

Adapt to Survive: Business transformation in a time of uncertainty



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Key Messages

1. The scale of global environmental challenges is unprecedented

Business leaders know that economic activity depends on healthy people, resilient societies, equal societies, productive ecosystems and a stable climate, but business and society today face mounting challenges, including:

- Climate change resulting in droughts, floods and devastating fires impacting commerce and daily life;
- Environmentally unsustainable food production contributing to 70 per cent of global biodiversity loss;
- Mounting urban waste with 7-10 billion tons generated globally each year and many cities lacking safe and environmentally-sound waste management systems
- Emerging zoonotic diseases like COVID-19 show the vulnerabilities of these systems and the need for strengthened global resilience and reduced inequalities including gender inequality.

2. Business transformation is critical and possible

Because of the scale of the challenge, time is of the essence, and business is fundamental to the solution. But business planning needs to align with a nature positive and gender equality mission that uses only renewable energy, restores biodiversity, aims for gender equal employment practices and moves towards a fully circular economy. Given the environmental challenges we face, these are the expected transformations that will need to happen in the next 30 years:

- Half of all greenhouse gas emissions need to be eliminated globally by 2030 with near zero emissions achieved by 2050. This implies at least an 80 per cent reduction in fossil fuel use by 2050.
- To end global hunger by 2050, we must produce 50 per cent more food. Meanwhile, the environmental impact and biodiversity loss of that food production must decrease by two-thirds to protect human and planetary health.
- Waste streams like single-use plastics will need to be eliminated to restore the world's oceans. Other pollution will need to be drastically reduced to protect nature and human health. This implies the creation of a near-fully-circular economy by 2050.
- To support gender equality in the circular economy and environmental governance, so as to fulfill by 2030 the goal of achieving full and productive employment and decent work for all women and men, including for young people and persons with disabilities.

3. Shifting towards a Nature Positive approach is the best way for business to transform

Nature Positive Economic business models that are transformative and regenerative while remaining profitable will require:

- **Disruption from within:** Business leaders must transform themselves to align to this new reality. This means setting transformational goals to achieve success that includes the health and well-being of people and nature.
- **Setting a nature positive purpose and strategy:** Business leaders need to change their core business assumptions to align with a nature positive approach. This includes asking whether the natural and social systems businesses depend on are healthy and resilient, while defining the business role in the broader global transformation.
- **Collective Action:** Businesses can drive transformation from within, but it is easier when their neighbors and colleagues do so as well. This means engaging with policymakers, leaders from other business sectors and consumers.
- **Coherence of business targets and goals:** Targets and goals must be aligned to the ambitious environmental goals we need to achieve, and they must be based on scientific evidence and indicators.
- **There is no incentive like survival:** Smart businesses will profit from this transformative change by proactively changing the way they conduct business.
- **The journey is as important as the destination:** Transformational change will not happen overnight, but commitment, long-term vision, entrepreneurship and innovation will be key.
- **You are not alone:** Transformation towards a Nature Positive Economy is already underway, through new technologies like solar and wind power, bio-based materials and electric mobility. These technologies are no mature and have pushed the global conversation which are mature and have pushed the global conversation from cleaning up environmental pollution to addressing the systemic risks of continuing on the path we are on and creating profit through transformative change.

About GEO for Business

Welcome to the first edition of the GEO for Business briefs. The United Nations Environment Programme [UNEP] and its [global partners](#) are proud to offer this series of stimulating briefs about the environmental challenges and business opportunities that demand transformational change at a global scale. New installments of GEO for Business will appear every few months to provide guidance on a range of issues relevant to the future of business in a changing world. Future briefs will explain:

- how to adapt to deep decarbonization,*
- how to transform global food systems,
- how to build environmentally sustainable and resilient infrastructure,
- how business can help build circular economies, and
- the role finance needs to take in a transforming world.

UNEP is also proud to have convened a broad group of expert authors with business-relevant voices to communicate these extremely timely and important messages. These authors are supported by a broad coalition of business and environmental organizations[†] on the GEO for Business journey.

For nearly 50 years, UNEP has been working to improve the environment for current and future generations. As part of this work, UNEP periodically asks the expert community to assess the current state of the environment, how effective the policy response has been and what the future holds if humanity stays on the current path or if it shifts to one that is more environmentally sustainable. The sixth and most recent edition of The Global Environment Outlook, subtitled *Healthy Planet, Healthy People*, presents a very daunting picture but also many reasons for hope.

Global Environmental Outlooks assess broad trends and propose sustainable pathways. They do not generally anticipate or examine potential global shocks, like COVID-19. That is because while major global shocks occur and have certainly happened in the past, the broad trends of increasing resource extraction, environmental degradation and pollution have always tended to persist.

However, the scale and depth of COVID-19's impacts are unprecedented, and that allows us all to take stock and rethink how nature and humanity interact. Will the world continue to try to dominate nature, or will it work hand-in-hand to build a planet that sustains humanity? In crafting this first GEO for Business brief, it was important to look at these two possible futures to explain how humanity might choose one path over the other and the role business could play in achieving the more positive future.

These business briefs are meant to inform a broad business audience, including companies in the supply chains of major multinationals, multinationals themselves as well as small to medium-sized enterprises. The scale of the environmental challenge the world faces means that everyone must contribute to the transformational change discussed in this brief. Smart businesses will learn how to take advantage of this transformation, while the others, as Mark Carney says, will be left behind.

“Companies that ignore climate change and don't adapt will go bankrupt without question.”

Mark Carney
UN special envoy for climate action
and finance,
31 July 2019

1. Business at a time of transformation

The world is witnessing dramatic changes in the environment, in technology, in the economy and in society. 'Business as usual' is no longer acceptable, and the question is how long the world can continue pursuing consumption and growth predicated on ever-increasing efficiency. The COVID-19 pandemic has amplified concerns about the highly interconnected and vulnerable state of the global economy, the relationship with nature and the prospects for each living being on this planet, including people, to survive and to thrive.

This concern is not new. For decades, science has pointed out the problems associated with material, linear, fossil-fuel-based economic growth. The overwhelming evidence from the GEO-6 report, published in 2019, ^[2] is that human beings are already putting people's survival at risk. Not only are we driving catastrophic climate change and increasing pollution, but we are also driving an unprecedented loss of biodiversity, the rich variety of life that is essential for the stability and resilience of all ecosystems. This scientific consensus has also been translated into high level political commitments, including the [Paris Agreement](#), leading up to a [Global Deal for Nature](#) and the [Business Ambition for 1.5°C](#).

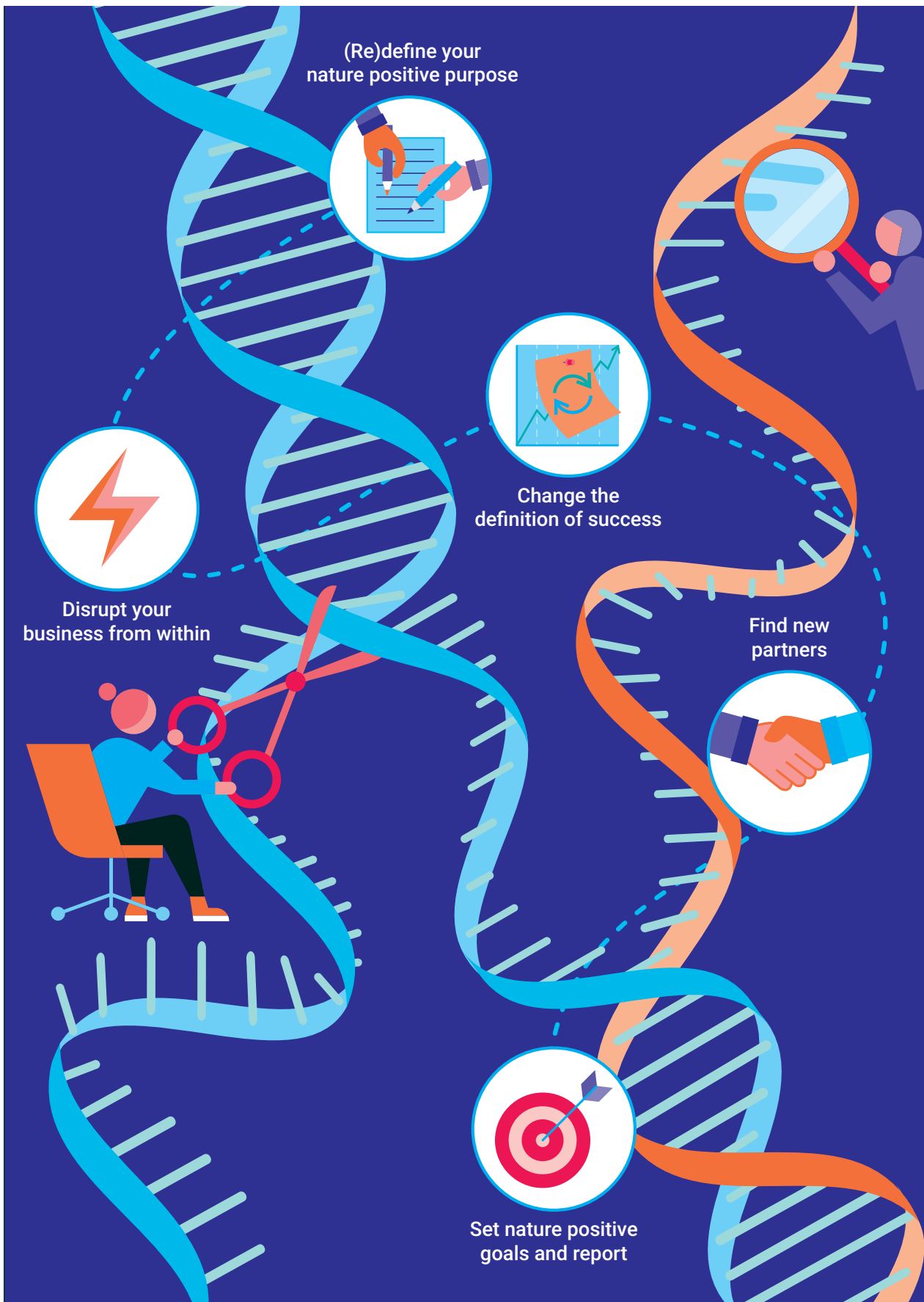
Despite recent progress and growing momentum, the global community, including business and governments, has failed to take the transformative actions necessary for human survival. Dominant responses remain focused on the pursuit of short term financial and economic recovery, and growth as a driver for progress, even if this growth comes at the expense of the planet's natural resources and long-term well-being. With this well-being now dramatically and perhaps irreversibly undermined, there is need to question the thinking and systems that got the world to this point. It is clear that a resilient economy must be one that prioritizes and supports the well-being of nature and people.

The brief will show later how communities, countries and businesses around the world have been exploring and developing nature positive models in energy, food, transport and resources.

This emerging movement is a source of hope and inspiration, as it might help guide business toward a new type of economy. But for businesses stuck in conventional economic thinking and locked into linear, fossil-fuel-based practices, this transformative change towards a positive relationship with nature poses existential challenges.

To navigate and survive the coming decades of transformative change, every business will need to harness all the ingenuity, creativity and imagination they can muster. We will need CEOs and entrepreneurs to steer the economy and their businesses away from relying on the exploitation of nature and people and towards a new model of prosperity, based on green and regenerative principles. It is time for leaders in business to overhaul their purpose, plans and strategies for this new context and explore different futures, engage with new partners and create space for experimentation. With so much at stake, clinging to business-as-usual is not just risky, but a narrow and irresponsible approach. The only way to prepare for the future is to explore how companies can take on a nature positive approach, starting today.

Figure 1: How business can transform



2. The scale and pace of environmental change is unprecedented

Business leaders know that their success depends on healthy people, resilient societies, productive natural systems and a stable climate, yet all of these are now under threat. Energy systems predominantly burn fossil fuels, and the negative impact on our climate is clearly evident. The production and consumption of energy must change because:

- The carbon dioxide emitted over the last 150 years has already increased global average temperature to 1.1°C above pre-industrial levels. Global energy-related greenhouse gas emissions have grown almost 60 per cent since 1990.^[3]
- The impacts of climate change, including lengthy droughts, floods and devastating fires, more intense hurricanes and tropical storms, damage to infrastructure because of changing freeze/thaw patterns, and rising sea-levels are already affecting commerce and daily life. Poorer countries are likely to be more severely impacted than rich ones.^[2]
- To avoid the most dramatic of these impacts, global greenhouse gas (GHG) emissions will need to fall by half by 2030 and reach 'net-zero', about an 80 per cent reduction in energy-related emissions, by mid-century.^[2] That is roughly equivalent to the approximately 8 per cent emission reductions caused by the global 'lock down' during the early months of the COVID-19 pandemic.^[4]

Business will be affected by the dramatic reductions of fossil fuels used for power and heat generation, transport and industrial processes that are necessary in the next few years. [Rapid penetration of renewable energy](#), electrification of transport and industrial processes, and decarbonisation of energy and resource intensive economic sectors are required to meet these reduction targets of 50 per cent by 2030 and 80 per cent by 2050.^[5]

The global food system also needs to change radically to provide more and healthier food for a growing global population. The world will need 50 per cent more food in 2050 to feed the nearly 10 billion people who will be on the planet then.^[2] At the same time, it will need to reduce the environmental impact of food production by about two-thirds.^[6] Estimates show that this can be achieved, in part, by reducing the nearly one-third of food that is wasted each year and by increasing

regenerative agriculture and plant-based diets by 30 – 50 per cent.^{[7],[8]} This would reduce impacts such as:

- Half of habitable land and 70 per cent of extracted freshwater are currently used to produce food, and 77 per cent of farmland is used for meat production.^[2]
- Food production is responsible for 70 per cent of biodiversity loss through land-use change, habitat fragmentation, overexploitation, illegal wildlife trade and invasive species.^[9]
- Desertification and land degradation are shrinking land resources with impacts on human health, well-being and food security, especially for those populations in poorer rural areas that are most dependent on land for their livelihoods and food.^[2]
- Pollution and climate change, driven in part by food production, are also driving a mass extinction of species, including a decline in species vital to food production, such as bees and other pollinators.^[2]
- Recent assessments describe a 'lost decade for nature'^{[8],[9]} where almost all of the global biodiversity targets set in 2010 have been missed, putting US\$44 trillion of economic value generation at risk.^[10]

Businesses involved in [food production](#), [transport or provision](#) will likely need to change to accommodate new regenerative agricultural techniques, reductions in the use of pesticides, herbicides and synthetic fertilizers, technologies to reduce food waste and [changing dietary habits](#) that rely less on the consumption of meat.

Finally, the linear 'take, make, waste' economic system extracts natural resources and produces waste at rates that are not sustainable:

- Global extraction of natural resources increased from 27.1 to 92.1 billion tons between 1970 and 2017,^[11] while the most recent data from the mining and metals sector shows that 90 billion tons of mine waste was generated by their activities in 2014.^[12]
- 8 million tons of plastic are added to the oceans each year.^[2]
- Globally between 7–10 billion tons of urban waste is generated each year, despite many cities in low income countries lacking safe and environmentally sound waste management systems.^[2]

Business will need to extend the useful lifetime of products, design them for disassembly, source more recycled or reclaimed materials, change to supply chains that are more circular, accommodate consumer preferences for 'products as services' and conform to policies to ban single-use products such as plastics.

GEO-6 has also projected these trends out to 2050. The picture that emerges is that we are in need of deep transformation of social and economic systems to avoid the worst of the anticipated ecological damage. Failing to transform the way energy, food and resources are produced and consumed, will result in deep environmental impacts in particular for populations living in poverty, with frequent natural disasters, much of the planet's biodiversity lost or irreversibly impacted and coastal cities having to deal with rising sea levels. The World Economic Forum's 2020 global business risk report^[13] identified environmental risks as the main threat to economic growth and prosperity (Figure 2) in stark contrast to its 2010 assessment, in which environmental risks were not even discussed.^[13] Business risks and ecological crises are now more clearly linked, leading to dramatic shocks and irreversible tipping points.^{†§}^[14]

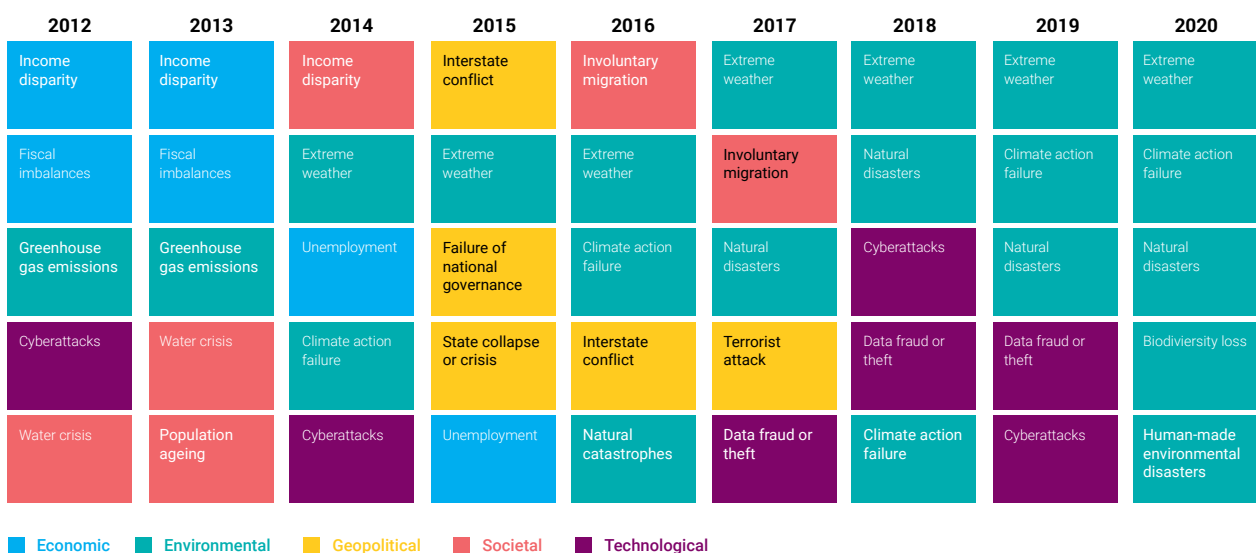
Environmental change also brings direct negative impacts to human health,^{**} food security^{††} and freshwater availability,^{‡‡}. GEO-6 and other major

independent, expert-led global assessments have shown that planetary health and human health are intimately linked^[2, 15]:

- 6–7 million people per year die prematurely from indoor and outdoor air pollution.^[2]
- 60 per cent of all new infectious diseases are coming from animals, a situation that COVID-19 has only amplified.^[2]
- About 1.4 million people die each year from preventable diseases, such as diarrhea and intestinal parasites, that are found in pathogen-polluted drinking water often produced by unsafe sanitation.^[2]
- Antimicrobial resistance from overuse of antibiotics for medical uses and in the food system is likely to become the leading cause of death by 2050.^[2]

Transformative changes to reduce carbon emissions and loss of biodiversity between 2020 and 2050 could have significant positive impacts on the global economy and human health, saving about US\$54.1 trillion.^[2] Much of these savings could occur in India –US\$ 3.3 to 8.4 trillion – and China – 0.3 to 2.3 trillion^[2] – through lower rates of illness and death from air pollution alone. The more the climate changes, air and water are polluted and biodiversity is lost, the greater the damage to health and the economy.

Figure 2: Top global risks



Economic Environmental Geopolitical Societal Technological

Source: World Economic Forum 2007-2020, Global Risks Report

** Environmental and human health are intricately intertwined, and many emerging infectious diseases are driven by activities that affect biodiversity (GEO-6)

†† Genetic diversity is declining, threatening food security and the resilience of ecosystems, including agricultural systems and food security (GEO-6)

‡‡ Freshwater ecosystems are disappearing rapidly, representing a high rate of loss of biodiversity and ecosystem services (GEO-6)

3. The global economic system is locked into a pattern of environmental damage

Earth Overshoot Day – the day on which a group of NGOs estimate humanity’s demand for ecological resources and services in a given year exceeds what the planet can regenerate in that year – fell on 22 August 2020, only 24 days later than overshoot day in 2019. [16] This means that, even with the reduced resource use during the early stages of the pandemic, the pattern of environmental damage is still hardwired into the global economic system. Economic systems keep the world locked into a development pathway where positive changes and innovations are offset by continued growth of material consumption and pollution. [17]

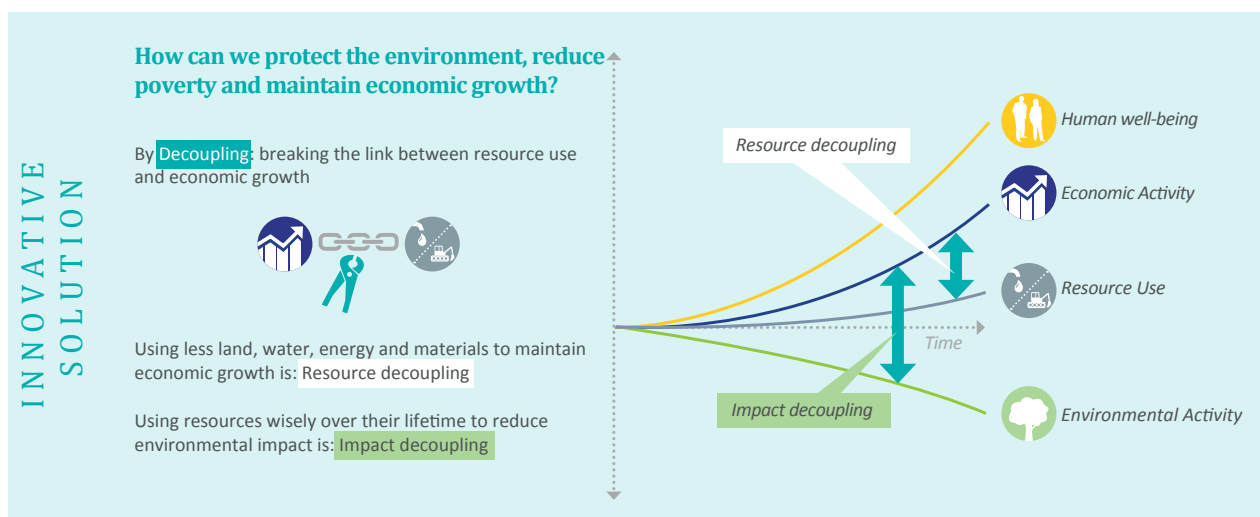
Avoiding this environmental damage and its dramatic consequences requires something fundamentally different from incremental reductions in emissions and biodiversity loss. It requires new ways of thinking and models of production and consumption that reduce pressures on the environment while increasing human well-being, social and economic value. [18] (Figure 3)

Moving the economy out of this locked-in pathway requires deep transformative changes in how the economy has been collectively organized. This is not a new insight, but acting upon it is extremely complex, contested and challenging. For example, the internal combustion engine, the foundation of personal transportation systems, shows how ‘path dependency’ in economic sectors and organizations prevents deliberate ‘sustainability transitions.’ Because of its centrality, virtually all vehicle manufacturers,

at least until very recently, considered it rational to keep investing in the gradual improvement of the engine’s effectiveness and efficiency. [19] The result is gentle progress in ‘resource decoupling’ that reduces the use of resources to build vehicles and makes engines more fuel efficient, but which doesn’t match the growing size, features, number and usage of vehicles. The ultimate effect is that all efforts focused on innovation and efficiency are investments in the dominant technology and economic model: they reinforce the status quo, continue to produce more pollution and strengthen this lock-in. [20]

At a certain point efficiency gains through innovation reach their limits: a fossil-fuel powered engine is dependent on fossil fuels and will always produce some emissions. Even worse: at some point complexity and lock-in will make it increasingly difficult and expensive to achieve further improvements. [21] For businesses operating in such end-of-life contexts, shifting to completely new business models that are based on different types of resources, technologies, value propositions and market structures is further complicated by ‘sunk’ investments in equipment, personnel and assets, as well legal and collaborative commitments towards providers, partners or buyers. But as will be shown, businesses in such context are vulnerable and will be potentially outcompeted soon by better alternatives. Add to this the pressure of policy and markets to address this environmental damage and we have a recipe for transformative change.

Figure 3: How to protect the environment, reduce poverty and maintain economic growth



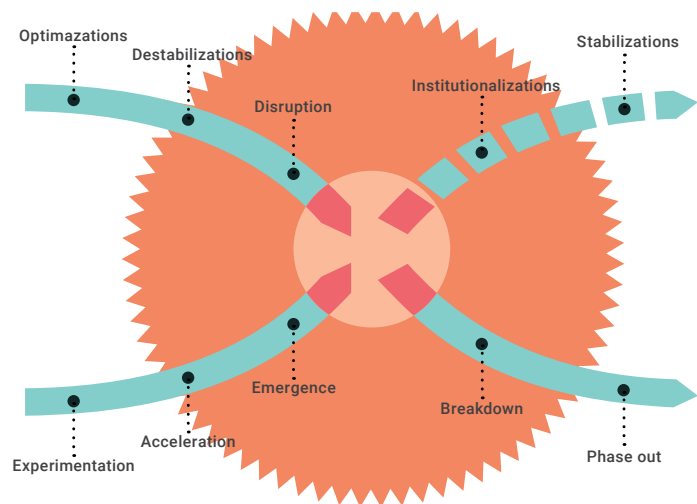
Understanding change better

The COVID-19 crisis gives a taste of the disruption that can be expected as environmental change impacts path-dependent sectors. The current pandemic is an 'expected surprise,' likely born of increased biodiversity loss, illegal wildlife trade and fragmentation and encroachment on natural habitat. It is also, in part, the product of growing population densities and vulnerabilities of health systems. This pandemic is also exacerbating pre-existing inequalities such as [gender inequality](#). Research into resilience and transitions shows that path-dependent sectors adapt in the short term by improving their efficiency but, as a result, decrease their diversity and long-term adaptive capacities. As the world changes, more pressure is put on these sectors and the actors operating within them. However, the current focus on 'managed' improvement can blind one to broader systemic risks. This logic is well known to transition researchers. Social and economic systems based on such path dependencies are vulnerable to disruption.

COVID-19 showed how such disruptions can have global impacts while creating space for transformative change previously thought unimaginable. Patterns of transformative change in economic sectors and regions yield societal transitions: a non-linear shift away from one type of path-dependency, triggered by crises and events that catalyse and accelerate reorganization of complex social systems. ^{[20],[22]} Such transitions have happened throughout history and offer a way to understand the patterns and mechanisms driving transformative change today.

Transformative change has often been driven by technological change, as in the shift from horses to cars, from coal to gas, from sail power to steamships or from letters to e-mail. Sometimes institutional and economic change drives the transition, leading to societal shifts from extensive to intensive food production systems or from neighborhood to specialized health care, or from landfilling waste to incineration. Such transformations can take decades, but usually 10-15 years of disruptive and chaotic structural change plays out before a new normal is reached.^[23] (Figure 4)

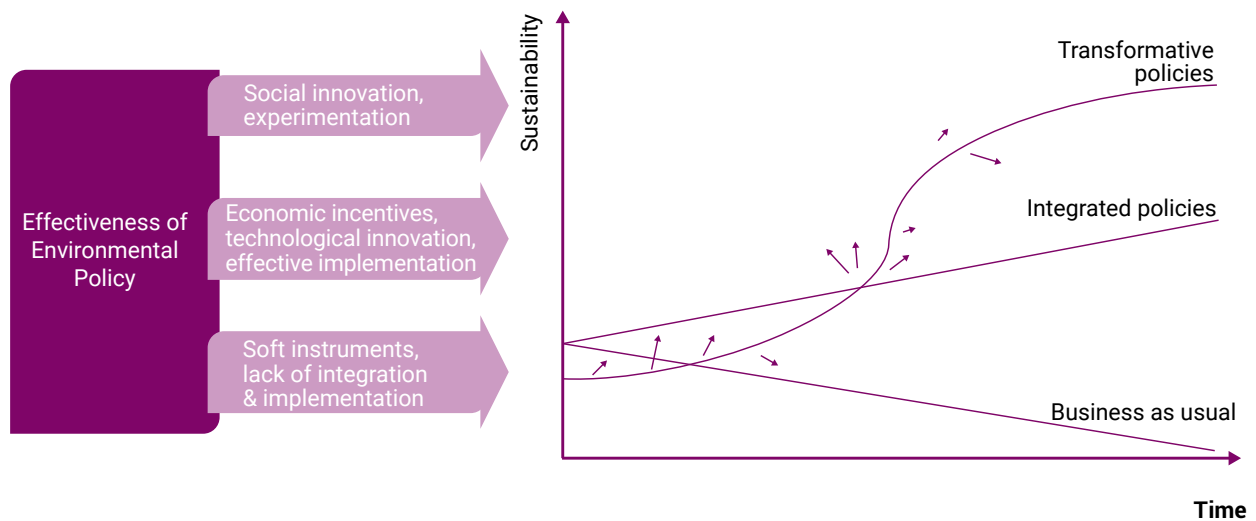
Figure 4: How transformative change is always about build-up and break-down



This perspective on transformative change calls for new strategies that anticipate possible disruptions and focus on ways to help guide and accelerate desired transformations. In fact, this is already happening. The EU is pushing for transformative change and adopting ambitious goals in [Multiannual Financial Framework \(MFF\)](#) which contains elements of the previously proposed EU Green Deal,^[24] while Costa Rica, the winner of UN Champion of the Earth, has shifted to 100 per cent renewables, reforested the country and doubled

GDP in the last 15 years.^[25] These examples highlight the growing recognition in policy thinking that changes are needed beyond incremental improvement and economic growth, and that new metrics, regulations, economic conditions and institutional conditions for business are needed. Transformative policies create an enabling environment for society and business to work together to build a better world on the other side of the pandemic.^[26] **(Figure 5)**

Figure 5: Different policy approaches produce different results



4. Emerging key sustainability transitions

Looking beyond the current disruption to the critical transitions needed according to the fifth Global Biodiversity Outlook,^[8] there is evidence of sustainability transitions emerging in systems, including food production,^[7] energy generation,^[27] mobility^[28] and resource use. These transitions build on social and political support, technological innovation, economies of scale and engaged entrepreneurs. They might lead rapidly to completely different, economically-sustainable futures. Such changes bring shock and uncertainty but also great economic business opportunity for rebuilding nature and increasing well-being.

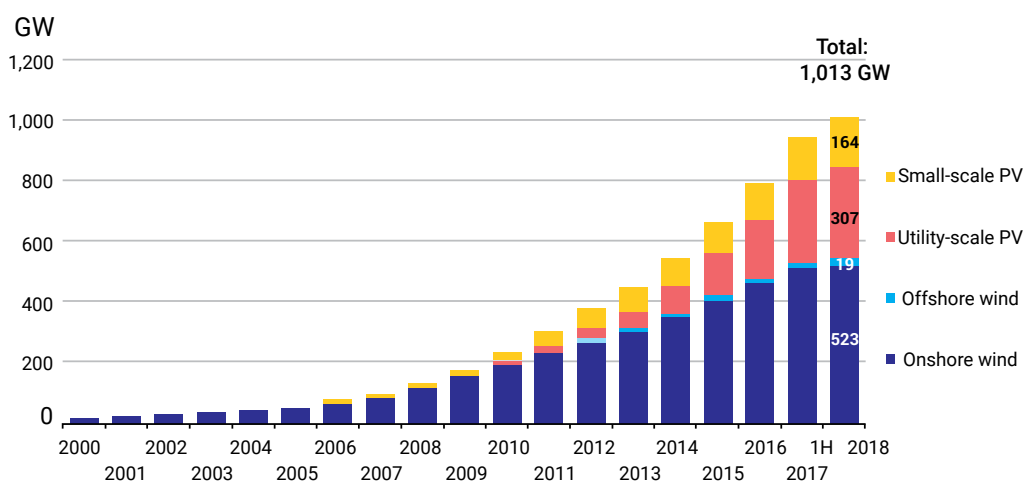
4.1 Transforming the world: it's already happening, slowly

The 'new energy' transition is driven by an ever-intensifying focus on deep decarbonization, (see **Section 6** for governments setting net zero emissions goals) and the exponential growth of renewables^{***} (**Figure 6**) that threaten current fossil fuel investments, future profits and existing business models as well as centralized control of energy systems. Some incumbents have leaned into this change with great success: Denmark's Dong Energy, rebranded as Ørsted,^[29] sold almost all of its fossil fuel interests and is now thriving as a sustainable energy

business, on track to be carbon neutral in energy generation and operations by 2025.^[30] Others such as RWE and Eon^[31] have had to write off billions of dollars and break up to separate stranded assets, mainly investments in coal and lignite, from cleaner parts of their business. Many major energy players are now rapidly shifting course. In August 2020 BP announced its plan to transform itself into an integrated energy company, investing US\$5 billion per year in low carbon energy and raising its renewable generating capacity to 50 gigawatts by 2030, up from 2.5 gigawatts in 2019.^[32] Companies in the value chain of natural gas are looking to reposition gas as a transitional fuel with infrastructure that still remains relevant in a world of green hydrogen and biomethane.

Decades of social concern about waste, especially plastic pollution, have finally enabled a policy push to encourage business to move to circular economy models, new materials, designs and reduced packaging. (**Figure 7**) Set up in 2018, the [Platform for Accelerating the Circular Economy](#) now comprises 75 public, civic and private sector leaders and over 200 members.^[33] Supported by the World Resources Institute, the Platform is working to champion projects in key waste areas, such as textiles, plastics, food and electronic waste. Initiatives focused on plastic waste, including the [New Plastics Economy Global Commitment](#), led by the Ellen MacArthur Foundation and UNEP,

Figure 6: Global wind and solar installations



Cumulative to June 30, 2018

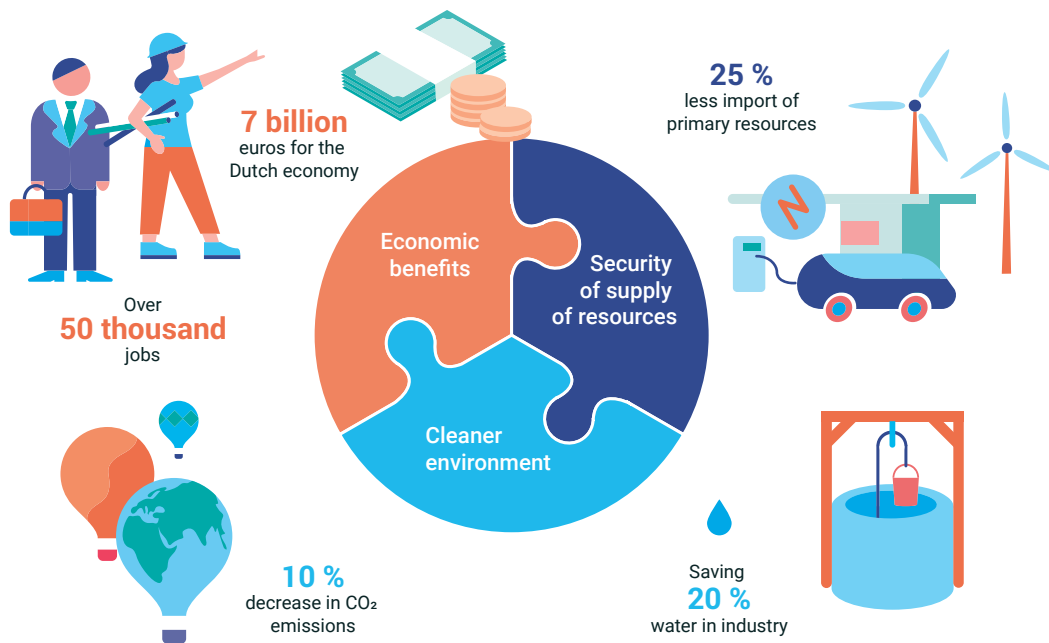
1H 2018 figures for onshore wind are based on a conservative estimate; the true figure will be higher.

*** Major areas of policy intervention in energy systems, which relate to the SDGs (especially SDG 7) are decarbonization measures that aim to substitute fossil fuels with clean(er) or renewable alternatives (GEO-6)

Figure 7: The circular economy—an industrial system that is restorative by design



Figure 8: Economic benefits from a transition to circular economy in The Netherlands



have gained substantial support with business and governments around the world. Although progress is slow, these initiatives are driving some consumer-facing companies to investigate the opportunities presented by economic models that generate zero waste. For example, new startups, such as [Novelis](#), [DyeCoo](#), [Fairphone](#) or [Method](#), as well as circularity hubs such as [Loop in Norway](#) or [Bluecity in the Netherlands](#), combined with growing consumer demand for zero-plastic and waste free consumption, have begun to encourage mechanisms of resource exchange and circular entrepreneurship.

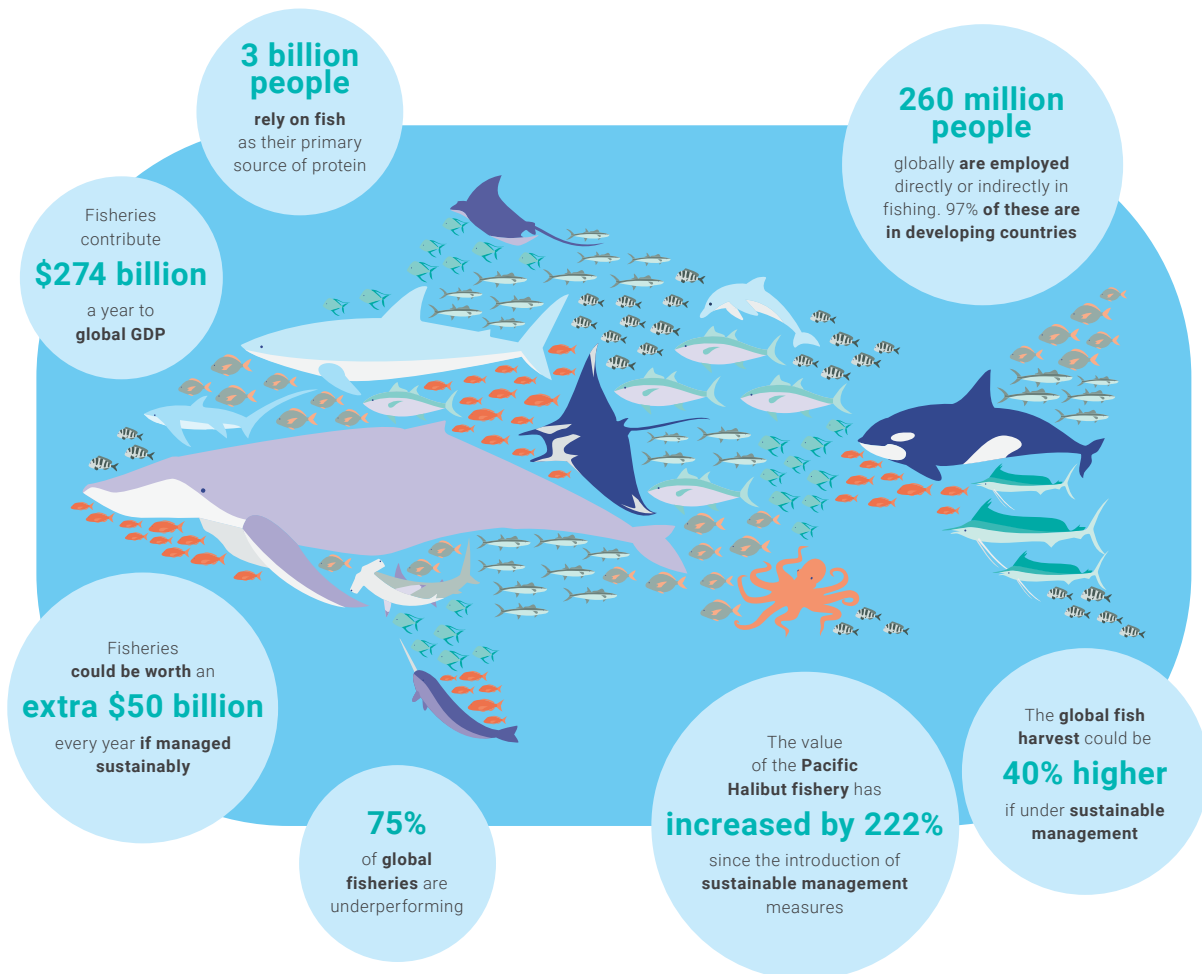
Some companies have now committed to achieving full circularity by or before 2030. Big brands in the clothing industry have also recently launched trial fashion rental services that are proving very popular. ^[34] Importantly, policy commitments from governments are emerging, like the [Multiannual Financial Framework \(MFF\)](#) which contains elements of the previously proposed [EU Green Deal](#) ^[24] working to create a new market for biobased and circular materials, enabling new business models based on use rather than product ownership.

New ways to produce food that build on sustainability principles and regenerate soils, enhance biodiversity and use more circular and nature positive practices^{†††} have been emerging in parallel with new technological concepts to produce food efficiently and at large scale, while significantly reducing environmental impacts and dependencies, such as through sustainable fisheries. **(Figure 9)** In the market for plant-based meat alternatives, changing preferences have led to an 11 per cent increase in sales in the past year and 29 per cent over the past two years, growing the market to US\$5 billion. ^[35] Plant-based protein is becoming price-competitive with the industrial meat market.^{†††} GEO-6 shows the advantages for land use, climate and biodiversity of plant-based diets. The health benefits and escalating concerns about the links between meat consumption and negative impacts on human health are also stimulating consumer interest.

Major food manufacturers such as Unilever are driving sustainability principles in their supply chains. Fast food companies, including McDonalds and Burger King, have introduced plant-based choices. UK supermarket Tesco is leading efforts to reduce food waste and responding to growing consumer demand for plant-based, organic and seasonal foods. New companies producing meat and dairy alternatives, such as Beyond Meat, Impossible Foods and Upfield are seizing the mainstream market. Behavioural changes are also creating space for local and regional alternative companies with local and organic food cooperatives, as well as community-supported agriculture and markets.

These changes point to transformations in how energy, products and food are produced and consumed and how waste is managed, with many opportunities emerging for businesses to further improve their environmental sustainability.

Figure 9: Why Invest in the transition to sustainable fisheries?



^{†††} Promoting more sustainable fisheries may require several policy instruments, given the range of contexts in which problems in this sector arise (GEO-6)

^{##} Meat production currently uses 77 per cent of agricultural land (GEO-6)

5. Towards a Nature Positive Economy

These emerging sustainability transitions all help business break away from a locked-in, linear, extractive and fossil-fuel-based economy towards a future economy that creates value for nature and people. This model is referred to as a Nature Positive Economy: an economy that is regenerative, collaborative and where growth is only valued where it contributes to social progress and environmental protection. Importantly, it is not dependent on fossil fuels^{§§§} for energy, on extracting and wasting resources or on exploiting people and communities to create value. It takes into account the gender and socio-economic factors of humanity. **(Figure 10)** A healthy environment offers the best guarantee for human health and a high quality of life, so a nature positive economy must also be a human-centered economy, focused on well-being. The future the world must collectively pursue means rethinking current dependencies and impacts on others and the environment and working towards nature positive forms of production and consumption.

The nature positive economy tries to capture the core ideas of planetary boundaries, doughnut economics, [36] the well-being economy, [37] the circular economy, [38] the sharing economy and the biobased economy, to name a few. These concepts try to address challenges around resource use, labor, trade, value and production and consumption and offer longer-term visions that inspire new ways of living as well as new products and services. These innovative approaches, and the leaders putting them into practice, anticipate an economy in which energy, resources, food, water, transportation, healthcare, shelter and opportunity are provided in a way that rebuilds nature and protects people. A way in which business is rewarded for creating positive value for nature, and in which negative impacts are disincentivized.

This inspiring idea of generating positive impact for nature and people can be the starting point for any business to start exploring its own role, position and contribution. This journey starts with business models that generate positive impacts that generate positive impacts for employees, communities and the natural environment within which businesses operate. In energy, food, mobility and resource use, there are already technologies,

business models and markets emerging that operate this way. (see Section 4.1)

These business models are **regenerative**, seeking to contribute to creating positive impact for nature and people and to help address persistent ecological and social challenges in order to be profitable. They are **collaborative**, based in cooperation with diverse groups of stakeholders, to create social and ecological value, and they often support shared value creation, such as community or public goods and services. They are **transformative**, helping to shift context (policy); inspire new products, models and practices (business); improve awareness, understanding and impact (research); and change demand, preferences and ownership (consumers).

These business models are **connected** across geographies, leveraging digital technologies, knowledge networks and infrastructure to support innovation, learning and collaboration. Whether through brands, communities or goals, individual businesses identify with a community within which they create shared value propositions, identity and purpose seated in their local context.

A nature positive economy is **translocal**: globally connected through technology and markets and locally rooted in community and context. For example, the global market for new energy technologies and markets is **empowering cities and communities** to fuel their own energy transitions in housing and transport. This is not only happening in developed country contexts. In developing countries, examples include mobile apps to monetize and manage waste, biomimicry approaches for wastewater treatment, [39] sustainable food practices and renewable buildings.**** These examples show how countries and companies are able to leapfrog [40] or even lead, by developing nature positive models. [41],[42]

This global push for sustainability transitions creates an enabling business environment for new types of entrepreneurship: for purpose-driven businesses that are committed to delivering positive impact for societal challenges. For most businesses, especially those with high dependency on natural resources and social capital—and whose

§§§ Oil and other fossil fuels have accelerated economic development and lifted the standard of living for billions of people in both industrialized and developing countries, but they have also contributed to climate change. (GEO-6)

**** For examples, see: www.goodanthropocenes.net; or social innovation networks operating translocally such as the ones collected here: <http://www.transitsocialinnovation.eu/discover-our-cases-2>

costs are currently externalized— this new model presents an important challenge. For those that fail to adapt, survival is at stake. Amplified by a global pandemic, there is now a struggle for business survival and recovery. At the same time, there is an

unmistakable global push to ‘build back better.’^[47] In this transformation, policy, business and society need to change the rules of the game – while they are playing it.

Figure 10: Nature Positive Economy

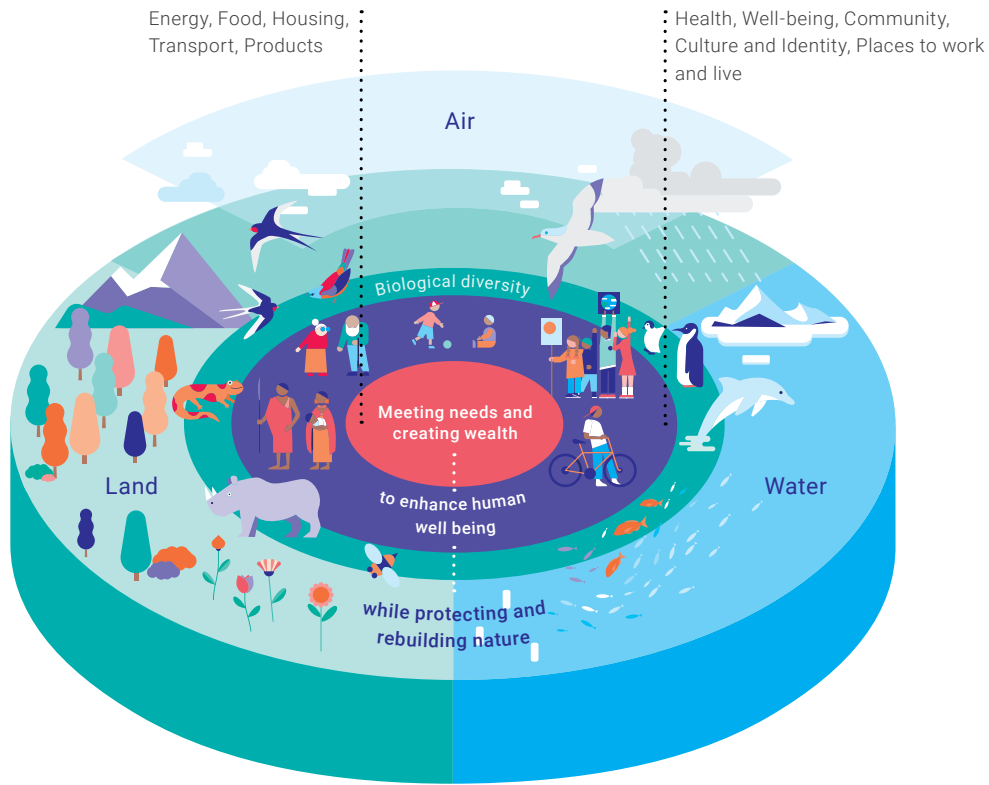


Figure 11: A vision of a nature-positive future



6. How to reach this new future

The science is clear and the potential for transitioning to a nature positive economy is real: humanity simply cannot afford to lose another decade. ^[44] The world can and must seize the momentum and mobilize public investments to stimulate this transformative including empowering women in the economy and closing gender gaps in the world of work. The United Nations set out six principles to 'Build back better' ^[45] capturing what is required:

- 1) The huge amounts of money to be spent on recovery from the COVID-19 pandemic must deliver new jobs and businesses through a clean, green transition.
- 2) Where taxpayers' money is used to rescue businesses, it must be tied to achieving green jobs and sustainable growth.
- 3) Fiscal firepower must drive a shift from the grey to the green economy, empowering societies and people to be more resilient.
- 4) Public funds should be used to invest in the future, not the past, and flow to environmentally sustainable sectors and projects that help the environment and the climate. Fossil fuel subsidies must end, and polluters must start paying for their pollution.
- 5) Climate risks and opportunities must be incorporated into the financial system as well as all aspects of public policy making and infrastructure.
- 6) All need to work together as an international community.

This clear call to action from the United Nations draws on experiences and transition strategies already formulated by a number of countries, such as:

- European countries such as Austria, Germany and Portugal, as well as Chile, New Zealand and South Korea, have set targets to achieve net zero greenhouse gas emissions by 2050 or earlier, and they have pledged to design enabling policy that will help industries and society transform in line with the Paris Agreement. ^[46]
- Countries as diverse as China, France, Singapore and Israel have set dates for some type of ban on petrol and diesel cars within the next two decades, with Norway committing to as early as 2025. ^[47]
- Other countries, such as Ethiopia, have created strategies for policy, industry and society to develop 'a climate-resilient green economy by 2025.' That economy will be based on improving food security, protecting and restoring forests and their ecosystem services and accelerating the expansion of renewable sources of electricity. ^[48]
- The Swedish Parliament has implemented a 50 per cent tax break for repairs on goods like clothes and bicycles, while people can claim back half the labor cost of appliance repair through their income tax return. ^[49]

Analysis by the Smith School at Oxford University found that in April 2020, G20 nations had already earmarked over US\$ 7.3 trillion in fiscal rescue measures. ^[43] The analysis found that the majority of the planned investments aim to reboot the 'economy-as it-was.' This amount, if combined with business investments in a nature positive recovery, could dramatically shift the world towards a much more sustainable future. At the start of 2021, it seems **countries** are still struggling to reorient investment, making the argument for transformative policies ever more urgent. Thus, it remains to be seen whether the global pandemic recovery will help pivot business towards the environmental sustainability that many are hoping for. To make this change, there is a need to transform the economy together, and in this, business can and must lead.

6.1 The role of business in achieving transformational change

"Humanity has reached a new turbulent state, where social, economic and environmental changes interact with unexpected outcomes for our businesses and nations. It is of critical importance that science and business together co-design strategies to transition into a safe operating space and build resilience in the face of unavoidable surprise."

Johan Rockstrom, former Executive Director of the Stockholm Resilience Centre, 2012

While business has been severely disrupted by the COVID-19 pandemic and the associated economic crisis—and therefore also has an interest in a return to 'normal'—this moment does not have to be a return to 'business as usual.' There is an opportunity for the business community to help lead economies towards a nature positive state. Businesses that are able to leverage this time to explore, experiment, collaborate and ultimately begin to adapt to change will be ahead of others. This is as true for small- and medium-sized enterprises in service and supply chains as it is for large corporations.

What that means in practice will be different for every business, as the policy, market and social drivers that accelerate sustainability transitions are context- and sector-dependent. But three key underlying mechanisms provide entry points for strategizing to support transformative change:

- **Build-up:** actions that help develop, professionalize, scale and institutionalize nature positive transformative innovations, technologies and business models to the level of society, markets, organizations and regions.
- **Change and adap:** actions that lead to adaptation, adjustment and realignment of existing business models, regulations, instruments and conditions to accommodate this transformative change.
- **Phase-out:** Actions that anticipate phase out of certain technologies, market collapse and disappearing practices, changing consumer preferences and institutional conditions inherent to transformative change.

The impacts of these transformative forces will be big, but these strategic risks have now become systemic, meaning that change driven by nature or society, or both, will lead to disruptive and transformative market shifts. Failing to create an individual transformative pathway risks the business's future. There is no long-term basis for business that operates at the expense of nature and people.

7. How to make business thrive

Because each company's journey to become nature positive will be different, this brief offers some basic steps and questions that will start any business on that journey. Companies that are preparing to address the challenges and opportunities in the transition to a nature positive approach are closer to the social expectations and the preferences of key customer groups and are already building the mindset and capacity to compete in this new economy. By contrast, the transition will be much more disruptive for those missing or ignoring the signals. They will struggle to win back customers, funders and talent, whose priorities will have shifted. ^[50]

7.1 Understand the baseline

To start, business leaders and owners must look at where they currently are:

- What is the contribution of the business to national and global emissions and how can business shift to renewable electricity?
- How can the business eliminate waste streams, recycle and reuse resources and become a more circular business?
- What are the environmental goals of the nations where the business operates and how can it contribute to this?
- Can the business have a positive impact on nature and contribute to rebuilding and (re) generating nature in the locations where it operates?
- What can the business do through its products, services and practices to improve human wellbeing and community resilience?
- How can the business educate consumers on the value chain of products and their impacts?
- What is the future of products, and how do we shift to making them longer-lasting, reusable or even obsolete in favor of more sustainable business practices or products?
- How can the business engage with local communities to support social and nature positive economic development?

This realism will enable a company to evaluate how viable its business model is in relation to the expected transformations in its sector and markets. It can also explore key risks and opportunities relating to strategic and operational decisions – from where and how to procure raw materials and inputs, how to reduce costs and risks in production,

and how to anticipate which services and products customers will no longer need or want.

Many companies participate in reporting initiatives such as the [Carbon Disclosure Project](#) or the [Global Reporting Initiative](#) to better understand their own baseline as well as how they compare to others. Business leaders and owners can also download the [guidance for companies](#) provided by the Science Based Targets initiative to better understand what actions they can take towards a nature positive future.

7.2 Set a nature-focused purpose and strategy

To achieve this transformation, business leaders must review their core business assumptions, ask whether the natural and social systems upon which raw materials, talent and capital rely are healthy and resilient, and consider what role they need to play to strengthen them.

A company's purpose needs to reflect its unique contribution to delivering a nature positive outcome. This has been defined as *"a meaningful and enduring reason to exist that profitably contributes to a sustainable economy, while protecting and restoring the social and environmental dependencies it relies upon across the value chain."* ^[51] Strategies that reflect this purpose set out the way the company will deliver its purpose through its business, goals, performance measures, key activities and roadmaps, while reporting its contribution and impact. Many companies are [committing to 'net zero emissions'](#) by 2050, which will require redefining their purpose and strategy away from fossil fuels and towards the goal of providing or relying on renewable energy.

7.3 Establish nature-focused goals and report on performance

Adopting and delivering a nature positive business strategy, where human and environmental well-being are integral to business, requires meaningful, context- and science-based targets and goals to focus efforts and measure progress. Through the [Science Based Targets Initiative](#), almost 1,500 companies, from every sector of the economy, including automotive, cement, chemicals and extractives sectors, have adopted or approved

science-based environmental targets for greenhouse gas emissions reduction targets in line with climate science. [52] Other efforts, such as the [United Nations Global Compact](#) (over 7,000 signatories) and the [United Nations Principles for Responsible Investment](#) (over 3,000 signatories), offer metrics associated with targets to ensure performance improvement. Still others, like the [Taskforce for Climate-Related Financial Disclosures](#) (TCFD) framework, allow business leaders, investors, insurers and others to better understand company's exposure to climate-related risk. [53]

Context-based goals should result in a shift from short-term, purely financially driven metrics to those that measure the quality and the environmental sustainability of business growth. [54] Such metrics should be supported by investors and financial markets and enable research and innovation funding to be focused appropriately. These targets are already resulting in greater public awareness and some traceability initiatives, such as those that use blockchain technology to trace food sourcing, packaging and distribution practices. Companies are also announcing the deployment of goal setting initiatives and training, to allow employees and stakeholders to contribute to their commitments to achieve carbon neutral trajectories by 2050.

7.4 Disrupt business from within

Many of the nature positive, disruptive business models and shifts with the potential to reshape industries are already here. (see [Section 4.1](#)) Businesses that have recognized the emergence of the nature positive economy and need to anticipate these shifts are able to transition out of activities that do not fit this future and are benefiting from positive reputational and investor attention. [55],[56] Key businesses are now disrupting by, for example, [eliminating the use of petrochemicals](#) in cleaning products or moving much more towards producing and consuming renewable energy.

Most businesses need time to adapt to new regulations and consumer trends and to commercialize new models and solutions. It is therefore best to create space internally to explore alternative, nature positive futures beyond the existing business model as a way to anticipate future disruptions. Companies that refuse or are slow to understand these changes are the most vulnerable and will be hit hardest.

7.5 Find new partners

No single business, acting alone, can drive these transformations, but business action plays a

critical role alongside policy, markets and society. Business organizations like the [International Chamber of Commerce](#) can strengthen the case for action and change, help generate business and policy breakthroughs in social, economic and technological areas, lower the costs of transition and help scale nature positive products, services and business models. Others can shape business practices and products in entire sectors. The [Forest Stewardship Council](#), for example, has dramatically changed business practices and products in the forest and paper industries.

More and more companies are mobilizing support for some of the policies mentioned above by calling on national governments to set a clear direction of net-zero emissions by mid-century to help them speed up the pace of investment, innovation and change. Examples of these business coalitions include the [Corporate Leaders Group on Climate Change](#), the [We Mean Business Coalition](#) and many others. Today, most national business chambers of commerce and industry bodies also have dedicated groups to guide companies in their sectors on setting emissions and mitigation targets.

7.6 Change the definition of success

Every board chair, CEO and business owner will need to ask new questions about the impact, the role and the future of their organizations. These leaders must now widen their measures of success and develop partnerships to include outcomes aligned with the health and well-being of people and nature. Among others, the [International Union for the Conservation of Nature \(IUCN\)](#) is helping businesses to advance their own biodiversity goals by valuing biodiversity, investing in nature and promoting biodiversity net gain.

Whether one is a long-lived multinational corporation or a new small business, as the economy embarks on this nature positive transformation, it is not only possible but increasingly commercially desirable to question long held assumptions about business growth, efficiency, consumption and profitability. At the same time, business leaders must ensure their companies play their part in removing negative impacts on nature and society and join forces to contribute to collective well-being and resilience, upon which human civilization and natural systems rely.

Business is at the forefront of this nature positive transformation. Looking at the science and the state of the world today, there is only one direction it can take.

8. The journey is as important as the destination

Transformational change doesn't happen overnight, and, as with any long journey, flexibility and patience will be crucial. Companies and their leaders will face pressure from boards and shareholders, for instance, to continue operating in the same old way. But this moment in time is unique. Current circumstances demonstrate how vulnerable the economic system is and how connected people are to each other and to the planet. This is the time for thinking longer term, for leadership and for action from all corners of society – but for business especially.

Business leaders can expect that terms like 'maverick' and 'disruptor' will emerge in polite conversation to describe early actors, but 'perseverance' might be the descriptor that you strive for internally. For business leaders who help bring about this nature positive world and whose businesses continue to thrive past critical thresholds coming our way by mid-century, people will be using words like 'pioneer' and 'genius.' Humanity is on this journey together because it is the current generation's 'moon shot,' the defining moment, for many living today and for all future generations.

More on Nature Positive Approaches

The UN Sustainable Development Goals provide companies of all sizes and sectors with a comprehensive checklist of issues and priorities shared across governments, businesses and individuals. Various guides and resources, such as the SDG compass, have been developed to support business with their implementation. <https://sdgcompass.org/>

The Science Based Target Initiative mobilises and supports companies to set targets that cut greenhouse gas emissions in line with climate science. <https://sciencebasedtargets.org/>

Business for Nature is a global coalition bringing together organizations and forward-thinking businesses to demonstrate business action and call for governments to reverse nature loss. <https://www.businessfornature.org/>

The Natural Capital Coalition is a global coalition of organizations, including the Natural Capital Protocol, designed to help companies identify, measure and value their direct and indirect impacts and dependencies on natural capital. <https://naturalcapitalcoalition.org/>

The Certified B Corporations provide a comprehensive checklist for businesses to meet the highest standards of verified social and environmental performance, public transparency and legal accountability to balance profit and purpose. <https://bcorporation.net/>

References

A link to all of the references can be found here

