

OurPlanet

United Nations Environment Programme

June 2017



Connecting People to Nature



Justin Trudeau
Stepping
up action

David Suzuki
Natural cure

Moritz Kraemer
Nature of risk

Yolanda Kakabadse
The cornerstone
of life

Karma Tshering
Small and beautiful

Lü Zhi
Conserving the
world's roof

OurPlanet

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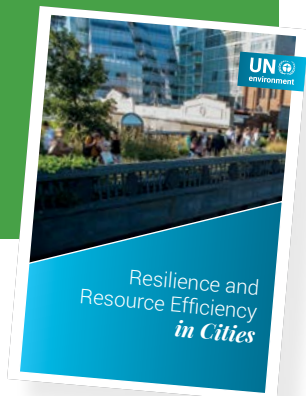


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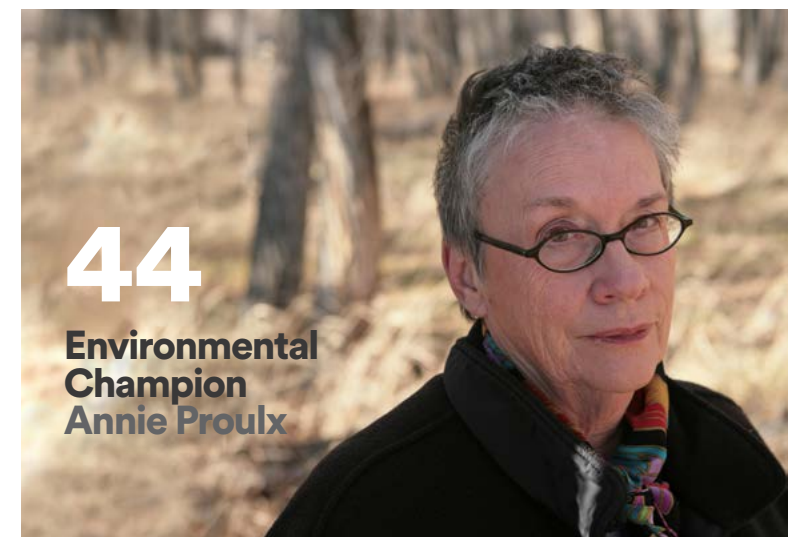
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Photo: © Federico Bottos



Erik Solheim

*United Nations Under-Secretary-General and
UN Environment
Executive Director*

The Norwegian countryside is a magnificent playground for a kid. Swing-sets and slides are fun. But for a child, nothing beats striking out into rolling hills and mysterious towering forests. There is adventure everywhere. I have always lived in a city, but I was lucky growing up to have ample opportunity to explore these treasures of Norway.

Some of my favourite memories are from those adventures. I remember the excitement of coming across a clear, gurgling stream. I remember the smell of damp pine after a rainfall. I remember clearings with long grasses, swaying in the wind. The winters were cold, but just as fun. The woods and mountains would retreat under their winter blankets of snow and ice. On sunny days, the light glinting through icicles on the trees was a magical scene. I developed a deep love for nature around this time, which I've carried with me all my life.

As for many living in cities, nature would often feel like something for decoration. There, grass was tamed and cut short, and trees were more

often caged in planters on the pavement. City parks are a refuge, but as work takes over everyone's life, there seem to be fewer and fewer opportunities to enjoy the natural world. That's a problem for everyone in the city. Over half of the planet's people live in urban areas, and urbanization is continuing rapidly. I think most of us city-dwellers will feel sometimes we are losing touch with the environment. But just as we are withdrawing from nature, protecting it has become even more critical.

The trappings of modern life – skyscrapers, smartphones, fast food – are built atop a foundation of complex natural systems. The rivers, forests, deserts, grasslands, oceans, and all of the ecosystems that make up our beautiful world give us what we need to survive and thrive. Without healthy natural systems, our modern life begins to crumble. Yet often these systems are so complex that it's very difficult to comprehend how important they are. A seemingly insignificant change – pollution, deforestation, river rerouting – can cause disastrous effects. We see it with climate

Life is better when we are in touch with our planet. And when we connect with nature, we are letting ourselves understand it, and thereby helping to save it.

change. A small global increase in temperature is causing rising sea levels, more floods and droughts, and species to be decimated. Our natural foundations – the annual rains or the pollinators that make sure we can grow our food – suddenly feel shaky.

Clearly, it's important we safeguard this basis for human survival. But how do we protect all of this if we barely understand the connection? Learning about nature helps, but to truly understand the connection we need to feel closer to it. The sense we get from being outdoors, in the wild, is the sense that we are part of something much larger than us. Almost everyone who has ever set off into the great outdoors on an adventure has felt it instinctively.

That's why this World Environment Day we are asking people to feel that closeness again, to get outside, to connect with nature. On 5 June, go for a hike over the hills, a bike ride through the forest or a swim in a lake. Whatever opportunity you have to get close to nature, do it! And don't stop on 5 June, either.

Life is better when we are in touch with our planet. And when we connect with nature, we are letting ourselves understand it, and thereby helping to save it. I was lucky to find a world full of wonder nearby when I was young. As I grew older I discovered the vast wonder of our world. There is so much to explore, so much to be inspired by, and so much worth protecting outside our urbanized bubble. Let's get outside and enjoy it! ▲



Photo: © CC BY Jan Hammershaug

Justin Trudeau

Stepping up action

Connecting people to nature, connecting the world with Canada.



Justin Trudeau
Prime Minister of Canada

Canada is proud to host this year’s World Environment Day. The United Nations General Assembly first designated June 5 as World Environment Day 45 years ago. Today, it remains a chance to connect with our environment and each other, and to continue to build a more sustainable world for our kids and grandkids.

With Canada celebrating its 150th birthday this year, it’s especially fitting that we will host this year’s World Environment Day. We’re offering free admission to our national parks, marine conservation areas, and historic sites throughout 2017. There’s never been a better time to visit Canada and discover all our beautiful country has to offer.

This year’s theme for World Environment Day, “Connecting People to Nature,” reminds us of the intricate links between land, water, air and all living things. In Canada, nature is all around us. We’re the second-largest country in the world, with the longest coastline in the world, one of the largest supplies of fresh water on the planet, and roughly a quarter of the world’s wetlands. From rainforests along British Columbia’s Pacific coast, to permafrost and tundra in the Arctic, to the hills and lakes of the Laurentians and the red sandstone of Prince Edward Island, our natural landscapes shape who we are as a country. We are blessed to live in such a vast and beautiful land, and this year’s World Environment Day

theme highlights both how important access to nature is for people, and how vital healthy ecosystems are to our global quality of life.

World Environment Day challenges us to leave a cleaner world for our children and grandchildren. Climate change is real. It is here. And it cannot be wished or voted away. That is why our government has taken real, concrete action to address climate change, and to protect our clean air and water.



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Canada aims to conserve **at least 17%** of its land and inland waters **by 2020.**

Last year, we introduced the Pan-Canadian Framework on Clean Growth and Climate Change. Developed in partnership with the provinces and territories, and in consultation with Indigenous Peoples, it is Canada’s plan to grow a cleaner, more innovative economy that reduces emissions and protects our environment, while creating good, well-paying middle class jobs.

We also launched the groundbreaking Oceans Protection Plan, which will vastly improve our marine safety and ability to conserve the precious ecosystems of our oceans. With Indigenous and Northern partners, we’re exploring how to protect the future of the Arctic Ocean’s “last ice area” where summer ice remains each year.

Meanwhile, we’ve committed to conserve at least 17 per cent of the country’s terrestrial areas and inland waters by 2020, and to protect and restore our abundant coastal and marine

ecosystems by 5 per cent by the end of this year. We’ll also continue working with federal, provincial and territorial governments to better protect species at risk, and to support recovery efforts and habitat conservation.

I am proud of the work our government is doing – together with partners in Canada and around the globe – to address climate change and build a cleaner, healthier, and more sustainable future. It was an honour to join with leaders from 194 other parties last year to finalize the historic Paris Agreement, which outlines ambitious actions to combat climate change, adapt to its effects, and collectively build a sustainable world. Canada is committed to working with the global community to protect the environment we all share.

While these domestic and international actions mark significant steps to care for our planet, more needs to be done. As the Paris Agreement kicks into action, we must all increase our actions and ambition. In Canada, we recognize the unique contributions that Indigenous Peoples, young Canadians, and communities across our country can make to create concrete and local solutions to respond to climate change, while building a cleaner, more innovative economy. We know we must all step up.

Together, and only together, can we preserve the clean air and water we share, and pass a planet on to our kids and grandkids that is better than how we found it. ▲

**Climate change is real.
It is here. And it
cannot be wished or
voted away.**

Yolanda Kakabadse

The cornerstone of life

Connecting people with nature is imperative for our shared future and our only planet.



Yolanda Kakabadse
President, WWF International

We are at a crossroads in human history. Our actions are changing the planet in unprecedented ways, and if we carry on as at present the consequences could be disastrous. But, right now, we still have an opportunity to change course. If we come together to take the decisive steps needed, we could chart the way toward a sustainable future where people live in harmony with nature.

Biodiversity underpins the many Earth systems we take for granted, providing us with the air we breathe, the food we eat and the water we drink. It maintains the ecosystems that society and people need if they are to thrive, ensuring access to essential raw materials, commodities and services. And yet, our own actions are driving the planet, its biodiversity and ecosystems to the edge.

We are currently producing, using and consuming food and energy without a thought for tomorrow. Just as with a bank loan, someday someone is going to have to pay the bill.

Protecting the environment alongside economic and social development is critical not just for our well-being but makes economic sense. Producing better and consuming more wisely is key to establishing resilient markets that stay within our planet's safe operating space, safeguard our natural wealth, and contribute to overall economic and social prosperity. It can also help improve financial stability and avoid the implications of resource

scarcity and environmental damage such as floods, storms and drought.

We must be in no doubt of the size of the challenge. In 2016, WWF's Living Planet Report revealed that global wildlife numbers are on course for a two-thirds decline in the 50 years to 2020, due entirely to human activity. Habitat loss, degradation and overexploitation of wildlife have reached unprecedented levels in less than a single lifetime.

In January, NASA and the Met Office confirmed that 2016 had broken the record for the hottest year ever, previously



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held by 2015, which had itself broken the record set in 2014. Natural disasters are becoming more intense and frequent. In southern and eastern Africa, an unusually strong El Niño last year, coupled with record-high temperatures, has left 36 million people living in drought and hunger. And scientists are now warning us that major storms will grow in strength as the world warms and sea levels rise.

Global wildlife numbers are on course for a **two-thirds decline** in the **50 years to 2020**.

But there is (still) a silver lining. If humanity can cause this damage, we can fix it too. Globally, food and commodity production, energy and financial systems need urgent and radical change and this begins with each of us.

Today, we often hear people talk about our hyper-connected world and yet, what we need most of all is to connect with nature, the cornerstone of all life on Earth. Science is one thing, but experiencing and touching nature is what will make it real for people, adults and children alike. We have seen it with pollution where - having witnessed the impact on their health - people are prepared to fight to make changes and pressurize businesses and governments to support them. Now it's time to try and connect with nature on a broader scale - and it could be an experience like none other.

There's nothing quite like being in the wild, high on a mountain, deep in a forest or out on the vast ocean to feel a deep

connection with nature. When we step into nature, we are reminded that all living organisms are connected. But too many of us rarely get to experience this. More and more people live in cities, miles away from nature. How can one expect them to protect something they don't see, understand or love?

It is not easy but it is what we need to do. Nature is as much about lives and livelihoods as it is about wildlife and habitats. Biodiversity provides value to one and all, including the most vulnerable. Only when we truly recognize the interdependence between our demands for food, water and energy and our reliance on the Earth's natural system, can we shift behaviour to value nature.

Take the ocean. Underneath its vast blue surface, its value to our planet and people is almost incalculable. It puts food on the table and underpins trillions of dollars of economic activity worldwide. The ocean also produces 50 per cent of our oxygen, absorbs heat and re-distributes it around the world, and regulates the world's weather systems. Life simply could not exist without these vast marine resources and the goods and services they provide, seemingly endlessly.

But this resource that inspires and feeds us, stabilizes the climate and provides countless other benefits is showing signs of failing health. Pressures such as habitat destruction, pollution and overfishing have been rapidly building for the last hundred years. Today, almost 90 per cent of global fish stocks are over-exploited or fully exploited, leaving very little room for feeding a rapidly increasing human population.

There are definite signs of progress and hope. Over the last two years the world has come together to fight for our shared future. With the Paris Agreement ratified, nations are starting to act on their climate commitments. There's momentum building toward the biodiversity targets set for 2020; the Sustainable Development Goals are focusing efforts to solve the biggest social and environmental challenges of our time; businesses are stepping forward to set Science-Based Targets for action and grassroots movements like Earth Hour are showing us that people are also keen to be a part of global efforts for change. This is a fantastic start, but we need to move faster, aim higher and act with decisiveness and determination to create positive impact.

Protecting the planet starts with individuals and the realization that we are all citizens of one shared home. We need more people to be inspired to love and value the planet in order to protect it. People are intrinsically linked to nature and have been for millions of years: we cannot survive without it. For the first time in history, we know we can destroy our future. But we also know what we need to do to save it - and that together, really anything is possible. ▲

Our actions are changing the planet in unprecedented ways, and if we carry on as at present the consequences could be disastrous.

David Suzuki

Natural cure

By connecting with nature we heal both the world and ourselves.



David Suzuki

Scientist, broadcaster, author and co-founder of the David Suzuki Foundation, Canada

This amazing, spinning ball of rock and water, hurtling through space at more than 100,000 kilometres an hour, provides us with everything we need to live and be healthy. It's a delicate balance, with various interconnected natural systems — hydrologic and carbon cycles, ocean and atmospheric currents among them — creating ideal conditions for human life.

If the balance is upset, natural systems will correct and the planet will endure, but those corrections may hinder or halt the ability of humans to thrive, or even survive. You'd think this would be incentive enough for us to learn about and care for natural systems, but recent news sometimes makes me feel as if there's a huge disconnect between people and the planet.

We've altered the physical and chemical properties of the biosphere to the point where we are now the dominant factor influencing Earth's natural systems. That's led some scientists to dub this era the Anthropocene. We've created so many goods and technologies and so much waste that researchers now label the 30-trillion-tonne spread of human creation as the "technosphere". This represents 50 kilograms for every square metre of Earth's surface and is 100,000 times greater than the human biomass it supports!

With global temperatures rising precipitously as we burn more fossil fuels, destroy forests and wetlands and emit

more greenhouse gases into the atmosphere, humanity faces its biggest crisis ever. Climate change threatens our very existence.

Yet, we still hear people arguing that we can't afford to implement environmental safeguards or that jobs and the economy take precedence over protecting the very systems that keep us healthy and alive. We've become disconnected. What can we do about it?

The best way to overcome disconnection is to connect. The eminent American ecologist E. O. Wilson refers to the innate kinship humans feel toward other living beings as "biophilia." We are more likely to care for the things we love and see as important, he argues. If we are to protect the biosphere that keeps us alive, we have to rediscover this innate connection.

The theme of this year's World Environment Day is "Connecting People to Nature." It's an important challenge, especially when you consider that children in the developed world spend less time outdoors than any previous generation. Researchers estimate that the average North American child spends less than 30 minutes a day playing outside, but more than seven hours in front of a TV, computer or smartphone screen. Adults aren't much better. We spend a lot of time in cars, at work, shopping and at home, but very little outdoors. It's time for more green time and less screen time!

The benefits of spending time outdoors are wide-ranging. Studies show that time in nature can reduce stress and symptoms of attention deficit disorder; boost immunity, energy levels and creativity; increase curiosity and



Photo: CC BY Mike Goren

Time in nature can reduce stress and symptoms of attention deficit disorder; boost immunity, energy levels and creativity; increase curiosity and problem-solving ability; improve physical fitness and coordination; and even reduce the likelihood of near-sightedness!

The average North American child spends less than 30 minutes a day playing outside, but more than 7 hours in front of a TV, computer or smartphone screen.

problem-solving ability; improve physical fitness and coordination; and even reduce the likelihood of developing near-sightedness!

Encouraging children to spend more time in nature — and spending more time outside with them — is especially beneficial. A David Suzuki Foundation survey found people who spend time outdoors when they're young are 20 per cent more likely to take part in outdoor programs or to explore nature on their own when they're older.

Nature also builds great memories. I was fortunate in many ways to have grown up before televisions, computers, smartphones and other electronic distractions. My greatest memories are of fishing with my dad, exploring swamps and bogs to collect bugs, frogs and salamander eggs, and hiking in the mountains. Even the time my family spent in an internment camp in the British Columbia wilderness during the Second World War holds fond memories of playing by rivers filled with fish and exploring forests with wolves, bears and deer.



Photo: CC BY Seika

In Japan, they have an ancient term for the beneficial effects of spending time in nature, shinrin-yoku, which means “forest bathing,” or “taking in forest air.” Japanese research conducted in the 1990s found that people who spend time breathing forest air lowered their risk of diabetes and experienced improved mood and lower stress hormone production compared to people exercising on indoor treadmills.

Even getting dirty is good for people. Alan Logan, author of *Your Brain on Nature* – along with experts from a range of disciplines at the Natural Environments Initiative workshop at Harvard School of Public Health – found people who live in areas with rich plant diversity have more diverse microbiomes, the microbial communities on and in our bodies. Beneficial microbes break down food and produce vitamins in our guts. They coat our skin, protecting us from attacks by harmful microbes. The air we breathe, the soil we dig and the outdoor plants we come into contact with include a variety of microbes that may be absent in indoor and built environments.

A microbe common to mud and wet soils, *Mycobacterium vaccae*, influences brain neurotransmitters so as to reduce anxiety and improve cognitive functioning. Another microbe encountered in natural environments, *Acinetobacter lwoffii*, benefits the human immune system, preventing asthma, hay fever and other ailments in children who have been exposed to it — although it can also cause infections and gastric problems for people with compromised immune systems. And research by Ilkka Hanski and colleagues at the University of Helsinki found microbe diversity reduced the incidence of allergies.

Playing in the soil or gardening is fun and relaxing, but it also helps us stay healthy. And whether you're planting



pollinator-friendly local plants in your garden, making a mud pie, taking photos of wildlife in the forest or sleeping under the stars, you're developing connections with the natural world and opening your eyes and heart to the amazing, intricately interconnected biosphere of which we are all a part.

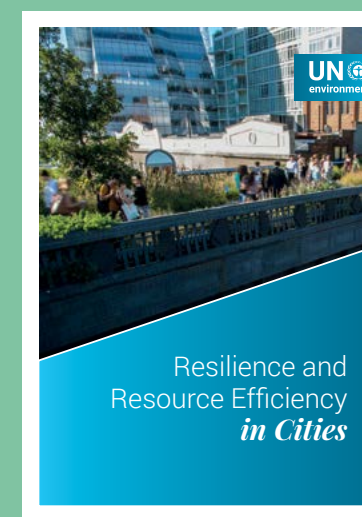
What we do to the Earth we do to ourselves. When we harm natural systems, they become unhealthy and, in turn, so do we. Connecting with nature is the best start to restoring the health of our planet and ourselves. There's no better time to get outside! ▲

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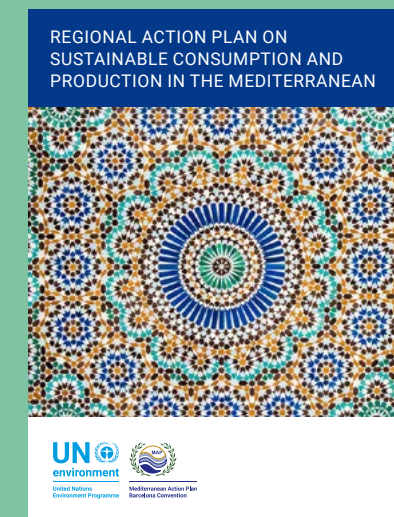
New Frontiers in Environmental Constitutionalism

The book examines new frontiers in the implementation of constitutional, international, and regional rights-based approaches to promote environmental protection. The contributions collected here represent the research of scholars from across the globe who were invited to participate in a Symposium on New Frontiers held at North-West University in South Africa in April 2016 by Professors Erin Daly (Widener University Delaware Law School), Louis Kotzé (North-West University Law Faculty), and James May (Widener University Delaware Law School), and doctoral candidate at the North-West University Law Faculty, Caiphas Soyapi. The symposium was made possible through generous funding by the Konrad Adenauer Foundation. We hope that this publication will help to further the global conversation on comparative environmental rights-based approaches among policy-makers and governments, practitioners, non-governmental organizations, civil society, scholars, educators, and post-graduate students. Finally, we are most grateful to all our contributors from all over the world for sharing their research and work with us. Without them, this publication would not have been possible.



Resilience and Resource Efficiency in Cities

This report looks at the relationship between building the resilience of cities in the face of global environmental change, and increasing the resource efficiency of cities to reduce their harmful impacts on the environment. It provides examples of effective ways to address these agendas, as well as the potential and challenges for integration. This speaks strongly to global policy agendas, including the Sustainable Development Goals, the Paris Agreement and the New Urban Agenda.



Regional Action Plan on Sustainable Consumption and Production in the Mediterranean

The Sustainable Consumption Production Action Plan for the Mediterranean is aimed at supporting the implementation of sustainable consumption and production actions at the regional level to support sustainable consumption and production common objectives. It addresses key human activities which have a particular impact on the marine and coastal environment and related transversal and cross-cutting issues. It defines common objectives and identifies actions guiding the implementation of the sustainable consumption and production at the national level.

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