

# International Governance for Global Commons Stewardship — Annex

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The role of international  
initiatives in driving  
system transformations

Annex  
December 2023

# 1 Driving system transformations



This annex accompanies the main discussion paper that proposes a framework for understanding the roles of international initiatives in safeguarding the global commons. We do not list the individual initiatives in the main discussion paper but describe them separately in this annex. International initiatives can involve civil society organizations, businesses and governments. In contrast to intergovernmental bodies, such initiatives act without a formal intergovernmental mandate, so all their work is non-binding on governments.

We focus on three system transformations outlined in the Global Commons Stewardship Framework:

- decarbonization of energy, industry and transport;
- sustainable food, land, water and oceans;
- sustainable production and consumption of materials; and

For each transformation, we identify major international initiatives acting across the six interventions:

- 1. Shared goals and pathways:** Goals are critical to set the right level of ambition for countries, businesses and civil society. Pathways can make time-bound targets operational and bring together stakeholders—including competing businesses—to develop a joint vision of how shared goals can be achieved. International initiatives can propose targets that operationalize intergovernmental agreements and can develop pathways for reaching them. By providing international benchmarks, they help in raising the level of ambition, developing a consensus around the feasibility of achieving ambitious goals and assisting stakeholders in moving toward them (e.g., by reducing first-mover disadvantages). International initiatives can play an important role in translating pathways into voluntary standards for business targets.
- 2. Policy and regulation:** Well-designed international initiatives can support governments in improving policy and regulation by sharing lessons and best practices internationally, including through open-access databases. They can also score countries' policies, which helps pinpoint gaps and disseminates learning from one country to the next.
- 3. Finance, de-risking and investments:** The transformations for stewardship of the global commons require a fundamental reallocation of financial resources and face significant financing shortfalls.<sup>1</sup> To increase resource mobilization, international initiatives can help develop and advance new financing concepts and instruments, such as blended finance, Paris-aligned investments and high-integrity carbon markets.
- 4. Behavior change:** A challenging but no less important objective of international initiatives is to accelerate the behavior change required to safeguard the global commons, including changes in the volume and types of goods and services people consume (demand-side measures). These include changes toward healthier and more environmentally sustainable diets and energy-saving mobility choices. Such changes are notoriously hard to facilitate and comparatively few international initiatives have emerged in this space. It is also important to recognize that large-scale behavior change will be impossible without overhauling the underlying system, such as the available infrastructure (supply side) and economic incentives (policies).
- 5. Innovation and new technologies:** Knowledge and technological innovation are non-rival goods, so new ideas and solutions create benefits for wider society, not just for their inventors (e.g., lower manufacturing costs, foundations for further research). The development and deployment of technologies also benefit from international collaboration and shared financing. Innovation is therefore a critical driver of global commons stewardship.
- 6. Data and monitoring, evaluation and accountability:** Many transformations are held back by a lack of data, shared accountability standards and rigorous evaluation of what works and what doesn't. International initiatives have been particularly active in driving standards for data and monitoring, evaluation and accountability.

<sup>1</sup> See Blended Finance Taskforce, 2020 and IEA, 2022.

We explore how far each intervention has progressed toward triggering a system shift and assign color codes as follows:

- Red: Ideation phase
- Yellow: Development phase
- Green: Take-off phase

International initiatives can thus play up to six roles across the three system transformations for global commons stewardship, which are described in the

main discussion paper. The list of initiatives is based on a qualitative assessment that has been tested in discussions with practitioners. To enhance readability, we have focused on what we see as some of the most important initiatives, which has obviously involved a degree of subjectivity. Our aim is not to provide an exhaustive review, but to give a flavor of the important role played by international initiatives in driving global commons stewardship.



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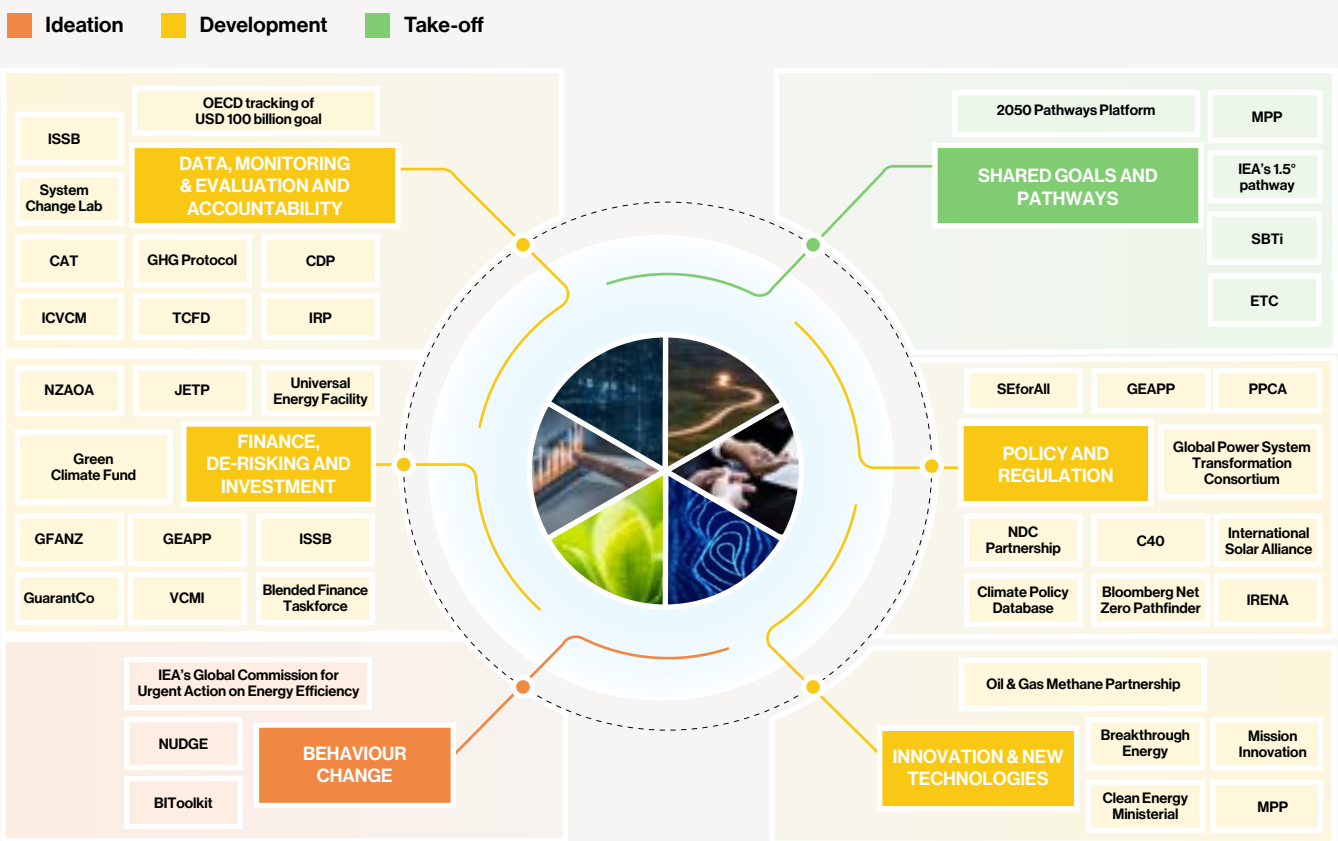
# Decarbonization of energy, industry and transport

Numerous international initiatives are helping drive the decarbonization of energy, industry and transport; but major gaps remain in key

areas, such as behavior change. Figure 1 lists the principal international initiatives that support this transformation and outlines major gaps.

**FIGURE 1**

International initiatives supporting the decarbonization of energy, industry, and transport





## Global goals and pathways

The [International Energy Agency \(IEA\) 1.5°C pathway](#) has become the international reference point for decarbonizing the global energy system. It is used by governments, companies and financial markets to monitor policies and business action relative to the changes needed for reaching net-zero emissions by mid-century. It forms the basis of many national and sector decarbonization pathways. However, the IEA's data and models are not freely available, so it is hard to interrogate and challenge the IEA 1.5°C pathway.

Take-off

## National goals and pathways

The [2050 Pathways Platform](#) helps countries articulate their long-term low-emission development strategies in accordance with Article 4.19 of the Paris Agreement. These strategies then inform the nationally determined contributions (NDCs) that articulate each country's shorter-term efforts to reduce greenhouse gas (GHG) emissions. Today most large GHG emitters have adopted mid-century net-zero targets that are underpinned by increasingly robust national pathways.

The Energy Transitions Commission (ETC) brings together business leaders to develop shared pathways toward energy decarbonization. It informs the decisions of public and private decision makers by providing them with datapoints and tools on the energy transition; and by convening action-oriented, high-level discussions and collaborations.

## Sector goals and pathways

The Mission Possible Partnership (MPP) is a multistakeholder coalition that develops shared sector transition strategies for hard-to-abate sectors, including aluminum, chemicals, concrete, steel, aviation, trucking and shipping. The MPP identifies the main sources of emissions and the viability and timeframes of various mitigation approaches. A shared understanding of the pathways enables cooperation (e.g., on research and development) and reduces first-mover disadvantages.

## Business goals and pathways

The Science-Based Target Initiative (SBTi) is a partnership between CDP, the UN Global Compact, the World Resources Institute (WRI) and the World Wildlife Fund that sets out standards and net-zero pathways for Paris-consistent business targets. The SBTi has mobilized a critical mass of businesses to set verifiable net-zero targets: more than 2,200 companies have signed up to the SBTi and it covers around one-third of the global economy capitalization.

## 2.2 Policy and regulation

### Overall climate policies

The NDC Partnership offers a tailored package of expertise and technical assistance, and helps countries translate their NDCs into concrete actions and policies. Countries formulate their NDCs every five years and can draw on insights and funding from the partnership's members.

The Bloomberg Net Zero Pathfinder shares insights with policymakers on how to design and implement effective decarbonization strategies. It offers them a public resource to find effective climate solutions.

The Climate Policy Database inventories national decarbonization policies across a range of policy areas. The freely accessible data enables governments and other stakeholders to learn about what has worked in other countries, to benchmark their own progress and to hold policymakers to account.

The recently established Global Energy Alliance for People and Planet (GEAPP) pools resources from foundations and government donors to support better decarbonization policies with a particular view toward strengthening efforts to ensure a just energy transition.

# Power systems

The [International Renewable Energy Agency](#) is the leading global intergovernmental agency for energy transformation, providing state-of-the-art data and analyses on technology, innovation, policy, finance and investment. It aims to accelerate the adoption of sustainable energy.

The [Global Power System Transformation Consortium](#) works on a more technical, sector-specific level. It is a consortium of the major global energy grid operators that develops insights that are shared with other countries.

# Urban decarbonization

The [C40 Cities Clean Energy Network](#) supports cities in planning and implementing ambitious energy transition policies. They can set their own targets, switch their energy supply to renewables, promote energy efficiency and promote decentralized renewable energy generation.

# Energy access

[Sustainable Energy for All](#) is an international organization that works in partnership with the United Nations and government leaders, the private sector, financial institutions, civil society and philanthropies to drive faster action toward the achievement of Sustainable Development Goal 7 (SDG7)—access to affordable, reliable, sustainable and modern energy for all by 2030—in line with the Paris Agreement on climate.

The [International Solar Alliance](#) is a platform for increased deployment of solar energy technologies as a means of promoting energy access, ensuring energy security and driving the energy transition in member countries. The phaseout of the fossil fuel energy supply poses significant challenges for policymakers.

The Powering Past Coal Alliance is a coalition of national and subnational governments, businesses and organizations working to advance the transition from unabated coal power generation to clean energy in the European Union by 2030 and the world by 2040.





## Climate finance

The [GEAPP](#) aims to scale the energy transition, provide renewable energy to 1 billion underserved people and create tens of millions of new green jobs.

The [Just Energy Transition Partnership](#) was launched at COP26 in 2021 to support South Africa in its decarbonization effort in the context of domestic climate policy. It is the first of its kind, as it focuses on a just and fair transition, protecting vulnerable workers and communities. At COP27, the international partners group announced a partnership for Indonesia to achieve a just transition for workers and communities, as energy production shifts away from coal.<sup>2</sup> Similarly, they have announced a partnership to help Vietnam with their climate and energy goals.<sup>3</sup>

<sup>2</sup> European Commission, 2022.

<sup>3</sup> GOV.UK, 2022.

## Financial and business alliances for net zero

The [Glasgow Financial Alliance for Net Zero](#) is a coalition of leading financial institutions that aim to provide tools and resources for the financial sector to implement its net-zero ambitions. It connects the financial sector with the net-zero campaign, climate scientists, experts and civil society.

The UN-convened Net Zero Asset Owner Alliance is a member-led initiative of institutional investors committed to transitioning their investment portfolios to net-zero GHG emissions by 2050.

# Climate disclosure in accounting

The International Sustainability Standards Board (ISSB) was initiated by the International Financial Reporting Standards (IFRS) Foundation, which already sets accounting standards that apply in about 140 countries. The ISSB is supported by a broad coalition of relevant organizations, suggesting that emerging accounting standards could soon move toward widespread adoption.

## Voluntary carbon markets

The Voluntary Carbon Markets Integrity Initiative (VCMI) helps companies make transparent and credible claims about their carbon credits and associated claims. A Claims Code of Practice is being developed through an inclusive stakeholder process.

Similarly, the Integrity Council for the Voluntary Carbon Market is an independent governance body that aims to ensure the voluntary carbon market follows defined global standards.

## Blended finance

The Green Climate Fund—a critical element of the historic Paris Agreement—is the world's largest climate fund, mandated to support developing countries in raising and realizing their NDC ambitions toward low-emissions, climate-resilient pathways.

GuarantCo was established in 2005 to help close the infrastructure funding gap and alleviate poverty in lower-income countries across Africa and Asia. Its local currency credit solutions aim to mobilize private sector investment for infrastructure projects.

The Universal Energy Facility (UEF) is a multi-donor, results-based finance facility established to significantly accelerate and scale up energy access across sub-Saharan Africa. The UEF provides incentive payments to eligible organizations deploying energy solutions and providing verified end-user electricity connections.

The Blended Finance Taskforce was established to help mobilize large-scale capital for the SDGs, including for climate. It identified key barriers for the effective use of blended finance and is now implementing an action program to increase mainstream private investment for high-impact sectors, with a focus on emerging markets.



## Energy efficiency

The IEA's [Global Commission for Urgent Action on Energy Efficiency](#) is an independent high-level commission established to advance global progress on energy efficiency. It has developed a series of actionable recommendations to support governments in achieving more ambitious action on energy efficiency.

## National campaigns

The [NUDGE project](#) aims to systematically assess and unleash the potential of behavioral interventions toward achieving higher energy efficiency.

The [Behavioural Insights Toolkit](#) is intended to support policymakers, civil servants and professionals who design programs to reduce the emissions of citizens and businesses.

The [International Resource Panel \(IRP\)](#) was launched by the United Nations Environment Programme (UNEP) to improve worldwide resource use. It has argued in favor of absolute reductions in resource use to achieve the energy transition. High-income countries need to decouple their energy usage from wellbeing; while middle-to-lower-income countries need to increase their energy usage at a comparatively slower rate.

# Innovation and new technologies

## Energy technologies and industrial decarbonization

The Clean Energy Ministerial (CEM) and Mission Innovation bring together governments and other stakeholders to accelerate clean energy innovation and deployment. They foster intergovernmental knowledge transfer, which is central to the energy transition. The CEM is a high-level global forum that promotes policies and programs to advance clean energy technology, share lessons learned and best practices, and promote the transition to a global clean energy economy. Mission Innovation is a group of 22 countries and the European Commission aimed at stepping up their collective ambition, collaboration and investment in the research, development and implementation of clean energy.

Breakthrough Energy was established by Bill Gates and a coalition of private investors to support net-zero innovations. Breakthrough Energy Ventures encourages the development of new net-zero energy technologies, championing policies that speed innovation from lab to market, and bringing together governments, research institutions, private companies and investors to expand and enhance clean energy investment.

The MPP and other industry coalitions are promoting pilot initiatives for new technologies and their deployment in areas such as green steel and green shipping. Such initiatives require more resources and focused attention from decision-makers to deliver the necessary technology breakthroughs and uptake.

The Cement Sustainability Initiative is a strategic partnership between the Global Cement and Concrete Association and the World Business Council for Sustainable Development (WBCSD) to facilitate sustainable development in the cement sector and its value chains.

## Methane

The Oil & Gas Methane Partnership is a multistakeholder initiative launched by UNEP and the Climate and Clean Air Coalition. It commits companies to a gold standard reporting framework that improves the accuracy and transparency of methane emissions, requiring them to set and report on reduction targets.

# Data and monitoring, evaluation and accountability



## Monitoring

The Taskforce on Climate-related Financial Disclosures (TCFD) has developed a framework to help public companies and other organizations more effectively disclose climate-related risks and opportunities through existing reporting processes. Governments around the world have now begun to codify aspects of the TCFD recommendations into policy and regulation.

The Organisation for Economic Co-operation and Development tracks the progress of countries toward the \$100 billion goal. In 2009, developed countries committed to collectively mobilize this amount per year by 2020 for climate action; this was subsequently extended to 2025. In 2020, donor countries fell short of their goal by around \$16 billion.

The Climate Action Tracker (CAT) has been key to operationalizing targets at the national level by providing scientific assessments of government climate action for 39 countries and the European Union, covering around 85% of global emissions. In addition, the CAT aggregates country actions at the global level to assess the likely temperature rise during the 21st century. Furthermore, the CAT provides sectoral analyses to illustrate required pathways for international aviation and shipping. The CAT quantifies and evaluates nations' climate change mitigation targets, policies and actions; and assesses whether these are Paris-aligned and fair.

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## GHG accounting

The [GHG Protocol](#) was established by the WRI and the WBCSD to ensure that there is a standardized mechanism to measure and manage GHG emissions from both the public and private sectors. It is the most widely used GHG accounting standard worldwide.

## Data visualization

The [Systems Change Lab](#) has collected and visualized data on key transformations for energy. Its portal presents data on the necessary shifts for industry and power, and analyzes whether targets are on track.



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# Sustainable food, land, water and oceans

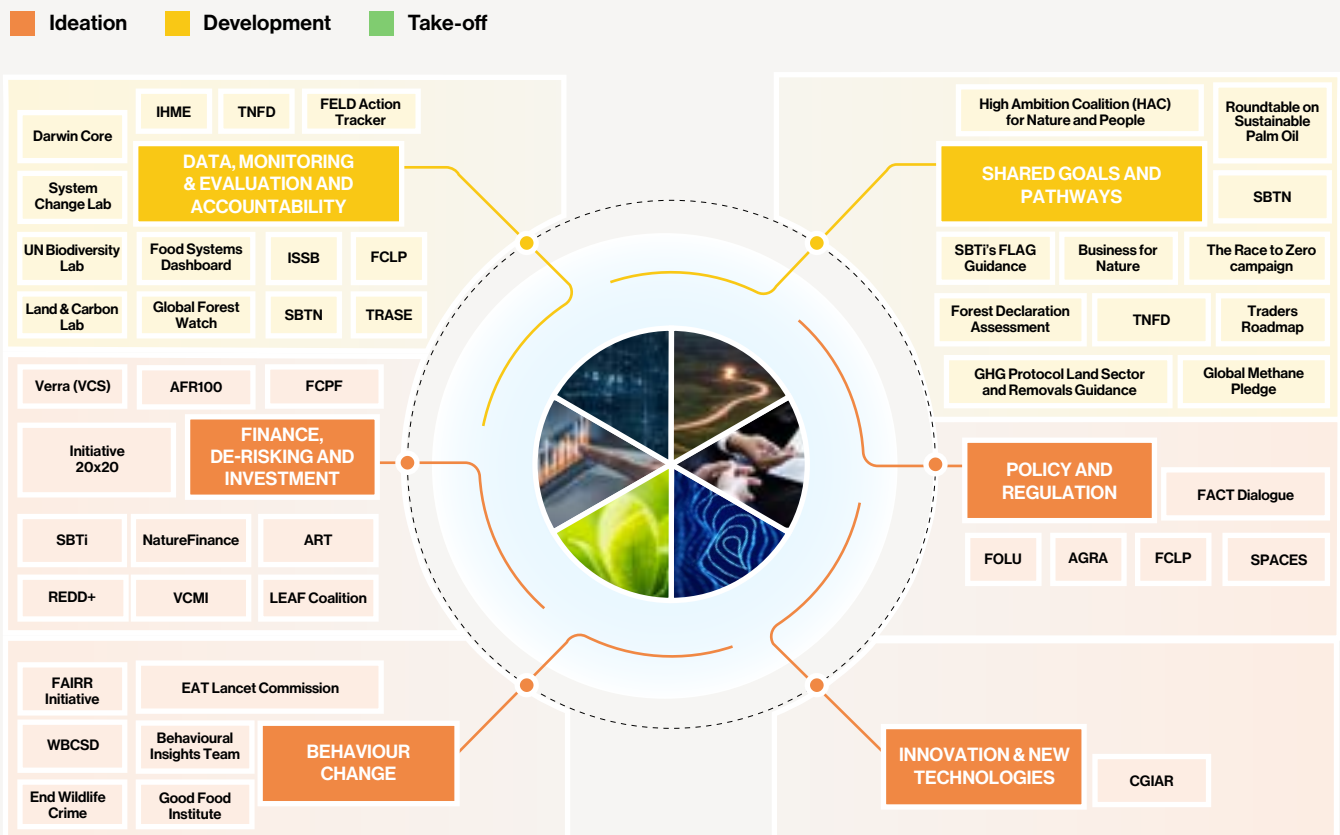
Food production has increased dramatically since the middle of the last century, which has promoted human development and massively reduced hunger and malnutrition. However, today's food and land use systems are environmentally destructive and vulnerable; they generate poor health outcomes and reinforce major inequalities. The hidden costs of the food system exceed \$12 trillion per year — indeed, they are higher than the total value of agricultural production.

Transforming to a more sustainable food and land use system is critical to curb climate change, protect biodiversity and improve human health.

Numerous international initiatives are helping drive change toward sustainable food, land, water and oceans; but major gaps remain. Figure 2 lists the principal international initiatives that support this transformation and outlines major gaps.

**FIGURE 2**

International initiatives supporting sustainable food, land, water and oceans





## Policy goals and pathways

The High Ambition Coalition for People and Nature involves over 100 countries which have committed to protecting at least 30% of the world's land and marine areas by 2030. Many of these countries have also made domestic commitments to reach the 30% goal. They have now committed to a plan to work together to ensure the implementation of this ambitious global target.

The Forest Declaration Assessment provides an annual civil society-led progress assessment on global forests. It increases transparency and holds policymakers accountable for their promises on deforestation.

The Roundtable on Sustainable Palm Oil is a global nonprofit organization with voluntary members, bringing together stakeholders from across the palm oil supply chain to develop and implement global standards for sustainable palm oil. Together with the New York Declaration and the Roundtable on Sustainable Palm Oil, this has been effective in convincing corporates not to endorse deforestation.

At COP26, more than 125 countries committed to the [Global Methane Pledge](#), aimed at reducing methane emissions by at least 30% from 2020 levels by 2030.<sup>4</sup>

<sup>4</sup> Changing Markets Foundation, 2022.



# Business goals and pathways

The [SBTi's FLAG Guidance](#) provides a framework for companies in land-intensive sectors to set science-based targets that cover land-based reductions and removals. The guidance enables companies to reduce their global GHG emissions from agriculture, forestry and other land use. It offers a common, robust, science-based understanding of how much and how quickly a company needs to cut its land-related emissions.

The [Science-Based Targets Network \(SBTN\)](#) aims to motivate companies and cities to implement science-based targets that reduce their negative impact on nature. The science-based targets are measurable, actionable and time-bound objectives that are set by companies beginning in 2023. The SBTN also offers guidance and tools for companies to assess their efforts to reduce nature loss.

[Business for Nature](#) is a coalition that brings together businesses and conservation organizations and calls on governments to adopt policies to reverse nature loss.<sup>5</sup> It recently published an open letter addressed to heads of state urging them to “make it mandatory” for all large businesses and financial institutions to assess and disclose their impacts and dependencies on biodiversity by 2030, with more than 300 businesses signing the letter.<sup>6</sup>

The [GHG Protocol Land Sector and Removals Guidance](#) is currently being developed and will be published in 2023. It explains how companies can account for and report on GHG emissions and removals from land management, land use change, biogenic products, carbon dioxide removal technologies and related activities in GHG inventories.

The [Race to Zero](#) has included land-based emissions in the minimum requirements for companies to join the campaign. The Race to Zero is a global campaign that rallies leadership and support from businesses, cities, regions and investors for a zero-carbon recovery. Including land-based emissions in its pledges is central, as this incentivizes companies to work toward reducing deforestation.

The [Taskforce on Nature-related Financial Disclosures \(TNFD\)](#) offers a financial disclosure framework for organizations to report and act on nature-related risks to incentivize financial investments in nature-positive outcomes.

The agricultural commodity [Traders Roadmap](#) was published at COP26 and was signed by the biggest food commodity companies, committing them to move against deforestation in their supply chains.

<sup>5</sup> FOLU, 2021.

<sup>6</sup> Weston, 2022.



## Whole-of-government policies

The Forest and Climate Leaders' Partnership (FCLP), launched on November 7, 2022 at COP27, is a voluntary partnership of 26 countries which have committed to halt and reverse forest loss and land degradation by 2030. It brings together key producer and consumer countries to share progress on reducing deforestation and hold countries accountable on the pledges and commitments they have made.<sup>7</sup>

SPACES, a new coalition launched following the Montreal Convention on Biological Diversity COP15, supports interested governments in undertaking spatial planning for terrestrial and marine areas in order to achieve nature and climate targets.

The FACT Dialogue is a government-to-government dialogue that is bringing together the largest producers and consumers of internationally traded agricultural commodities to stop deforestation.

The Food and Land Use Coalition (FOLU) is a coalition of committed partners that aims to transform our consumption of food and the use of land. FOLU supports climate-based solutions and helps build a shared understanding of the challenges and opportunities in the transition.

<sup>7</sup> Nature-Based Solutions Initiative, 2023.

## Food security

AGRA is an African-led alliance that aims to catalyze an inclusive agricultural transformation in Africa by improving farmers' incomes and strengthening food security. It aims to build systems and tools that provide high-quality seeds, improve soil health and increase access to markets and investments.

# Finance, de-risking and investment

## Carbon markets

REDD+ is a global framework created by the United Nations Framework Convention on Climate Change Conference of the Parties to guide activities in the forest sector that reduce emissions from deforestation and forest degradation, and promote the sustainable management of forests and the conservation and enhancement of forest carbon stocks in low-income countries. REDD+ has been broadly successful in the past and has yielded transformative results, especially in Brazil and Indonesia. However, its financial model is unsustainable: REDD+ was founded as an interim solution whereby certain higher-income countries pay for projects in other lower-income countries, and it is very unlikely that this model will continue in the future.

The Architecture for REDD+ Transactions is a global initiative that seeks to incentivize governments to reduce emissions from deforestation and forest degradation, and to restore forests and protect intact forests.

Verra's Verified Carbon Standard Program is the world's most widely used GHG crediting program. It drives finance toward activities that reduce and remove emissions, improve livelihoods and protect nature.

The LEAF Coalition has also mobilized financing to stop deforestation, most recently raising \$1 billion in 2021. It is a partnership between the governments of Norway, the United Kingdom, the United States and leading multinational companies. It aims to facilitate high-quality emissions reductions in tropical and subtropical forest countries. The VCMI helps companies make transparent and credible claims about their purchase and use of carbon credits and associated claims. A Claims Code of Practice is being developed through an inclusive stakeholder process. The VCMI supports access to high-integrity voluntary carbon markets.

The Forest Carbon Partnership Facility is a partnership of governments, businesses, civil society and Indigenous Peoples focused on reducing emissions and supporting REDD+. Around 17 donors have made contributions and commitments of approximately \$1.3 billion.

## Restoration finance

AFR100 is a partnership of 33 African governments and numerous technical and financial partners. It assesses restoration opportunities, and tests and actively upscales promising solutions.

Initiative 20x20 is a country-led initiative that aims to restore 50 million hectares of forests, farms, pasture and other landscapes by 2030 in Latin America and the Caribbean.

## Other finance for nature-based solutions

NatureFinance aims to put nature-positive and equitable outcomes at the heart of global finance by advocating for effective policy, creating an ecosystem of investable nature-related ventures and innovation and incubation activities.

3.4

## Behavior change

### Shifting diets

The Good Food Institute is a nongovernmental organization (NGO) that is seeking to accelerate alternative protein innovation. With the help of plant-based meat, fermentation and cultivated meat, the global growth rate of meat consumption could decrease. The overall aim is to feed more people with fewer resources, thus decoupling human wellbeing from land use growth. Nudges can be a powerful tool to shift personal diets. Recent developments in big data and artificial intelligence enable policymakers and businesses to identify patterns more rapidly and close information gaps to make nudging more effective.

The EAT-Lancet Commission on Food, Planet, Health provides a science-based framework for a 'planetary diet' in which nutritional needs and planetary boundaries are aligned.

The Behavioural Insights Team (BIT) creates and applies behavioral insights to drive positive change, including on diets.

The Farm Animal Investment Risk and Return Initiative is an investor network that raises awareness of the environmental, social and governance consequences of intense livestock production and advocates for sustainable animal farming backed by fund managers.

The WBCSD has been building a business coalition of leading companies across the food value chain and beyond, called FReSH. Members are collaborating on a pre-competitive basis to support healthy people on a healthy planet.

## Trade in wildlife

End Wildlife Crime is an alliance of individuals and organizations working to encourage states to fill serious gaps in international law on wildlife crime by advocating for and offering technical support to create new global agreements, amend existing international wildlife trade laws and adopt a new international agreement on pandemic prevention.

3.5

## Innovation and new technologies

### Research on food security

The Consultative Group on International Agricultural Research is a global research partnership that aims to drive research and innovation in food, land and water systems.

Ideation

3.6

## Data and monitoring, evaluation and accountability

### Tracking progress

The Systems Change Lab has collected and visualized data on key transformations for nature. Its portal provides data on the necessary shifts for food, forest and land management, ocean management and freshwater management, and on whether targets are on track. The food systems dashboard combines data from multiple sources to give a complete view of the food system.

The Food, Environment, Land and Development (FELD) Action Tracker is an initiative under FOLU and led by the UN Sustainable Development Solutions Network that, like the CAT, aims to track countries' policies and determine whether they are on track to meet key climate, nature and food system targets. At present, FELD remains vastly subscale; discussions are underway for a separate or integrated Nature Action Tracker.

The Institute for Health Metrics and Evaluation (IHME) works with collaborators worldwide to develop relevant and scientifically valid evidence that evaluates the state of health, including dietary risks. The IHME's Global Burden of Disease study, which was published in 2017, quantified the impact of suboptimal diets on non-communicable

Development

disease mortality and morbidity, and highlighted the need for diet shifts globally.<sup>8</sup> The IHME has subsequently created an indicator that provides a comprehensive picture of mortality and disability across countries, time, age and sex, and quantifies health loss from hundreds of diseases, injuries and risk factors so that health systems can be improved and disparities eliminated.

8 The Lancet, 2019.

## Accountability on deforestation

The Land & Carbon Lab is partnering with leading scientists and technologists to curate best-in-class geospatial data on land use, land use change and associated carbon stocks and flows.

TRASE is a data-driven transparency initiative that aims to advance our understanding of the trade and financing of commodities driving deforestation worldwide. It is published by Global Canopy and the Stockholm Environment Institute. They have also published a tracker that monitors financial institutions on their actions on deforestation and associated human rights abuses.

## Data sharing

The UN Biodiversity Lab integrates different data layers and makes them publicly available.

The Darwin Core aims to facilitate the sharing of information about biological diversity by providing a glossary of terms.

## Monitoring and evaluation

The TNFD develops and delivers a risk management and disclosure framework for organizations to report and act on evolving nature-related risks.

The ISSB is an independent private sector body that develops and approves IFRS Sustainability Disclosure Standards.

The SBTN is a network of organizations developing methods and resources for science-based targets for nature for companies and science-based targets for both climate and nature for cities.

4

# Sustainable production and consumption of materials

The extraction and processing of materials (metals, minerals, fuels and biomass) account for about half of all GHG emissions and cause approximately 90% of global land-related biodiversity loss and water stress.<sup>9</sup> Tackling sustainable production and consumption, including the circular economy, is thus critical for safeguarding the global commons, including meeting climate and nature objectives.

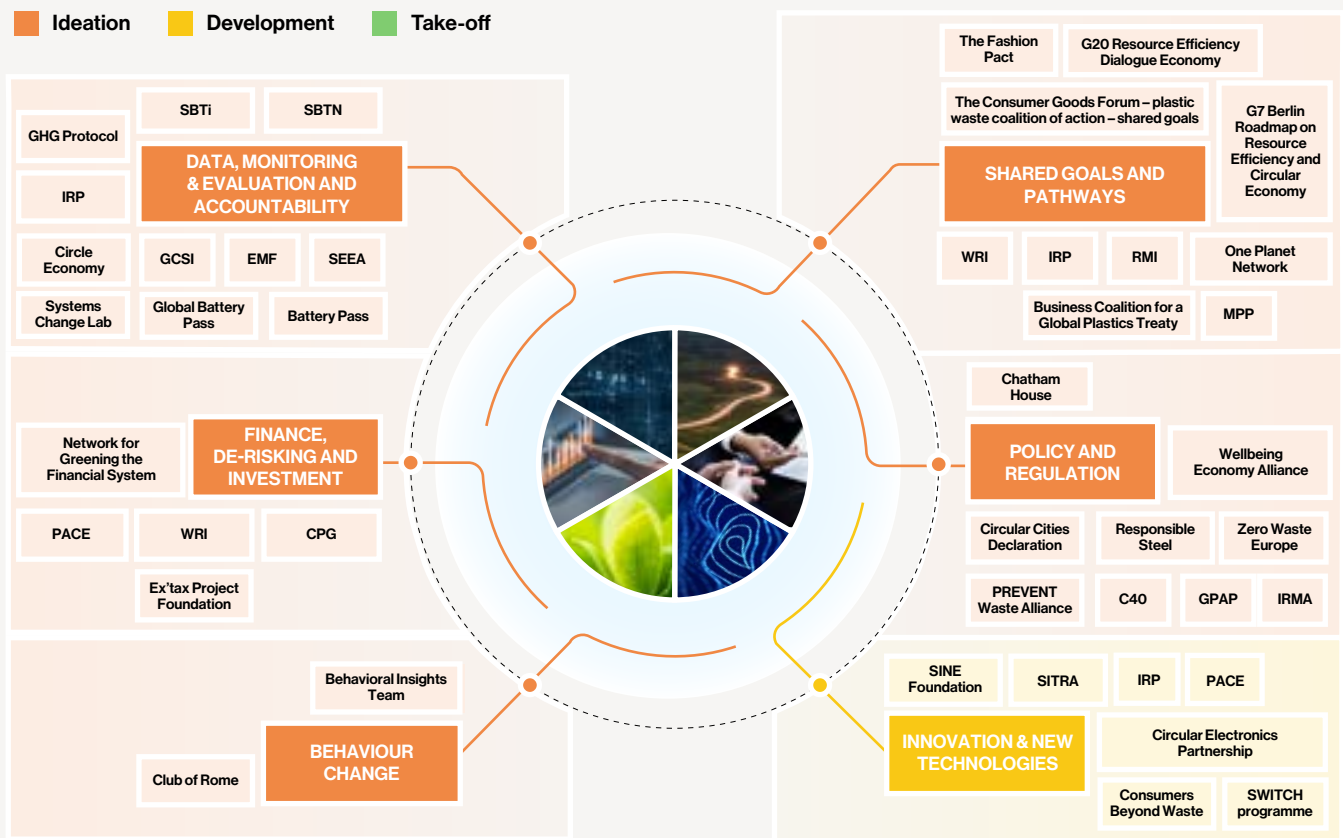
A number of international initiatives aim to accelerate the change toward sustainable production and consumption, but meaningful

progress has been limited and major gaps remain. As most governments have been slow to embrace policies to advance sustainable production and consumption, pressure and support from international initiatives can play a critical role. Initiatives that work on energy-intensive materials have already been addressed in the analysis of the energy transformation. This section focuses on consumer goods industries such as fashion and electronics. Figure 3 lists the principal international initiatives that support this transformation and outlines major gaps.

9 Oberle et al., 2018.

**FIGURE 3**

International initiatives supporting sustainable production and consumption of materials



# Shared goals and pathways

## Global goals and pathways

The [IRP's Global Resources Outlook](#) analyzes scenarios for sustainable resource consumption.

## National goals and pathways

The [G7 Berlin Roadmap on Resource Efficiency and Circular Economy \(2022\)](#) sets the direction for G7 government action on resource efficiency and the circular economy. The G7 Alliance on Resource Efficiency develops priorities and updates the roadmap every five years.

The [G20 Resource Efficiency Dialogue](#) brings together G20 resource efficiency policymakers to align on circular economy and resource efficiency priorities.

The [One Planet Network/10-Year Framework of Programmes on Sustainable Consumption and Production](#), hosted by UNEP, acts as an action hub on SDG12, which is focused on sustainable consumption and production. It brings together examples of best practice globally and works to inspire action toward achieving SDG12.

## Sectoral goals and pathways

The [WRI](#) provides guidance on good material use and circularity targets.

The [MPP](#) sets sector-specific decarbonization targets, including on steel, aluminum and concrete.

The [Fashion Pact](#) is a CEO-led coalition backed by one-third of the global fashion industry. It has set collective targets signed by all members. However, it is not committed to reductions in material consumption.

The [Consumer Goods Forum Plastic Waste Coalition of Action](#) is a coalition of over 40 companies that have committed to golden design rules that harmonize packaging recyclability across the industry and promote extended producer responsibility schemes to fund waste management systems.

The [ETC](#) brings together business leaders to develop shared pathways toward



decarbonization, including of materials. It informs the decisions of public and private decision makers by providing them with datapoints and tools on decarbonization, as well as convening action-oriented, high-level discussions and collaborations.

The [Rocky Mountain Institute](#) supports the decarbonization of the real economy— including heavy industry, buildings and mobility— through market-based change. It works with businesses, policymakers, communities and other organizations to identify and scale energy system interventions that will cut GHG emissions by at least 50% by 2030.

## Business goals and pathways

The [Business Coalition for a Global Plastics Treaty](#) brings together businesses and financial institutions that jointly support the development of an ambitious, effective and legally binding Global Plastics Treaty to promote reduced plastic production and use through a circular economy approach.

## 4.2 Policy and regulation



### Circular economy policy

[Zero Waste Europe](#) connects and supports a vibrant network of 34 local and national NGOs from all around Europe that share common values and objectives and are working together for a zero-waste future.

Chatham House has launched a global initiative to create a [roadmap on an inclusive circular economy](#).<sup>10</sup> This aims to facilitate integrated coordination and policy alignment

10 Chatham House, 2022.

of national circular economy roadmaps. Currently there is no collective vision for a global circular economy and Chatham House, together with partner organizations wants to create a platform for collective action. The initiative has just been launched, so its effectiveness is yet to be determined.

The Wellbeing Economy Alliance aims to build momentum for an economic transformation that delivers shared wellbeing for people and the environment. It brings together more than 200 organizations, national and local governments and individuals to make society more sustainable.

The PREVENT Waste Alliance was initiated by the German Federal Ministry for Economic Cooperation and Development. It serves as a platform for exchange and international cooperation for organizations from the public and private sectors, academia and civil society.

The Platform for Accelerating the Circular Economy (PACE), hosted by the WRI, brings together the public and private sector, as well as civil society, to scale best practices on the circular economy. The aim is to double global circularity in the next 10 years.

## Plastics

The Global Plastic Action Partnership brings together governments, businesses and civil society to translate commitments on plastic into policy action, both nationally and globally.

The High Ambition Coalition to End Plastic Pollution aims to develop an ambitious international legally binding instrument that is comprehensive and ensures urgent action and effective interventions along the full lifecycle of plastics.

## Built environment

The Circular Buildings Coalition seeks to cultivate alliances, build a common understanding and amplify proven solutions to create a circular built environment in Europe.

The Circular Cities Declaration is a commitment document from cities and regions to use the levers at their disposal coherently across their respective organizations to transition from a linear economy to a circular economy.

C40—a global network of mayors of the world's leading cities—is working toward city-level policies that reduce material use through more efficient urban planning and building.

## Responsible mining

The [Initiative for Responsible Mining Assurance](#) offers independent third-party verification and certification against a comprehensive standard for all mined materials that covers the full range of issues relating to the impacts of industrial-scale mines.

[Responsible Steel](#) offers certification for sustainably produced and sourced steel.

The [International Council on Mining and Metals](#) is a leadership organization working to improve the sustainability and responsibility of metal and mineral production. It brings together one-third of the global metals and mining industry, along with partner organizations driving action and innovation for mining sustainability.

4.3

## Finance, de-risking and investment



### Finance for circular economy models

The [Network for Greening the Financial System](#) brings together financial supervisors that aim to accelerate the scale-up of green finance and develop recommendations for the role central banks can play in tackling climate change. While it has a broad climate focus, it aims to make economies more sustainable generally, including on materials.

Development

### Taxes

[Taxshift](#) is a report by the Ex'tax Project Foundation that shows how shifting the tax burden from labor to pollution and resource use could help support an inclusive circular economy.

4.4

## Behavior change

### Decoupling

The Club of Rome has conducted research on decreasing resource use while increasing human wellbeing.

BIT creates and applies behavioral insights to drive positive change, including by reducing the use of single-use packaging and increasing demand for sustainably sourced material throughout the supply chain.

Ideation

4.5

## Innovation and new technologies



### Circular economy

The Earthshot Prize aims to select, accelerate, award and scale the best and most ingenious solutions to the climate crisis, including on waste.

The Tom Ford Plastic Innovation Prize is a global competition focused on catalyzing scalable and biologically degradable alternatives to thin-film plastic polybags.

Breakthrough Energy was created by Bill Gates and a coalition of private investors to support net-zero innovations, including materials. The aim is to scale innovations and bring together governments, research institutions, private companies and investors to expand and enhance investments in carbon neutral materials.

Ideation

Finnish innovation fund [Sitra](#) is an accountable and independent future-oriented fund that is active both nationally and internationally. Sitra is seeking to accelerate the development of circular economy solutions in Finland and globally.

[PACE](#) is a global collaboration platform for key public and private decision makers to share a vision and best practices, and to scale the circular economy.

The [SINE Foundation](#) is a think-and-do tank offering solutions for data sharing, including on the circular economy.

The [SWITCH Programme](#) aims to support micro, small and medium-sized suppliers in developing countries in the value chains of large EU manufacturers and buyers to jointly adopt circular economy practices. It is implemented by the United Nations Industrial Development Organization in partnership with Chatham House, Circle Economy and the European Investment Bank.

The [Circular Electronics Partnership](#) unites leaders in tech, consumer goods and waste management to reimagine the value of electrical products and materials using a lifecycle approach, reducing waste from the design stage through product use and recycling.

[Consumers Beyond Waste](#) is a multistakeholder initiative facilitated by the World Economic Forum's Future of Consumption platform. It brings together leading private, public and civil society sector actors committed to empowering consumers to access innovative consumption models at scale that offer aspirational, affordable and more sustainable alternatives to single use.

## Sustainable Fashion

The [Sustainable Apparel Coalition](#) is an alliance in the apparel, footwear and textile industry that works toward sustainable production. It publishes the Higg Index, which enables companies to measure, improve and share their social and environmental performance via a common framework.

[Accelerating Circularity](#) focuses on the after-use phase of textiles. It creates new supply chains and business models to turn textile waste into mainstream raw materials. Textile Exchange is a global nonprofit working toward sustainable production across the fashion and textile industry.

[Fashion for Good](#) offers an innovation platform that connects those working on sustainable innovation with brands, retailers, manufacturers and funders to scale new technologies for the textile industry.

# Data and monitoring, evaluation and accountability

## Data visualization

The [Systems Change Lab](#) has collected and visualized data on key transformations for materials. Its portal provides data on the necessary shifts for the circular economy and industry, and analyzes whether targets are on track.

## Monitoring

The [Global Commons Stewardship Index](#) provides a scorecard on how countries are impacting the Global Commons both within their borders and through imported goods and services.

The [System of Environmental-Economic Accounting \(SEEA\)](#) is a framework that integrates economic and environmental data, including on materials, to provide a more comprehensive and multipurpose view of the interrelationships between the economy and the environment. As of 2021, 90 countries had compiled SEEA accounts.

The [Ellen MacArthur Foundation's Global Commitment 2022](#) collects data and tracks business commitments on plastic pollution. More than 500 organizations—including large fast-moving consumer goods companies like PepsiCo and Nestlé—have committed to ambitious targets for 2025 and are reporting annually on progress. While the commitments are voluntary, the submitted data enables civil society and customers to hold companies accountable.

[Circle Economy](#) is an organization founded in 2011 that aims to empower decision-makers from the public and private sectors to develop and implement circular economy strategies and business models. It regularly publishes a Circularity Gap Report comparing secondary material use to total material use. Together with PACE, Circle Economy also runs the Circular Economy Indicators Coalition, which aims to drive harmonization and increased application of circular indicators.

## Accountability

The [IRP](#) was launched by UNEP in 2007 to build and share knowledge on resource use. The IRP is a science-policy interface comprised of scientists with expertise in resource management issues. It produces reports distilling the latest scientific, technical and

socio-economic findings to inform decision-making on natural resource use. The IRP's flagship report, the Global Resources Outlook, reports to the UN Environment Assembly on trends and impacts of current global resource use and future scenarios every four years.

The [GHG Protocol](#) has published the Corporate Value Chain (Scope 3) Accounting and Reporting Standard, which enables companies to account for Scope 3 emissions that come from outside their own operations. Scope 3 emissions include the sourcing of GHG-intensive raw materials.

The [SBTi](#) requires participating companies to set one or more emissions reduction targets and/or supplier or customer engagement targets that collectively cover at least two-thirds of their total Scope 3 emissions, including emissions from materials.

The [SBTN](#) is a network of organizations developing methods and resources for science-based targets for nature, including the production of biomass.

The [Global Battery Pass](#) is a partnership of 120-plus businesses, governments, academics, industry actors and international and nongovernmental organizations. It aims to ensure that battery production meets social and environmental standards.

At the European level, the [Battery Pass](#) is a consortium of businesses, thinktanks and scientific institutes that are seeking to jointly advance the development of a battery passport based on the EU Battery Regulation.

## Sustainable cities and communities

Transforming cities and communities and making them more sustainable is key to achieving the climate goals of the Paris Agreement. There are fewer nongovernmental initiatives for cities transformation than for the other transformations. The transformation is also mainly being implemented at a subnational level, so global coordination and initiatives have less relevance. However, there are important non-governmental international initiatives in this space, including United Cities and Local Governments, ICLEI, Cities Alliance, C40, Circular Buildings Coalition and Circular Cities Declaration.

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