TIMES OF CRISIS, TIMES OF CHANGE

SCIENCE FOR ACCELERATING **TRANSFORMATIONS** TO SUSTAINABLE **DEVELOPMENT**

TIMES OF CRISIS, TIMES OF CHANGE SCIENCE FOR ACCELERATING TRANSFORMATIONS

SCIENCE FOR ACCELERATING TRANSFORMATIONS TO SUSTAINABLE DEVELOPMENT



Executive summary

INTRODUCTION

Transformations are possible, and inevitable. This report is an invitation to embrace transformations with the urgency needed to accelerate progress toward the Sustainable Development Goals. Four years have passed since the 2019 Global Sustainable Development Report was published and even then, the world was not on track to achieving the Sustainable Development Goals. Since 2019, challenges have multiplied and intensified. The world has moved forward on some fronts, such as the deployment of zero-carbon technologies as one of many climate mitigation strategies. Progress has been halted in many areas, partly as a consequence of a confluence of crises - the ongoing pandemic, rising inflation and the cost-of-living crisis, and planetary, environmental and economic distress, along with regional and national unrest, conflicts, and natural disasters. As a result, overall progress towards the 2030 Agenda and the Goals has been severely disrupted in the last three years, yet every inch of progress matters and counts.

Strive not for one, but for all securities. The resilience and well-being of planet, people, environment and ecosystems are degraded. A better future does not rest on one source of security, but on all necessary securities, including geopolitical, energy, climate, water, food and social security. Strategies to embrace transformations, therefore, should be based on the principles of solidarity, equity and well-being, in harmony with nature.

Working as a human collective, time and resources must be used as judiciously and effectively as possible. The world is changing at an accelerated rate. Halfway to 2030, there is an ever-greater urgency to build momentum, embrace solidarity, and speed up progress on the SDGs. To do that, decision-makers need to use time and resources —human, knowledge, financial, and institutional, among others— as judiciously and effectively as possible, and take a systematic and strategic approach to drive and accelerate transformations.

EMBRACING TRANSFORMATIONS TO ACHIEVE THE SUSTAINABLE DEVELOPMENT GOALS

This report provides a synthesis of the key transformative shifts needed across different entry points (human well-being and capabilities, sustainable and just economies, food systems and healthy nutrition, energy decarbonization with universal access, urban and peri-urban development, and global environmental commons), as well as a framework for understanding how those transformations may unfold over time. It also presents practical examples and tools for fostering leadership and enhancing human capacities to engage with the acceleration mindset required to achieve the SDGs – locally, nationally and globally. The report synthesizes existing knowledge to cover three overarching themes.

First, it highlights key transformations needed in different sectors and provides examples of interventions from the literature that has modelled different scenarios for progress towards the Sustainable Development Goals. It then provides a stylized model to help unpack and understand the transformation process over time and outline the roles of different levers in facilitating various stages of transformation through a systematic and structured approach. As history has shown, transformations are inevitable, and this report emphasizes that deliberate and desirable transformations are possible – and indeed, necessary.

Second, through a series of examples, the 2023 Global Sustainable Development Report illustrates how transformations were facilitated in the past and are in recent times. This knowledge can incentivize and support strategic decision-making by different societal actors, both in terms of better conceptualizing and framing the desired transformations in their context and in the use of levers to enact transformations. The nature

and process of transformations towards the Goals will vary from context to context. Each context requires a critical appraisal, based on evidence of the most strategic approach to transformation in that setting. This must be implemented with a system of oversight and feedback loops to continually monitor implementation and progress, learn from experience, and make changes as needed. This report is not prescriptive but rather provides an illustrative framework that can underpin strategic actions for accelerating transformation.

Finally, the report outlines how the knowledge enterprise has to evolve to best serve transformation processes. This will be achieved by both generating knowledge from a broader spectrum of society and connecting that knowledge to decision-making in a more robust and inclusive manner. With all this, the Report is a tool that can be used to tap the potential of key strategic transformations for multiple Goals, acknowledging their interlinkages.

The 2023 Global Sustainable Development Report has six chapters. In chapter 1, the question "Where are we now?" is raised and, reflecting on where the world is at the halfway point to 2030, it highlights the need for resilience and acceleration. Chapter 2 raises the question "Where are we heading?" and frames the future, from urgency to agency, reviewing new knowledge for understanding the interlinkages between the Sustainable Development Goals and international spillovers of the Goals. Chapter 3 focuses on the question "What needs to be done?", reviewing scenario projections for the Goals alongside key shifts and interventions to accelerate transformations through the six entry points introduced in the 2019 Global Sustainable Development Report. Chapter 4 considers the question "How can it be done?" with a framework that can guide strategic action. It unpacks the dynamics in different phases of transformations towards sustainable development, with examples from historical and recent experience. Chapter 5 is about the unifying role of science, the importance of knowledge from a broader spectrum of society, both in the production of socially robust science, and in connecting science to policymaking. Finally, Chapter 6 is a call for action inviting a reflection on the steps ahead, to accelerate transformative action, improve the underlying conditions for transformation and use science to drive the world forward

CHAPTER 1: HALFWAY TO 2030

At the halfway point of the 2030 Agenda for Sustainable Development, the world is far off track as shown in the figure which captures current status of the Sustainable Development Goals. Without urgent course correction and acceleration, humanity will face prolonged periods of crisis and uncertainty – triggered by and reinforcing poverty, inequality, hunger, disease, conflict and disaster. At a global level, the "Leave no one behind" principle is at significant risk.

In 2019, the previous *Global Sustainable Development Report* found that for some targets the global community was on track, but for many others the world would need to guicken the pace.

In 2023, the situation is much more worrisome owing to slow implementation and a confluence of crises. For Goals in which progress was too slow in 2019, countries have not accelerated enough, and for others, including food security, climate action and protecting biodiversity, the world is still moving in the wrong direction. In addition, recent crises including the COVID-19 pandemic, cost-of-living increases, armed conflict and natural disasters have wiped out years of progress on some Goals including eradication of extreme poverty. Progress has slowed down on targets including ending preventable deaths of children under 5, vaccine coverage and access to energy.

These crises are not independent events; they are intertwined through multiple environmental, economic and social strands, each fuelling the other's intensities. Addressing interconnections was a starting point for elaborating the 2030 Agenda. This Report shows how these interconnections offer opportunities to act in an integrated way to release positive synergies and achieve the Sustainable Development Goals.

CURRENT STATE OF PROGRESS TOWARD THE SUSTAINABLE DEVELOPMENT GOALS

GOAL	ON SELECT TARGETS ON SELECT TARGETS	DISTANCE FROM TARGET (2023)¹ 1 Very far from target 2 Far from target Moderate distance to target 1 Close to target 3 Target met or almost met	TREND OF SDG PROGRESS (2023)	CHANGE IN TRENI OF SDG PROGRESS BETWEEN 2020 AND 2023 ²
GUAL	1.1.1 Eradicate extreme poverty	1 larget met or almost met	Limited or no progress	► Backward
1 ///	1.3.1 Implement social protection systems		Fair progress but acceleration needed	N/A
2 (((2.1.2 Achieve food security		Deterioration	None
	2.2.1 End malnutrition (stunting)		Fair progress but acceleration needed	None
	3.1.2 Increase skilled birth attendance		Fair progress but acceleration needed	← Backward
3 -₩•	3.2.1 End preventable deaths under 5		Fair progress but acceleration needed	← Backward
	3.3.3 End malaria epidemic	-==-	Limited or no progress	None
	3.b.1 Increase vaccine coverage	===	Deterioration	← Backward
	4.1.2 Ensure primary education completion			
4 🔰		-===	Limited or no progress	← Backward
5 ♀゚゙	5.3.1 Eliminate child marriage	-===	Fair progress but acceleration needed	None
	5.5.1 Increase women in political positions	-	Fair progress but acceleration needed	None
6 👿	6.1.1 Universal safe drinking water	_	Limited or no progress	None
•	6.2.1 Universal safe sanitation and hygiene	- = = = = =	Fair progress but acceleration needed	None
7 - 6	7.1.1 Universal access to electricity		Fair progress but acceleration needed	← Backward
210	7.3.1 Improve energy efficiency		Fair progress but acceleration needed	None
8 😭	8.1.1 Sustainable economic growth		Deterioration	← Backward
0 111	8.5.2 Achieve full employment		Limited or no progress	None
	9.2.1 Sustainable and inclusive industrialization		Limited or no progress	None
9 🚓	9.5.1 Increase research and development spending		Fair progress but acceleration needed	→ Forward
	9.c.1 Increase access to mobile networks		Substantial progress/on track	None
10 ⟨€⟩	10.4.2 Reduce inequality within countries		Fair progress but acceleration needed	N/A
11	11.1.1 Ensure safe and affordable housing		Fair progress but acceleration needed	→ Forward
10.00	12.2.2 Reduce domestic material consumption		Limited or no progress	N/A
12 CO	12.c.1 Remove fossil fuel subsidies		Deterioration	← Backward
13 👁	13.2.2 Reduce global greenhouse gas emissions		Deterioration	None
	14.4.1 Ensure sustainable fish stocks		Deterioration	N/A
14 👼	14.5.1 Conserve marine key biodiversity areas		Limited or no progress	N/A
	15.1.2 Conserve terrestrial key biodiversity areas		Limited or no progress	None
15 🚅	15.4.1 Conserve mountain key biodiversity areas		Limited or no progress	N/A
<u> </u>	15.5.1 Prevent extinction of species		Deterioration	None
16 👱	16.1.1 Reduce homicide rates		Limited or no progress	← Backward
	16.3.2 Reduce unsentenced detainees		Deterioration	None
	16.a.1 Increase national human rights institutions		Fair progress but acceleration needed	None
	17.2.1 Implement all development assistance commitments		Fair progress but acceleration needed	→ Forward
17 🛞	17.8.1 Increase internet use		Substantial progress/on track	None
	17.18.3 Enhance statistical capacity		Limited or no progress	None

Distance from target (2023) and trend of Sustainable Development Goasprogress (2023) refer to current level and trend information for the latest available data utilizing the calculation methodology from the Sustainable Development Goals 2022 Progress Chart Technical Note. Latest available data as of May 2023 from the SDG global indicator database. Please note that information for indicators 1.1.1, 10.4.2, 13.2.2, 17.2.1 and 17.18.3 are from the Sustainable Development Goals Progress Chart 2022.

The lingering drag of the COVID-19 pandemic

The COVID-19 pandemic is still having a profound impact on progress toward the Goals. Beyond costing more than 15 million lives globally, it has slowed, disrupted or temporarily reversed progress across the Goals. The pandemic resulted in losses of jobs, livelihoods, incomes and remittances. In 2022, the total hours worked globally remained 2 per cent below the pre-pandemic level. The pandemic also exacerbated existing fault lines of inequality. Some schooling went online, which was useful to many children but of no help to families without broadband Internet. Lockdowns did the greatest damage to small and medium-sized enterprises and the many women and temporary workers they employed.

Recovery from the pandemic has been uneven and incomplete. Quickest to bounce back were the high-income countries, which delivered more effective relief and had higher rates of vaccination. In 2021, the top 20 per cent in terms of global income distribution had recovered about half their lost income, but the bottom 40 per cent had not done so.

Conflict, war and instability

Compounding the effects of the pandemic is the highest level of State-based armed conflict since 1945. By the end of 2020, around two billion people were living in conflict-affected countries. In 2021, the number of refugees and internally displaced persons was the highest on record at 89 million, and, for the first time, global military expenditure exceeded \$2 trillion.

The war in Ukraine is causing immense suffering and loss of life and triggering large movements of people – while wreaking havoc in many parts of the global economy and driving up inflation, with huge spikes in the price of food and energy. Besides the large number of military casualties, as of January 2023 approximately 7,000 civilians have been killed and more than 11,000 injured. There are more than 8.1 million refugees, most of them women and children as well as 5.3 million people internally displaced in Ukraine.

Conflict and unrest are barriers to progress towards the Sustainable Development Goals in many countries beyond the war in Ukraine, including in Afghanistan, Ethiopia, Venezuela and the Sahel region of Africa among others. Between March and May 2022, approximately 26.5 million people in the Sahel region faced a food and nutrition crisis.

Inflation and the rising cost of living

Between June and September 2022, around 89 per cent of the least developed countries, 93 per cent of landlocked developing countries and 94 per cent of small island developing States had food inflation above 5 per cent. Worst affected were the poor who often responded by skipping meals or purchasing less nutritious food – short-term solutions that imperil family health and damage the future prospects of children. Many countries face debt levels at a 50-year high, constraining options for investing in social protection that can help people cope with rising costs.

CHAPTER 2: FRAMING THE FUTURE

The world is far off track on achieving the Sustainable Development Goals at the halfway point on the 2030 Agenda. But it is possible to actively improve future prospects for action and progress by 2030 and beyond. Leveraging scientific knowledge, strengthening governance for the Goals and unleashing the full potential of the Sustainable Development Goals framework for promoting sustainable development can make this happen. SDG interlinkages, and international spillovers and dependencies must be systematically considered.

Uptake and governance using the Goals has advanced in the last four years across sectors and levels of government, despite urgent crises, which indicates the robustness and broad acceptance of the framework. Yet, aspirations and commitments are not yet translating into institutional change, action and implementation at a scale visible in progress towards the Sustainable Development Goals.

While many circumstances are making it more difficult to attain the Goals, in some respects, the prospects have improved. There is now a wealth of knowledge and evidence related to the Goals. More people and organizations have learned about the Goals and are thus in a better position to put pressure on both governments and companies to operate more sustainably.

A survey of 60 countries showed that by 2021, 75 per cent of governments had developed strategies and action plans related to the Goals. Many local governments have stepped up their efforts, by developing voluntary local reviews or other strategies. International organizations and institutions have widely adopted the Goals and realigned their policy agendas. The private sector is more engaged, through business strategies aligned with the Goals, though there is the risk of overclaiming and "SDG-washing". Given the large financing gaps in the Goals for developing countries, innovative financing solutions have been developed, the imbalance and injustice in the international financial architecture are being called out, and there are strong calls for its reform.

The Sustainable Development Goals framework has enabled novel and more systemic perspectives for decision-making on sustainable development, through new insights and science-based tools for considering interlinkages between the Goals. While some general patterns of synergies and trade-offs can be observed, the scientific literature points to the context dependence of interlinkages. Local and national actors can therefore gain a lot by using tools to identify positive and negative interlinkages in their context, and by undertaking ex ante policy impact assessments of the Goals.

The Sustainable Development Goals framework allows for considering international dependencies and spillovers between countries in their pursuit of sustainable development. Creating an educated and skilled workforce, for example, not only underpins national development in the educating country, but also, through temporary or permanent migration, spills over to the destination economies and communities – though this may be regretted by the educating country as a brain drain. An example of a generally negative spillover is carbon that is "embedded" in the production of goods in one country that is subsequently exported to another. Better understanding and quantification of international spillovers is urgently needed to inform and strengthen action for Goal 17.

CHAPTER 3: PATHWAYS TO ACHIEVE THE SUSTAINABLE DEVELOPMENT GOALS

The Report reviews existing scenario projections of progress towards the Sustainable Development Goals along various pathways. Generally, these indicate that on a business-as-usual pathway, the Goals will remain out of reach by 2030, or even 2050. Gains would be made in key areas including extreme poverty reduction and global and national income convergence. But progress would be minimal on targets relating to malnutrition and governance. At the same time, the world would regress in air pollution and associated health impacts, agricultural water use, relative poverty rates, food waste, greenhouse gas emissions, and biodiversity and nitrogen use.

But business need not continue as usual. More ambitious sustainable development scenarios reveal that decisive action can deliver strong gains on the Goals by 2030. For example, an ambitious "SDG-push" scenario would improve social protection, strengthen governance, promote a green economy, and address digital disruption, while improving secondary education and science. By 2030, this could lift 124 million additional people out of poverty, with 113 million fewer people malnourished. It would also generate gains across other Goals related to health, nutrition and education. Nevertheless, there would still be gaps, indicating the need for truly transformative initiatives and game-changing interventions.

Entry points and levers for transformation

Increased ambition and transformative interventions are needed to accelerate progress towards the Sustainable Development Goals. Given the diversity of the Goals and targets, an integrated and coherent approach to implementation is needed.

The 2019 Global Sustainable Development Report put forward an organizing framework of six entry points for transformation: human well-being and capabilities, sustainable and just economies, sustainable food systems and healthy nutrition patterns, energy decarbonization with universal access; urban and

peri-urban development; and the global environmental commons. These are still crucial areas where actions can have impacts across the Goals.

To achieve the Goals operating through these entry points, the 2019 *Report* suggested deploying four "levers" to bring about transformation in these entry points: governance, economy and finance, science and technology, and individual and collective action. This Report adds a fifth lever, "capacity-building", as the development and or mobilization of capacity is essential for the transformation process.

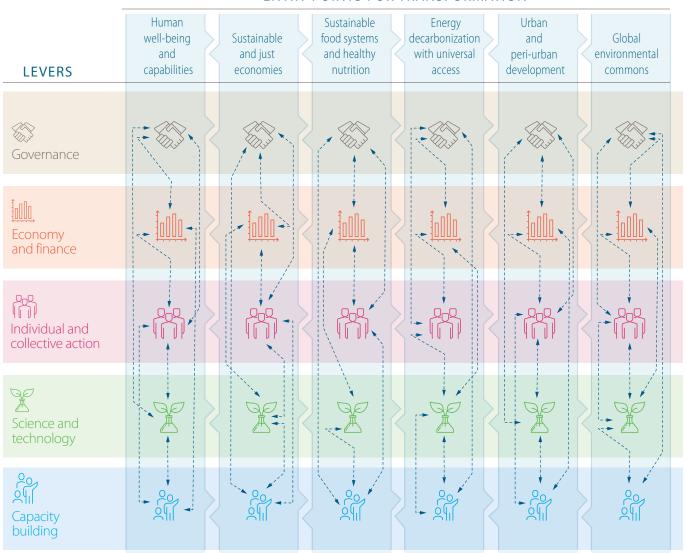
Supporting the transformation process entails enhancing capacity in all countries for strategic direction and foresight; innovation and the generation of new alternatives; orchestration, engagement and negotiation; identifying and overcoming impediments; and in learning and resilience.

Key shifts to accelerate progress

Aligning the framework of entry points and levers with evidence from ambitious global scenarios can inform integrated and transformative action.

TRANSFORMATIONS TO THE SDGS: ENTRY POINTS AND LEVERS

ENTRY POINTS FOR TRANSFORMATION



The Report highlights important shifts needed across each entry point to accelerate progress towards the Sustainable Development Goals. It also provides examples of how specific policy, finance, technology, and behavioural changes could be combined to enable the necessary transformations. Capacity-building to effectively deploy these levers will also be critical.

Transformative shifts for each entry point from global scenarios include:

Human well-being and capabilities – Scaling up investment in primary health care and ensuring access to life-saving interventions, accelerating secondary education enrolment and completion and ensuring all girls are enrolled, and increased investment in water and sanitation infrastructure to deliver universal piped water access and halving of untreated wastewater.

Sustainable and just economies – Encouraging inclusive, pro-poor growth including progressive redistribution measures, doubling welfare transfers in low-income countries, rollout of good practice climate policies and global carbon pricing, encouraging lifestyles that promote sufficiency levels, investment in green innovation, and circular and sharing economy models.

Sustainable food systems and healthy nutrition — A mix of supply-side measures improving affordability, increasing yields sustainably while reducing inputs and negative impacts, and more sustainable and efficient measures in retailing, processing and distribution, as well as measures on the demand side, most importantly shifting towards healthier and more diversified diets, and reducing post-harvest losses and food waste.

Energy decarbonization and universal access – The large-scale deployment of renewables and best available technologies, appliances and equipment, rapidly scaling up infrastructure investment and support for universal electricity access and clean cooking alternatives, phasing down of fossil fuels by 2030 in a domestically and globally just manner, major changes in global consumer behaviour to reduce energy consumption and end-use electrification.

Urban and peri-urban development – Doubling the recycled and composted share of municipal waste by 2030 and a more circular waste cycle; greater use of electrical vehicles; better public transport with cities' infrastructure oriented to people and pedestrians and not cars; and good-practice policies for transport, buildings and waste.

Global environmental commons – Expanding protected areas, abandoning intensive agricultural practices in protected areas, ambitious reforestation of all degraded forest areas, shifting societal preferences towards conservation land use, reducing water consumption and ensuring environmental flow requirements, and adopting a 1.5°C land-sector road map that combines ambitious protection, conservation, restoration and lifestyle changes.

Common impediments to transformation

Scenario projections reveal that a lot can be practically done to accelerate progress towards the Sustainable Development Goals through new policies, technologies, investments and behaviours. However, a range of common impediments can derail these actions.

Deficits in governance, institutional capacities, financing and infrastructure hamper progress in many countries. Lock-ins can result from high upfront capital costs, immaturity of technologies and markets, gaps in financing and large sunk investments that create resistance to change. Political feasibility can be undermined by influential actors and vested interests and concerns about potential trade-offs for jobs and livelihoods. Engrained practices and behaviours can be very difficult to change.

Faced with these impediments, it is critical to build understanding not only on what needs to be done but also how systemic change can happen. Transformations typically take time to unfold and move through different phases that face different impediments, changing what is needed from different actors. Each country has its own challenges, priorities, needs and capabilities. Nevertheless, many countries follow similar pathways towards the Goals and face common barriers and impediments.

CHAPTER 4: ACCELERATING TRANSFORMATIONS TO THE SUSTAINABLE DEVELOPMENT GOALS

Transformation is inevitable, but its course, directions and speed are not. Change can and must be steered in positive directions by human determination. Goals matter in this regard. Over the last 200 years, human societies have produced many rapid and profound transformations – in human rights, for example, economic activity, health, technology and living standards.

One major intervention was the Green Revolution, which used high-yielding crops along with fertilizers and irrigation to transform agricultural systems. However, the Green Revolution also offers a cautionary tale. Crop yields rose rapidly, food consumption increased and undernutrition plummeted. But the Green Revolution was often divisive, leaving many smallholders behind, excluded by inequitable land distribution, poor tenancy rights and lack of access to credit. Women farmers were especially disadvantaged. Intensive, chemical-heavy farming also affected soils, water, biodiversity and nutrition. The Green Revolution illustrates the importance of a whole-of-society approach, weighing up positives and negatives to optimize human well-being while safeguarding the planet.

S-curve nature of transformations

This Report provides a stylized model to help unpack and understand the transformation process through a systematic and structured approach, suggesting that a successful transformation can be considered in three phases – emergence, acceleration and stabilization – tracing an S-curve. During the first phase, emergence, innovative ideas give rise to new technologies and practices – often operated in niches through experimentation and learning. The concept of innovation in this Report includes technological, organizational, institutional, behavioural and social innovations. If successful, during the second phase, acceleration,

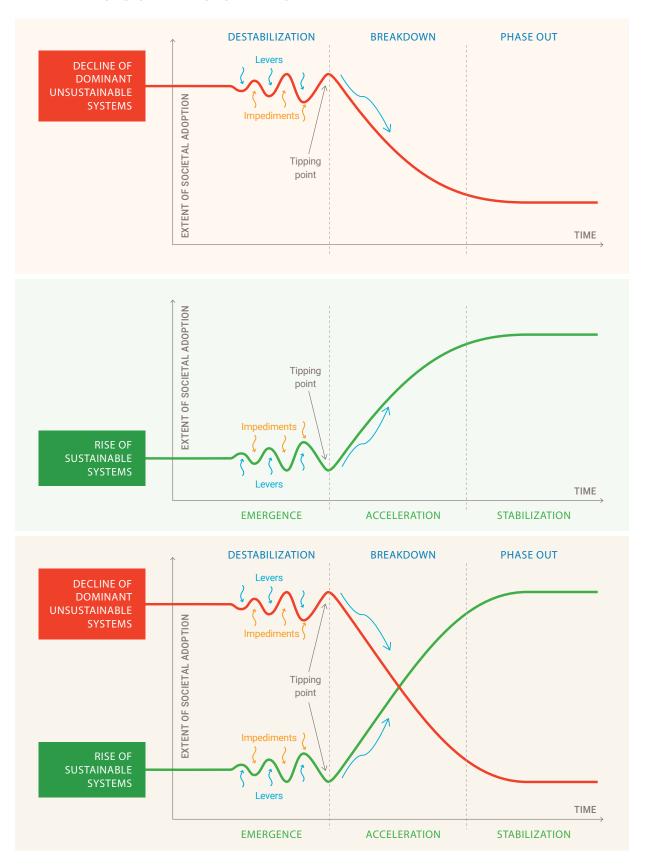
innovations expand and reach tipping points beyond which they are widely shared and adopted, leading to rapid, non-linear growth. Finally, in the third phase, stabilization, these technologies and practices become pervasive in daily life as the new normal.

S-curves work in both directions. Progress in one area is typically mirrored by a decline in others, with three corresponding phases: destabilization, breakdown and phase-out. For example, the rise of renewable energy systems or electrified transport is being matched by the decline of fossil-fuel energy and internal combustion vehicles. Ambitious public policies are crucial for pushing innovation and change and for ensuring that old and new structures do not coexist too long, in order to harvest the benefits of transformation towards sustainability as quickly as possible.

Along this trajectory, innovations evolve – typically becoming cheaper and more effective as they are embedded with other complementary institutions, norms, technologies and infrastructure. Governments can also accelerate progress through targeted investments, policies and incentives that promote innovation and adoption. These can effectively push innovations across tipping points beyond which they are rapidly adopted.

However, sustainable transitions can also fail or veer off along undesirable pathways. This might, for example, be the result of lock-ins to old technologies and practices, political opposition or backlash from vested interests or affected communities, stubborn social norms and behaviours that are difficult to change or gaps in human, financial and institutional capacities or supporting infrastructure.

THREE PHASES OF TRANSFORMATION



Enabling transformations through emergence, acceleration and stabilization

As transformations evolve across the S-curves, countries can minimize impediments by creating supportive technological, social and political conditions aligned to the different phases. They can also work to build trust and consensus, provide finance and safeguard against undesirable consequences. This will require bold leadership, a shared vision and direction, collective effort using the levers in a coordinated way and mutual accountability.

Emergence (destabilization) phase – In the emergence (or destabilization) phase, deliberative processes to collectively build common narratives, visions and missions will be important. Governments, multilateral development banks, private finance, philanthropists and others will need to support innovation and the piloting, prototyping and implementation of new knowledge. Governments can also send clear market signals for investment and adoption through credible long-term policies and targets. Capacities are needed to innovate and generate sustainable alternatives and provide informal and protected spaces for innovation and dialogue.

Acceleration (breakdown) phase – Decisive action by governments is often needed for transitions to cross tipping points to the acceleration (or breakdown) phase. Building on efforts in the emergence phase, proactive and decisive governments can shape markets by stimulating research and innovation, investing in public infrastructure, setting targets, standardization and regulating businesses. This can reorient economic activities towards the Sustainable Development Goals.

Conflicts, tensions and political struggles are common during acceleration, as different actors, interests and coalitions seek to promote or delay the transition for various reasons. These reasons may include perceived trade-offs between competing Goals or negative outcomes for local jobs and livelihoods. A coherent mix of policies will be needed to ensure just transitions where no one is left behind.

Individual and collective action through social movements and coalitions, changing narratives and norms, maturing technologies and crisis events can provide the critical impetus needed for governments to take decisive action to accelerate transitions. For governments facing strong opposition, early interventions or "small wins" can build political momentum for later more difficult and transformative measures.

Stabilization (phase out) phase – During the stabilization (or phaseout) phase, innovations can saturate markets and achieve widespread dissemination and use, becoming anchored in infrastructure, regulations, user habits and standards. However, for stabilization to take root, new institutions and infrastructure must be resilient. Unless reforms are institutionalized, the whole process may break down if leaders are unable to sustain momentum or leave office. Sustaining momentum requires a strong tax and revenue base, commitment of ongoing human and financial resources, maintaining political support, and building institutional capacities for implementation.

Governments and the private sector can support a managed decline and phase-out of unsustainable technologies and practices. Unintended consequences, such as job losses or the decline in regional industries and economies, can be mitigated through government support for affected workers such as compensation, social safety nets, reskilling and training, and alternative employment opportunities. These measures will help to reduce resistance, increase public acceptance and ensure a just transition with fair outcomes for all.

CHAPTER 5: TRANSFORMATIONS THROUGH SCIENCE – AND IN SCIENCE

Transformations to sustainable pathways should be rooted in science. The scientific method, based on observation and testing hypotheses, reduces uncertainty, identifies tipping points, accelerates the uptake of innovations and lays the foundations for the next frontier of ideas. This *Report* argues for science that is

multidisciplinary, equitably and inclusively produced, openly shared, widely trusted and embraced, and "socially robust" and relevant to society.

A few decades ago, the science-policy interface primarily involved experts in individual scientific disciplines – usually in the Global North, and predominantly white male. For sustainable development in the twenty-first century, science-policy interactions will need to be far more multidirectional and multidisciplinary – and expanded to a science-policy-society interface.

It is clear, though, that the current platforms and intermediaries are not sufficient. Civil society organizations (CSOs), non-governmental organizations (NGOs), think tanks and other institutions can be powerful advocates for change, and can promote accountability. While young people and CSOs are starting to be included in the global processes and platforms, they are still often excluded from the actual decision making. Young people, those who have the biggest stake in the future, are particularly compelling messengers and leaders, and should be further empowered.

Global imbalance in research and development

To be relevant to the Sustainable Development Goals, more scientific activity should be conceived and produced outside of high-income countries. Current imbalances severely curtail the capacity of many lowand middle-income countries to attain the Goals by generating context-specific solutions in their region.

As well as making the production of science more inclusive and geographically diverse, it is also crucial to ensure that once science is produced, the resulting knowledge is widely accessible. Public interest groups, policymakers, industry and teachers should have free access to the relevant publications, data and software. This is especially important for issues related to the Goals, and for research that has been publicly funded. In the humanities, for example, the digitization of historical documents across continents has allowed students and citizens to gain first-hand understanding of key moments in history — struggles for independence, human rights

movements and social progress that can be instructive for current challenges.

Trust and integrity

A major hurdle for science is the speed of publication. Producing unbiased, peer-reviewed information absorbs time and money, giving some platforms, particularly social media, a head start for promulgating false information. Influencers and propagandists, with little or no expertise, can nevertheless create compelling stories and catchy headlines that appear factual and elicit strong emotional responses. And, because of social media algorithms, people rarely see posts that contradict their own biases and preferences. This echo chamber effect is having a profound impact on the political landscape, with increased polarization and partisanship and lower levels of trust in governments and science.

The world has responded to the proliferation of fake news with comprehensive countermeasures. In 2022 around 400 teams of journalists and researchers in 105 countries were working on tackling political lies, hoaxes and other forms of misinformation. To help scientific health evidence keep pace with fake news for COVID-19, the World Health Organization (WHO) gathers real-time information on how people are talking online about the pandemic and had released tips to identify mis- and disinformation and is aiming to ensure the top results on the pandemic are official science-based sources.

Socially robust science

There is inevitably a time lag between the publication of scientific evidence, public policy decisions and full implementation of science-based recommendations. Sometimes, the gap is created by a lack of political will or lobbying and disinformation by vested interest groups. Sometimes, action is simply impossible because of political unrest and conflict, or the lack of financial resources. Consider climate change, the Intergovernmental Panel on Climate Change has reached clear conclusions, but the world is still failing to reduce the global carbon footprint.

Achieving the Sustainable Development Goals requires broader societal engagement with all aspects of science and a greater democratization of knowledge – so that people will be ready and willing to commit to the transformations needed.

CHAPTER 6: CALLS TO ACTION FOR TRANSFORMATION

Implementation of the Agenda 2030 requires the active mobilization of political leadership and ambition, and building societal support for policy shifts embracing transformations through meaningful consultation with stakeholders and effective participation.

Transformation is possible, and inevitable. To guide policymakers in this process, the Report presents a series of calls to action. First, it proposes that, at the midpoint to the 2030 Agenda, the United Nations Member States elaborate a shared transformation framework for the Sustainable Development Goals that consists of six elements:

- i. national plans of action to counter negative trends or stagnation in implementation of the Sustainable Development Goals;
- ii. local and industry-specific planning to feed into national plans;
- iii. initiatives through the Addis Ababa Action Agenda or otherwise to increase fiscal space, including tax reforms, debt restructuring and relief, and increased engagement by international finance institutions for implementation of the Sustainable Development Goals;
- iv. investment in data related to the Goals, science-based tools and policy learning;
- v. partnerships to strengthen the science-policy-society interface; and,
- vi. measures to improve accountability of governments and other stakeholders.

Second, it recommends building capacity for transformation at individual, institutional and network levels, to strategize, innovate, manage conflicts, identify and overcome impediments and cope with crises and risks. Third, it puts forward key synergetic interventions in each of the six entry-points for sustainability transformation, to achieve coherence and equity, and ensure that advances in human well-being are not made at the expense of climate, biodiversity and ecosystems. Fourth, it proposes five measures for improving the fundamental conditions for implementation, namely by investing in conflict prevention and resolution, enhancing fiscal space, supporting marginalized groups, taking advantage of the digital transformation and by investing in gender equality. Finally, it recommends tools for transforming science and approaches to ensure that science, policy and society work together for a future where people and nature can thrive as one.

This report bridges science and practice to provide actionable knowledge, practical tools, and examples for a variety of actors, from policymakers in United Nations Member States to youth and community groups, from financiers to other industry partners, from donor agencies to philanthropies, and from academics to civil society groups. The 2023 Global Sustainable Development Report benefited from inputs received from experts from a wide range of disciplines - natural scientists, social scientists, policymakers, and practitioners - in response to an open call for inputs, a scientific peer review led by the International Science Council, as well as region-specific inputs gathered through a series of regional consultations held in Australia, China, Japan, Malawi, Peru, Philippines, Qatar, and Senegal. Achieving the SDGs is not only the work of governments, and the contributions from multiple actors are essential indeed. This report is for all stakeholders, with the recognition that everyone will engage with these transformations in some way, and for doing so effectively, everyone will need strategies and tools.





Copyright © 2023 United Nations All rights reserved United Nations publication issued by the Department of Economic and Social Affairs Reprinted 2023

ISBN: 978-92-102941-4

