attention to the potential environmental and social constraints this may entail. In contrast, the Not-for-Profit Economy explicitly recognises that economic activity may need to contract in some contexts in order to bring the economy back within planetary boundaries.

The pathways also differ when it comes to their approach to the purpose and ownership of business. The first three pathways imply that the profit-driven economy can be made sustainable. For instance, the Nature-Positive Economy and Laghum Economy pathways advocate for valuing nature through payments for ecosystem services and environmental taxes, in order to steer financially-interested companies and investors in a more environmentally sustainable direction. Along similar lines, the Circular Bioeconomy is often advocated for in terms of being more profitable through efficiency gains.





© Daniel Martinez / WWF-Peru

Artisans of the Callería native community in Peru.

In contrast, the Not-for-Profit Economy pathway argues that investing in more circular systems, designing products to be durable, using renewable resources, regenerating ecosystems, and encouraging sufficient consumption are typically less profitable than using fossil fuels, using ads to sell more products, planning products for obsolescence, and not having to pay for damage done to the environment. Accordingly, there is a need to change the incentives, purpose, and ownership of businesses to focus directly on societal benefit rather than try to steer the profit motive in a better direction.

Another main point of tension between the pathways involves what is valued, how and by whom. A key proposal of the Nature-Positive Economy is to focus on value pluralism to recognise the diverse values of nature (see Box 2). The Nature-Positive Economy emphasises the need to shift societal values to prioritise human-nature connectedness. For example, this is reflected in Indigenous Peoples and Local Communities worldviews of reciprocity and a relationship with nature such as *Buen vivir* in South America, which centres harmony between people and the natural world as essential for wellbeing, and *Ubuntu* in parts of Africa, which stresses relationality, mutual responsibility, and collective wellbeing across



© Mauri Rautkari / WWF

human and ecological communities (Kyei-Nuamah and Peng 2024). The focus on value pluralism in the Nature-Positive Economy is at odds with the singular focus on monetary valuation that the Laghum Economy takes, which seeks to price material extraction through taxes, but does not take into account other valuation methods.

Similarly, the stewardship role of Indigenous Peoples and Local Communities and their knowledge systems tend to remain at the margins, despite their crucial role in safeguarding biodiversity-rich areas around the world – Indigenous lands include more than one-third of the world's intact forest landscapes and are key habitats for around 60% of all terrestrial mammals (Fa et al., 2020; Fernández-Llamazares et al., 2024). The Nature-Positive Economy highlights that Indigenous Peoples and Local Communities hold traditional ecological knowledge and businesses should engage through equitable partnerships. This is left out from the Laghum Economy and the Circular Bioeconomy pathways. The Not-for-Profit Economy helps to recognise the role of Indigenous Peoples and Local Communities, which is included in its Commons sphere. This pathway proposes that the economy should be transparent, responsive, and accountable to the communities they serve, aligning with the stewardship principle of the Nature-Positive Economy.

While these tensions must be recognised and managed, the breadth of prescriptions also points towards potential synergies between pathways to help navigate some of the limitations of each proposal.

Pukapuki local in Papua New Guinea, cuts into the trunk of an eaglewood tree, to search for tell-tale signs of an infection, which results in a valuable resin.

“The focus on incentives without speaking about the core problem of values, priorities and cultural roots only represent small, marginal steps”

LINA ISACS, RESEARCHER,
UPPSALA UNIVERSITY

African elephant calves playing in Samburu, Kenya.



© Andy Rouse / naturepl.com / WWF



© Brent Stirton / Getty Images



Breadth of prescriptions leads to productive reinforcements

Several pathways reinforce each other in ways that suggest a combined approach could be effective. The tax reform proposed by the Laghum Economy pathway aims to directly incentivise the inner loops of the Circular Bioeconomy, by making repair, reuse, refurbishment, and product leasing, all of which are labour-intensive but materially light activities, more attractive and affordable options. In this sense, the Laghum Economy can provide a fiscal architecture within which circular business models become economically advantageous rather than competitively disadvantaged.

Similarly, the Circular Bioeconomy, the Nature-Positive Economy, and the Not-for-Profit Economy share a commitment to closing material loops and reducing extraction from natural systems. The Circular Bioeconomy provides a basis for the latter two pathways to achieve the goal of reducing negative impacts on ecosystems. Furthermore, circular production systems that use organic by-products as inputs – wood offcuts, crop residues, sewage sludge – reduce pressure on virgin natural resources and can, when well-designed, actively support ecosystem restoration goals (Tiwari, Bhatnagar and Kumari 2025). The Nature-Positive Economy emphasises the need for full nature recovery and both the Circular Bioeconomy and Not-for-Profit Economy pathways call for the regeneration of ecosystems.

The Not-for-Profit Economy may also provide the ownership and governance conditions under which the other pathways are more likely to succeed. Not-for-profit businesses have structural interests in paying fair wages, pricing for affordability, and reinvesting surplus for public benefit. Furthermore, Not-for-Profit business models are also more likely to pay attention and incorporate multiple value perspectives of nature in their operations due to their purpose beyond profit. These characteristics make them less likely to resist ecological regulation, engage in greenwashing, or use accumulated wealth to block systemic reform. There is also no inherent growth imperative in the Not-for-Profit Economy, which can address this limitation of the other pathways.

“The main reason why the circular economy is not really happening is because in most areas it is less expensive to source virgin materials than secondary materials [with a few exceptions]”

**ANDERS WIJKMAN, CHAIRMAN,
VIALE CITIES**



Figure 10: Synergetic objectives between pathways.

Positive tipping points

All pathways present low-hanging fruits which can be implemented in the near future, although the common aim is to create long-lasting change towards a sustainable and resilient economy.

Synergies between pathways can help trigger positive tipping points as they may engage different communities, where changes in one part of the economic system accelerates or unlocks other changes (Figure 10). For example, if a fiscal reform succeeds in making resource-intensive products more expensive while reducing the cost of labour, it could create market conditions in which repair, reuse, and care-based services become economically competitive, potentially triggering a cascade of business model innovation that reinforces circular and nature-positive goals simultaneously. If the Not-for-Profit Economy gains sufficient social momentum and scale, it could begin to shift the incentives of the market itself, reducing the political influence of profit-maximising incumbents and weakening the dynamic of regulatory capture that has slowed progress across all pathways. Nature recovery, too, has its own tipping point: ecosystems that cross critical thresholds of degradation collapse in ways that are difficult or impossible to reverse, but ecosystems restored beyond certain thresholds can recover resilience and function at scale.

The implication is that the pathways are not only analytically complementary, they may be causally interdependent in ways that make coordinated action across them more powerful than the sum of

“You’ve got to really think, would this small step, even if it’s incremental, does it have the chance to build towards something of more profound change? Otherwise there’s a risk of what I call “system compliant fixes” – actions that comply with the current system and only make it slightly better, may block deeper change”

KATHERINE TREBECK, PROGRAM DIRECTOR, THE NEXT ECONOMY

their parts. Pursuing them in deliberate combinations, rather than in isolation, raises the prospect of a transition that gathers momentum rather than stalling due to the accumulated resistance of incumbent systems.



© Milos Ruzicka / iStock

IMPLICATIONS AND OPTIONS FOR ACTION

Thriving societies and economies depend on nature and healthy ecosystems. This relationship has been overlooked in how the economy is organised, and transformative change is needed across the economy to address the root causes of unsustainability.

Both incremental and disruptive changes have their roles in transformation and can be present in transitions to sustainability (Geels and Schot 2007; Laakso et al. 2021). The role of incremental changes today can lead to shifting the expectation baseline and social acceptance of change, particularly at the level of values (Legros and Cislighi 2019; Everard et al. 2016). At the same time, the role of disruptive change is to accelerate transformation in a short period of time (Olsson and Moore 2024). Insights from transformation research also show that having the capacity to navigate change when windows of opportunity occur, for example in the form of a crisis, is a crucial step in making sure transformation takes place in a desirable direction (Herrfahrdt-Pähle et al. 2020).

The pathways presented in this report provide a selection of economic proposals that aim to tackle the change needed. All economic actors, from businesses, to financial actors, policy makers and civil society, have a role to play in helping to build sustainable and resilient

economies. Alongside their synergies, tensions and limitations, the pathways carry practical implications for how different actors can engage with economic transformation. The most important implication is that no single pathway is sufficient on its own. This, however, does not mean that all pathways must be pursued simultaneously at full scale. Rather, it implies that diverse options for action exist for all economic actors. These actions should be pursued with awareness of their power to drive the broader system changes needed for sustainability, as well as the tensions that make some approaches incompatible.

This section builds on insights from academic literature and a workshop held at Stockholm Resilience Centre, which brought together a group of ecological economists and sustainability scientists to identify and discuss a range of options for action across business, finance, policy, and civil society.

The private sector

All businesses depend on and impact nature and are exposed to systemic risks which are exacerbated by nature degradation (IPBES 2026). Tracking their dependencies and impacts on nature is a necessary step in understanding their relation to nature, but it is insufficient for future-proofing businesses across all levels of supply chains unless this information shapes decision-making towards nature stewardship (Kashyap et al. 2025). If a tax reform such as the one proposed in the Laghum Economy is implemented, businesses also have a responsibility to ensure that the benefits of labour tax removal and automation are distributed equitably to workers, for instance through increased salaries, worker ownership, and/or investment in reskilling. Rethinking governance and ownership structures, for example through specifying a social / ecological organisational purpose (Hurth 2023) or to moving towards not-for-profit models (Hinton 2021), is an important lever for change which often sits within businesses' own control. It aims to realign business purpose,

activities, and financial flows with social and ecological goals, while still allowing for a diversity of business strategies. The feasibility of the different action options covered in this subsection depends on the business context but should ultimately be underpinned by reflection and long-term alignment with social and ecological goals.

While some available actions are common across all businesses, others need to be differentiated depending on their role in the supply chain. In particular, businesses in primary sectors, operating at the point of resource extraction, such as forestry, fishing, agriculture, and mining, have different incentives and challenges than businesses further downstream in the supply chain.

Primary sectors such as agriculture and forestry are particularly exposed to climate- and nature-related risks, such as droughts, floods, and pathogens (UNEP 2023b). Adopting regenerative practices, such as agroforestry and agroecology, and improving collaboration among primary sector businesses to assess depletion dynamics are key options for building resilience, reducing risks, and ensuring long-term business survival.

The Active Forest Experimental Centre in the Tapajós region in the Amazon, Brazil. An educational centre which promotes sustainable forest management practices, agroecology and permaculture.



© Chris J Ratcliffe / WWF-UK



Drawing on the Nature-Positive Economy, embracing the mitigation hierarchy is a key action, which is already common practice in many primary sectors. The mitigation hierarchy requires first avoiding potential impacts on biodiversity, minimising unavoidable impacts and restoring biodiversity damaged by the project, before any remaining impacts are offset elsewhere (Milner-Gulland et al., 2021; Bull et al. 2019). Implementing robust and transparent impact assessments is key to minimising a business's negative social and biodiversity impacts, thus reducing risk. Learning from best practices on activities with lower environmental impacts across the industry, and improving the traceability of materials requires collaborations across industries. Eventually, primary sector businesses are expected to regenerate and increase positive impact on nature.

Impact and dependency metrics can guide this transition while also providing the information needed to implement the Laghum Economy's Sustainable Consumption Tax. Quality data collected by primary sector businesses is essential for feeding into assessments further down the supply chain. Frameworks such as those provided by the Taskforce on Nature-related Financial Disclosures (TNFD) and the Science Based Targets Network (SBTN) provide useful roadmaps for a variety of sectors.

Secondary sector businesses, such as manufacturing, processing, and retail, can support the pathways through a fundamental rethinking of product design, supply chain relationships and ownership structures. In addition to maintaining traceability of raw materials and impacts across the value chain, secondary business sectors also have a role to play in mitigating large-scale

“The transformation of economic systems is about how you use resources in a different way [...] And what we need to do is to transform the economy so that resources are used for the right things.”

**INGE RØPKE, PROFESSOR,
AALBORG UNIVERSITY**

and resource-intensive production by facilitating cradle-to-cradle processing (Fornasiero et al. 2021). Early adopters of Circular Bioeconomy principles, who prioritise product durability, reusability, repairability, and recyclability, and who adopt leasing and product-as-a-service business models, may have a competitive advantage as ecological tax reforms are increasingly adopted. Secondary sector businesses can also play a role in reducing environmental pressures by reducing production to levels of sufficiency, defined as meeting the social foundations within planetary boundaries. Along these lines, they can design their products for durability, encourage sufficiency among their customer base, and avoid promoting unnecessary or wasteful consumption.

For all types of businesses, alternative performance metrics can be tested and applied. For example, the Future-Fit business benchmark provides a framework that helps companies identify the conditions they need to meet to operate within environmental limits and support societal wellbeing. The Economy for the Common Good's business matrix assesses how companies contribute to social values. These tools can be used to evaluate and guide a company's systemic impacts on interest groups such as workers, customers, communities, and nature. As such, they can help articulate clearer directions for business transformation, while improving businesses' social license to operate. In particular, shifting towards not-for-profit or hybrid legal structures that specify a clear social purpose and an ethic of care as part of business governance is an option available to all businesses. A first step would be to investigate the possibility of incorporating a social-benefit purpose, distribution caps, and/or an asset lock into the company's legal documentation, guided by key questions outlined in the Steward Ownership toolbox, which is a collection of open-source frameworks, model documents, and strategic guides that help businesses legally separate voting power from economic rights. In addition to changing their own structure towards a not-for-profit model, secondary-sector businesses can also prioritise procurement and build commercial relationships with not-for-profit enterprises that align with their values.

Summary of options for action:

- Adopt regenerative practices
- Apply the mitigation hierarchy (avoid, minimise, restore, then offset)
- Rethink product design for durability and repairability
- Adopt circular and product-as-a-service models
- Explore alternative governance structures
- Improve supply chain transparency
- Promote sufficiency over unnecessary consumption

The CEO of Atlantic Sea Farms, at the company's production facility in Saco, Maine, USA, where they process farmed kelp into food products.



© Yoon S. Byun / WWF-US



Benjakitti Forest Park in Bangkok, Thailand.

The financial sector

The financial sector sits at a critical juncture across all four pathways, with the potential to be a barrier or a positive agent of change in scaling efforts elsewhere in the economy. Each pathway requires capital to flow differently: towards nature-positive activities, towards circular infrastructure, and towards mission-led enterprises. The sector's exposure to systemic risks and shocks arising from biodiversity loss and ecosystem degradation provides a strong incentive for change, not least because financial institutions themselves can exacerbate or alleviate these risks through where they choose to invest (see Figure 2; Kedward et al., 2021; Kedward, Ryan-Collins & Chenet, 2022).

The Nature-Positive Economy highlights the need for asset owners and managers, banks and insurers to better understand both their risk exposure, and the contribution of their portfolios, to nature loss. This requires building investors' capabilities to analyse impacts and dependencies on nature or working closely with experts (Wassenius et al. 2025). Initial efforts in this

direction have been made through the EU's Corporate Sustainability Reporting Directive, which creates mandatory disclosure requirements for large companies, thus creating the frame within which data should be collected and made publicly available. However, impact and dependency disclosures have limited value unless the information shapes investment strategies.

Investors can incentivise behavioural change in companies by adopting sustainable investment standards or actively engaging with incumbent firms to transition away from nature-negative business models as part of their risk-reduction strategies (WEF 2022). Furthermore, data literacy also implies an understanding that simplified metrics cannot fully capture cumulative and systemic risks, and that approaches which focus primarily on financial materiality may underestimate important environmental limits, such as biodiversity thresholds (Kedward et al. 2023; Crona et al. 2024). Investors must thus be equipped with systems-thinking skills and act under uncertainty, for example by incorporating scenario analysis in their investment strategies or aligning risk-return expectations with planetary health indicators.

On the other hand, venture capital, impact investors, ethical bond markets, institutional investors, and public finance can play distinct roles in providing seed investment to regenerative, circular, or not-for-profit enterprises. Conventional capital markets systematically overlook these types of businesses, even though they are necessary for making the economy sustainable (Sheikh et al. 2025).

Revolving or “evergreen” fund structures are particularly suited to sustainability-oriented investments, where returns are long-term and uncertain, as they allow capital recycling without fixed exit horizons. Finally, both private and public investors play significant roles in funding circular infrastructure. This ranges from public infrastructure such as collection, sorting, and reverse logistics systems that prevent products from becoming waste by enabling reuse and material recovery, to digital and urban infrastructure (e.g. connectivity, platforms, and shared urban systems) that support product-as-a-service and leasing models by facilitating asset tracking, usage-based services, and multi-user access.

Loan defaults and high insurance payouts become more likely amid increasing extreme weather events and nature-related shocks (WWF 2026). To mitigate this, banks can adjust the cost of capital to reflect sustainability performance, lowering interest rates for nature-based, circular, or not-for-profit enterprises which reduce impacts on nature or implement regenerative practices. Channelling sustainability-linked bonds

“One of the main barriers for developing social enterprises in Europe is lack of finance.”

**YLVA LUNDKVIST FRIDH, EXECUTIVE DIRECTOR,
MIKROFONDEN**

towards companies that demonstrate measurable ecological improvements is another strategy available. Insurers and reinsurers can link premiums to companies’ investments in risk reduction through nature conservation and restoration, using Climate and Disaster Risk Finance and Insurance instruments to provide timely financial support for disaster response and recovery while incentivising proactive risk management (UNDP 2025).

Central banks can extend their mandate to address nature-related systemic risk more explicitly. Specifically, they can integrate biodiversity loss into their financial stability frameworks, develop nature-related scenario analyses, and avoid asset purchase programmes inadvertently locking in nature-negative activities (Kedward, Buller & Ryan-Collins, 2021; NGFS-INSPIRE, 2022). In their capacity as guardians of financial stability, central banks are also well

Farmer watering plants at an agroforestry farm in East Usambara, Tanzania.



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positioned to act as lenders of last resort for the ecological transition, supporting the reallocation of capital at the scale and speed required (Kedward et al. 2024).

Beyond instruments and incentives, transformation in the financial sector ultimately requires challenging some of its foundational assumptions. The Nature-Positive Economy points to shifting the current understanding of nature-oriented values by broadening it beyond monetary returns to encompass plural perspectives on the intrinsic, relational and instrumental values (see Box 2), as well as adopting a more holistic interpretation of fiduciary duty and wealth to include social and natural wealth (Hurth and Vrettos 2021; UNEPFI and PRI 2019). Furthermore, private investors need to revisit the return expectations embedded in investment decisions, which disregard the social and ecological debt they create and often penalise the longer timeframes that nature-based projects require. The Not-for-Profit Economy highlights deeper but essential shifts to align the sector with the economy-wide transition, such as changing ownership structures so that wealth is generated equitably and with a long-term view, and adapting the governance of financial institutions to incorporate social-benefit purposes or distribution caps. This pathway includes transitioning the finance sector from for-profit to not-for-profit structures, like credit unions, foundation-owned banks, state-owned banks, mutual insurance companies, and bond markets.

Summary of options for action:

- Assess and act on nature-related risks and impacts, going beyond simplified financial metrics
- Adopt sustainable investment standards
- Actively engage with firms to transition away from nature-negative business models
- Adjust the cost of capital, pricing, and financial stability frameworks to reward sustainable and nature-positive activities
- Develop capital structures which provide seed funding to regenerative, circular, and not-for-profit enterprises
- Rethink fiduciary duty and ownership structures



Policy-makers

Policy coherence is particularly important in supporting economic transformation, with the synergies described in the previous section offering significant opportunities, while the tensions highlight the need for careful design and democratic consultation. The first three pathways outline initial steps that governments can take to transition the economy in a sustainable direction. These steps include adopting wellbeing and sufficiency indicators alongside GDP, reforming tax incentives to encourage more sustainable business models, and broadening the definition of fiduciary duty to include a mandate for social and ecological outcomes (Hurth and Vrettos 2021). Eventually, using environmental and public health indicators as measures of social progress, instead of GDP, and moving away from private business ownership, which entails redefining financial fiduciary duty altogether, represent steps towards the Not-for-Profit Economy, which can help ensure the economy stays in the safe and just operating space of the Doughnut.

“We just need to get comfortable talking about banning [harmful] things. [...] That’s an important part because, otherwise, all the good impact risks being overwhelmed by the consequence of the bad [activities]”

**KATHERINE TREBECK, PROGRAM DIRECTOR,
THE NEXT ECONOMY**

To support the Nature-Positive Economy, adopting policy that recognises environmental limits is fundamental. This can be achieved through adaptive cap-and-trade mechanisms that adjust to changes in pressure, by shifting subsidies away from environmentally harmful activities and towards nature-based enterprises and nature-based solutions, and by mandating public reporting of nature impacts and dependencies. The EU Corporate Sustainability Reporting Directive (CSRD) is a first step in gathering information about large companies’ impacts and dependencies on nature, but such regulation needs to be adapted and updated as our scientific understanding of these links increases. Additionally, the Not-for-Profit Economy advocates for putting hard limits or bans on harmful activities and substances where it is deemed necessary to protect the health of people and the biosphere.

Taxes on emissions and material extraction could advance both Nature-Positive and Laghum Economy goals simultaneously, through taxes on consumption and border adjustment mechanisms, which aim to account for the environmental impacts of products before they are imported, preventing the shift of overconsumption to other countries. Ensuring that consumption tax revenues are redistributed to lower-income households to compensate for regressive effects and facilitate access to low-resource goods and services is crucial for ensuring a just transition if a government decides to use tax reforms like those described in the Laghum Economy pathway.

Panel about human rights in supply chains during the 2025 United Nations Climate Change Conference (COP30), in Belem, Para, Brazil.



© Jacqueline Lisboa / WWF-Brazil

Policy can further strengthen the Circular Bioeconomy by removing taxes on second-hand products, banning planned obsolescence, and implementing right-to-repair legislation. At the municipal level, policy could strengthen organisational capacity for recycling and material distribution, and change budget lines for remanufacturing.

Implementing lower tax rates on not-for-profit business revenues and shifting government support, such as public procurement, subsidies, seed-funding, and incubator programs for entrepreneurs could encourage not-for-profit businesses. This would not only support the formation of new not-for-profit businesses, but it would also incentivise for-profit companies to shift in this direction. Governments could also mandate that all businesses incorporate a public benefit purpose, distribution caps, and asset locks, to be phased in over a few years, creating incentives of transitioning more companies to not-for-profit structures. These kinds of policies can be phased in gradually and combined. For instance, a government can initially allow public procurement contracts with for-profit businesses that have a social benefit mission and distribution cap in their legal documentation, but then bring down the level of the distribution cap every year until all public procurement primarily goes to businesses which have a social purpose and a non-distribution constraint. Finally, creating new legal structures for not-for-profit businesses, to distinguish them from charities, could make it easier and more appealing for entrepreneurs to start such businesses.

At the same time, deliberative democracy mechanisms and citizens' assemblies could play a significant role in building the social legitimacy and support needed to move away from profit-driven economic models towards those with social and ecological missions.



“Gothenburg city is now getting all their fruit boxes to all their workplaces in Gothenburg from social trade, which is [...] a cooperative for all the work integration social enterprises in Gothenburg. This was quite a big growth opportunity for them, to get that kind of long term, big customer. Gothenburg city is a good example when it comes to procurement with social responsibility ”

YLVA LUNDKVIST FRIDH, EXECUTIVE DIRECTOR, MIKROFONDEN

Summary of options for action:

- Adopt wellbeing and sufficiency indicators alongside GDP
- Reform tax incentives to favour sustainable business models
- Enforce environmental limits through cap-and-trade mechanisms, subsidy shifts, mandatory nature-reporting, and bans on especially harmful activities
- Introduce taxes on emissions and extraction, paired with redistribution to lower-income households
- Introduce public procurement rules, funding programmes, and eventually mandated public-benefit structures

Civil society

Civil society occupies a distinctive position in relation to all four pathways, requesting accountability, transparency, and the integrity of sustainability outcomes. It consists of actors who encourage responsiveness from economic actors and policymakers, including non-governmental organisations, advocacy groups, think tanks, researchers, charities, citizens, and Indigenous Peoples and Local Communities. Businesses, governments, and financial institutions may be incentivised to adopt the language of these pathways without implementing the structural changes they demand, echoing longstanding patterns of greenwashing. As some of civil society's core functions are to monitor, expose, and challenge the gap between commitment and practice, these actors play an indispensable role in ensuring accountability. The credibility of all four pathways depends to a significant degree on whether this accountability function is adequately resourced and politically protected.

Civil society is also a key enabler of shifting social values and consumer behaviour. For example, advocacy campaigns can raise awareness regarding social and ecological issues which are affecting communities, change how people relate to nature through formal and informal education, foster sustainable consumption habits, and inform the implementation of policies. Furthermore, science has a role to play in monitoring planetary health and public health, and how key indicators

respond to changes in economic systems and business practices. Civil society organisations, supported by citizen science and traditional ecological knowledge, can monitor business and government strategies and verification systems, which can help guide policy and business action in response to new knowledge.

All actors ultimately have a role to play in reconnecting with nature, promoting sufficiency and adopting sustainable lifestyles. This ranges from day-to-day choices to support regenerative, circular and not-for-profit business models, to supporting larger transformations of the economic system for a just and sustainable future.

Summary of options for action:

- Hold decision-makers accountable by monitoring, exposing and challenging gaps between commitments and implementation
- Build public support for sustainable and nature-positive behaviours through advocacy and education
- Strengthen the evidence base through research, monitoring and citizen science
- Use independent evidence to shape policy and business decisions
- Inspire and enable people to reconnect with nature, adopt more sustainable lifestyles, and promote regenerative, circular business models





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TOWARDS A PORTFOLIO APPROACH FOR A SUSTAINABLE AND RESILIENT ECONOMY

Today, the relationship between the economy and nature is fundamentally broken, with current economic systems driving environmental degradation and failing to deliver wellbeing for all.

Addressing the resulting social and ecological crises requires transforming economic systems, starting with a redefinition of the goal of the economy. In this report, we explored four theoretical proposals for transformative change, which could provide pathways towards sustainable and resilient economies. Taken together, these implications point towards a portfolio approach to economic transformation: one that pursues complementary

interventions across fiscal, regulatory, ownership, and cultural dimensions simultaneously, while being honest about the tensions between them and trying to mitigate the distributional consequences of transition.

Nature is not a side issue for the economy, but the foundation it stands on. The transformative change required to build sustainable and resilient economies means

redesigning what is valued, directing capital where it is most needed, setting real limits instead of only data-collection, and holding all actors in the system accountable. A wide range of actions is available but require reflexivity and long-term thinking. The transition to new economic approaches will not be driven by a single breakthrough or actor, but by many decisions that reinforce one another over time. Some pathways depend on policy to reshape markets and incentives, while others can be advanced immediately through decisions by businesses, financiers, researchers and civil society. Together, these actions can reinforce one another and accelerate systemic change. The window for action is open now.

“I think we need to move from the idea of expansion to the idea of thriving.”

DAVID EKELUND, CO-FOUNDER, ICEBUG



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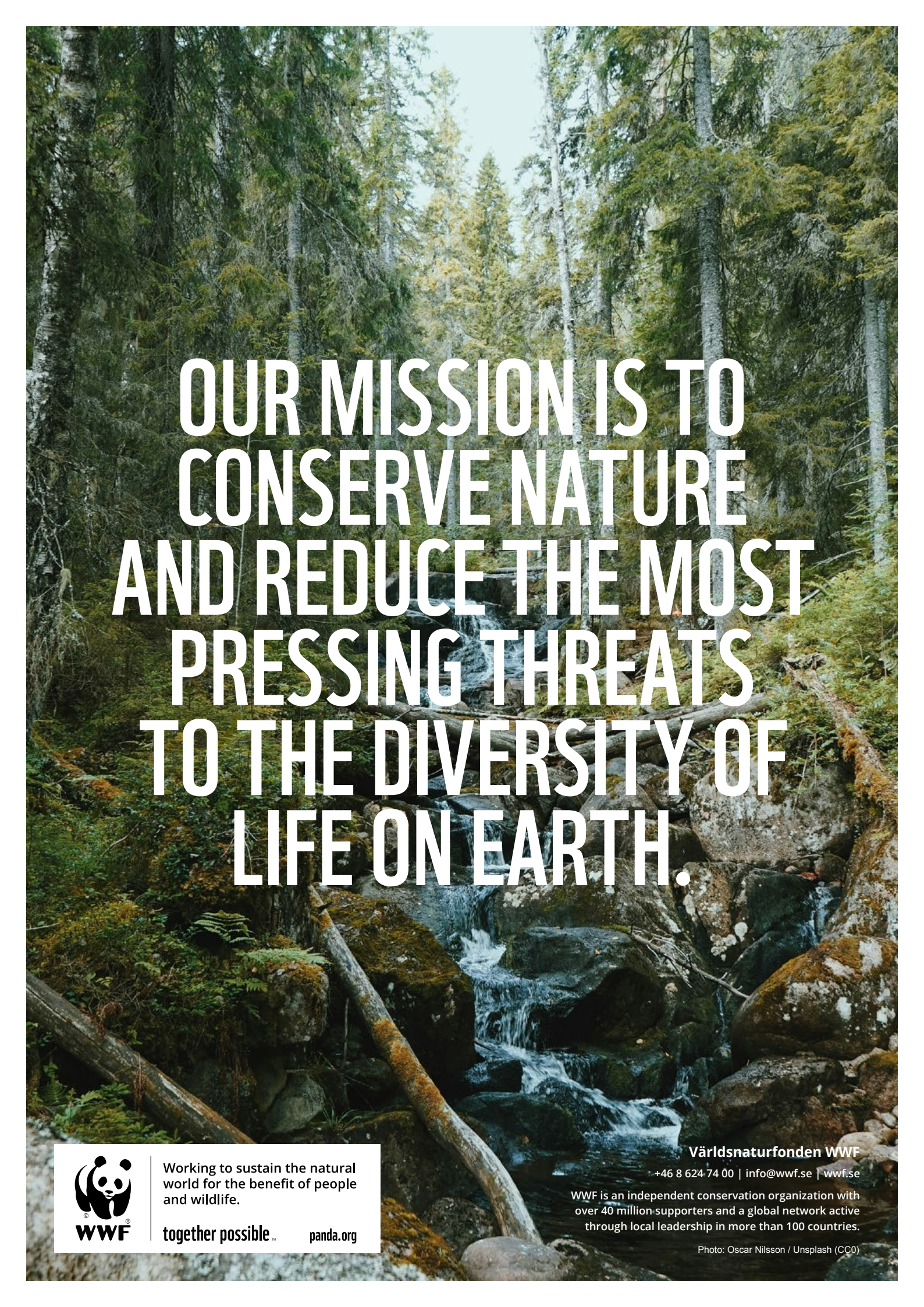
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