

**#globalcommons**

**The Opportunity  
of the Commons**



**GLOBAL ENVIRONMENT FACILITY**  
INVESTING IN OUR PLANET





**All life on Earth depends on clean air and water, biodiversity, and healthy forests, land, oceans and a stable climate. These global commons—the ecosystems, biomes and processes that regulate the stability and resilience of the Earth system—are the very foundation of our global economy and modern society. Today, they are facing an all-too familiar tragedy of over-exploitation and rapid degradation.**

# A Defining Moment

We stand at a defining moment for the future of the planet and human well-being. The Global Commons—the ecosystems, biomes and processes that regulate the stability and resilience of the Earth system—are being stretched to breaking point.

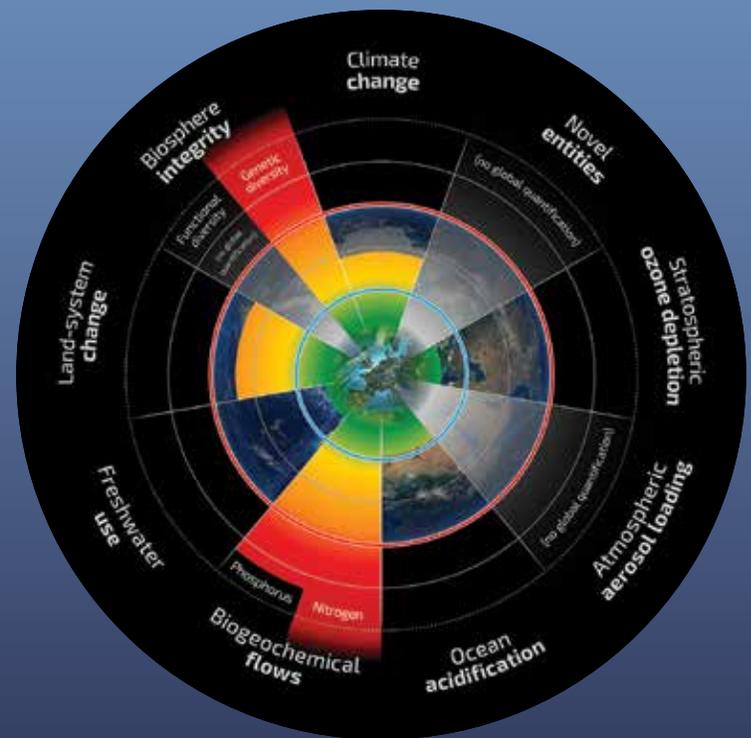
Scientists warn that the “planetary boundaries”, that have ensured the stable conditions that have enabled all civilizations to form and prosper over the last 11,000 years are being strained, and in some cases, exceeded. Indeed, they add, we have forced our way out of the Holocene geological epoch—the only one known to be able to support a growing world population of 7.4 million—to begin a new one, the Anthropocene.

## Johan Rockström, Executive Director Stockholm Resilience Centre

*Goodbye Forever, Friendly Holocene*

“It is time to re-evaluate our economic and political models for the Anthropocene. The starting point must be our very notion of the global commons... Industrial societies now wield astonishing power. Earth’s future is in the balance and we must handle it with care and respect.”

Several of the planetary boundaries have already been breached. These include; biodiversity, now being lost at a rate unprecedented in the last 65 million years; land use change, where nearly a third of forest cover has been cleared worldwide and almost a quarter of the total land area under human use is being degraded; and climate, where atmospheric concentration of carbon dioxide now exceeds 400 parts per million, their highest level in 800,000 years. Meanwhile the greenhouse gas is also acidifying the oceans, changing their chemistry faster than at any point in perhaps 300 million years.



Source: Steffen et al. 2015. Planetary Boundaries: Guiding human development on a changing planet. Science Vol. 347 no. 6223

# Changing Risk Perceptions

It is increasingly being recognized that a deteriorating global environment poses significant risks to prospects for future economic growth and development. In the World Economic Forum's 2017 Global Risk report, environment-related risks feature among

the top-ranked global risks. Specifically, four of the top five perceived risks in terms of impact identified in this year's Risk Report were environmental risks. Ten years ago, none of the top five risks were an environment risk.

## **Christiana Figueres, Former Executive Secretary of the UNFCCC, Convener, Mission 2020**

*Why 2020 is a Critical Milestone on Our Journey to a Climate-Safe World*

“*We are at a precarious point for the fate of the global commons. Our actions on climate protection over the next few years will determine whether we continue on a path of exponentially growing national disasters, or pivot onto a path toward a safer, more prosperous world.*”

## **Dominic Waughray, Head of Public-Private Partnership, Member of the Executive Committee, WEF**

*Three Wicked Problems of the Commons*

“*Someone will have to do all this, and soon, or these wicked problems will come home to roost, and we will never properly address the competing challenges of managing our global commons and ensuring needed economic development. Then, as ever, it is likely to be the poorest people who will lose out.*”

## **Keith Tuffley, Managing Partner and CEO, the B Team**

*Business is on Thin Ice—As I Found in an Antarctic Crevasse*

“*We need many corporate champions to save our ice—and thus our precious planet and humanity itself. This is the private sector's moment in history to act, mobilize and bring solutions.*”

# Changing Global Risk Perceptions: From Economic and Social to Environmental

## Top 5 Global Risks in Terms of Likelihood

	2007	2012	2017
1st	Breakdown of critical Information Infrastructure	Severe income disparity	Extreme weather events
2nd	Chronic disease in developed countries	Chronic fiscal imbalances	Large-scale involuntary migration
3rd	Oil price shock	Rising greenhouse gas emissions	Major natural disasters
4th	China economic hard landing	Cyber attacks	Large-scale terrorist attacks
5th	China economic hard landing	Water supply crises	Massive incident of data fraud/theft

## Top 5 Global Risks in Terms of Impact

	2007	2012	2017
1st	Asset price collapse	Major systemic financial failure	Weapons of mass destruction
2nd	Retrenchment from globalization	Water supply crises	Extreme weather events
3rd	Interstate and civil wars	Food shortage crises	Water crises
4th	Pandemics	Chronic fiscal imbalances	Major natural disasters
5th	Oil price shocks	Extreme volatility in energy and agriculture prices	Failure of climate change mitigation and adaptation



Source: Adapted from WEF (2017). *The Global Risk Report, 12<sup>th</sup> edition*.

# The World is Responding

Up to now, the transition into the Anthropocene—momentous though it is—has been largely ignored, figuring little in public policy or private discourse. Fortunately, there are signs that this is beginning to change.

The Sustainable Development Goals, adopted by the world's governments in the autumn of 2015, are designed to set development and growth on a new track, ending poverty and increasing prosperity, while safeguarding the global commons. So is the Paris climate agreement, struck the following December, which aims to bring net emissions of greenhouse gases down to zero in the second half of the century. Countries will submit updated climate plans—called nationally determined contributions (NDCs)—every five years, thereby steadily increasing their ambition in the long-term.

Multi-Stakeholder sustainability platforms have also proliferated in recent years, including the Bonn Challenge—which brings together 40 countries, the private sector and civil society around commitments to restore around 150 million hectares of degraded land—and RE100, an energy-related collaborative, global platform in which leading businesses are encouraged to set a public goal to procure 100% of their electricity from renewable sources of energy by a specified year. Other initiatives focusing on delivering concrete action in specific areas include The Tropical Forest Alliance 2020 (TFA 2020), the Trash Free Seas Alliance, and C40, a network of the world's megacities committed to addressing climate change. This momentum reflects a growing recognition from business of the economic opportunities that exist.

## **Peter Bakker, President, World Business Council for Sustainable Development**

*A Wealth of Opportunities*

“*Business is in a unique position to observe and intervene in many issues facing the global commons — from reducing emissions and addressing climate change, to stopping ocean pollution and fixing broken food systems. Across the world, companies are stepping up to meet the challenge.*”

## **Mark Malloch-Brown, Chair of the Business and Sustainable Development Commission**

*Transforming Globalisation*

“*What we need—and urgently—is a radical shift in perception by the private sector to view the global goals as the greatest economic opportunity any generation has had, rather than a burden and constraint to growth.*”

# The Global Environment— A Foundation for the SDGs



**Nebojsa Nakicenovic, Deputy Director General/Deputy Chief Executive Officer, and  
Caroline Zimm, Research Assistant, Transitions to New Technologies, IIASA**

*Leave No SDG Behind*

“Jointly implementing all the SDGs would contribute both to further human development and to safeguarding the commons and the stability of the Earth systems. Importantly, joint implementation that avoids silo-type thinking would be cheaper and faster than tackling them separately.”

# A Radical Transformation of Key Economic Systems is Required

Despite the progress made, incremental steps will not suffice. The only hope lies in transformational—and permanent—change.

To stay within the planetary boundaries, a radical transformation of key economic systems will be required to significantly reduce their environmental footprint.

Four systems are of particular importance: the food system, the energy system, the urban system, and the global production/consumption system, where the current

“take-make-waste” model has nearly quadrupled global waste creation since 1970. A transformation of these four economic systems can change the course of the planet, and safeguard the health of the global commons.

The necessity of making our societies and economies more sustainable and less inequitable is not just to avoid disaster, but to build lasting prosperity. Operating within planetary boundaries is not just the only way to ensure healthy economies, but has the potential to provide much greater and better-shared growth. **That’s the opportunity of the commons.**

## **Andrew Steer, President and CEO, World Resources Institute**

*Taming Bigfoot*

“*Four revolutionary shifts in social and economic life are needed to tame Bigfoot-style economic impacts and safeguard the global commons: transforming cities, re-thinking food and agriculture, decarbonizing energy systems, and transitioning from linear approaches to production, design, use and disposal of materials to circular economic models.*”

## **Inger Andersen, Director General, IUCN**

*The Natural Way Forward*

“*Despite such tremendous forces of transformation as climate change and dramatic socioeconomic inequality, there are credible and accessible political, economic, cultural and technological choices that can promote general welfare in ways that support and even enhance our planet’s natural assets.*”



## *The Food System*

The world will require about 70% increase in food production to meet dietary demands from a world population of nine to ten billion by 2050. Producing sustainable food while dealing with land use and degradation will be essential. A concentrated focus on global commodities with a significant deforestation footprint, on food security goals in areas of rapid agriculture expansion, restoration of fisheries, and to a certain extent, expanded efforts on land restoration, will contribute significant environmental gains while reversing the negative effects of land and coastal habitat degradation.



## *The Energy System*

Decarbonization of the global energy system is of critical importance for a 1.5–2 °C future global temperature increase, in line with the Paris Agreement. The energy system represents 68 percent of global GHG emissions, and despite recent improvements only 23 percent of energy is provided by renewables today; and 1 billion people still lack access to electricity. By 2040 energy demand is projected to increase by 30 percent. In the face of these trends, deployment of renewable energy needs to accelerate sharply, as do energy efficiency improvements, all while increased energy demand—including from what is needed to close the electricity gap, especially in Sub-Saharan Africa and South Asia—is being met.



## *The Urban System*

In the next 15 years, 70% of new infrastructure to be built will take place in urban areas. Currently, cities emit more than 70% of global GHGs and are also particularly vulnerable to climate change (rising sea levels, storms, floods, heat waves). Low-carbon and resilient infrastructure could make a significant contribution to the global reduction of GHG emissions while enhancing urban development. Such investments could generate annual GHG savings of 3.7 Gt by 2030; a significant share (perhaps 15%- to 20%) of the overall contributions to the Paris Agreement. Also, low carbon infrastructure—particularly in the buildings efficiency, public transportation and waste management sectors—could save cities an estimated US\$17 trillion globally by 2050.



## *The Production/ Consumption System*

Today's economies are dominated by linear approaches to the way products are manufactured, used and disposed of, which means we extract natural resources, process them into products and packaging, and sell the products to consumers who ultimately dispose of them in the trash. In the last four decades, global materials use has tripled, from 23.7 billion tonnes in 1970 to 70.1 billion tonnes in 2010. What results from our linear "take-make-waste" industrial production and consumption systems is immensely unsustainable material resource use and productivity waste that are leading to widespread degradation and accumulation of waste and toxic materials in the environment.

# Building a Movement for the Global Commons



In October 2016, over 200 leading environment, development and system design thinkers met in Washington, DC to discuss how mobilization of leadership, technology, science, innovation and communication can help bring about the transformation in economic systems that the planet needs.

The participants came together around a “shared purpose” included in a summary of key “principles” (see page 10).

The Dialogue was convened by the Global Environment Facility (GEF) and the International Union for the Conservation of Nature (IUCN), in partnership with the International Institute for Applied Systems Analysis (IIASA), the Stockholm Resilience Centre (SRC), the World Resources Institute (WRI) and the World Economic Forum (WEF) Environmental Systems Initiative.

This booklet includes quotes from each of the partners and other participants. They are taken from a series of articles in the online Guardian newspaper, where senior figures are exploring the state of the commons and how to address it.

The articles, and other contributions from well-known leaders in the sustainable development community, are featured in a special “GEF Partner Zone” as part of the paper’s Development 2030 Campaign. It can be found online at

<https://www.theguardian.com/the-gef-partner-zone>

The October dialogue and online series is just the beginning of what promises to be a vigorous, authoritative—yet constructive debate about one of the defining issues of our time.

## **For more information**

<http://www.thegef.org/events/our-global-commons-international-dialogue>

<http://globalcommons.earth/>

**Naoko Ishii, CEO and Chairperson, GEF**

*Safeguarding the Global Commons is the Wisest Investment We Can Make*

“ *Operating within the planetary boundaries is not just the only way to ensure healthy economies, but has the potential to provide much greater and better shared growth than sticking to business as usual. Safeguarding and enhancing the global commons is therefore the wisest investment we can possibly make.* ”

**Mary Robinson, President, Mary Robinson Foundation—Climate Justice**

*Climate Change Isn't Fair*

“ *We are custodians of our planet, a global commons that, by 2050, will be home to some 9 billion people. It is our duty to live in such a way that the precious, life sustaining environment which keeps us is passed to future generations in at least as healthy a state as we received it from those before us.* ”

**Nicholas Stern, Chair, Grantham Research Institute on Climate Change and the Environment at London School of Economics and Political Science; President, British Academy  
Naoko Ishii, CEO and Chairperson, GEF**

*Only Green Growth Can Bring Prosperity*

“ *The agenda that preserves our global commons is also the only sustainable route to growth and poverty reduction. But action with real pace and scale is urgent: the window of opportunity is narrow. The decisions we make over the next 15 years will determine what kind of world we will have for the rest of the century.* ”

**Erik Solheim, Executive Director, UN Environment**

*The Care Horizon*

“ *The answer to the tragedy of the commons is the answer to how we bring it within this horizon. We are smart enough, and have resources aplenty to solve our problems. We need the will and motivation—personal and political—to do it. For that to happen, we need to make an appeal within the care horizon.* ”

# Movement for the Global Commons

## Statement of Principles

### Our Lessons from Science

Life on Earth as we know it depends on what all humans share: a stable climate, healthy oceans, and the species, ecosystems, biomes and processes that provide the stability and resilience of the planet.

This is the Global Commons. For the past 10,000 years, the Global Commons has served as the foundation for dramatic growth in agriculture, cities, economies and cultures—in short, for civilization to emerge.

The prospects for sustainable development rest squarely on the integrity of the Global Commons, which is now being compromised.

The message from science is clear: humans are pushing the global commons to the limits of their coping capacity. We are facing a tragedy of the commons on a profound, global scale that only we can overcome.

### Our Shared Purpose

At this critical juncture for the survival of the diversity of life on earth and the systems upon which humanity depends, we are catalyzing a movement to defend, enhance and sustain our Global Commons through:

- protecting the diversity of life on earth;
- developing innovative solutions that reflect the interdependence of all systems, including food, urban, energy, production and consumption, freshwater and oceans;
- engaging broadly, from communities to corporations to cabinets.

Because never before have we understood our place in the Global Commons as we do now; never before have we had the tools, knowledge and creativity that we do now; and never before have we had the shared purpose and will to act that we have now.

And because never again, will we have the opportunity.

### Our resolve to achieve systems-level change

While time is short and the risks immense, the goal of a diverse, stable and prosperous planet is still within reach if we act now with a boldness that matches the unprecedented scale of the challenge.

With the Sustainable Development Goals and the Paris Climate Agreement, the world's nations have provided momentum and direction that must be seized.

But incremental progress will not be enough. Only with disruptive, systems-level change can we hope to get on the right path. Our focus should be a complete overhaul of key economic systems and development pathways:

- Our food system must be dramatically reshaped in a way that enables it to meet a 60–70 percent increase in global calorie demand—from aquatic and land-based sources—by 2050 while at the same time dramatically shrinking its footprint on the global environment.
- The world's cities to a significant degree hold the keys to success for the global commons. The coming decades will see a sharp burst in cities' growth. This is a once-in-a-lifetime opportunity to create the compact, connected and coordinated cities that the future requires.
- Decarbonizing the world's energy systems is a *sine-qua-non*. Recent data suggesting that global energy-related GHG emissions have plateaued despite continued economic growth are welcome, but the underlying power demand is still on the rise, and we are still a long way away from a radical shift towards a carbon-free energy system.
- The move from a “take-make-waste” to a circular economy must be radically accelerated. Today's linear approach to production, consumption and disposal of products is highly resource inefficient.

For each, we must continue to develop a compelling story about needs and opportunities for the Global Commons and work with those who can amplify the message; we must help unleash and leverage technology, and we must build and support emerging coalitions for change both from the bottom-up and the top-down.

### Our mutual and individual roles

Only a broad and truly diverse movement can solve the problem of the Global Commons. No individual, organization, business or nation can succeed on her own. We must all play our part to catalyze change and build the movement. Some are champions who delivers the message, engage, excite, and help build momentum. Others are drivers who brings the evidence forward and point toward scalable solutions. Enablers provide the financing, the policy frameworks, and the necessary technical support. And conveners create the platforms for dialogue, facilitates discussion, and bring in new actors.

Our bottom line for safeguarding the Global Commons is the following: It is urgent, it is needed for people and planet, and the world will be so much better for it—so let's get on with it!

***We invite all to join and contribute.***

# Thought Leaders on the Global Commons

The following articles appear in the GEF-Guardian Partner Zone:

- **Inger Andersen, Director General, IUCN**  
*The Natural Way Forward*
- **Peter Bakker, President, World Business Council for Sustainable Development**  
*A Wealth of Opportunities*
- **Sharan Burrow, General Secretary, International Trade Union Confederation**  
*Sustainability Must Create Good Jobs*
- **Kathy Calvin, President and CEO, UN Foundation**  
*Making Change Decisive*
- **Juan Carlos Castilla-Rubio, Chairman, Space Time Ventures and Carlos Nobre, Member, UN Scientific Advisory Board for Global Sustainability**  
*The Amazon's New Industrial Revolution*
- **Daniel C. Esty, Hillhouse Professor of Environmental Law and Policy, Yale University; Co-author Green to Gold**  
*Climate Action Needs Green, Not Just Red Lights*
- **Christiana Figueres, Former Executive Secretary of the UNFCCC, Convener, Mission 2020**  
*Why 2020 is a Critical Milestone On Our Journey to a Climate-Safe World*
- **Rupert Howes, CEO, The Marine Stewardship Council**  
*Labelling Seafood Can Help End Overfishing in 30 Months*
- **Naoko Ishii, CEO and Chairperson, GEF**  
*Safeguarding the Global Commons is the Wisest Investment We Can Make*
- **Mary Ellen Iskenderian, President and CEO, Women's World Banking**  
*Give Women Credit and Meet the Global Goals*
- **Jeremy Jackson, Senior Scientist Emeritus, Smithsonian Institution, Professor Emeritus, Scripps Institution of Oceanography**  
*We Only Have 20 Years to Save the Oceans*
- **Yolanda Kakabadse, President, WWF International**  
*Turning the Tide on Ocean Degradation*
- **Homi Kharas, Deputy Director, Global Economy and Development Programme, Brookings Institute**  
*Middle Class Prosperity Can Save the Planet*
- **Thomas Lovejoy, Professor of Environmental Science and Policy, George Mason University**  
*Crossing the Living Boundary*
- **Mark Malloch-Brown, Chair of the Business and Sustainable Development Commission**  
*Transforming Globalisation*
- **Nebojsa Nakicenovic, Deputy Director General/Deputy Chief Executive Officer, and Caroline Zimm, Research Assistant, Transitions to New Technologies, IIASA**  
*Leave No SDG Behind*
- **Jeremy Oppenheim, Programme Director, Business and Sustainable Development Commission**  
*Prosperity that Preserves the Planet*
- **Rolph Payet, Executive Secretary, Basel, Rotterdam, and Stockholm Conventions**  
*Waste Not, Want Not*
- **Kate Raworth, Author, Doughnut Economics**  
*How to Tell If a Company Really Protects the Global Commons*
- **N.H. Ravindranath, Professor, Indian Institute of Science, Bangalore**  
*Losing Ground in a Warmer World*
- **Mary Robinson, President, Mary Robinson Foundation—Climate Justice**  
*Climate Change Isn't Fair*
- **Johan Rockström, Executive Director, Stockholm Resilience Centre**  
*Goodbye Forever, Friendly Holocene*
- **Erik Solheim, Executive Director, UN Environment**  
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*Taming Bigfoot*
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*Only Green Growth Can Bring Prosperity*
- **Pavan Sukhdev, Founder, GIST Advisory**  
*Embracing the SDGs' Complexity*
- **Nigel Topping, CEO, We Mean Business**  
*Just Managing*
- **Keith Tuffley, Managing Partner and CEO, the B Team**  
*Business is on Thin Ice—As I Found in an Antarctic Crevasse*
- **Dominic Waughray, Head of Public-Private Partnership, Member of the Executive Committee, WEF**  
*Three Wicked Problems of the Commons*
- **Park Won-soon, Mayor of Seoul and President of ICLEI Local Governments for Sustainability**  
*Achieving the Urban Dream*
- **Elizabeth Yee, Vice-President, City Solutions, 100 Resilient Cities**  
*Cities Must Embrace Nature to Survive*





## About the GEF

The Global Environment Facility (GEF) was established on the eve of the 1992 Rio Earth Summit to help tackle our planet's most pressing environmental problems. Since then, the GEF has provided \$14.6 billion in grants and mobilized an additional \$74.3 billion in financing for more than 4,000 projects. Today, the GEF is an international partnership of 183 countries, international institutions, civil society organizations and the private sector that addresses global environmental issues.

The GEF's 18 implementing partners are Asian Development Bank (ADB), African Development Bank (AfDB), Development Bank of Latin America (CAF), Conservation International (CI), Development Bank of Southern Africa (DBSA), European Bank for Reconstruction and Development (EBRD), Foreign Economic Cooperation Office—Ministry of Environmental Protection of China (FECO), Food and Agriculture Organization of the United Nations (FAO), Fundo Brasileiro para a Biodiversidade (FUNBIO), Inter-American Development Bank (IDB), International Fund for Agricultural Development (IFAD), International Union for Conservation of Nature (IUCN), United Nations Development Programme (UNDP), United Nations Environment Programme (UNEP), United Nations Industrial Development Organization (UNIDO), West African Development Bank (BOAD), World Bank Group (WBG) and World Wildlife Fund U.S. (WWF-US).

[www.thegef.org](http://www.thegef.org)  
[www.globalcommons.earth](http://www.globalcommons.earth)

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