



VOICES FOR A LIVING PLANET

SPECIAL EDITION LIVING PLANET REPORT 2020



WWF

WWF is one of the world's largest and most experienced independent conservation organizations, with over 5 million supporters and a global network active in more than 100 countries. WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature, by conserving the world's biological diversity, ensuring that the use of renewable natural resources is sustainable, and promoting the reduction of pollution and wasteful consumption.

Citation

WWF (2020) *Voices for a Living Planet* -
Living Planet Report 2020 special edition.
Grooten, M. Dillingh, S. and Petersen, T. (Eds).
WWF, Gland Switzerland.

Design and infographics by: peer&dedigitalesupermarkt

Cover photograph: © Chris Ratcliffe / WWF-UK

June 26, 2019: School children write messages on cloth ribbons at the WWF area in the schools and youth zone in Westminster, London on June 26, 2019. People from around the UK met face-to-face with their MP's to demand urgent action to tackle the climate and nature crisis.

ISBN 9789074595261

Living Planet Report®
and *Living Planet Index*®
are registered trademarks
of WWF International.

CONTENTS

| | | |
|--|--------------|---|
| VOICES TO INSPIRE TRANSFORMATIONAL CHANGE | Introduction | 4 |
|--|--------------|---|

| | | |
|-----------------------------|---------------------------|---|
| A LIFE ON OUR PLANET | By Sir David Attenborough | 6 |
|-----------------------------|---------------------------|---|

| | | |
|---|--|---|
| 1. TRANSFORMING OUR RELATIONSHIP WITH NATURE | | 8 |
|---|--|---|

| | |
|--|----|
| Kiundu Waweru: <i>To conquer the future, we must take the river back to its course</i> | 10 |
| Johan Rockström and Lila Warszawski: <i>Global pandemic writes a prescription for planetary health</i> | 12 |
| Hartmut Rosa: <i>On being alive: The resonance vision of the common good</i> | 14 |
| Sara Constantino: <i>Awakening, change and connection</i> | 16 |
| Klaas van Egmond: <i>The need for a common moral framework</i> | 18 |
| Theunis Piersma: <i>Voices of a living planet: migratory shorebirds as sentinels of a rapidly changing Earth</i> | 20 |
| Mathis Wackernagel: <i>Lessons from the coronavirus?</i> | 22 |

| | | |
|--|--|----|
| 2. TRANSFORMING BUSINESS AND ECONOMIC SYSTEMS | | 24 |
|--|--|----|

| | |
|--|----|
| Cass R. Sunstein: <i>Automatically Green</i> | 26 |
| Pablo Tittonnell: <i>Agroecology can save our future food</i> | 28 |
| Mariuz Calvet: <i>Redefining the role of banking in society</i> | 30 |
| Liu Shijin: <i>Two pillars of green transformation: Green accounting and technology innovation</i> | 32 |
| Anthony Mynt: <i>The next normal: a table-to-farm movement rooted in healthy soil</i> | 34 |
| David Shelmerdine: <i>To my grandkids</i> | 36 |
| Elena Abrosimova: <i>The Key to the World's Recovery is a Transition to the Green Economy</i> | 38 |
| Duncan Pollard: <i>A new mindset for business</i> | 40 |

| | | |
|--|--|----|
| 3. TRANSFORMING POLICIES AND GOVERNANCE | | 42 |
|--|--|----|

| | |
|---|----|
| Kanyinke Sena: <i>Recognising Indigenous people' land interests critical for people and nature</i> | 44 |
| Ingrid Robeyns: <i>Rising up: Citizens must unite and act!</i> | 46 |
| Nana Afadzinu: <i>Can civil society help build a fair and just society for people and nature? Thoughts from West Africa</i> | 48 |
| Sheela Patel & Deon Nel: <i>Building inclusive and resilient societies in unpredictable times</i> | 50 |
| David R. Boyd: <i>The human right to a healthy biosphere</i> | 52 |

Editor in Chief

Monique Grooten

Editorial team

Rosamunde Almond, Savriel Dillingh, Tanya Petersen

Authors

David Attenborough, David R. Boyd (University of British Columbia), David Shelmerdine (Climate works), Deon Nel (Global Resilience Partnership), Duncan Pollard (Duncan Pollard and Associates), Elena Abrosimova (Moscow State University), Hartmut Rosa (University of Jena), Ingrid Robeyns (University Utrecht), Johan Rockström (Potsdam Climate Institute), Kanyinke Sena (IPACC network Africa), Kiundu Waweru (Earth Journalism Network), Klaas van Egmond (www.klaasvanegmond.nl), Lila Warszawski (Potsdam Climate Institute), Liu Shijin (China Council for International Cooperation on Environment and Development, CCICED), Mathis Wackernagel (Global Footprint Network), Nana Afadzinu (West Africa Civil Society Institute, WACSI), Pablo Tittone (University of Groningen, CONICET-INTA), Sara Constantino (Give Power Foundation), Sheela Patel (Slum Dwellers International), Theunis Piersma (University Groningen)

LPR 2020 steering group

João Campari (WWF int), Kavita Prakash-Mani (WWF int), Lin Li (WWF int), Luis German Naranjo (WWF Colombia), Margaret Kuhlow (WWF int), Marieke Harteveld (WWF int), Mike Barrett (WWF UK), Rebecca Shaw (WWF int), Winnie De'Ath (WWF int)

Special thanks for review and support

Barney Jeffries, Colin Butfield (WWF UK), Cristianne Close (WWF int), Danielle Klinge (WWF NL), Delfin JR Ganapin (WWF int), Elaine Geyer-Allély (WWF int), Elizabeth Aceituno (WWF int), Fernando Suarez Muller (University of Humanistics Utrecht), Jorge Rickards (WWF Mexico), Katie Gough (WWF int), Kirsten Schuyt (WWF NL), Jorge Rickards (WWF Mexico), Samantha Putt del Pino (WWF int), Sophie Ledger (ZSL), Tarsicio Granizo (WWF Ecuador), Victoria Elias (WWF Russia), Yury Sochnev (WWF Russia)

VOICES FOR A LIVING PLANET

SPECIAL EDITION LIVING PLANET REPORT 2020

VOICES TO INSPIRE TRANSFORMATIONAL CHANGE

The *Living Planet Report 2020* is being published at a time of global upheaval, yet its key message is something that has not changed in decades: nature — our life-support system — is declining at a staggering rate. The report shows that the health of people and that of our planet are increasingly intertwined; the devastating forest fires of the past year and the ongoing COVID-19 pandemic have made this undeniable.

The Bending the Curve modelling tells us that, with transformational change, we can turn the tide of biodiversity loss. It is easy to talk about transformational change, but how will we, living in our complex, highly connected modern society, make it a reality? We know that it will take a global, collective effort; that increased conservation efforts are key along with changes in how we produce and consume our food. Citizens, governments and business leaders around the globe will need to be part of a never seen before transformational movement of change.

As an editorial team, we are passionate about making our own contribution to this movement, creating this Voices platform to explore what transformation might mean. We have reached out to thinkers and practitioners from around the globe and invited them to share their views on how to bend curves for a healthy planet for people and nature.

The variety of views are as diverse as those who have contributed. Some have taken a values-based approach, arguing that humans need to re-evaluate their relationship with nature. Others have opted to petition for change in international rights and collaborations, or the reinforcement of green technology. Some call for practical action, for example by making green consumer choices the default, using green finance principles for investment or for citizens to reclaim their voices and vote to be part of the change. Still others reflect on the need for more international collaboration on managing our commons, advocate that living in a healthy biosphere is a basic human right and recognising the rights of indigenous people are key in upcoming negotiations and agreements.

Sir David Attenborough opens the collection of essays. He describes his new film and book *A Life on our Planet* as his witness statement, a reflection of a life in service of the magnificence, the beauty, the fragility and the resilience of our natural world and the challenge that lies in front of us: to take better care of our home in the interest of all species, including ourselves.

Voices for a Living Planet is a supplement complementing the *Living Planet Report 2020*. It reflects a diversity of voices from all over the globe and is meant as a starting point for a hopeful conversation, to provide food for thought and inspire solutions for a future in which people and nature can thrive. We hope it will inspire you to be part of the change.

A LIFE ON OUR PLANET By Sir David Attenborough

David Attenborough's work includes iconic productions, from the ground-breaking Zoo Quest series to landmarks including Life on Earth, The Living Planet, Planet Earth and Our Planet. His latest contribution is A Life on Our Planet, a feature documentary which he describes as his 'witness statement'.



I am quite literally from another age. I was born during the Holocene- the name given to the 10,000-year period of climatic stability that allowed humans to settle, farm and create civilisations.

Those conditions fostered our unique minds, giving rise to international trade in ideas as well as goods, making us the globally-connected species we are today.

Multinational businesses, international co-operation and the striving for higher ideals are all possible because for millennia, on a global scale, nature has largely been predictable and stable.

This stable natural world abounded with a wonderful array of plants and animals. As Charles Darwin famously revealed, all species have evolved over time to best exploit the conditions in which they live. He further realised that these conditions are not simply those of geography and climate but also their relationship to other life that lives alongside.

From the delicate co-dependencies of bees and orchids to the dramatic connection between cheetah and gazelle..... all life on Earth is both product and contributor to its place in space and time.

Whilst Darwin's insights explain how this web came about and why the Holocene had such abundance, over 200 years later we are still only beginning to understand its interconnections and which of these connections are most vital. Yet we are breaking those connections at ever greater speed.

Indeed whilst I am among a dwindling number of people who can say they were born in the Holocene, I will die in a quite different geological age. The Anthropocene -the Age when humans dominated the earth. The age when innumerable natural connections were broken.

In geological terms the Anthropocene epoch is signified by a change in what is laid down in the rocks. A clear dividing point where the markers of profound and global human impact can be identified.

But in human terms we are yet to discover what the Anthropocene will mean.

Whilst we have left the benign conditions of the Holocene it is not yet beyond us to create a new stable state. The Anthropocene could be the moment we achieve a balance with the rest of the natural world and become stewards of our planet.

Doing so will require systemic shifts in how we produce food, create energy, manage our oceans and use materials. But above all it will require a change in perspective. A change from viewing nature as something that's optional or 'nice to have' to the single greatest ally we have in restoring balance to our world.

Rather than long for the Holocene our best tactic may be to embrace the Anthropocene. To recognise that if we have become powerful enough to change the entire planet then we are powerful enough to moderate our impact- to work with nature rather than against it.

The same unique brains and communication skills that fuelled the development of our civilisations now have access to technologies and institutions that allow all nations of the world to collaborate and cooperate should we choose to do so.

Under the auspices of the United Nations, representatives will soon negotiate agreements setting out each nation's role in tackling climate change, enabling sustainable development and restoring biodiversity. If these noble aims are to succeed in fostering a stable Anthropocene we must view ourselves as a global species and be willing to cooperate.

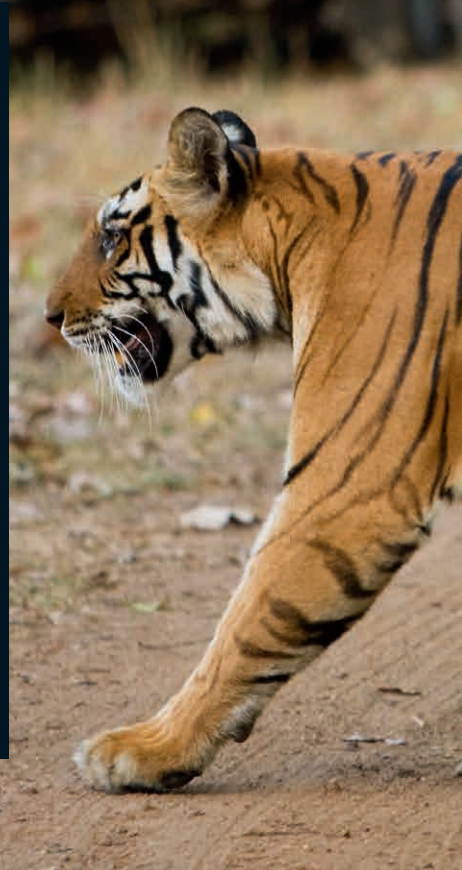
That cooperation sometimes requires making allowances and coming to agreements. The time for pure national interests has passed, internationalism has to be our approach and in doing so bring about a greater equality between what nations take from the world and what they give back. The wealthier nations have taken a lot and the time has now come to give.

CHAPTER 1

TRANSFORMING OUR RELATIONSHIP WITH NATURE

As we approach the big challenges of our time, one thing is for certain: We cannot pretend any longer that we humans are separate from nature – we are part of it. Nature is not ours to deplete or destroy. We simply cannot continue taking without giving back. To thrive, indeed even to survive as a species, we thoroughly need to revalue our relationship with nature.

Bengal tiger (*Panthera tigris tigris*) crossing road in front of watching tourists, Bandhavgarh NP, Madhya Pradesh, India.





TO CONQUER THE FUTURE, WE MUST TAKE THE RIVER BACK TO ITS COURSE

By Kiundu Waweru

Kiundu Waweru is a features writer who believes in humanizing the science story. He is a media trainer and manages East African media coverage of conservation and wildlife at Internews Earth Journalism Network.



I was fortunate to be born when my great-grandmother was still alive, to enjoy her storytelling, before death took her aged over a hundred. Her son, my grandpa, also lived to a hundred years. I took every opportunity to learn from their stories of ogres, heroes and heroines.

These stories had one recurring theme: land. Whether about an ogre, or a 'small person' who must conquer the giant, the setting of the story – told in a gripping tone inside a semi-lit, smoke-filled room – would be a thick cool forest with all sorts of animals, from chirping birds to snakes basking on stones, and elephants sharing a drink with other animals at the pool. The people in the stories cared deeply for their land and they feared cattle raiders more than the wildlife that was ever present.

Even the story of my people's origins, passed orally down the generations, has the backdrop of the omnipresent and nature. The God of my people, the *Agikuyu* of central Kenya, *Ngai* or *Mwene Nyaga* lived in *Kirinyaga*. The folklore has it that this snow-capped mountain resembled Nyaga, an ostrich, with its black plumage and a white tail. But explorers could not pronounce *Kirinyaga*. It became Kinyaa, and later Mount Kenya. Nature had given this country, known for its diverse wildlife and rich soils, a name.

This oral history would influence the first Kenyan sons and daughters to get western schooling. And, with the traditions of their forefathers, land featured as a big theme in the writings of authors like Ngugi wa Thiong'o in his 1965 book, *The River Between*. The first Kenyan president, Mzee Jomo Kenyatta, in 1938 published *Facing Mt. Kenya*. Many years later, a young paediatrician, Margaret Ogola, would pen a book with an historical account of four generations of women from her Luo community entitled *The River and the Source*, and most recently, Peter Kimani told the history of this country through the highly acclaimed *Dance of the Jakaranda*. But, somewhere, we lost it. The art of storytelling to connect people's hearts with nature.

We have instead told the stories from boardrooms and international conventions, ignoring the local voice, forgetting the indigenous peoples, who, like the Mijikenda of Kenya's coast, have kept their ancestor's truth in looking after their forests, *Kayas*, by simply believing they are sacred.

In 2020, nature has looked inward and used the mistreatment of biodiversity to unleash a lethal virus. As nature takes a breather, forcing us all back to our homes and families, media must rethink. Politics, and its attendant hate, and negative news are so last decade. We must look back retrospectively, so that we may be able to conquer the future, which epidemiologists are predicting to be grim, where three in four new infections will be zoonotic, probably worse than COVID- 19.

As my people say, we must take the river back to its course and use our pens and lens to promote the local voices. They know.

“Somehow we have lost it, the art of storytelling to connect people's hearts with nature. Instead we have told the stories from boardrooms and international conventions. We must use our pens and lens to promote the local voices.”

GLOBAL PANDEMIC WRITES A PRESCRIPTION FOR PLANETARY HEALTH

By Johan Rockström and Lila Warszawski

Johan Rockström is Director of Germany's Potsdam Institute for Climate Impact Research and Professor in Earth System Science at the University of Potsdam. He led the development of the Planetary Boundaries framework for human development in the current era of rapid global change. Lila Warszawski is a research analyst at the Potsdam Institute for Climate Impacts Research. Starting out as an astrophysicist, Lila has now spent almost 10 years contributing to research on the global impacts of climate change.



© Thorsten Grieb, PIK

2020 was billed as the “super year” in which the international community, through an historic line-up of climate, biodiversity and sustainable development meetings, had great plans to take the reins of the Anthropocene. Crushed by the coronavirus pandemic, policy, business, civil society and science have been forced to hit the pause button on planet-saving initiatives. Paradoxically, an unexpected goal of the “super year” has been achieved: bending the global curve of greenhouse gas emissions, with an estimated 5-6% reduction compared to 2019. This is not far from the science-based target of cutting global emissions by half each decade from 2020 onwards.



Should we be celebrating? No. Putting a brake on the economy, triggering massive job losses and human misery, cannot be the path towards sustainable development and to reach climate targets. But the pandemic does remind us of the scale of transformation we are talking about if we are going to succeed in continuing human development within the safe operating space of a stable and resilient planet. In fact, if the pandemic only drives home one point, it is that without managing the global commons – from our oceans and air to healthy forests and biodiversity – planetary and universal human health will be unattainable goals.

The interconnectedness of human and planetary health is well established today through the Planetary Health Initiative and other research. The links, for example, between COVID-19 and the climate and nature crises are real. We know that the human degradation of natural habitats, for agriculture and urban expansion, increases the risk of spill-over of animal viruses to humans, reinforced by global warming and pollution. If we want to reduce risks of future pandemics, we must protect natural ecosystems and stabilize the climate. In 2019, just six months before the pandemic, scientists laid out the evidence for declaring a state of planetary emergency, due to the rising risks of triggering irreversible changes to the life-support systems on Earth.

And, while COVID-19 arrived, climate change didn't depart. The science is ever clearer that not only is the worst still to come, but that it could come even sooner and harder than we thought. A recent study predicts that just 30 years from now up to 3 billion people will reside in "virtually unliveable" hot regions, akin to conditions in the Sahara desert, effectively leaving behind the environmental safety that has sustained human civilization over the past 11,000 years.

COVID-19 came as an abrupt shock, yet it is a manifestation of the unsustainable, hyper-connected globalised world of the Anthropocene. We can learn from this abrupt shock by acting more decisively on the creeping threat of shocks from ecosystem collapse and climate instability. In 2021 we need to pick up where the virus left us, and the mobilisation for a resilient post-COVID-19 recovery gives hope. The pandemic has written us a prescription for a paradigm shift to govern the whole system on which our health and prosperity depends. It's a prescription we should make sure that we take.

"Without managing the global commons – from our oceans and air to healthy forests and biodiversity – planetary and universal human health will be unattainable goals."

ON BEING ALIVE: THE RESONANCE VISION OF THE COMMON GOOD

By Hartmut Rosa

Hartmut Rosa is Professor of Sociology at Friedrich-Schiller-University Jena and Director of the Max Weber Centre in Erfurt. He is the author of *Alienation and Acceleration: Towards a Critical Theory of Late-Modern Temporality and of Resonance. A Sociology of Our Relationship to the World.*



The Living Planet: there's a reason WWF chose this title. It invokes a particular sense of connection to the world, or actually, between all things that make up our planet. Whether or not something is alive can be tested by touching it; being alive means being receptive to touch and responding to it in ways that cannot be predicted mechanically. Aliveness is a special form of relationship to one's environment, and my claim is that we can gain a new, and globally viable, conception of the common good when we focus on this form of relationship. A common good for all cannot be expressed in frameworks such as religion, or political programmes. It has to be understood as a relationship.

Such a conception is of vital importance for our planet, for our societies, and for us as human beings, because our current planetary system is on an unhealthy path. Right now, our relationship towards the planet is not one of connection, but of aggression. Aggression towards nature, which we exploit and pollute; aggression towards fellow human beings whom we perceive as political opponents aggression towards our own bodies and psyche, which we seek to constantly improve and optimise.

Normally, it seems impossible to stop the economic motors which drive the wheels of growth, innovation and acceleration. Surprisingly, the emergence of COVID-19 managed to do what seemed to be impossible before: within a few weeks, the giant wheels came to a most significant slowdown, and in some areas even to a halt, as if some powerful brakes had been put on. Global society has reached something of a crossroads: we can either continue on the path of aggression, or we accomplish a paradigm change to a different mode of stabilisation.

I want to call that different mode a resonant mode. Resonance is the type of relationship which characterises us as living organisms. To be resonant with another is to be open and receptive to things that are touching, or voices that are calling us. It is being capable of answering and reaching out to the call or to touch, in a way that is characterised by the knowledge that we are capable of affecting other living beings, and that we affect them in turn. In fact, we are being transformed in this interplay of call/touch and answer, and we exert a transformative influence on the environment, too.

This process is open-ended and uncontrollable: resonance is not a stimulus-response or cause-effect form of relationship. It is a dynamic and creative interplay. This form of relationship can provide the yardstick for a better world beyond the mode of aggression. According to this vision, the common good is realised not when we are in control of our world, but when we are *in resonance with it*: in resonance with nature, in resonance with each other through political institutions, in resonance with history, and in resonance with ourselves. Responding to a living world does not mean to always agree with it – it requires disagreement and struggle, too – but it replaces the closure of aggression with the transformative openness of a responsive listener.

“The common good is realised not when we are in control of our world, but when we are in resonance with it: in resonance with nature, in resonance with each other through political institutions, in resonance with history, and in resonance with ourselves.”

AWAKENING, CHANGE AND CONNECTION

By Sara Constantino

Sara Constantino is a young environmental activist and social media influencer from Colombia, advocating for a sustainable present and restorative future. She works with indigenous communities in their empowerment, and within a growing digital community on sustainable actions around diet, consumption and waste.



Privileged to be born and raised in Colombia, one of the most biodiverse countries in the world, I grew up surrounded by the contrast of unbelievable landscapes and ecosystems, but with few material possessions.

When I was younger, I did not fully understand my, or my country's, richness. I would watch movies and aspire to have cool sneakers, walk through big supermarket aisles of rainbow-coloured candy and sugared cereals, and travel to meet Mickey Mouse or a Disney princess. I was distracted and entertained with all those things that money can buy.

But, through the power of information, I have come to realise how lucky and fortunate I was. I grew up eating fresh fruit, in all shapes, colours and flavours, just harvested from the backyard: guava, pitaya, pineapple, passionfruit and many others I've yet to find a name for. On weekends we would bathe in crystal-clear rivers that flowed near our cities. We would have running water in our homes that came from the closest paramo. Kids would be playing in the garden with flowers, rocks and leaves while birds, insects and squirrels fed on flowers and fruits. Everything we needed and more was there, provided by nature.

Some decades ago, communities that lived in harmony with nature were seen as underdeveloped, and standing up for the Earth's biodiversity was something only a few visionaries did. But times have changed. We are now living the dystopian future once imagined; impacts once predicted are now real.

We live in an era of awakening, change and connection. The science has never been clearer and, more than ever before, we have access to quality information just one click away. Also just a click away is our capacity to connect and mobilise with millions of people from all around the world for causes that are bigger than ourselves. We now understand our real richness: inhabiting the only living planet that, so far, we know of. To maintain the balance and health of our only home we must care for nature as we care for ourselves.

We already know the solutions needed, that we can be a part of, to restore a thriving planet and facts keep accumulating to help us commit to unprecedented, ambitious goals. Technology and access to information helps more children, youths and adults connect and walk together to protect nature, but at the same time, we should not forget there is much to learn from communities that still live the coexistence of humanity and nature every day. They can teach us how to have a reciprocal relationship with the environment that provides for us. For a balanced healthy planet, all that is missing is the determination to improve and flourish side by side with the rest of life on Earth. A future of harmony in between nature and humans is the only possible lasting future.

“We have access to quality information just one click away. Also just a click away is our capacity to connect and mobilise with millions of people from all around the world for causes that are bigger than ourselves.”

THE NEED FOR A COMMON MORAL FRAMEWORK

By Klaas van Egmond

Klaas van Egmond is (Emeritus) Professor on Environmental Sciences and Sustainability at Utrecht University, The Netherlands. Previously, he was director of the Netherlands Environmental Assessment Agency (now PBL).



Until now, innovation and technology have not solved this century's biggest problems: climate change and biodiversity loss. As most future scenarios show, about half the solution has to come from lower material consumption and a stabilisation of the human population. The only way to make these changes, and to build a resilient and healthy planet in an era dominated by humans – the Anthropocene – is a fundamental shift in the mindset of Anthropos, its dominating species.

According to current philosophical thinking, humankind today lacks a moral framework and, as a consequence, we are missing valid notions of what to consider as “progress” and what is of “value”. However, from our cultural and philosophical heritage, together with the practical experiences of history, we can aim to create a renewed moral framework, drawing upon earlier ones, such as the Enlightenment. This could provide a moral compass that questions our current human behaviour from a more fundamental, and more objective, point of view. In a positive sense, it could define the mental framing we need to preserve our living planet. This renewed moral framework will only be possible by restoring the balance of extreme opposing value orientations, the values that constitute “human nature”.

In our time, the first tendency to extreme value orientation surfaces in the battle between public and private interests, that is, between universal, collective values versus particular values, such as individualist, private ones. After the fall of the Berlin Wall in 1989, for example, the fall of communism, as the one extreme, was misused for legitimising radical capitalism on the other. The second battle is the contrast between non-materialist or spiritual values versus materialist ones. This is about the real economy versus the increasing domination of the financial economy.

History appears to be a wandering of society through this pattern. However, this process is very uncontrolled and proceeds from the one extreme to the other, corresponding with disruption and catastrophe. Apparently, the dynamic equilibrium cannot be maintained, which means that mental well-being and even “human happiness” cannot be achieved.

A healthy and resilient planet is only possible by restoring the balance of opposing values, which implies a reconsideration of issues like the appropriation of commons, reducing the power of global private enterprise in favour of sovereign communities, and the reformation of the financial sector by redefining and separating public and private responsibilities. Restoring this balance would also provide a moral legitimisation, from a more objective point of view, for current policies with respect to climate change, halting biodiversity loss and enacting the circular economy.

These notions might be relevant now that the COVID-19 pandemic is provoking a reset of global society as a whole. At the end of the day we might hope that the current situation, in which all these issues have become fluid, will give rise to policies that are dedicated to maintaining an equilibrium in the value orientations which constitute our human nature. It would mean a next step in our civilisation.

“A healthy and resilient planet can only be achieved with a shared, common moral framework that can be derived from global philosophy, culture and history.”

VOICES OF A LIVING PLANET: MIGRATORY SHOREBIRDS AS SENTINELS OF A RAPIDLY CHANGING EARTH

By Theunis Piersma

Founder of the research consortium *Global Flyway Network*, Professor Theunis Piersma is the Rudi Drent Chair in Global Flyway Ecology at the University of Groningen. A contributor to more than 500 scientific publications, in 2014 he received the highest scientific award in the Netherlands, the Spinoza Prize.



© René den Engelsman

One of the engrossing traits of birds is their capacity to fly far and long. In fact, some species connect Earthly hemispheres in both north-south and east-west directions. The migrant birds do this for very good ecological reasons. If we understand these reasons well enough, their seasonal movements and local whereabouts are chock-full of surprising and important information on the state of the habitats that they visit in sequence, habitats that we share with them as humans, or that play crucial roles in maintaining a liveable ecosphere.

Take bar-tailed godwits, long-beaked and long-legged shorebirds, breeding on tundra in the High Arctic. Bar-tailed godwits range from northern Scandinavia in the west to Alaska in the east. The various populations along this longitudinal axis spend the nonbreeding seasons, i.e. most of the year, along coastlines up to 10,000km further south. In these tidal environments they specialise in catching worms and other marine invertebrates during low tide, doubling daily food intake to be very fat, and sufficiently fuelled up, for their nonstop flights in either northward or southward directions.

Perhaps you are thinking, “this was a lot of biological detail for a general message.” Yes, and that is the point. Because we now understand bar-tailed godwits so well, we can greet them as sentinels, as Earth-observers, of connected habitats even in areas pretty much inaccessible to humans. We can do this if we equip them with tiny satellite-transmitters yielding real-time information on their whereabouts.

In this way we discovered that certain bar-tailed godwits schedule their 12,000km nonstop flights from Alaska (where they breed) to New Zealand (where they winter) in ways that superbly account for the low pressure systems across both the northern and southern Pacific Ocean, demonstrating teleconnections that climatologists were not aware of.

In their flight, these birds have also indicated the ecological value of offshore intertidal areas along the Chinese coast, which, as a result, are now considered to be World Heritage areas rather than turned into industrial land. And, with their movements over vast swathes of Eurasian tundra and taiga, some of the most inaccessible parts of the globe that are warming the fastest with large areas burning now, the godwits give us information that satellite technology cannot: spatial information on the ways that the insects of the tundra, key food for the birds, are able to fast-forward their adult-state emergences in summer. In similar ways, the birds’ movements, and the timing of being present somewhere (or not), signal the ecological state of coastal areas.

What has become clear is that the tracking of individual migratory birds can now be developed as voices *of* a living planet! But this coin has another side: with the numbers of many populations of migratory (shore-)birds falling rapidly, bowing to their own grace and value as unique living organisms, they require voices *for* a living planet. Beyond being the harbingers of change, for good or bad, in local environments, the long-distance migrating shorebirds also offer the power to connect habitats, people and good ideas at global scales.

*“Migratory birds like godwits are voices **of** a living planet but with the numbers of many populations falling rapidly, they require voices **for** a living planet”*

LESSONS FROM THE CORONAVIRUS?

By Mathis Wackernagel

Mathis Wackernagel is a Swiss-born, California-based sustainability advocate. He is the President and co-founder of Global Footprint Network, an international think-tank that focuses on developing and promoting metrics for sustainability.



Who would have thought that the world would be transformed by a microscopic being: the human coronavirus 2019. The combined mass of all the COVID-19 viruses on our planet adds up to just a small fraction of a gram – less than a butterfly wing. Yet, COVID-19 has changed everything.

The radical slowdown of the global economy, due to humanity's efforts to contain the spread of the coronavirus, has reduced carbon emissions and resource demand significantly, though at a great human cost.

To be clear: the COVID-induced reduction of humanity's Ecological Footprint is nothing to celebrate. The pandemic, and the policies deployed to tackle it, took us all by surprise. The disruption to business-as-usual was brought by disaster and has led to suffering. This shock cannot be misconstrued as a lasting positive transformation. It is a far cry from the thoughtful and deliberate transition that is needed to address humanity's biggest challenge: the massive ecological imbalance on our planet caused by growing human demand.

In any ecosystem, imbalances unleash counterforces, whether disease, resource constraints or conflict. Humans have typically been skilful at applying their creativity and intellectual prowess to keep such forces under control. Nevertheless, they cannot escape the reality that disturbing the ecological balance comes at the cost of heightened fragility.

Still, COVID-19 teaches us something fundamental: humans are deeply connected. We are *one biology* and our fates are intertwined. My health depends on yours, therefore I have a stake in your well-being. Conversely, protecting myself is the most heroic thing I can do since it protects everybody else. Clearly, COVID action is necessary, not just noble. Everybody recognises that they have “skin in the game” and everybody’s own success depends on them participating in tackling the problem.

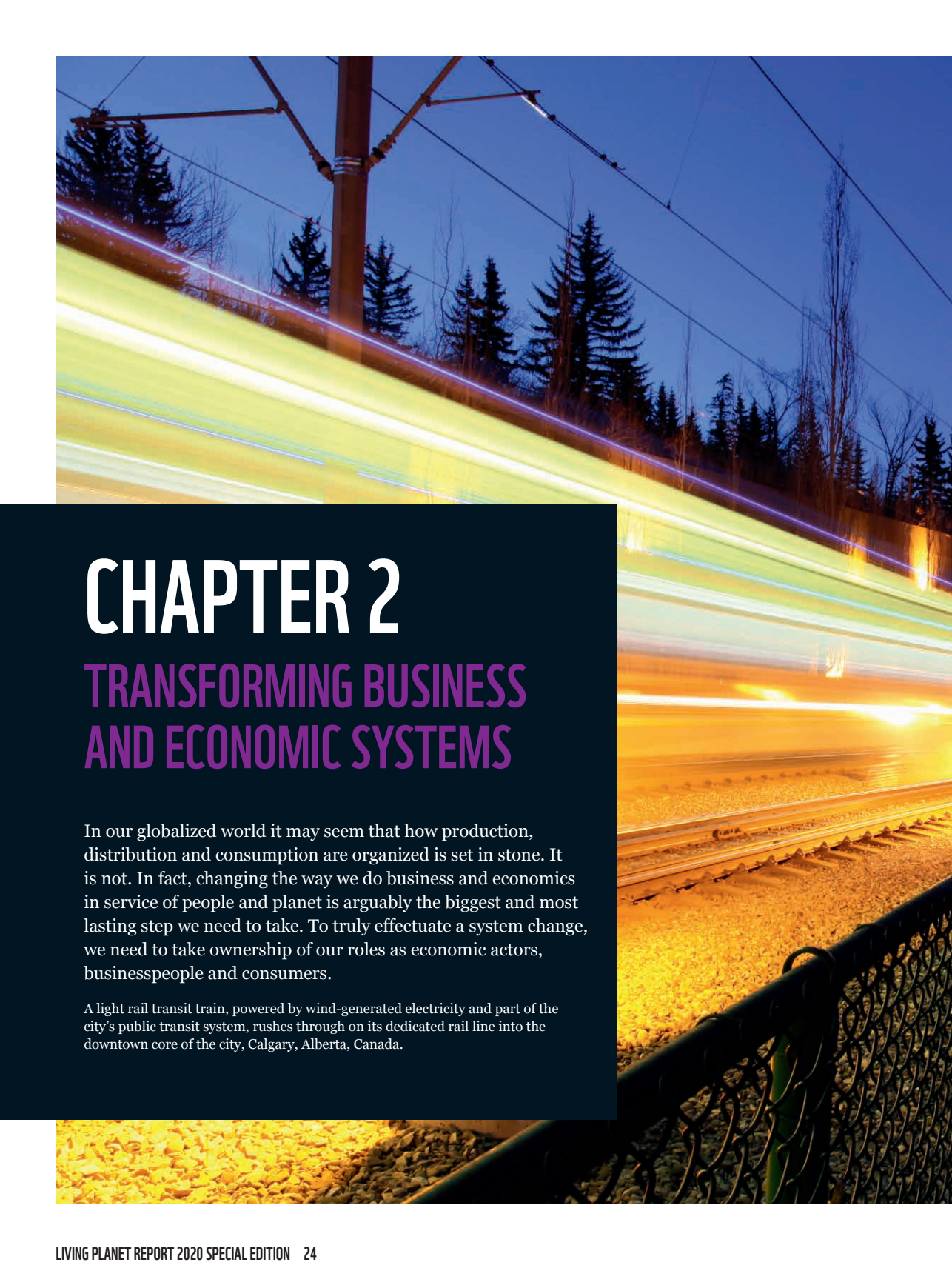
The same holds true for climate and sustainability, yet too few decision-makers recognise this fact. For instance, many companies still have their “corporate social responsibility” department wave the flag of the Sustainable Development Goals. Others proclaim heroic commitments echoing international climate negotiations. Such postulations only fuel the belief that responding to climate is an added cost, thereby feeding inaction. They make climate action benevolent, noble, voluntary, and hence non-existent. They stem from the widespread belief that nothing but globally coordinated action can be meaningful and effective. The damning implication would be that we need to wait for an elusive, and frankly unlikely, global collaboration before anyone can act.

Yet, no powerful business case can be built on waiting for others to take action. If you do not prepare yourself, you will be unprepared for what’s to come. Perhaps when people realise that their own lives, and those of the people they love, are at stake, economic recovery can advance one-planet prosperity.

What is the path forward? To prevent the most destructive impacts of biodiversity loss and climate change, humanity needs to phase out fossil fuels before 2050 from all applications, from transport to energy provision and food production, without shifting more burden onto the rest of the biosphere. The good news is that this transition is technically possible and financially beneficial.

In the end, it is about you. “Protecting nature” may have become a misleading imperative. Like with the coronavirus, transformative action is enabled by protecting yourself.

“COVID-19 teaches us that we are one biology. Hence our fates are intertwined. You protect everybody, by protecting yourself. The same holds true for climate and sustainability.”



CHAPTER 2

TRANSFORMING BUSINESS AND ECONOMIC SYSTEMS

In our globalized world it may seem that how production, distribution and consumption are organized is set in stone. It is not. In fact, changing the way we do business and economics in service of people and planet is arguably the biggest and most lasting step we need to take. To truly effectuate a system change, we need to take ownership of our roles as economic actors, businesspeople and consumers.

A light rail transit train, powered by wind-generated electricity and part of the city's public transit system, rushes through on its dedicated rail line into the downtown core of the city, Calgary, Alberta, Canada.



AUTOMATICALLY GREEN

By Cass R. Sunstein

Cass Sunstein is the Robert Walmsley University Professor at Harvard Law School. His expertise extends to several fields of law and behavioural economics. He was administrator of the White House Office of Information and Regulatory Affairs and is the *New York Times* best-selling co-author of *Nudge*.



If you want to make the environment cleaner, here's a simple idea: make the green option the easy option. And if you want to make it really easy, make it automatic. To reduce air pollution and water pollution, to cut greenhouse gas emissions, and to save biodiversity here's a new proposal: *Make things automatically green*.

The proposal might not be familiar, but in many countries, our lives are increasingly accompanied by the equivalent of “green defaults” replacing dirtier ones. Consider motion detectors that turn out the lights when people do not appear to be in the room. In this way, motion detectors create the equivalent of an “off” default. Another example: if the default setting on office thermometers is turned down in winter, and up in summer, we should expect significant economic and environmental savings – at least if the default setting is not so uncomfortable that people will take steps to change it.

Both policy and technology are making green defaults of this kind readily available. They work for two different reasons. First, inertia is a powerful force. People will often do nothing – and if doing nothing means doing green, that is exactly what they will do. Second, a green default is a kind of signal. It tells people what it is right to do.

Here's a small example: human beings use a lot of paper, and paper requires use of a large number of trees. Suppose that a private or public institution wants both to save money and to protect the environment by reducing its use of paper. A simple intervention is to alter the institution's default printer setting from "print on a single page" to "print on front and back". A number of years ago, Rutgers University, in the US state of New Jersey, adopted such a double-sided printing default. In the first three years of the new default, paper consumption was reportedly reduced by well over 55 million sheets, or 44%, the equivalent of 4,650 trees. Similarly impressive results were found at a large university in Sweden.

Here's a big example: the choice between utility suppliers. Typically, the default may not be environmentally friendly; it might be coal. To use green energy (such as solar or wind), people must seek out relevant information and choose it affirmatively. Most don't bother, but what would be the effect of switching to a green default? The evidence is in, and it's very clear: many more people end up with green energy. They stick with it, even if it's a bit more expensive. As a result, the air is a lot less dirty and greenhouse gas emissions are a lot lower.

If we want a cleaner world, we'll need plenty of mandates. But we can make a lot of progress without them. *Automatically green* may not be a catchy phrase, but for institutions all over the world it is one to live by.

"If you want to make the environment cleaner, here's a simple idea: make the green option the easy option. And, if you want to make it really easy, make it automatic."

AGROECOLOGY CAN SAVE OUR FUTURE FOOD

By Pablo Tittone

Pablo Tittone is Principal Research Scientist at Argentina's National Council for Science and Technology (CONICET) in San Carlos de Bariloche, Argentina, and holds a Professorship on Resilient Landscapes at the University of Groningen in The Netherlands.



Our food system has faced many challenges during the COVID-19 pandemic to keep us fed. By restricting mobility, international trade and transport, the crisis has seriously undermined one of the key pillars of food security: access to food. Depending on how long this crisis and the associated restrictions to mobility of goods and people last, other components of food security, namely availability, stability and utilisation of food, will also be seriously affected.

COVID-19 has revealed – or rather, highlighted – the weakness of our globalized-industrial food system. Dominated by a few multinational corporations, it is characterised by uniform monocrops and industrial livestock, and highly dependent on non-renewable resources for production, transportation and distribution.

Agroecology is the use of ecological principles and diverse sources of knowledge – local traditional, scientific, practical – for the design and management of sustainable food production landscapes. It offers opportunities to truly integrate nature and agriculture in a functional and mutually beneficial way and to design more robust and resilient food systems in the face of COVID-19 and other possible future crises. It promotes landscape restoration, alternative livestock systems that reduce the need for antibiotics, food sovereignty and the self-sufficiency of smallholder family farmers.

Growing up and studying in Latin America, I've always had a bond to the agroecology movement, which I saw as the future for our food system. But the potential of agroecology to address the world's most urgent problems became concrete to me during the decade or so that I worked in sub-Saharan Africa. The best examples of large-scale farming I saw in Europe or the Americas were those applying principles of agroecology, even when farmers were not always aware of the term.

Agroecology will mean a profound change in the way we do politics, business, science and activism. It's about inclusive participation, the co-creation of knowledge and wisdom, democratisation. The time of ivory-tower scientists and all-powerful development agencies and policy-makers is over. So is the time for repeatedly diagnosing our food and environmental crisis: describing our problems, raising awareness and influencing policy-makers may all be necessary, but are not sufficient. We need to move towards action, towards transformative change.

Concerned scientists – myself included – need to learn that real impact is not measured by numbers of citations, indexes or impact factors. Impact is measured by the capacity of our words and actions to provoke change. So far, agroecology has been expanding slowly, but firmly, without much support from policies, governments, corporations, international organisations, donors or academia. Agroecology is growing bottom-up. Let us join in and be part of the necessary change. The current COVID-19 crisis can be an opportunity to re-think our strategies.

“Scientists need to learn that real impact is not measured by numbers of citations, indexes or impact factors. Impact is measured by the capacity of our words and actions to provoke change.”

REDEFINING THE ROLE OF BANKING IN SOCIETY

By Mariuz Calvet

Mariuz Calvet is Head of Sustainability and Responsible Investment in Grupo Financiero Banorte in Mexico. She was part of the founding group of the Principles for Responsible Banking and is part of the LATAM Committee of the Principles for Responsible Investment.



Business as usual was no longer an option for the banking sector. The role of the financial sector in a transition to an inclusive society, to a low-carbon economy and a nature-positive economy demanded a shift in the way that banks do business.

In September 2019, the new Principles for Responsible Banking were launched by a group of banks empowered, and accompanied, by the United Nations Environment Programme Finance Initiative (UNEP-FI).

The main goal of this new framework is to redefine the role of banks as allies of nature and society. Today, more than 180 banks, representing more than a third of the global banking industry, have made the commitment to align their businesses and strategies to contribute to people and society's goals – to the Sustainable Development Goals and the Paris Climate Agreement, as well as local and regional development goals.

To ensure the level of ambition and commitment that is so urgently needed in these challenging times, this new framework sets out six Principles that help the banking industry truly embed sustainability across all business levels: the strategic, portfolio and transactional levels. They establish ambitious targets, governance structures and transparency.

Just months after the Principles for Responsible Banking launch, the world started to look very different. Signatories around the world are playing a crucial role in supporting societies through the unprecedented COVID-19 crisis, while also facing pressing challenges themselves. They have been taking extraordinary measures to support their employees, clients, customers, governments and communities.

After addressing the initial crisis management and economic impact, banks will be key actors in how the world economy can be stimulated into a green recovery, in enabling a systemic, sustainable and inclusive recovery. A proactive role from finance is needed to facilitate the community of stakeholders through the large networks that banks have; to tackle nature and biodiversity loss, social inequality and small business recovery through connections and partnerships, expertise, innovation, technology and digitalisation.

Mexico's financial system has also risen to the challenge of defining the role of banks as the engine of sustainable development. In a mega-biodiverse country, with 182 natural protected areas, biosphere reserves, sanctuaries and natural parks covering 90 million hectares, the Mexican Banking Association launched in 2014 a Sustainability Protocol expressing the commitment of member banks to sustainable practices in their business and operations. The Mexican Central Bank has also been a champion in the promotion of green finance and the integration of environmental and climate risks in the Mexican financial system.

Worldwide, we will witness the adaptability and transformation of banks. A very positive "global knowledge exchange" of best practices in the banking sector around the world has emerged, where the possibilities of every bank to contribute to society and nature, while navigating the crisis, is a reality.

"The banking industry will be a key actor in how the world economy can be stimulated into a green recovery, enabling a systemic, sustainable and inclusive recovery."

TWO PILLARS OF GREEN TRANSFORMATION: GREEN ACCOUNTING AND TECHNOLOGY INNOVATION

By Liu Shijin

Liu Shijin is Chinese Chief Advisor to the China Council for International Cooperation on Environment and Development (CCICED) He is the former Vice President (Vice Minister) of the Development Research Centre of the State Council of China, holds a professorship in economics, and has written over 200 papers and articles.



The world is now faced by the grim realities of both climate change and biodiversity loss. The ultimate solution is to expedite a green transformation by turning the tense, or even confrontational, relationship between economic growth and eco-environment into one marked by a harmonious coexistence. Green development includes, but also extends beyond, investment in pollution control, conservation, green innovation and green finance. However, this all entails a transformation from the development model of traditional industrialisation to a more sustainable and competitive one. A green transformation is not only morally compelling, but also suggests economic competitiveness based on a cost-benefit analysis.

A feasible green accounting method is the first important pillar that underpins the green transformation framework. We know that, when factoring in the full cost of externalities — that is, for example, pollutants, discharge, and carbon emissions — and not only internalised costs such as plant, equipment and labour, coal power might not be economically superior to solar. However, if the costs are not well calculated, or even dismissed, coal power may well be encouraged for its apparent economic gains. There have been various, not widely accepted, attempts to incorporate environmental elements into Gross Domestic Product (GDP) accounting and yet, there still isn't a credible and feasible green accounting method widely accepted and applied.

China has piloted a Balance Sheet of Natural Resources that aims to measure nature's resources in both material terms (e.g. number of trees, quality of water) and monetary terms. The resulting data will then be used to audit leaders of counties, cities and provinces. Further, with more global efforts to invest in green accounting as well as the surging tide of digital technology such as big data, artificial intelligence and blockchain, the chances of supporting a green transformation will be greater than ever.

A second important pillar of the green transformation framework is innovation and the dissemination of green technologies. Green development does not have to forsake productivity but can in fact pursue higher productivity that is driven by the adoption of green technologies. Gradual substitution of traditional technologies by green ones will provide the best fertile ground for innovation and growth. Take power generation, again, for example. The cost of solar power has edged closer to, and even below that of, coal and the downward trend of costs on solar power generation continues.

But how can we foster awareness, catalyse innovation and harness these technologies? What adequate incentives are needed? We need prompt reforms to create an enabling institutional and policy environment for innovation and the dissemination of green technologies. The global challenges of today will have to be faced by all of us, no matter who you are and where you are from. Not a single country alone can survive the natural disasters caused by climate change and biodiversity loss. Global stakeholders, from the public to the private sector, from the North to the South, have to work closely together to promote world-wide reform that enables green development in service of a good life for all within our planetary boundaries. What has been put into practice in China is part of a global effort. We will continuously have to deepen our collaboration with international communities at various levels towards a green transformation for a civilisation that is ecologically sound.

“We will continuously have to deepen our collaboration with international communities at various levels towards a green transformation for a civilisation that is ecologically sound.”

THE NEXT NORMAL: A TABLE-TO-FARM MOVEMENT ROOTED IN HEALTHY SOIL

By Anthony Myint

Anthony Myint is a restaurateur, chef, activist and author working to mobilise the restaurant industry toward healthy soil as a solution to the climate crisis. He leads a public-private pro-carbon farming collaboration between the State of California and some of the world's best chefs and leading businesses.



© Alenna Hale

If alien anthropologists were to visit Earth in a few centuries what might they find? If we continue on our current trajectory, I think they may find evidence of a human civilisation lost to extinction because, instead of an ecological food system in which every molecule of organic matter is cycled back to nature, Earthlings instead chose to lock nutrients in plastic bags.

The visitors might return home to their planet with a greater appreciation for the wisdom of their forebears, whose sensible laws mandated that 1% from every transaction be invested in the preservation of natural and working lands. The lesson from Earth's modern-day economy is very stark: when corporate practice normalises a 0.0% investment rate in healthy soil, clean air and pure water, the result will be mass extinction.

I believe we can avoid that future by changing the entire food system. And we need to. That's because, in 2020, the nutrient density of ingredients has declined significantly and society has abandoned more acres of degraded farmland in the past 50 years than all remaining farmland, with only an estimated 60 harvests left.

The good news is that new soil science is confirming the immensity, durability and predictability of soil's ability to remove carbon from the atmosphere. *This is great news!* But, before you break out the champagne, changing land management on a global scale will require a lot of work and money. As we re-boot the global food economy, post COVID-19, we must change farming, instead of merely making better choices in a broken food system. Society needs to establish a circular food economy, that funds composting and the planting of cover crops, hedgerows and trees to restore ecosystems and remove carbon from the atmosphere.

From 2016 to 2019 we ran a restaurant called The Perennial, sourcing produce from regenerative producers and carbon ranches and baking fresh sourdough using a perennial grain called Kernza. Many guests appreciated this optimistic view of food. Often they would ask: "Where can we buy climate-beneficial ingredients?" Unfortunately, the answer was, "sorry, but there's no supply."

Despite much press and enthusiasm, I can't say for sure if any acres of farmland changed from our three years of buying the best ingredients. So, we shifted our focus to a table-to-farm approach, creating a renewable food economy in which even just a one percent investment from restaurant meals is enough to address the entire carbon footprint of an operation. Our NGO, Zerofoodprint.org, leads a public-private collaboration with the State of California to scale carbon farming through these investments.

We need collective economic action to regenerate and to create truly systemic change. The majority of government subsidies and our extractive economic system incentivise unhealthy soil. As a result, society primarily farms against nature. But we can, and must, change. Restoring the climate, and biodiversity, depends on restoring carbon in healthy soil, one acre at a time, and we can accomplish this with just a few cents per meal.

"Restoring the climate, and biodiversity, depends on restoring carbon in healthy soil, one acre at a time: and we can accomplish this with just a few cents per meal."

TO MY GRANDKIDS

By David Shelmerdine

David Shelmerdine is a founding director and deputy chairman of ClimateWorks Australia, as well as the managing director of Laradoc Pty Ltd, a privately owned agribusiness company. Previously, he was the president of the Geneva-based Gold Standard Foundation and Deputy Chairman at The Myer Family Company Holdings Pty Ltd.



Like you, your parents and I were born and grew up in what most of us, and many around the world, have known as “the lucky country”. We have amazing and unique biodiversity, bountiful natural resources, beautiful landscapes, and political and economic stability. As an island nation, we have had to adapt, be creative, resourceful and build resilience.

But industrialisation and globalisation, and the enabling systems humans have built to support them, are destroying our ecology. Our “lucky country” has been responsible for losing more biodiversity than any other developed nation in the past 200 years. This is simply unacceptable and has left us exposed and unprepared for an increasingly uncertain future.

At the time of European colonisation in 1778 there were approximately 950,000 Aboriginal people caring for the country. Their custodianship of the land dates back over 60,000 years but sadly, there are fewer humans living in, and caring for, the vast tracts of ‘outback’ Australia today than when Europeans first arrived. There is much that Australia’s Indigenous people can teach us. After all, they have been the stewards of our diverse ecology for thousands of years. The recent devastating bushfires across Australia should cause us to lean in and listen to how that history, and their systems approach to managing fire and the land that supported them, can help us in a climate-challenged world.

Most recently COVID-19, now sweeping our planet, is another catastrophic event that is showing us some of the challenges that must be addressed as the world, Australia included, works out how to be resilient in the face of crisis. The pandemic has exposed gaps in the “just in time” system we have all grown accustomed to, and reliant upon, in the many ways we conduct our everyday life. It has shown that some of our manmade systems are no longer fit for purpose.

To ensure the well-being of current and future generations, we must align human ideas and systems with reality and nature. If we are to achieve the Paris Climate Agreement of 1.5 degrees, meet ambitious biodiversity targets and deliver on the United Nations 2030 Sustainable Development Goals, we need new systems, including ones that will decarbonise the global economy by 2050.

For systems change, we need to be using a strong sustainability model. This will require transforming our food and land use system to not only address climate change, but also restore ecosystems and improve human health.

Australians have made wonderful and important contributions to humanity and a more sustainable world. Our inventions include the bionic ear, solar roof tiles, Wi-Fi technology, Google Maps, the combine harvester and many more. We need to turn this innovation towards how we design and implement big change. That change must include placing real value on our planet’s health and measuring human well-being by our needs being met.

I am optimistic and optimistic for you, but we must act now.

“For systems change, we need to be using a strong sustainability model. This will require transforming our food and land-use system to not only address climate change, but also restore ecosystems and improve human health.”

THE KEY TO THE WORLD'S RECOVERY IS A TRANSITION TO THE GREEN ECONOMY

By Elena Abrosimova

Elena Abrosimova is chair of Commercial Law and Basics of Law at Moscow State University. She has also held various expert advisory roles, including with the State Duma Committee on Issues of Public Associations and Religious Organizations and the Ministry of Justice of the Russian Federation. Elena is chair of the WWF-Russia Supervisory Board.



We live in a demanding time. A time in which humanity has the chance to balance and harmonise its relationship with the planet. A time in which governments can move away from subsidising the most destructive and contaminating industries and instead invest in green and sustainable companies that use energy-efficient technologies, support conservation, aim for zero carbon emissions as a standard way of working, and place an emphasis on social well-being.

Yet, in the midst of this time, in which the conversations about moving towards a more sustainable future have been getting louder and louder, the coronavirus hit our global society becoming an economic, social and ecological challenge. It is obvious that our economies and societies will change forever. We see how significantly COVID-19 has transformed the behavior patterns of households, many companies, and whole industries, leaving the most important question of today - in which direction will the recovery run?

What we know is that our current resource based economic model is not just unreliable and unstable, it is dangerous. It is a model that does not protect citizens, or societies, when facing such challenges as pandemics. All countries, without exception, have found themselves at a crossroads, and it is important that our governments make the right turn, and the right choices, at this very moment.

Crises are difficult but they are also times of opportunity. We can use the COVID-19 pandemic to build stronger societies, in which people and nature thrive, developing a prosperous and flexible global economy based on sustainable and green technologies. The economic models of the future need to include not just GDP growth as the only indicator of performance but must consider social and environmental factors as well.

Indeed, a green economy can deliver all the solutions that today's governments are seeking. It creates new job opportunities, helping to fight unemployment; invests in public health while caring about nature; and, restores ecosystems through running conservation programmes.

Yes, it may be easier to choose our current system because it is the familiar one, but it is a system that is close to being obsolete and presents far more risks to our human future. For instance, relieving companies of their environmental requirements will not help beat this, or future, crises, but instead cause more serious financial and social problems.

Finally, everything is connected in our contemporary world, we all depend on each other and the task of saving our natural resources is global as never before. Russia is vast and its nature is rich, there are still plenty of wild untouched territories which provide vital ecosystem services for all the globe. This needs to be protected. We are on the doorstep of, and holding the key to, a beautiful future world, and this key is green.

“Crises are difficult, but they are also times of opportunity. We can use the COVID-19 pandemic to build stronger societies, in which people and nature thrive.”

A NEW MINDSET FOR BUSINESS

By Duncan Pollard

Until mid-2020 Duncan Pollard was Vice President of Sustainability and Stakeholder Engagement at Nestlé where, among other responsibilities, he worked on Nestlé's approach to biodiversity from a land-use context.



The corporate world needs a new mindset on, and understanding of, nature and biodiversity because, right now, companies are frequently blind to the significance of biodiversity loss to their business models. Of course, everyone gets the emotional reason; the reputational risks associated with images of deforestation spur efforts to eliminate these within value chains. Yet the prevailing view of “do no harm” misses the point that many businesses are dependent upon collective efforts to preserve nature and biodiversity for their continued success.

There is a good analogy: for companies, sales are one thing, but the diversity of those sales is important to deliver resilience against the various shocks that a business faces. This distinction can form the basis of a new understanding on the significance of nature to business. It starts with dependency but then makes the distinction of nature as an asset, and biodiversity as the diversity of that asset.

For companies that depend upon the land – food, forest products, luxury goods, clothing – nature and biodiversity are critical issues, as well as part of a sensible strategy. Farming systems that have a high biodiversity – of the soil, farm and landscape – are the ones that will have the highest resilience to threats such as increasingly erratic rainfall patterns and pests. We need to focus upon soil health, through having a rotation of crops and a farming system that is less about chemistry and more about biology. Resilience to pests and diseases will come by having diverse farms in a diverse landscape.

Investors and consumers hold the key to how companies will embrace a new approach to nature and biodiversity. Efforts are under way to create a “Task Force on Nature-Related Financial Disclosure”. Investors will use this to ask the question, “What is the risk to a business from the loss of nature and the loss of biodiversity?”

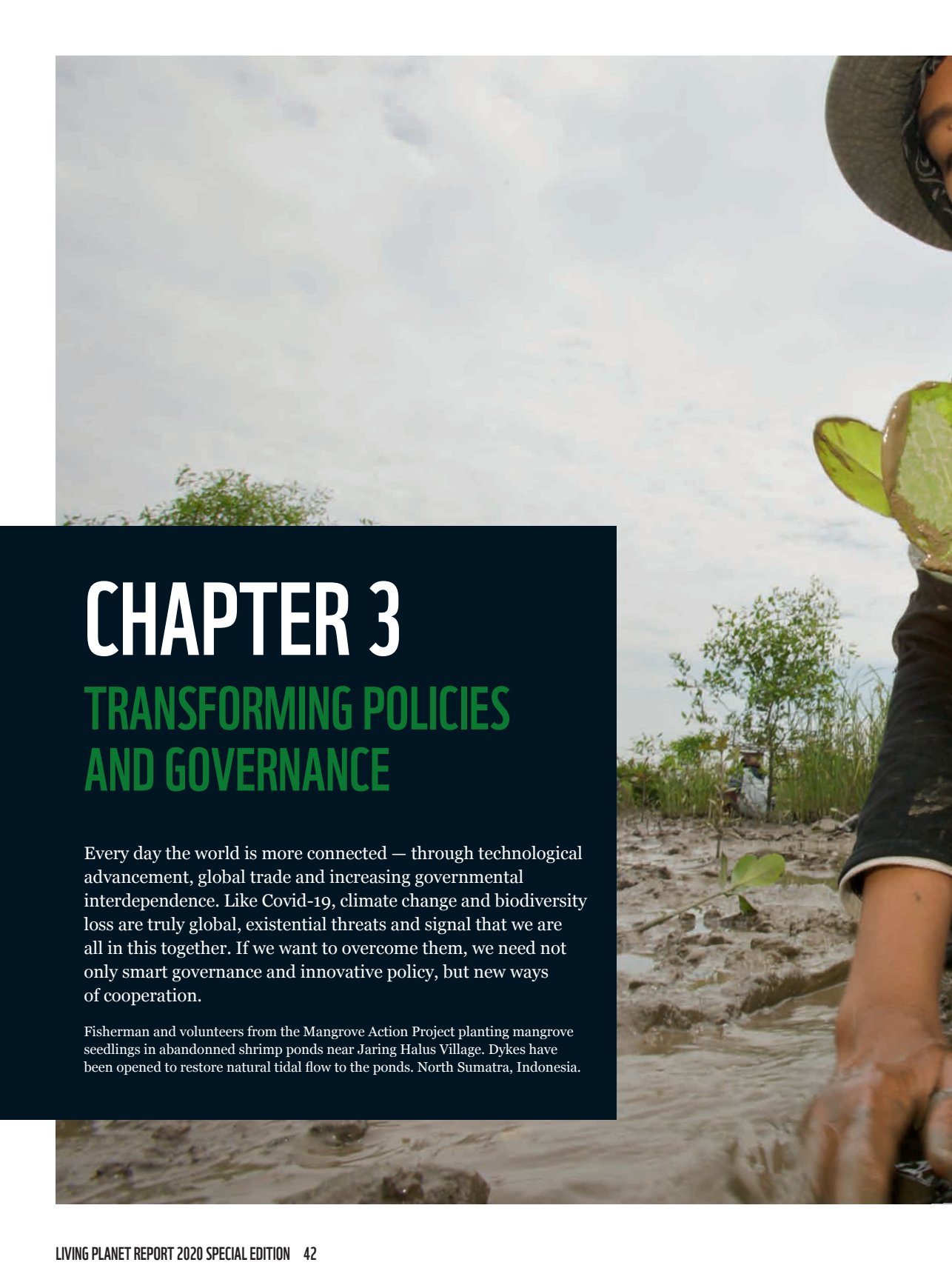
Companies do not yet have the answers. Work on climate change has given us some pointers, while COVID-19 has made everyone acutely aware of the risks of diseases. But we need far more research and understanding on the consequences of declining insect populations for pollination, and more besides.

Consumers, meanwhile, want more “close to nature” agriculture. There is a huge opportunity to build brands upon “nature” and create a consumer pull. Companies need to actively invest in diversity. Just 12 plants and 5 animal species supply us with 75% of our global food and genetic diversity of these ingredients has been lost over the last century.

Companies, investors and consumers are unlikely to make these changes alone; regulation and policy incentives on nature and biodiversity are also needed. Shifting global taxation away from people to resource use (justifiable also for tackling inequalities) would be a good start. As would a more explicit focus on true costs and true values, involving the measurement and financial reporting of environmental externalities.

We know how to do these things. There is no justification to delay.

“The corporate world needs a new mindset on nature and biodiversity because, right now, companies are frequently blind to the significance of biodiversity loss to their business models.”



CHAPTER 3

TRANSFORMING POLICIES AND GOVERNANCE

Every day the world is more connected — through technological advancement, global trade and increasing governmental interdependence. Like Covid-19, climate change and biodiversity loss are truly global, existential threats and signal that we are all in this together. If we want to overcome them, we need not only smart governance and innovative policy, but new ways of cooperation.

Fisherman and volunteers from the Mangrove Action Project planting mangrove seedlings in abandoned shrimp ponds near Jaring Halus Village. Dykes have been opened to restore natural tidal flow to the ponds. North Sumatra, Indonesia.



RECOGNISING INDIGENOUS PEOPLES' LAND INTERESTS CRITICAL FOR PEOPLE AND NATURE

By Kanyinke Sena

Kanyinke Sena is Director of the Indigenous Peoples of Africa Coordinating Committee, a network of 135 indigenous peoples' organisations in 22 African countries. Dr Sena is a member of the African Commission Working Group on Indigenous Populations and chaired the United Nations Permanent Forum on Indigenous Issues.



By fighting for their lands, indigenous peoples are fighting to save the planet. Although they comprise less than 5% of the world population, indigenous peoples protect 80% of the Earth's biodiversity in the forests, deserts, grasslands and marine environments in which they have lived for centuries. However, despite their critical role in ensuring a resilient and healthy planet for people and nature, there is very little acknowledgment of, or support for, their efforts, especially in Africa.

Our planet is facing a deep crisis rooted in a number of interconnected, global challenges that include infectious diseases like COVID-19, but also climate change, biodiversity loss and financial collapse. These challenges do not observe national or physical borders and primarily result from human activities such as deforestation, the burning of fossil fuels, the expansion of agricultural land, and the increased hunting and trading of wildlife. Most of these activities are undertaken, habitually, in indigenous peoples' territories without their free, prior and informed consent. The continued non-recognition and abuse of indigenous peoples' land rights, and consequently the dismissal of 80% of global biodiversity, should be placed at the centre of present and future global challenges.

The lawyer and civil rights activist Derrick A. Bell Jnr posited that, “only when the interests of a dominant group converge with the interests of a weaker group can the dominant group guarantee the rights of the weaker group.” What genuine interests would therefore guide laws and policies at all levels to protect indigenous peoples’ land rights while protecting biodiversity?

There are emerging opportunities to drive this discussion. Foremost is increasing recognition by key institutions like the IPCC, the World Bank, the African Union, governments and NGOs of the nexus between secure community rights and addressing global environmental challenges. Secondly, regional courts and commissions, and national courts, have issued decisions that entrench indigenous peoples’ land rights, recognising these rights were not extinguished by formal colonial or post-colonial laws. Third, women’s land rights, including in indigenous communities, are receiving increasing global attention. This will help reduce internal land-related dynamics among indigenous communities.

The increasing focus on traditional knowledge, which communities have utilised peacefully to coexist with their environments, is becoming of significant interest in international processes. These include the Convention on Biological Diversity *Global Thematic Dialogues for Indigenous Peoples and Local Communities on the Post-2020 Global Biodiversity Framework*, the UN Framework Convention on Climate Change *Local Communities and Indigenous Peoples platform*, the IPBES and the work of many NGOs, among others. Last but not least, COVID-19 has shone a bright light on the importance of nature, and business has taken notice.

It’s time to take advantage of existing and emerging partnerships across sectors to converge interest for the sake of people and nature!

“Recognising indigenous peoples’ land rights, and consequently 80% of global biodiversity, should be placed at the centre of present and future global challenges.”

RIISING UP: CITIZENS MUST UNITE AND ACT!

By Ingrid Robeyns

Ingrid Robeyns is Professor of Ethics of Institutions at Utrecht University, where she is directing the *Fair Limits* project, which investigates whether limits to the possession of ecological and economic resources can be justified.



© Roland Perik

What does it mean in the 21st century to be a citizen in the face of the challenge to save our planet, and ourselves? We can do so much more than we do right now, yet outside the period when elections are held, most of us forget that we are citizens. We see ourselves primarily as mothers, fathers, siblings, friends, consumers, workers, students, entrepreneurs and volunteers. If we decide that we want to do more to protect the planet, we focus on changing our consumption patterns, we put solar panels on the roofs of our houses, we cut meat out of our diets, or volunteer in an organisation for wildlife protection.

This is all positive and laudable but we should see ourselves in the first place as citizens who have political rights and liberties that we can use to demand change. We should raise our voices when someone tries to turn the protection of our planet into an ideological issue between left and right, pointing out that protecting our climate and biodiversity is as much in the interest of the children of voters on the political right as the children of those on the political left.

We should join demonstrations that demand from our governments more radical actions to protect the environment, and fund independent journalism that investigates the companies that pollute and spread lies and disinformation about the state of the Earth. We should invite friends and colleagues to collectively read books that illuminate us on the true state of the planet and only vote for parties that do not contribute to further transgressing the Planetary Boundaries. More profoundly, when considering for whom to vote, we should consider giving the 'green' policies of parties a larger weight in comparison to other issues.

All this is needed because the future of the planet is the most important precondition for the flourishing of all animals, including ourselves.

The reason we must rise and unite as environmental citizens is simple. The recent past has not given us any reason to believe that companies and politicians will show the leadership we urgently need to protect the planet. With few exceptions, companies put profit before people and before the planet, and some should simply be classified as being complicit in harming our Earth. Also, with few exceptions, politicians suffer from short-termism, wanting and needing to please their voters and donors.

You may feel unsure about what you can do. You might feel that the action of one person doesn't make a difference. But history has proven that this is unjustified: there are plenty of individuals who made a pivotal difference and, even more so, who made a difference if they joined a social movement. If we start to see ourselves, first and foremost, as citizens who can use our political rights, and who are not afraid to speak up, we can make a difference if we unite!

“Citizens must use their political power to speak up to protect the planet for the sake of all animals, including ourselves.”

CAN CIVIL SOCIETY HELP BUILD A FAIR AND JUST SOCIETY FOR PEOPLE AND NATURE? THOUGHTS FROM WEST AFRICA

By Nana Afadzinu

Nana Afadzinu, executive director of the West Africa Civil Society Institute (WACSI), has worked with and within the civil society sector for the past 23 years. She is a passionate advocate for sustainable development in Africa with the full participation of an effective, efficient, influential and sustainable civil society.



Throughout colonial, military and authoritarian rule in West Africa, its people mobilised and organised to demand freedom. With the wave of democracy in the 1990s came the formation of NGOs that championed the consolidation of democracy; fought for the respect, promotion and protection of human rights; and advocated for widespread civic participation for good governance, including transparency and accountability.

In countries like Ghana, major reforms criminalised traditional practices that were inhumane. Abhorrent laws inherited from the colonial British criminal law, such as the justification of violence against the wife in marriage, were removed. Country after country in West Africa submitted to major electoral and constitutional reforms.

The Economic Community of West African States (ECOWAS) followed suit, calling for a move “from an ECOWAS of States to an ECOWAS of Peoples”. Civil society’s involvement and active engagement with ECOWAS has enabled progressive protocols and frameworks in West Africa. The ECOWAS Community Court is the only one of its kind on the continent that accepts complaints against states by individuals on human rights violations.

The people of West Africa now face one of their greatest existential threats in the combined impacts of climate change and the loss of nature. So can civil society rise to take on perhaps its biggest challenges yet? In recent years, several environmental movements have emerged organically in West Africa, including a social movement that demanded an end to illegal small-scale mining. It succeeded in halting this practice, which had devastating effects on water bodies and arable land and threatened to destroy nature and livelihoods. Civil society actors have equally demanded accountability and the protection of livelihoods from oil and gas and mining companies.

The call for transparency and accountability has also included challenging international development actors and western countries on stopping illicit financial flows from Africa to Europe. Civil society organisations have advocated against unfair trade practices and for a fairer international economic system, creating the enabling environment for the Africa Continental Free Trade Area that will soon come into effect

These successes should be celebrated, but the challenges related to climate change and the loss of nature are complex and intractable, and the stakes have never been higher. Areas like the Lake Chad region and parts of the Sahel have faced escalating armed conflict fanned by climate change, land degradation and dwindling water resources. These challenges have halted and reversed many development gains in these areas.

COVID-19 has provided a further hurdle for civic organisations in West Africa, placing their very existence on a knife edge. And yet, positive stories abound about the role that local grassroots organisations are playing in building resilience in the face of the pandemic.

Of this we can be certain: civic organisations have faced many challenges and driven many positive changes towards a just and fair society in West Africa. Investing in strong civic movements now needs to be at the forefront of building a sustainable and resilient future.

“Civic organisations have faced many challenges and driven many positive changes towards a just and fair society in West Africa. Investing in strong civic movements now needs to be at the forefront of building a sustainable and resilient future.”

BUILDING INCLUSIVE AND RESILIENT SOCIETIES IN UNPREDICTABLE TIMES

By Sheela Patel and Deon Nel

Sheela Patel is a founder and previous chairperson of Slum Dwellers International, a network of community-based organisations in 33 countries spanning Africa, Asia, Latin America and the Caribbean. Deon Nel is CEO of the Global Resilience Partnership, a diverse partnership of more than 60 organisations joining forces to build a resilient future where vulnerable societies are able to thrive in an increasingly volatile world.



The COVID-19 pandemic has starkly exposed many fragilities of our modern world. Fragilities driven by an unsustainable, unequal and hyperconnected global economic structure that has become obsessively focused on top-down productivity and efficiency at the expense of resilience and social inclusion.



A zoonotic pandemic, ultimately caused by an exploitative human relationship with nature, has led to one of the greatest global disruptions in modern history. In addition to the hundreds of thousands of deaths, the pandemic has cascaded into massive social and economic impacts that have most acutely affected vulnerable communities living in dense slums and dependent on daily wages from informal work. It is estimated that 1.6 billion informal workers lost up to 80% of their income due to lockdown measures, with warnings of the largest economic recession since World War II and the biggest food crisis in half a century. Hyper-connected and highly concentrated economic and food systems, overly focused on productivity and efficiency, have been especially exposed and vulnerable communities in regions such as Sub-Saharan Africa and South Asia will be hardest hit.

Despite these overwhelming challenges, grassroots organisations have played a remarkable role in building community resilience

in the face of COVID-19. These locally rooted organisations have often been the only boots on ground and have demonstrated how invaluable trusted planning, decision-making and knowledge brokering processes are at a time of crisis. Local community leaders have been able to rapidly assess vulnerabilities and find creative ways of directing support to where it is needed most. They also provide trusted channels of reliable information at a time when misinformation spreads faster than the pandemic itself. Even more important, grassroots organisations, if supported and empowered, are able to work with authorities to proactively build the resilience of the most vulnerable.

With trillions of dollars in post-COVID-19 stimulus packages being prepared, the term resilience is being widely used by global and national leaders to describe the future we should be building. But there is little evidence that these commitments will in fact build resilience and protect the most vulnerable from future shocks.

This will require investments that have a deep accountability to addressing the needs of the most vulnerable; and should be built around the following fundamental pillars:

Investing in inclusive governance, that strengthens the role of grassroots organisations with the necessary contextual understanding and trusted local relationships to have the greatest impact. These organisations are not only critical to responding to shocks but also vital to proactively building long term resilience.

Diversifying and localising highly concentrated value chains such as characterised in the food, energy and finance sectors. Most notably, diversified and localised food value chains greatly increase the options for maintaining food security during unpredictable and compounding shocks and stresses. Diversifying highly centralised fossil fuel dependent energy systems to more decentralised renewable energy networks brings similar resilience benefits.

And, building a **new relationship with nature** that recognises that human wellbeing and planetary wellbeing are intertwined and inseparable. This relationship needs to recognise the key role that nature plays in protecting and sustaining vulnerable communities during shocks and stresses, but also the systemic risks related to the reckless exploitation of nature.

Building a resilient future in a turbulent and uncertain world will require global solidarity that recognises that we are all only as resilient as the most vulnerable amongst us. Resilience and social inclusion are inseparable.

“Building a resilient future in a turbulent and uncertain world will require global solidarity that recognises that we are all only as resilient as the most vulnerable amongst us.”

THE HUMAN RIGHT TO A HEALTHY BIOSPHERE

By David R. Boyd

David R. Boyd is the UN Special Rapporteur on human rights and the environment, a professor at the University of British Columbia, and author of 10 books including *The Environmental Rights Revolution* and *The Optimistic Environmentalist*.



This beautiful blue-green Earth is the only planet in the universe known to support life, in all its mind-boggling beauty and abundance. From elephants and blue whales to phytoplankton and termites; biodiversity is truly miraculous.

Yet, Earth's essential life-support systems are under assault from unsustainable human activities, causing a planetary health emergency that includes climate disruption, biodiversity loss, toxic pollution, and the increasing incidence of emerging infectious diseases like COVID-19. These global problems are symptoms of our dysfunctional relationship with nature, which we treat as a commodity for us to exploit rather than a community to which we belong. Today's population, closing in on 8 billion people, is taking too much and generating more waste than nature can handle.

To address these interconnected crises the world's leading scientists have called for rapid and systemic change. Humankind must transform how we produce and use energy, how we grow food and what we eat, even how we measure progress, in our quest for a just and sustainable future.

This is where human rights enter the picture. The abolitionists harnessed freedom and equality to topple slavery while human rights also empowered suffragettes, anti-apartheid activists, the civil rights movement, Indigenous peoples and LGBTQ+ campaigners across the world. While rights are not a magic wand that will easily, instantly or completely solve global problems, their transformative potential cannot be denied.

In the darkness of the planetary environmental emergency, there is an exciting beacon of hope. Around the world, the human right to live in a safe, clean, healthy and sustainable environment is now recognised in law by more than 80% of UN member states (156 out of 193), through constitutions, legislation, court decisions and regional treaties. These legal frameworks also provide tools for ensuring accountability, including rights related to information, participation and access to justice.

Evidence indicates that recognition of this right causes improved environmental performance, including cleaner air, lower emissions of climate-disrupting greenhouse gases, and improved access to clean water. It has been used to protect endangered species and ecosystems, from sea turtles to mangroves.

Efforts are under way to secure UN resolutions, within the next year, that enshrine the right to a healthy environment from the Human Rights Council and the General Assembly. This echoes the successful effort a decade ago to gain global recognition for the rights to water and sanitation. Although not legally binding, these resolutions spark action at the national level and, in the longer term, the right to a healthy environment could be included in a new Global Pact for the Environment, as France is proposing, or added to the Universal Declaration of Human Rights, as civil society is suggesting.

The right to a safe, clean, healthy and sustainable environment could prove to be the most important human right of the 21st century. To breathe life into this right, we all have a responsibility to take care of this one-of-a-kind living planet, the only home humanity will ever know. When we respect and protect the wonders of nature, we effectively protect ourselves as well.

“The right to a safe, clean, healthy and sustainable environment could prove to be the most important human right of the 21st century.”



THIS REPORT
HAS BEEN
PRODUCED IN
COLLABORATION
WITH:

ZSL
LET'S WORK
FOR WILDLIFE



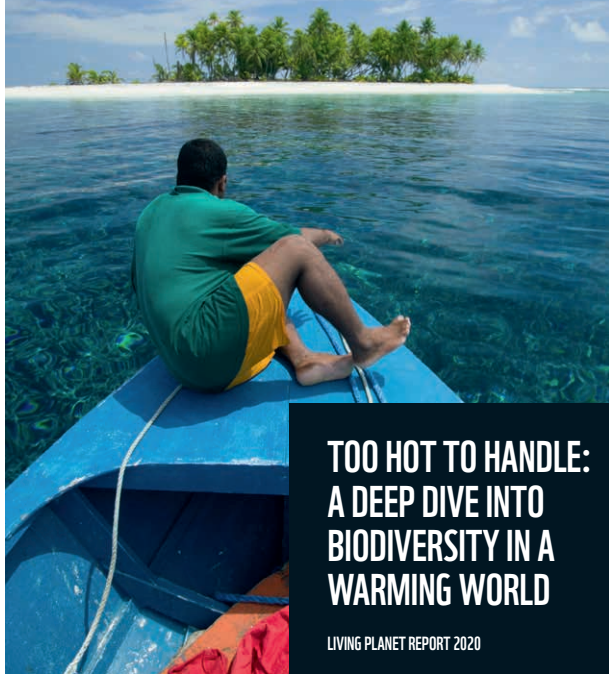
LIVING PLANET REPORT 2020

BENDING THE CURVE OF BIODIVERSITY LOSS



THIS REPORT
HAS BEEN
PRODUCED IN
COLLABORATION
WITH:

ZSL
LET'S WORK
FOR WILDLIFE



TOO HOT TO HANDLE: A DEEP DIVE INTO BIODIVERSITY IN A WARMING WORLD

LIVING PLANET REPORT 2020

EXPLORE MORE



THIS REPORT
HAS BEEN
PRODUCED IN
COLLABORATION
WITH:

ZSL
LET'S WORK
FOR WILDLIFE



A DEEP DIVE INTO FRESHWATER

LIVING PLANET REPORT 2020



VOICES FOR A LIVING PLANET

SPECIAL EDITION LIVING PLANET REPORT 2020

WWF WORLDWIDE NETWORK

WWF Offices

| | |
|------------------------------|--------------------------|
| Armenia | Madagascar |
| Australia | Malaysia |
| Austria | Mexico |
| Azerbaijan | Mongolia |
| Belgium | Morocco |
| Belize | Mozambique |
| Bhutan | Myanmar |
| Bolivia | Namibia |
| Brazil | Nepal |
| Bulgaria | Netherlands |
| Cambodia | New Zealand |
| Cameroon | Norway |
| Canada | Pakistan |
| Central African Republic | Panama |
| Chile | Papua New Guinea |
| China | Paraguay |
| Colombia | Peru |
| Croatia | Philippines |
| Cuba | Poland |
| Democratic Republic of Congo | Portugal |
| Denmark | Romania |
| Ecuador | Russia |
| Fiji | Singapore |
| Finland | Slovakia |
| France | Solomon Islands |
| French Guyana | South Africa |
| Gabon | Spain |
| Georgia | Suriname |
| Germany | Sweden |
| Greece | Switzerland |
| Guatemala | Tanzania |
| Guyana | Thailand |
| Honduras | Tunisia |
| Hong Kong | Turkey |
| Hungary | Uganda |
| India | Ukraine |
| Indonesia | United Arab Emirates |
| Italy | United Kingdom |
| Japan | United States of America |
| Kenya | Vietnam |
| Korea | Zambia |
| Laos | Zimbabwe |

WWF Associates

Fundación Vida Silvestre (Argentina)
Pasaules Dabas Fonds (Latvia)
Nigerian Conservation Foundation (Nigeria)

Publication details

Published in September 2020 by WWF – World Wide Fund for Nature (Formerly World Wildlife Fund), Gland, Switzerland (“WWF”).

Any reproduction in full or in part of this publication must be in accordance with the rules below, and mention the title and credit the above-mentioned publisher as the copyright owner.

Recommended citation:

WWF (2020) *Voices for a Living Planet - Living Planet Report 2020* special edition. Grooten, M. Dillingh, S. and Petersen, T. (Eds). WWF, Gland Switzerland

Notice for text and graphics: © 2020 WWF
All rights reserved.

Reproduction of this publication (except the photos) for educational or other non-commercial purposes is authorized subject to advance written notification to WWF and appropriate acknowledgement as stated above. Reproduction of this publication for resale or other commercial purposes is prohibited without prior written permission. Reproduction of the photos for any purpose is subject to WWF’s prior written permission.

The opinions expressed in this publication are those of the authors. They do not profess to reflect the opinions or views of WWF. The designations employed in this publication and the presentation of material therein do not imply the expression of any opinion whatsoever on the part of WWF concerning the legal status of any country, area or territory or of its authorities.

OUR MISSION IS TO STOP THE DEGRADATION OF THE PLANET'S NATURAL ENVIRONMENT AND TO BUILD A FUTURE IN WHICH HUMANS LIVE IN HARMONY WITH NATURE.



Working to sustain the natural
world for the benefit of people
and wildlife.

together possible™

panda.org

© 2020

© 1986 Panda symbol WWF – World Wide Fund for Nature (Formerly World Wildlife Fund)
® “WWF” is a WWF Registered Trademark. WWF, Avenue du Mont-Bland,
1196 Gland, Switzerland. Tel. +41 22 364 9111. Fax. +41 22 364 0332.

For contact details and further information, please visit our international
website at www.panda.org/LPR2020