

# NATURE IN ALL GOALS

A FAIR AND NATURE-POSITIVE ECONOMY  
FOR PEOPLE AND PLANET  
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**Author**

Fideline A. Mboringong

**Design**

Jo Curnow, [1tightship.co.za](mailto:1tightship.co.za)

**Editor**

Non Lowri Evans & Christine Nganga

**Case study contributors – WWF**

Fidelis Pegue Manga, Alphonse Ngniado, Conrad Muyaule, Hamera Aisha, Rab Nawaz, Ambreen Khan, Shant Raj Jnawali, Ekraj Sigdel, Mariana Nava, Sigrid Kuehnemund, Magnus Emfel, Pia Escobar, Jeimy Cuadrado, Maria Ximena Barrera, Giorgio Bagordo, Michael Mulet-Solon, Tanja Ploetz, Lawrence Mbwambo, Maria Honig, Tam Le Viet, Nguyen Phuong Ngan, Le Van Dong, Edith Verhoestraete, Huma Khan, José Alvarez, Linda Keuntje, Louise Heaps and Anna Söderström.

**Reviewers – WWF**

Cristina Eghenter, Innocent Maloba, Dominic White, Elaine Geyer-Allély, Dr. Lovisa Hagberg, Dr. Li Lin, Dr. Delfin Ganapin Jr, Claire Blanchard and Justin Woolford

**Guest contributors**

Nancy Rapando - Africa Food Future Leader, WWF Food Practice  
Rebecca Humphries - Senior Public Affairs Officer -WWF European Policy Office  
Margaret Kuhlow - Global Finance Practice Leader, WWF International  
Fran Price - Global Forest Practice Leader, WWF International

To the communities and partners we work with around the world - thanks for your passion, commitment and dedication to building a future where people and nature live in harmony.

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## CONTENTS

Foreword	4
Introduction	5
SDG 1 - No Poverty: Community forests supporting livelihoods in southeast Cameroon	6
SDG 2 - Zero Hunger: Climate-resilient agroecology for livelihoods and wildlife in the Silwana complex, Zambia	7
Guest contributor: Nancy Rapando Transforming food systems for the promotion of the SDGs in Africa	8
SDG 3 - Good Health and Well Being: Renewable energy solutions for better health and energy security in Karachi, Pakistan	9
SDG 4 - Quality Education: ECHO - building a cadre of green heroes in India	10
SDG 5 - Gender Equality: Promoting women's leadership in community-based natural resource management in Nepal	11
SDG 6 - Clean Water and Sanitation: Mexico sets the pace for water security in the LAC Region	12
SDG 7 - Affordable and Clean Energy: How Canada's first Inuit Energy co-operative are moving towards a renewable future.	13
Guest contributor: Rebecca Humphries Achieving a wellbeing economy through the SDGs - an EU case study	14
SDG 8 - Decent Work and Economic Growth: A roadmap is needed to guide an equitable transition to a nature-positive economy	15
SDG 9 - Industry, Innovation and Infrastructure: Transforming infrastructure development for people and nature through spatial finance	16
SDG 10 - Reduced Inequalities: Ensuring the political inclusion of indigenous peoples in the Colombian Amazon	17
SDG 11- Sustainable Cities and Communities: Re-greening Milan for a resilient future	18
Guest contributor: Margaret Kuhlow We must invest in nature for long-term health and prosperity	19
SDG 12- Responsible Consumption and Production: Transforming food systems in the Global South through the Future Food Together initiative	20
SDG 13 - Climate Action: Trillion Trees: how Tanzania's forests are helping to build climate resilience	21
SDG 14 - Life Below Water: Building local partnerships for Accelerating Coastal Community-Led Conservation	22
SDG 15 - Life on Land: Rattan supply chain delivering mutual benefit for people and forests in Viet Nam	23
Guest contributor: Fran Price To achieve a nature-positive future, forests should be a top priority	24
SDG 16 - Peace and Justice Strong Institution: Using TrazApp to enhance traceability in Peru's fishing sector	25
SDG 17 - Partnerships for the Goals: A global partnership for a sustainable blue economy	26

# FOREWORD

At a time when the world is still recovering from an unprecedented global public health crisis, there is indisputable and alarming evidence that human impact on nature is unabated. Our planet is flashing red warning signs signaling an imminent failure of vital natural systems.



The multiple crises of climate change, biodiversity loss and pollution continue to adversely impact all three dimensions of the Sustainable Development Goals (SDGs): social, economic and environmental. ([Sustainable Development Goals Report 2021](#)).

Nature is declining globally at rates unprecedented in millions of years. The unsustainable way in which we produce and consume food, resources, and energy, particularly in high income countries and groups, and the blatant disregard for nature's contributions to our economy, is pushing entire Earth systems towards tipping points. COVID-19 is a vivid reminder of our fractured relationship with nature, and of our vulnerability. It has highlighted the deep interconnection between nature and human health and wellbeing, and how unprecedented biodiversity loss threatens social and economic stability, impacting the attainment of the SDGs.

Nature is essential to achieving all the SDGs – we cannot thrive on a degraded and uninhabitable planet. At WWF, we aim to ensure that nature is an integral part of the implementation of the SDGs in order to preserve Nature's diversity of life and secure benefits for people. Our Nature in all Goals report brings to light practical examples from WWF's and partners' work to show how supporting, nurturing, strengthening, and building relationships between people and nature contributes to the achievement of the SDGs. It showcases the successes that can be realised by putting nature at the centre of the SDGs.

This edition highlights the importance of moving toward a fair and nature-positive world and the work of diverse groups of stakeholders taking action to curb biodiversity loss, from the Green Heroes in India – young people devising innovative approaches to sustainable development – to women leading the way in Nepal for the promotion of community-based natural resource management. Equally, it sheds light on WWF's Future Food Together Initiative focused on transforming food systems in the Global South, with agriculture as one of the main drivers of deforestation, and illustrates WWF's guide to a transition to a fair and nature-positive economy. Furthermore, it includes opinion pieces from WWF thought leaders on the way forward towards a more just and sustainable world.

Our world must become fairer, carbon neutral and nature-positive. At the UN Biodiversity Conference (COP 15) we must ensure that countries agree on an ambitious Global Biodiversity Framework that commits to a nature positive world by 2030 and addresses the numerous challenges affecting humanity today. We must look to nature for solutions to hunger, poverty, inequity and build a safe and climate resilient world that will enable humans to live in harmony with nature.

A handwritten signature in blue ink, which appears to read 'Marco Lambertini'. The signature is fluid and cursive, written over a horizontal line.

**Marco Lambertini**

Director General, WWF International

# INTRODUCTION

Nature is pivotal to achieving all the SDGs. It provides us with essential resources needed for human survival such as food, air, water, and energy. In addition, nature can be harnessed to create solutions to the challenges set out in the SDGs; solutions that are positive for social, economic, governance, and environmental outcomes. For example, planting trees alongside livestock and crops contributes to climate change mitigation, because trees naturally capture and store carbon dioxide from the atmosphere. Additionally, diversification of agro-ecological systems strengthens livelihoods and increases resilience.

In spite of the effort made, seven years and almost midway through the implementation of SDGs, nature is in crisis and being degraded at a rapid rate with alarming consequences, placing not only the SDGs in serious jeopardy, but also risking human and planetary health. Most of this is due to human activities; for example, two years on we are still feeling the pinch of the COVID-19 pandemic, which has been a strong reminder of our ruptured relationship with nature. [The virus was most likely a zoonotic disease, transmitted from wild animals to humans.](#) Zoonotic diseases are driven by the same activities that are causing nature loss: illegal wildlife trade, deforestation, habitat loss, and large-scale land conversion for food and livestock production.

The seventh Global Assessment Report on Biodiversity and Ecosystem Services (IPBES-7) published in 2019, revealed **that current trends in biodiversity loss will undermine progress towards 80 percent of reviewed SDG targets relating to poverty, hunger, health, water, cities, climate, oceans, and land.** Ultimately, the degradation and loss of nature affects all of us, as it undermines our food systems, our economic systems, and our wellbeing. This decade must be the turning point where we recognise the value of nature, place it on the path to recovery, and transform our world to one where people, economies, and nature thrive in harmony with each other.

This report sheds light on how moving towards a nature-positive world contributes to restoring relationships between people and nature for the SDGs. It showcases the successes that can be realised by integrating nature into all of the SDGs. The 17 case studies and the guest authors in this publication show how we can restore our relationship with nature to



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maximise the impact of this agenda by addressing the drivers or root causes of biodiversity loss and scaling-up initiatives that work.

This publication features diverse initiatives at all levels; from a locally led renewable energy pilot in an Inuit community (7) to a global framework such as the Sustainable Blue Economy Finance Principles. (17) Working simultaneously and coherently at multiple levels in society, from the grassroots to the global, will help us shift towards a balanced relationship with nature.

We must boost our commitment to human rights, equity, and social justice in our efforts to protect and conserve nature through integrated and inclusive, system-oriented solutions to achieve the SDGs. Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) has consistently highlighted the deep and intimate dependency that exists between sustainable human development and the health of ecosystems, asserting the need to act urgently, both with and for nature. The IPBES-8 report highlights further that while the devastating impacts of the pandemic were still being felt worldwide, the response to the global crisis presented a historic opportunity to rethink the way in which the world's limited natural resources were managed, governed, financed, and used, and to help set countries and societies on more sustainable and inclusive pathways.



# COMMUNITY FORESTS SUPPORTING LIVELIHOODS IN SOUTHEAST CAMEROON

In the southeast of Cameroon, Indigenous peoples and local communities (IPLCs) aspire to have potable water, decent housing, electricity, schools, and affordable healthcare.

Access to these needs do not often come easily. Stymied by poverty, the quest for improvement of wellbeing is pervasive. In this area, local people have found a niche to overcome the challenges through **community forests**. This area has 125 community forests assigned to IPLCs, with 80 created with the support of WWF and local civil society partners.

According to the Cameroon 1994 Forestry Law, community forest is ‘that part of the non-permanent forest estate (not more than 5000 ha) that is the object of an agreement between government and a community in which communities undertake sustainable forest management for a period of 25 years renewable’. The main objective is engaging local communities in the sustainable management of the forest to support local development, and also creating incentives for local communities to conserve biodiversity.

IPLCs sign agreements with economic operators who sustainably harvest and process wood from the forests. (12) Money paid by the economic operators are used to finance micro-projects such as provision of potable water, electricity, improved housing (3, 6) in the communities. In addition, the IPLCs harvest non-timber forest products for local subsistence and commercial purposes. (1)

The sustainable use of community forests contributes to raising the standard of living for communities. (1) After more than a decade of experience with community forests, communities now attest to some improvement in their living conditions. ‘With money generated from our community forest, we have replaced the thatched roofs of 27 houses with corrugated sheets; this has spared us leakages during the rainy season’, says Sylvestre Afane, Secretary General of ADENAM, the association that manages the community forest in the village of Alati in Mintom. (1, 3)

Proceeds from the exploitation of community forests are used to procure social amenities for communities. For example, in the Nzoutou village, solar panels have been acquired to provide electricity to 150 households. ‘All households in our village now enjoy constant supply of electricity’, says Ndoutoumou Jean, head of APABY, the association running the community forest. (6, 7) Elsewhere, revenues from community forests have been used to support the construction of boreholes to provide potable water to the communities and housing for secondary school teachers. (8)

Meanwhile in Assok, the village of the Indigenous Baka people, community forest proceeds are used to support the education of Baka children. ‘For two years now community

forest has contributed to the payment of fees for Baka children and the provision of school materials such as books, uniforms and chalks’, says Ferdinand Nyangono, head teacher of a Baka school in Assok village. (4)

Community forests have been beset by lengthy administrative procedures, scarcity of funding, and uncertainty of technical support. Before they can exploit their forests, communities must elaborate a simple management plan, conduct inventories each year, and pay a felling tax introduced by the government in 2019. For the community forest to continue contributing to the improvement of living conditions of the people of Ngoyla-Mintom, more efforts have to be made to address these challenges.



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# CLIMATE-RESILIENT AGROECOLOGY FOR LIVELIHOODS AND WILDLIFE IN THE SILOWANA COMPLEX, ZAMBIA

Climate change has caused an increase in the occurrence and frequency of extreme weather events such as floods and droughts in Zambia. This has particularly affected local communities in the Silowana complex, where agriculture is a vital livelihood and source of food security.



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In recent years, frequent droughts coupled with unsustainable farming practices (conventional ploughing of fields, poor crop-residue management, maize monocropping, and shifting cultivation) by small-scale farmers have degraded farming land in the complex (soil nutrient depletion and erosion) and contributed to poor harvests. With no known alternatives, local community members have resorted to other activities such as cultivation in forested areas, which bring additional threats of human–wildlife conflicts.

To tackle this cycle of poverty, farmers from the Silowana complex have adopted a climate-resilient approach to an agroecological farming system, through partnership with WWF, the Mufulani and Sesheke Community Resource Boards, the Barotse Royal Establishment, the Department of National Parks and Wildlife, and the Department of Agriculture. (17)

WWF has facilitated implementation of a climate-resilient agroecology approach, (1, 2, 15) which adopts three principles to restore land quality and improve productivity: it promotes minimum soil disturbance when planting crops to protect against soil erosion; it promotes soil cover using organic materials like compost to improve soil moisture, suppress the growth of weeds, and protect the soil from extreme weather; and practices crop rotation, which involves alternating the crops planted each season in the same farming land. Crop rotation helps the soil to recycle nutrients and increase resistance against pests and diseases.

Over the past five years, more than 6,500 farmers have participated in the initiative. They have been trained in agroecology and planted a variety of drought-tolerant crop varieties including maize, groundnuts, and millet. They have also adopted new storage technologies to minimise post-harvest loss (12) and accessed affordable seeds that grow in local conditions.

Since adopting climate-resilient agroecology, farmers in the complex have seen higher yields in comparison to farmers using conventional farming methods. (1, 2) Most farmers now harvest more than double the usual harvest and have used their extra income to invest in their children's education (4) and to buy additional livestock such as cattle, as well as food. 'I started practising climate-resilient agroecology in 2018 and I noticed increased yield from a 50×50-metre field. I have bought land and built a house from sales of crops,' says Kaumba Musenuho (1).

In recent years, a reduction of farming in wildlife habitats has been noted, as the number of farmers adopting climate-resilient agroecology has increased. (15) Additionally, the farmers are sharing their knowledge of climate-resilient agroecology with other farmers in their communities, especially through farmer field schools. (4) Apart from increasing food security and income among the participating farmers there is a reduced incidence of elephant–human conflict (crop raids) in fields near homesteads.



# TRANSFORMING FOOD SYSTEMS FOR THE PROMOTION OF THE SDGS IN AFRICA

**NANCY RAPANDO**

**AFRICA FOOD FUTURE LEADER, WWF FOOD PRACTICE**

Recent global supply chain disruptions and climate change trends have exposed the vulnerability of the African food system. The competing demands for land for feed, fuel and export commodities could mean that the land expansion and greater production foreseen may not mean an increase in food for Africa, according to a recent publication in *Nature Food*. If the current trends continue, Africa may not be able to reach its SDG goal of zero hunger (2). Even with less food available, two separate studies produced by WWF and Chatham House revealed that existing food systems still impact land and freshwater and are the single largest source of deforestation and biodiversity loss. This includes wildlife species that have fallen by almost 68 percent since 1970, another factor that could make the attainment of the SDGs such as life on land (15) and climate action (13) challenging.

If we are to attain the SDGs, the United Nations Framework Convention on Climate Change, the Paris Agreement, and the United Nations Convention on Biological Diversity, we must take a holistic approach to tackling unsustainable food systems, climate change, and biodiversity loss. We need to strike a balance between human demands and ecological restoration; we must manage landscapes in a multifaceted manner, embracing integrated land and water management practices that guarantee sustainable food production. Many countries have already included agricultural and land use in their climate commitments. We are especially encouraged by the commitments made toward putting food systems on a nature-positive pathway in the recent UN Food Systems Summit. Indeed, the key to attaining the SDGs is to create a transformative food system that not only creates wealth, but also ensures food security and biodiversity protection while minimising water and climate impacts.

Re-imagining our food systems to meet the SDGs will require game-changing initiatives. To begin with, we must guarantee

that a food systems perspective is included in global and country-level policies, such as nationally determined contributions. Secondly, we must avoid 'silos' of action, and collaborate to stop the conversion of natural areas for food production, implying that nature-positive solutions must be co-created with farmers. Similarly, we must accelerate the use of public and private finance to enable food system change; food and agricultural subsidies must be repurposed to reward behaviours that benefit the climate, nature, and people. As individuals and consumers, we need to embrace flexible food choices that are healthy and sustainable.

Finally, beginning from the ground up, we must implement simple solutions based on agro ecological principles. Soils are still a vital source of biodiversity, and they must be protected for future generations. Failure to do so risks irrevocable harm to the environment, the climate, and people, which are now the foundational pillars of the SDGs.



# RENEWABLE ENERGY SOLUTIONS FOR BETTER HEALTH AND ENERGY SECURITY IN KARACHI, PAKISTAN

In Karachi, the largest cosmopolitan city in Pakistan, communities in peri-urban areas rely on mangroves and other forest trees for fuel to use at home. However, burning wood for fuel is often unsustainable, and negatively affects human and environmental health.



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Burning firewood indoors causes chronic respiratory diseases as well as eyesight illnesses, especially among women and children. In Pakistan, indoor air pollution is linked to 63,500 deaths annually. In most areas, each household uses an average 15–20 kilograms of wood every day for fuel. Firewood used as fuel contributes to greenhouse gas emissions.

Furthermore, mangrove forests are an important contributor to climate resilience. They are five times more cost-effective than human-made infrastructure in providing protection from extreme weather-related events such as cyclones and tsunamis.

For three years, communities in Gadap Town, Maripur, and Rehri worked together with the Karachi Metropolitan Corporation, WWF, and the electricity supply company, K-Electric, to provide clean and renewable energy solutions. (7) The transition to clean and renewable energy involved in-depth community engagement to install solar energy systems, fuel-efficient stoves, and gasifiers in more than 2,500 households.

In Rehri, 12 communal biogas systems have been installed for use by 41 households. Biogas is a clean, odourless fuel that uses cattle manure to produce methane gas for cooking and heating (7, 11).

The switch to clean and renewable energy has improved the health outcomes of local residents. In Gadap Town, of the

individuals who now use clean energy solutions, 53 percent have reported a reduction in respiratory diseases, 51 percent reported a reduction in eye-related problems, and 52 percent reported a reduction in skin-related problems associated to burning of wood in-doors for fuel. (3)

A total of 89 targeted residents, including 43 women, have started new livelihood activities associated with the maintenance of biogas, solar gas, and fuel-efficient stoves in their communities. (1, 5, 8) We expect that the other women in the community will adapt to this technology due to its economic and health benefits. Women have reported having more time to spend on income-generating activities, because renewable energy is more efficient than traditional harvesting of firewood fuel. (5)

The transition has brought positive benefits for the environment. In Rehri, manure was previously disposed of in the Arabian Sea, but is now processed for use in biogas plants, thereby reducing organic waste in the sea. (3, 6, 11, 14) Since the biogas systems have been installed, the daily use of mangrove firewood has decreased from 15.58 kilograms per day per household to 1.88 kilograms per day. (13, 15)

In addition, local communities have planted approximately 100,000 mangroves and 63,555 saplings of other native tree species to restore local landscapes around the Sandspit area of the Karachi coast. This will help strengthen climate resilience and improve local biodiversity. (13, 15)



# ECHO – BUILDING A CADRE OF GREEN HEROES IN INDIA

Our planet and the future of humanity is heading towards a point of no return if nothing drastic is done.

Recently, the Intergovernmental Panel on Climate Change reported that it is almost certain that the planet's temperature will rise beyond 1.5 degrees Celsius in the next two decades, unless there is immediate collective action from all countries.

The climate fight is not for world leaders, governments, and businesses alone. While they must do the heavy lifting, individuals too can make a huge difference by changing the way we live, and encouraging sustainability around us. India's youth is its greatest asset. India is the youngest country in the world, with an average age of 29 years, and 64 percent of the population of working age. They are charged with dreams and aspirations, and motivated to make a difference. These young adults will be sitting in positions of power tomorrow, and making decisions that will change the course of the world, for good or bad.

In 2018, WWF India started the Environment Conservation Heroes (ECHO) initiative; a Pan-India initiative that provides an opportunity for college and university students to become green entrepreneurs. It encouraged young people to identify an environmental problem linked to one of the SDGs and design an innovative, outside-the-box solution for it. (4)

ECHO engages interdisciplinary teams of college students. These young students ideate, innovate, and test their ideas through pilot projects aligned to the theme of the year. (4) Every year, a theme from the 17 SDGs is selected, and the ECHO team reaches out to colleges to identify an environmental problem linked to the SDGs. Youths that apply for the programme are trained to think creatively as well as understand project management through a workshop session. (4)

ECHO has drawn the attention of young people from diverse academic backgrounds – the arts, science, engineering, and medical institutions, and others. It started with 20 colleges and four locations in 2018, and expanded to 10 locations and 76 colleges in 2021. Since 2018, more than 600 youths have been engaged from across India and have led more than 150 ECHO projects to raise awareness of environmental sustainability, influence change, and modify the behaviour of half a million people.

## Some of the key behavior changes observed:

- Many women switched to sustainable menstrual hygiene products like menstrual cups, reusable pads, and sanitary napkins made from organic material
- College communities observed 'meatless Thursdays' in their cafeterias to promote plant-based diets
- Many shops and vendors targeted switched to 'bring your own bag', to reduce single-use plastic.

## Some of the striking ECHO conservation projects designed and implemented from this initiative include:

- Bishop Cotton University, Karnataka – post-harvest ethylene reduction in ripened fruit and vegetables (12)
- National Institute of Fashion Technology (NIFT), Delhi – developed education modules on food wastage and sustainable consumption, and implemented a massive social media campaign to promote the modules (4, 12)
- Miranda House, Delhi – developed a recipe book of 35 traditional recipes made from locally sourced ingredients from all over India (4)
- B.V. Raju Institute of Technology, Hyderabad – created bioplastics and face sheet masks from corn waste (15)
- Indira Gandhi Delhi Technical University for Women, Delhi – promoted sustainable menstrual hygiene products to reduce plastic waste from sanitary pads (3)
- Midnapore College, West Bengal – promoted butter paper in local bakeries as an alternative to plastic packaging (15)
- NIFT, Delhi – promoted sustainable fashion through social media campaigns (12)
- Ramniranjan Jhunjhunwala College, Mumbai – created a soap from agave plant waste. (12)



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# PROMOTING WOMEN'S LEADERSHIP IN COMMUNITY-BASED NATURAL RESOURCE MANAGEMENT IN NEPAL



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In Nepal, communities in the Chitwan-Annapurna and Terai Arc landscapes are working together to manage natural resources sustainably, adapt to the impacts of climate change, and reduce greenhouse gas emissions.

Community management groups, also known as community forestry user groups, are the main mechanisms used to make collective decisions relating to forest conservation and climate change adaptation. Climate change affects men and women differently, because of their different gender roles and social status. (10) Including women in leadership positions in the user groups helps communities to identify these differences and design appropriate and effective responses.

(5)

USAID's Hariyo Ban Program, in partnership with local communities across 20 districts, supported the launch of community learning and action centres. The centres provide fora where women and minority groups can organise and mobilise around local issues relating to natural resource management and climate change adaptation. (13) They participate in tailored training to strengthen their leadership skills and knowledge of forest conservation so that they can take on more active roles in the user groups. (10, 15) In addition, the centres are a meeting place to engage men and decision-makers in ways of promoting the leadership and inclusion of women and minority groups. (16)

During the first phase of the programme (2012–2016), the number of women in executive positions in community

forestry user groups increased by 4.5 percent to 48 percent (4,875 women) across the 20 districts. During the second phase of the programme (2016–2021), the representation of women in executive positions in Hariyo Ban II supported natural resource management groups increased from 45 percent to 50 percent, and the proportion of leadership positions in community management entities filled by a woman or member of a **vulnerable group** increased from 72 percent to 87 percent. Their leadership has helped to ensure the equitable sharing of revenues from forest products and that women's use of forest resources are factored in planning and decision-making processes. (10, 16) Through this programme, nearly 6 million hectares of biodiversity areas are under improved management. (15)

More than 3,000 people were trained in gender equality and social inclusion leadership, including men and decision-makers, and 117 anti-gender-based violence networks were created to tackle gender-based violence issues at the local level. The Federation of Community Forestry Users Nepal (FECOFUN) plans to scale this up in the other 77 districts of Nepal. (5) WWF, Federation of Community Forestry Users Nepal (FECOFUN), CARE International Nepal and National Trust for Nature Conservation are the key partners working in the Hariyo Ban Program.



## MEXICO SETS THE PACE FOR WATER SECURITY IN THE LAC REGION

Budgeting for water use can avoid scarcity. Such budgets are shrinking worldwide amid climate change and increasing unpredictable severe weather events. The 2011–2017 California drought and Cape Town’s 2017–2018 water shortage illustrate the consequences when freshwater supply cannot match demand.

In a bid to pre-empt a similar catastrophe in Mexico, in 2018, 10 water reserves were created in nearly 300 river basins. (6) These reserves represent 55 percent of Mexico’s surface water, and the conservation of two of the last free-flowing rivers in the country, the San Pedro Mezquital and Usumacinta river basins. According to the government, water reserves will guarantee water supplies for 45 million people for the next half-century. (3, 6)

A multidisciplinary group drove the creation of the reserves, including WWF-Mexico, CONAGUA (Mexico’s national water commission), CONANP (the country’s national natural protected areas commission) the WWF – Gonzalo Río Arronte Foundation Alliance and the Inter-American Development Bank. (17) The reserves created in 2018 were all in places where water was not over-exploited, where there was greater biological diversity, and where preventative measures would avoid water scarcity.

Over 15 years, basins with water availability, high ecological importance, and low water stress have been identified, and the amount of water needed to sustain each river’s ecosystem and meet human needs over 50 years calculated. Development projects, such as dams, will have to comply with water-use limits and other requirements specified for those reserves. (12)

Mexico continues to improve water management in a participatory and inclusive manner. Since 2018, the Environmental Water Reserves Monitoring Network (RedMORA; integrating 38 institutions – 26 universities, six research centres, six non-governmental organisations – CONAGUA, and CONANP) has worked to design and operate a nationwide research-driven system to assess the performance of the reserves, make necessary adjustments and guarantee its implementation. Expected outcomes include the provision of operative rules and governance

actions in adaptive management and decision-making around Mexico’s National Water Reserves Program 2020–2024. (6, 16, 17)

In 2016, a preliminary assessment of the viability of creating freshwater reserves was made in Colombia, Bolivia, Ecuador, and Peru, concluding that there were strong conditions to launch a Water Reserves Initiative for the Andean countries. The initiative aims to allocate water for the environment through the implementation of environmental flows in the region’s most important water-producing areas, such as the Amazon headwaters, Cerrado-Pantanal, and the Maya Rainforest.

In June 2017, a first training programme was held in Mexico with the participation of WWF and nine Latin American countries. (4) The Water Reserves Initiative, led by Mexico, represents a leap forward in allocation of water to the environment and people, as well as broadening the scope of conservation and restoration actions in the LAC Region. Capacity-building processes were undertaken in 2020 and 2021; water authorities, academia, and civil society in each country began a dialogue on how water reserves can transform the way water resources are managed. (17) This comprehensive scheme places the environment at the centre of resilient and sustainable water management. (4)

Bolivia, Guatemala, Honduras and Peru are replicating this model, with Peru and Bolivia leading the rollout while Colombia and Ecuador are showing interest in this water conservation model. In Guatemala and Honduras, the Water Reserves Initiative approach has been integrated into the 2021–2025 Regional Environmental Strategy (ERAM) of the Central American Commission for Environment and Development (CCAD-SICA).



# HOW CANADA'S FIRST INUIT ENERGY CO-OPERATIVE ARE MOVING TOWARDS A RENEWABLE FUTURE.

The Hamlet of Gjoa Haven is located in Nunavut, Canada's northernmost territory. Access to energy is critical for this community, especially in winter, when the sun does not rise above the horizon for over a month, and temperatures reach as low as -50 degrees Celsius.



© Martha Lenio

Energy is currently sourced from fossil fuels, mainly diesel. Diesel is shipped into the community once per year and stored in giant tanks. Diesel spills in the community are a real risk and can have irreversible consequences for human health, water quality, and local wildlife that the community depends on for food (2, 3, 6, 15). Diesel exhaust is also classified as a carcinogen by the World Health Organization (3).

In addition to these risks, diesel energy is very expensive for the community. The monthly energy bill for households in Gjoa Haven can be between 700 and 1000 Canadian dollars. These high costs affect nearly all aspects of life in the North, including the residents' ability to afford housing and food.

In response to the high cost and risks of diesel energy, the community is exploring sustainable and affordable energy alternatives. The Hamlet has formed Canada's first Inuit energy co-operative to pilot three solutions that will help reduce reliance on diesel fuel and transition to clean and renewable energy.

One solution is a solar array to help power the community arena. A metering system has been installed to promote the efficient use of the energy generated. In summer, the solar array generates surplus energy which is directed into the grid to be used elsewhere. The energy directed into the grid is tracked through credits which can be then used when the building needs to draw energy from the grid in winter (7).

The second solution is a home energy monitor system that residents have installed to track energy use and improve energy efficiency (7).

The third is a waste-to-heat solution that uses historic waste oil stockpiled in the community for heating. Re-using waste oil helps reduce the chance of oil spills as a result of historic waste (11).

Within the first six months of operation, all three solutions are generating financial savings and helping reduce diesel use. The co-operative model is an important aspect of the pilot because it facilitates greater investment in community-led ownership. So far, two community members have accessed business skills training to run the co-operative and ensure the solutions remain economically viable (8). Three community members currently work on operations and maintenance of the solutions (8).

Multiple stakeholders supported the pilot including WWF, local, territorial and federal government authorities, Crown-Indigenous Relations and Northern Affairs Canada, Kikitak Housing Association, Qulliq Energy Corporation, the Alaska Center for Energy and Power, and Green Sun Rising. WWF-Canada's role in this project directly resulted in an additional contribution of \$1.6 Million in 2022 from the Government of Canada via the Impact Canada Fund. The Hamlet of Gjoa Haven is working in partnership with Qulliq Energy Corporation, the Arctic Renewables Society, and Hamlet of Gjoa Haven Businesses, demonstrating the positive benefits that arise when multiple partners collaborate.

This funding will allow the Hamlet of Gjoa Haven to expand upon the community level energy generation and conservation activities established during the pilot. New measures will include implementing solar PV on cabins on the land near Gjoa Haven, promoting heat pump dryers and other energy efficient appliances, a renewable energy powered community freezer, wind and solar powered community greenhouses, a wind energy feasibility study, district heating, and installing solar panels on: commercial and government buildings, the Community Hall, and the Heritage Centre. Additionally, the Hamlet will engage in energy efficiency education and research.

## GUEST CONTRIBUTOR



# ACHIEVING A WELLBEING ECONOMY THROUGH THE SDGS – AN EU CASE STUDY

**REBECCA HUMPHRIES**

**SENIOR PUBLIC AFFAIRS OFFICER -WWF EUROPEAN POLICY OFFICE**

The wellbeing economy is a concept that has been gaining traction in recent years, thanks to the efforts of civil society and the alliance of wellbeing economy governments (which include Scotland, New Zealand, Iceland, and Finland, among others), who have committed to being guided by the concept in their policies and budgets. This shift was spotlighted in the 2020 Nature in All Goals report by the Wellbeing Economy Alliance (WeAll).

Inspired by this vision of policy-making which is more respectful of people and planet, WWF European Policy Office published a report *Towards an EU Wellbeing Economy – A fairer, More Sustainable Europe Post COVID-19*, calling for the EU to shift to a wellbeing economy, using the SDGs as its guiding compass.

A ‘wellbeing economy’ sprouts from the idea that public interests should determine economics, and not the other way around. Currently, economic growth as measured by GDP is used as the lead indicator by decision-makers when determining their highest-level political priorities, often to the detriment of social and environmental indicators. Rather than blindly pursuing economic growth, a wellbeing economy monitors and values what truly matters: health, nature, education, and communities.

For too long, the narrow approach led by GDP has led to the biggest challenges we currently face being tackled in silos, when in fact crises are often interlinked, and so should their solutions be. This is the strength of the 2030 Agenda – it is a universal, indivisible agenda relevant to and adopted

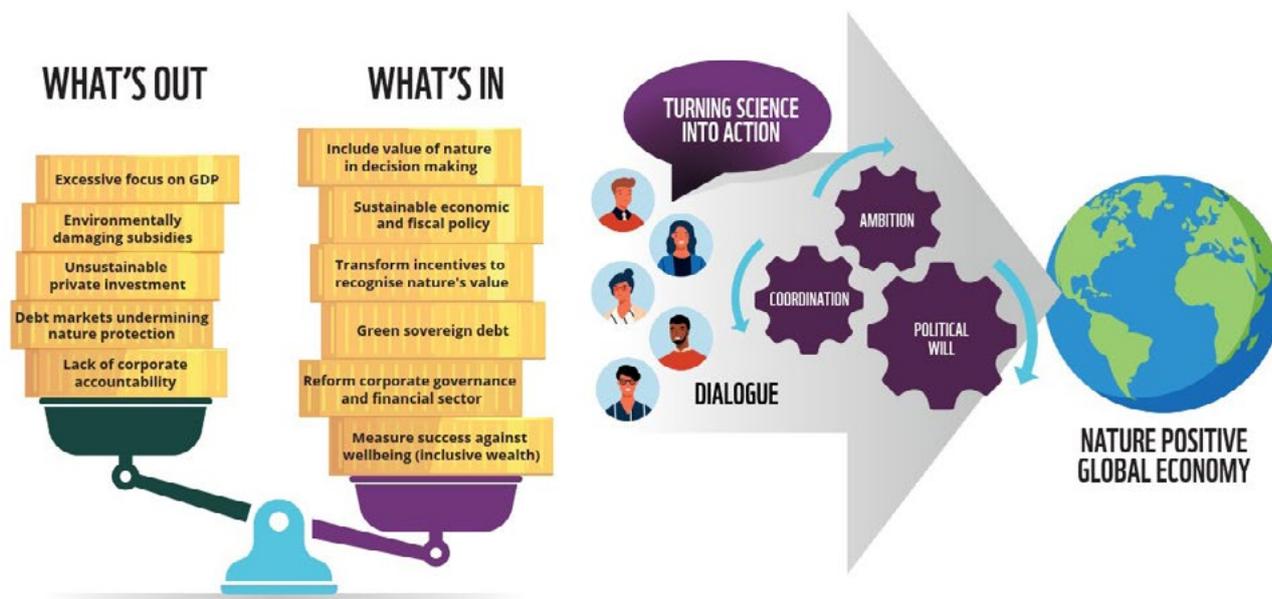
by all countries and governments, requiring coherent and integrated actions across goals. Its achievement requires changes to our economic system, and measures of progress that place equal importance to the economic, social, and environmental pillars of sustainable development.

Some positive steps can be seen already at EU level. A new law that sets the EU’s environmental and climate priorities until 2030 has just been adopted – the 8th Environment Action Programme (8th EAP). For the first time, it embeds ‘advancing towards a wellbeing economy that gives back to the planet more than it takes’, as a priority objective of the EU’s environment policy in law. Importantly, the 8th EAP also sets actions to make the wellbeing economy a reality, including the production of an EU summary dashboard and indicator set measuring ‘beyond GDP’. Since 2021, the EU also requires impact assessments for new policies to take into consideration relevant SDGs, so that all future policies contribute to achieving the SDGs.

*Further information on how the SDGs can act as a guiding tool towards a wellbeing economy can be found in the report ‘Towards an EU Wellbeing Economy – A Fairer, More Sustainable Europe Post COVID-19’.*



# A ROADMAP IS NEEDED TO GUIDE AN EQUITABLE TRANSITION TO A NATURE-POSITIVE ECONOMY



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The alarming destruction of nature and the biodiversity that underpins it is widely acknowledged as an extreme risk to economic and financial stability ([Dasgupta Review](#); [Network for Greening the Financial System](#)). Industries that are highly dependent on nature generate 15 percent of global GDP, and the hidden costs of the food, ocean, and land use system – an estimated USD 12 trillion – [now exceed its contribution to global GDP](#).

93 heads of state and government and the EU have committed to reverse biodiversity loss by 2030, and the [G7](#) acknowledged that 'nature...ultimately sustains our economies, livelihoods and wellbeing, [and that] our world must not only become net zero but also nature-positive'. To succeed with this, vital elements in our current economic and financial systems that systematically degrade nature need to be reformed, such as the insufficient valuation of natural capital, misaligned incentives, and the realignment of harmful activities.

Together with the **UN Environment Programme World Conservation Monitoring Centre** and several

key stakeholders, WWF is [calling for the establishment of a roadmap](#) to a nature-positive economy – a politically mandated and inclusive process which will bring together ministries of economics and finance with international expertise and resources to identify the architecture and reforms needed to align the global economy with the nature-positive agenda. The co-created roadmap will provide governments and international institutions with an implementation plan for an equitable transition to a nature-positive economy, and allow them to make public commitments for their contribution to the SDGs and the nature-positive goal by 2030.



# TRANSFORMING INFRASTRUCTURE DEVELOPMENT FOR PEOPLE AND NATURE THROUGH SPATIAL FINANCE

Road and rail infrastructure play a vital role in economies. These types of infrastructure facilitate people's daily mobility and transport agricultural produce and other goods to markets and across borders.

At the same time, roads and other major infrastructure such as dams can present some of the biggest threats to natural habitats and wildlife. Over the next three decades, an estimated 25 million kilometres of roads will be constructed globally, with 90 percent of these roads built in low-income countries with high biodiversity. If they are not carefully planned, these infrastructure projects could leave countries with huge debts, increased poverty, and irreversible damage to the natural environment. (1, 9, 15)

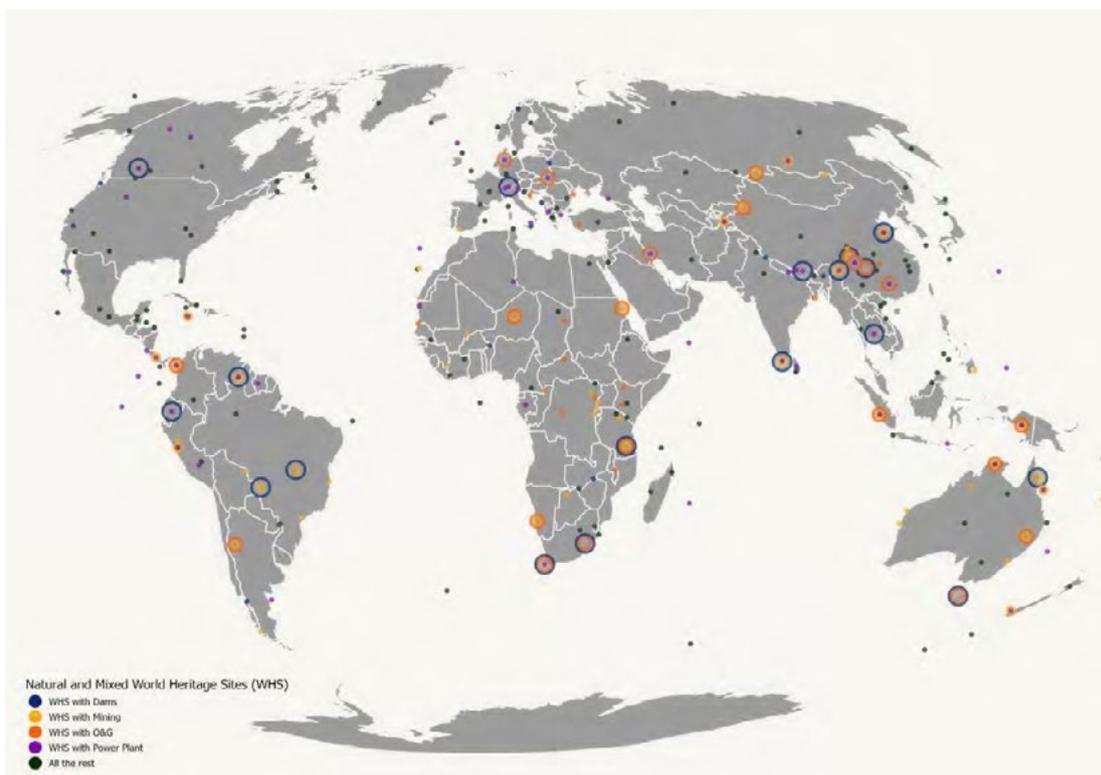
Spatial finance is an emerging, interdisciplinary field that uses geospatial tools, such as geographic information system and satellite imagery, to provide data and analysis on the social, environmental, and financial costs of infrastructure projects. The data help improve transparency in financial decision-making and facilitate constructive dialogues at early planning stages. (9, 15, 16)

Work is underway in this innovative field to connect stakeholders from a range of disciplines and develop tools that policy-makers and investors can use immediately. To

help with this, WWF has designed a spatial intelligence platform, [WWF-SIGHT](#), which brings together diverse spatial datasets and satellite imagery to provide a near real-time understanding of the status of key biodiversity areas around the world. (17)

In June 2019, WWF and Investec Asset Management launched [cutting-edge research](#) on the use of geospatial data and satellite imagery to assess environmental risks in sovereign debt investment. (9, 17) The global infrastructure funding gap is estimated to be USD 15 trillion by 2040 and will likely be financed by sovereign bonds. Sovereign debt is a huge asset class of nearly USD 70 trillion and makes up as much as two-thirds of the global bond market.

With accurate information and a holistic understanding of the implications of infrastructure projects, investors can direct investments towards sustainable development outcomes that promote policy coherence and provide long-term value. (17)





# ENSURING THE POLITICAL INCLUSION OF INDIGENOUS PEOPLES IN THE COLOMBIAN AMAZON

Indigenous peoples in the Amazon region in Colombia are the legal custodians of nearly 26 million hectares, of which 94 percent are forests. Their territories are ‘living barriers’ against deforestation, and their forests provide crucial natural services such as storing carbon, (13) conserving biodiversity, (15) and water supply. (6)



© Diana Alvarez -OPIAC

The Colombian government’s current strategy to protect the Amazon rainforest is to reduce deforestation and to offer sustainable alternatives to communities. However, there is little recognition and support for the existing conservation work of Indigenous communities and their efforts to address the drivers of nature loss in the region.

The National Organization of the Indigenous Peoples of the Colombian Amazon (OPIAC), a leading Indigenous organisation in the Amazon, has partnered with WWF-Colombia to strengthen the formal inclusion and participation of Indigenous peoples in the decision-making and management of the Amazon rainforest. (16)

In 2018, OPIAC undertook a ground breaking study into the role and contribution of Indigenous territories in the Amazon region. The study assesses the health of ecosystems in Indigenous territories and the services these territories provide at local, regional, and global levels. In addition, the study details the ancestral practices and knowledge that Indigenous communities have cultivated to conserve

their territories, as well as the emerging pressures their communities face. For example, they have a constant cultivation system called ‘Chagras’ that is focused on a rotary production system. This lets the soil rest and allows recuperation for better functioning and productivity.

Using the preliminary findings of the study, OPIAC collaborated with four indigenous organisations to refine and negotiate recommendations to the Colombian government on the 2018–2022 National Development Plan. Some of the recommendations have been taken up in the National Development Plan, including a set of climate adaptation and mitigation actions that will ensure equality of outcomes for Indigenous people. (10, 13, 16)

OPIAC and WWF have a joint work plan, and current efforts are focused on sending recommendations to the government for the next governmental period 2023–2027. OPIAC creates the spaces for direct negotiations between the Indigenous peoples and the government. (17)

# RE-GREENING MILAN FOR A RESILIENT FUTURE

Cities occupy three percent of the Earth’s land, but contribute 70 percent of greenhouse emissions. It is estimated that by 2050, 75 percent of the global population will live in cities, and cities will account for 85 percent of global economic output. Cities are therefore vital to tackling the intergenerational challenges of inequality, nature loss, and climate change.



In Milan, Italy, the local municipality is leveraging nature to build the city’s resilience through a partnership with local citizens, WWF, the Polytechnic University of Milan, Ambiente Italia, Eliante, Agenzia Mobilità Ambiente Territorio, Rete Ferroviaria Italiana, and Italferr.<sup>(17)</sup> The partnership, supported by the H2020 Clever Cities activities, has designed three projects to increase the city’s green infrastructure and address several environmental health risks, including noise and air pollution, flood risks, heatwaves, and a phenomenon known as the ‘urban heat island’ effect.

The urban heat island effect happens when an urban area experiences significantly hotter temperatures than nearby rural areas. This is caused by several factors such as energy use, lack of natural vegetation, and how well buildings and infrastructure absorb and emit energy.

One of the projects is a new public park that will create a green area in the Giambellino neighbourhood. Plans for the park include several spaces dedicated to urban biodiversity and social cohesion: a butterfly meadow, a community garden and orchard, a wall-planting demonstration, pollution-absorbing plants, and an area for birdwatching. <sup>(2, 11, 15)</sup> Through a co-creation process, residents are contributing to the design and future management of the park. <sup>(11, 17)</sup>. Approximately 15 associations are participating in the co-creation process. The park is also designed to encourage healthier lifestyles by providing opportunities to grow and access vegetables, <sup>(2, 3)</sup> and spend more time outdoors in the natural environment. <sup>(3, 11)</sup>

The second project promotes the building of green roofs and walls in the city’s infrastructure planning. Green roofs and walls can absorb excess heat during warmer months and improve energy insulation in winter. To promote uptake, the coalition organised public campaigns and training sessions for professionals, providing funding and technical support to co-create the green infrastructures and monitor their impacts. A green wall was built in the neighbourhood of Giambellino; five green roofs are underway in a social housing neighbourhood, and will bring green and protected spaces to the local community. In the next months, four more social housing buildings will be refurbished and green roofs and walls will be co-created with the local community, offering many benefits such as edible gardens, pollinator spots, and shaded and social areas for inhabitants.

The third project will redesign a local railway station, Tibaldi station, to trial green elements and noise barriers within the railway station. The green elements include green walls, and vegetation to absorb pollution and slow water run-off. The aim is to improve biodiversity and ecological connectivity, <sup>(15)</sup> contribute to the absorption of carbon dioxide and other pollutants in the air, <sup>(13)</sup> and involve citizens in the co-management of the green areas. <sup>(16)</sup>



# WE MUST INVEST IN NATURE FOR LONG-TERM HEALTH AND PROSPERITY

**MARGARET KUHLOW**  
**GLOBAL FINANCE PRACTICE LEADER, WWF INTERNATIONAL**

Realising the promise of the SDGs and delivering prosperity for all on a healthy planet will be impossible unless we invest in nature. With our entire economy dependent on nature and its services, and 1.2 billion jobs relying on a healthy environment, protecting nature is an economic imperative.

The risks of inaction are massive. Natural disasters caused by human ecosystem disruption and climate change already cost more than [USD 300 billion a year](#), and the potential collapse of ecosystem services such as pollination threaten a [USD 2.7 trillion annual decline in global GDP by 2030](#).

In contrast, transitioning to a nature-positive economy could generate annual business opportunities worth over [USD 10 trillion](#) and create 395 million jobs by 2030.

To deliver an equitable, nature-positive, net-zero economy, governments must properly value nature's contribution to societies and economies. This requires integrating natural capital into all fiscal, monetary, and budgetary decision-making, including national SDG, development, and COVID-19 recovery strategies.

It also means aligning public and private financial flows with social and environmental goals and targets, including delivering climate mitigation and adaptation through nature-based solutions, promoting agro ecological food systems, reducing environmentally harmful subsidies, and significantly increasing finance for nature.

To meet climate, nature, and land degradation targets, we need to close a [USD 4.1 trillion financing gap for nature by 2050](#) – a fivefold increase on current biodiversity-related finance, with overall investment in nature tripling by 2030.

Reforming the [USD 1.8 trillion](#) spent annually on environmentally harmful subsidies would free-up substantial

government resources to support social needs, and accelerate innovation to reduce greenhouse gases in all parts of the economy.

The new framework from the Taskforce on Nature-related Financial Disclosures will enable companies and financial institutions to report on their impacts and dependencies on nature. Making such disclosure mandatory would accelerate the transition to a nature-positive economy.

Investing in nature will benefit everyone, especially the world's poorest, for whom the impacts of environmental degradation are most severe.

Developed countries have a particular responsibility due to their high consumption levels and the biodiversity footprints embedded in goods and services imported from developing countries.

Through the Network for Greening the Financial System, central banks, financial sector regulators, and supervisors have recognised that financial stability depends on integrating nature-related risk into financial decision-making. But to secure the healthy ecosystems that are the foundation for delivering the SDGs, we now need a landmark global agreement on nature at the UN Biodiversity Conference (COP 15) in Montréal, Canada, later this year, that will unlock public-private finance for nature and shape a thriving nature-positive economy.



# TRANSFORMING FOOD SYSTEMS IN THE GLOBAL SOUTH THROUGH THE **FUTURE FOOD TOGETHER INITIATIVE**



Over a third of the Earth's habitable land supports agriculture, providing livelihoods for nearly half the world's population. 21–37 percent of global greenhouse gas emissions are traceable to our food systems, driven primarily by deforestation, land use change, and land management activities.

According to the [United Nations Environment Programme/Chatham House](#), 'Agriculture is the single largest cause of land-use change and habitat destruction, accounting for 80 per cent of all land-use change globally'. Global food systems leave approximately 811 million people (one in ten) affected by hunger, and approximately 2 billion people without regular access to safe and nutritious food, while two-thirds of the extremely poor live in rural areas where most agriculture takes place. There is an urgent need to build sustainable food systems that are healthy for people and the planet.

In 2017, the WWF-led multi-country (Thailand, Indonesia, the Philippines, Paraguay, and Colombia) initiative [Future Food Together](#) dedicated to furthering the global sustainable consumption and production (SCP) agenda, addressing agri-food systems challenges by promoting and integrating SCP practices throughout the value chain with a three-pronged focus: influencing companies, policymakers and consumers.

In the [Philippines](#), 24 restaurants and hotels have shifted to sustainable practices. Partnerships with industry platforms raised awareness (Hotel and Restaurant Association, Cebu Chamber of Commerce and Industry).<sup>(17)</sup> Policy advocacy achievements include promoting or advising on several bills, policies, and guidelines (Food Surplus Reduction Bill, National Sustainable Consumption and Production Framework, National Food Waste Guidelines), and a Memorandum of Understanding with the Department of Tourism to develop a policy mandating sustainability training for the food service industry.<sup>(4, 12)</sup> Communication measures addressed the dining public aiming at raising awareness on the ecological implications of consumption choices.

In [Thailand](#), the project has engaged the value chain from farm to fork, switching harmful monocultures to diversified agro ecological or organic production, and setting up local markets and cooperation with retailers. 600 hectares

of maize plantation were converted from monoculture, of which 118 hectares were restored to forests.<sup>(13, 15)</sup> Through collaboration with scientific institutions, evidence was presented to government authorities about mitigation opportunities in the food system. In collaboration with a large retail conglomerate (Central Group), the project promoted and developed sustainable supply chains by supporting farmers' markets, raising consumer awareness through information tools, and supporting landscape restoration.<sup>(1, 4, 13)</sup>

In [Indonesia](#), the aim was to shift the domestic market for palm oil towards sustainability. While campaigning towards consumers and consumer organizations, the project sought to influence companies by making the business case of shifting to sustainable products. A major achievement was the introduction of sustainable palm oil in cooking oil products in a major supermarket chain (SuperIndo). In cooperation with the Indonesia Business Council for Sustainable Development (IBCSO) the Green Lifestyle platform was remodelled based on an analysis of sustainable business models. With IBCSO, the [Sustainable Sourcing Guidelines](#) were published in 2020, and are being implemented by nine companies across the value chain.

Two projects in Colombia and Paraguay began in 2020, focused on shaping national policy to integrate SCP in agri-food systems, influencing and advising businesses on sourcing practices and setting up 'sustainable shelves'. This included working on deforestation-free value chains and avoiding food loss and waste, working with smallholders to access markets with agroecological products, and raising the awareness and capacity of consumers to make informed consumption choices. Engagement in Paraguay and Colombia will continue until the end of 2023.

*A phase II SCP project commenced in Thailand and Cambodia in June 2022.*



# TRILLION TREES: HOW TANZANIA'S FORESTS ARE HELPING TO BUILD CLIMATE RESILIENCE

Forests and woodlands cover over 50 percent of land area in Tanzania, and supply food, firewood, freshwater, and jobs to millions of people. Healthy forests boost the country's resilience to climate change, as they capture and store large amounts of carbon and buffer against climate change impacts such as flooding and storm surges.

The health of these vital ecosystems can be improved through adopting sustainable forest management practices, restoring degraded forest land, and conserving intact landscapes. In all three solutions, local communities play a central role, as they possess first-hand knowledge of the forests.

For more than two decades, communities have been working with WWF, and more recently the Trillion Trees partnership (WWF, Birdlife International, the Wildlife Conservation Society) to sustainably manage forests across Tanzania. (17)

At present, 45 villages in the Ruvuma landscape, southeast Tanzania, are managing more than 450,000 hectares of community forests using sustainable management practices. (1, 13, 15) Through a collaborative partnership with WWF, they have been able to develop management and harvesting plans and gain access to reliable markets through a Forest Stewardship Council group certification scheme. (1, 8, 12, 15).

To help restore local forests, communities living near Vikindu, Pugu, and Kazimzumbwi forest reserves are working with Trillion Trees, WWF and Tanzania Forest Services to plant new trees. The reserves are situated close to the capital

city, Dar es Salaam, and provide vital services to the capital city such as carbon storage, clean air, and flood mitigation. (3, 11, 13) In addition, restoring the forests will help create new sustainable livelihoods such as ecotourism and bee-keeping. (1, 8) In 2021, the communities planted more than 24,500 native seedlings; over five years, this project has successfully planted 73,500 tree seedlings. (13, 15)

At the policy level, WWF's partnership with Tanzania Forest Services within Trillion Trees to restore degraded forests through tree planting and campaigning has resulted in the formal creation of the Pugu Kazimzumbwi Nature Reserve, providing increased protection of the forests, and making them a popular ecotourism destination. WWF, with the support of Trillion Trees, is also working with the government of Tanzania to develop a national strategy for forest landscape restoration. This is part of the government's plan to restore 5.2 million hectares of degraded forests by 2030. (13, 15, 16) The strategy will identify the most effective areas for restoration and create approaches to improve connectivity between forests for increased benefits to people, nature, and climate.



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# BUILDING LOCAL PARTNERSHIPS FOR ACCELERATING COASTAL COMMUNITY-LED CONSERVATION

Starting in 2020, the five-year [Accelerating Coastal Community-Led Conservation initiative](#) is catalysing a global movement of coastal communities, civil society organisations, and relevant institutions to scale and accelerate inclusive conservation.

Working together with more than 500 local partners, this initiative will support regional and local networks, build capacity, and secure resources. (17) It will advocate for policies to secure at least four million square kilometers of critical coastal ecosystems in six regional seascapes: Asia/ Coral Triangle, Pacific, Northern Indian Ocean, Southwest Indian Ocean, Mediterranean, and Latin America and Caribbean.

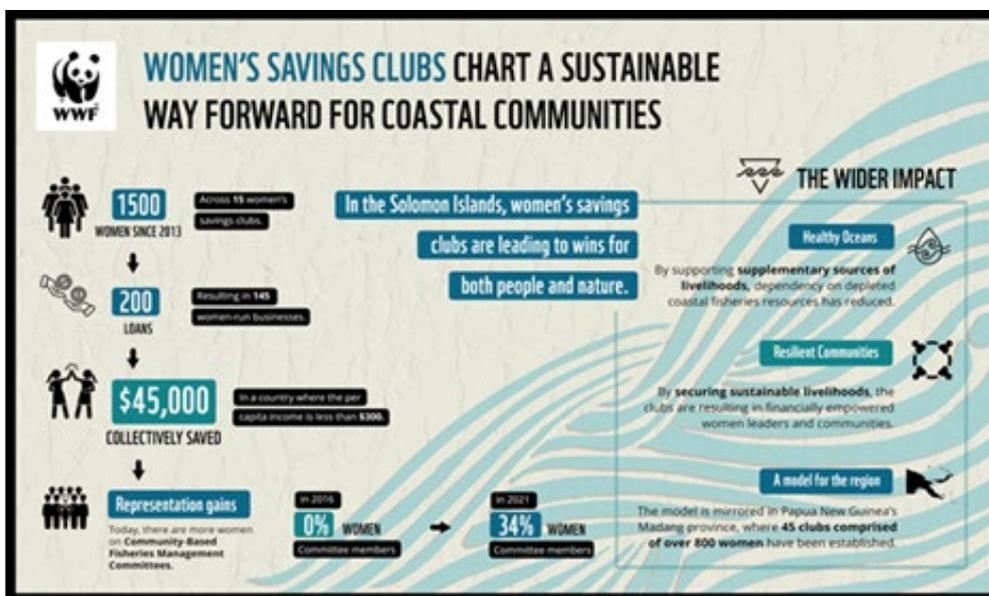
The initiative's first monitoring and evaluation report (2021) has recorded impressive benefits for coastal communities across 120 sites in 29 countries and support for community-led management of more than 27 million hectares of coastal habitat, including 135 spatial fishery closures across 77 sites. (12, 13, 14)

One highlight worth celebrating centres around efforts to provide [microfinance tools](#) and improving financial literacy. WWF has supported 1500 women (5) across 15 savings clubs to develop alternative livelihoods, thus helping to reduce communities' dependency on inshore fisheries in the Solomon Islands and Papua New Guinea. Because up to half of rural women on these islands are engaged in fisheries work, by empowering women to establish their own businesses such as community-based tourism, poultry farms, and silk printing, this programme helps to conserve coastal and marine resources while ensuring community wellbeing. (1, 3)

Embedded within community-organised conservation development associations with established executive committees, the women's savings clubs also empower women to engage in discussions on the governance of marine resources as well as other community issues. During the COVID-19 pandemic, these alternative livelihoods and savings principles were particularly important as formal economies contracted. Beyond improving food security and livelihoods, the programme empowers women to engage in discussions about the use of community resources and provides women with visible leadership roles and expanded community responsibilities, increasing from zero representatives to 34 percent of committee members. (5)

At the global level, coastal communities working with local and international partnerships (17) have led to the creation of 813 [microfinance schemes](#) in 30 sites and a total of 181 [community enterprises](#) in 93 sites. (1, 8, 10)

Going forward, we will see the benefits of this work rippling through communities: improved nutrition, (2) school fees paid, (4) and leadership opportunities. As we develop platforms for communities to share their lessons, we will add to this list of [policies](#) enacted to support the rights of small-scale fishers, expand protected areas, and improve inclusive ocean governance.





# RATTAN SUPPLY CHAIN DELIVERING MUTUAL BENEFIT FOR PEOPLE AND FORESTS IN VIET NAM



The Annamite mountain range supports the unique habitat of some of the world's most threatened mammal species. (15) Its vast and diverse forest provides an important carbon sink, and non-timber forest products are a vital source of income for local people. (1, 13)

Rattan is an important forest product (1, 13) with many ecological benefits: its ground-spreading foliage and straight roots prevent soil corrosion, while its shape and leaves prevent flooding. Its fruits feed birds and wild animals. However, increased demand, over-harvesting, and land conversion contribute to rapid decline: 'before 2000, it was easy to find rattan in the forest' says Coor Doi, from the Tà Poo commune, Quang Nam. 'Took me a few minutes to walk from my house to find them but now I must travel 30 minutes on my motorbike to the forest entrance and then walk about 1–2 hours or more to find rattan'.

In 2009, WWF collaborated with rattan companies and local people in the Central Annamites to build a sustainable rattan supply chain. In 2015, the project began with rattan companies in the Quang Nam province, and the Co Tu ethnic community in the Ma Cooih commune, who have been dependent on natural resources for generations.

Local people were trained to set up rattan nurseries, and to grow and harvest rattan sustainably. (4, 8) WWF connected the communities with rattan processing companies: the locals could sell their raw materials and earn extra money for nurturing rattan; the companies were guaranteed high-quality raw material. (1) More importantly, the locals, as well as rattan SMEs (semi-processors and processors), knew how to prove the legality of the rattan, which is crucial for the export of products to high-value markets such as Europe, and to meet the international market demands. Forest owners were paid for raw rattan harvested in their forest; driving investment in forest management.

A rattan sourcing contract between the Luc Dong company and the forest owner and rattan harvesting groups guaranteed payment, and covered traceability, legality, sustainability, and monitoring actions on the ground. 'When I first joined the business, I was in the dark, but what I learned from this sustainable rattan business model has helped me to develop a vision for my company', says Tran Minh Hieu, vice-director. 'It reminds me of the important role a company like ours can play in developing, and securing sustainable rattan sources, and how we can contribute to the conservation of our fragile forests and added income for our people. WWF offered me the hook so I could go fishing'.

In 2019, supported by WWF-Viet Nam, Luc Dong won a United States Agency for International Development grant to set up and manage a sustainable rattan enrichment area in the Nam Giang district, linking it to the sustainable rattan value chain in Quang Nam. Luc Dong worked directly with local communities to nurture and harvest rattan sustainably, providing high-quality rattan seedlings, and supporting the communities financially by buying the raw rattan at a higher price.

Thus, the natural forest area was increased by 120 hectares, enriched with rattan, (13, 15) which, with appropriate forest management techniques, will enhance the biodiversity of the forest, preventing soil erosion, feeding birds and animals, reducing pressure on natural rattan, and revitalising severely decreased sources. 4,000 local people have benefitted in the Dong Giang and Nam Giang districts.



# TO ACHIEVE A NATURE-POSITIVE FUTURE, FORESTS SHOULD BE A TOP PRIORITY

## FRAN PRICE - GLOBAL FOREST PRACTICE LEADER, WWF INTERNATIONAL

Out of the 169 targets under the 17 SDGs is one that focuses exclusively on forests. 15.2 seeks to ‘promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally’. It was supposed to have been achieved by 2020 – the early date reflecting its urgency and importance. But while we’ve seen some progress in sustainable forest management and an increased interest in reforestation and restoration, deforestation is far from being halted. If we continue to fail on forests, then we will fail on all the SDGs.

Just as nature underpins all the goals, forests too contribute to all the SDGs. Sometimes the link is spelled out: forests, which harbour the vast majority of *life on land*, are at the heart of SDG 15, and are widely recognised as a crucial component of *climate action*.<sup>(13)</sup> And with approximately 1.6 billion people worldwide depending on forests – as a source of income, food, fuel, or other crucial aspects of their livelihood – the connection to goals such as *no poverty*,<sup>(1)</sup> *zero hunger*,<sup>(2)</sup> *affordable and clean energy*,<sup>(7)</sup> and *decent work and economic growth*<sup>(8)</sup> is clear.

In other cases, the role of forests may be less obvious, but is no less significant. A recent WWF report showcased evidence of how forests contribute to *good health and wellbeing*<sup>(3)</sup> across several dimensions, including infectious diseases, non-communicable diseases such as diabetes, cancer, and mental health conditions, and protection from pollution and physical hazards. Forests are essential for regulating the water cycle and providing *clean water*<sup>(6)</sup> and reducing the risk from natural disasters.<sup>(11)</sup> They help to stabilise soils and provide habitats for pollinators, contributing to *food security*<sup>(2)</sup> and supporting *sustainable production*.<sup>(12)</sup> The list goes on.

To achieve the other SDGs, then, we really need to get to grips with SDG 15.2. Ending deforestation must be the first step and this is a crucial step towards moving to a nature-positive world – there’s no shortage of commitments and initiatives from the public, private, and voluntary sectors seeking to do this, and the solutions are in our hands. We also need to support responsible forest management and protection that recognises the true value of forests, not least for Indigenous peoples and local communities. And we need to restore degraded forest landscapes in ways that help nature and biodiversity regenerate and provide social and economic benefits for local people.

The good news is that, because the SDGs are interrelated, action to achieve SDG 15.2 will contribute to the other goals, and action to achieve the other goals can support SDG 15.2.

A key step toward *responsible production and consumption*,<sup>(12)</sup> for example, has to be eliminating deforestation from supply chains. Leading companies are going beyond this by taking action for forests both within and beyond their supply chains.

WWF’s *Forests Forward* programme is one platform that aims to accelerate this movement, bringing together companies with governments, communities, civil society, and investors to drive action in critical forest landscapes. These companies are actively involved in projects and partnerships covering areas such as responsible sourcing and forest management, restoring biodiversity corridors, and working with communities and smallholders. Participants work toward clear targets, transparently report on their progress, and share knowledge and experience. We need more companies to follow suit and ramp up implementation.

We’re also seeing growing interest in nature-based solutions in the forest sector as part of *climate action*,<sup>(13)</sup> with both mitigation and adaptation strategies focusing on conserving and restoring forests. While forest carbon projects must never be a substitute for action to rapidly reduce greenhouse gas emissions, high-quality interventions can bring real benefits for the climate, nature and sustainable development, as outlined in our recent blueprints.

There’s also huge potential to advance all the SDGs and toward a nature-positive world through forest landscape restoration. WWF has been involved in forest landscape restoration projects for more than 20 years, demonstrating how restoring the ecological functions of forest landscapes can bring multiple benefits for people and nature. Country pledges to bring 350 million hectares of degraded land under restoration offer opportunities for progress on many fronts, from improving *food security*<sup>(2)</sup> and *water supplies*<sup>(6)</sup> to strengthening *community resilience*<sup>(1)</sup> and *livelihoods*,<sup>(8)</sup> to *empowering women*.<sup>(5)</sup>

Added to this, to create a nature-positive world by 2030, we need to halt and reverse biodiversity loss, and conserving and restoring forests is at the heart of this. Not only will that enable us to belatedly achieve **SDG 15.2**, but it will make a massive contribution to all the other SDGs as well.



# USING TRAZAPP TO ENHANCE TRACEABILITY IN PERU'S FISHING SECTOR

Reliance on hard-copy records and handwritten documentation in fisheries management and reporting systems around the world remains one of the main challenges for seafood traceability.

In many parts of the world, small-scale fishers lack even these basic procedures. In Peru, approximately 62 percent of the artisanal fishing fleet does not have a valid fishing permit, making it difficult to verify the origin and legality of products. Furthermore, multiple government agencies oversee aspects of Peru's fishing sector and, as in many countries, communication between institutions is imperfect. These challenges increase opportunities for illegality and corruption and weaken accountability throughout the governance system.

As part of the Targeting Natural Resource Corruption project, hosted by WWF-US, WWF-Peru introduced a new module to their mobile app 'TrazApp' that digitises and strengthens administrative processes for the fishing sector. (14) While TrazApp generally works to meet internationally recognised standards for seafood traceability, the new, piloted module will specifically make it easier for fishers to apply for departure certificates. Under current processes, certificates can be expensive to secure or require long travel or wait times. This can discourage fishers from following official procedures and makes them vulnerable to corrupt demands as a way to avoid penalties. (16)

As part of the pilot, the WWF-Peru team met with the relevant agencies as well as with various fishing associations and developed a baseline understanding of departure certificate requirements and prevalence of various governance issues in the artisanal fishing sector. The work entailed close collaboration with the government agencies to understand internal data systems, build inter-agency relationships and foster means of data sharing, in addition to coding and testing the module itself. (16, 17) Early results are strongly positive with continuing interest among all stakeholders. DICAPI, the branch of Peru's Navy responsible for safety at sea, has expressed interest in scaling-up the module to Peru's industrial fleet.



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# A GLOBAL PARTNERSHIP FOR A SUSTAINABLE BLUE ECONOMY

Ocean ecosystems play a critical role in our global economy, feeding over three billion people, providing critical livelihoods and protecting our coastlines; releasing benefits of up to US\$2.5 trillion per year<sup>1</sup>.

While COVID-19 has severely impacted the ocean economy, in particular the maritime transport, tourism, and fisheries sectors, it has highlighted the urgent need to invest in securing the health of natural ecosystems to build long-term social and economic resilience, particularly for those most dependent on the ocean for societal needs.

Ocean ecosystems are in severe decline as a result of unsustainable infrastructure development, over-exploitation of natural resources, pollution, and rising sea levels and temperatures caused by climate change. We are not on track to meet three of the four SDG 14 targets (14) with an original 2020 deadline, so there is an urgent need to find transformational opportunities that accelerate progress.

The sustainable blue economy (SBE) approach is one such opportunity. It promotes the sustainable use of the ocean and its resources in order to:

- Provide social and economic benefits for current and future generations;
- Restore, protect, and maintain diverse, productive, and resilient marine ecosystems; and
- Promote the use of clean technologies, renewable energy, and circular material flows.

Achieving a SBE would offer countries the chance to not only recover from the pandemic, but to build resilient and equitable economies. To drive this forward, the [Sustainable Blue Economy Finance Principles](#) were launched in 2018 by WWF, the European Commission, the European Investment

Bank, and the Prince of Wales' International Sustainability Unit. The 14 principles aim to direct mainstream finance (8, 9) towards investments that go beyond the avoidance of harm to catalyse social, environmental and economic value from our oceans.

The principles are now the overarching framework of the United Nations Environment Programme Finance Initiative's (UNEP FI) new [Sustainable Blue Economy Finance Initiative](#), launched in November 2019. With over 70 initiative members, representing over US\$11 trillion in terms of AUM (as of June 2022), the initiative provides an interactive finance platform to support the implementation of the principles and share good practice on SBE finance. Full signatories to the principles include a range of global financiers such as the World Bank, the Bank of Qingdao, Aviva Investors and AXA XL (17).

To support the implementation of the principles, WWF worked with UNEP FI and initiative members to develop granular guidance across a number of major maritime sectors. This guidance outlines which activities and investments should be avoided – such as known harmful and illegal activities; those which require additional oversight and transition pathways and those which should be sought out for future investment.

Whilst the principles are voluntary and non-regulatory, widespread adoption, implementation and mainstreaming by public and private finance institutions could transform future development – ensuring that mainstream financial flows are being directed towards delivering the ambitions of the SDGs, and in particular, SDG 14.



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1 Hoegh-Guldberg, O. et al. 2015. Reviving the Ocean Economy : the case for action - 2015. WWF International, Gland, Switzerland., Geneva, 60 pp

# 'SDG-BOX-INFO' ON LINKAGES WITH NATURE AND THE GOALS



## SDG 1: NO POVERTY

Biodiversity and healthy ecosystems provide essential resources and services for our livelihood.



## SDG 3: GOOD HEALTH AND WELL-BEING

Healthy ecosystems can help mitigate the spread and impact of air, water, and soil pollution. Biodiversity provides for varied and nutritious diets, as well as medicines.



## SDG 5: GENDER EQUALITY

Recognising the important roles of women in managing land use and biological resources is central to sustainable development.



## SDG 7: AFFORDABLE AND CLEAN ENERGY

Billions of people globally rely on biological resources including wood, coal, charcoal, or animal waste for cooking and heating.



## SDG 9: INDUSTRY, INNOVATION AND INFRASTRUCTURE

Natural infrastructure, provided by biodiversity and healthy ecosystems, offers reliable and sustainable solutions to a broad range of challenges.



## SDG 11: SUSTAINABLE CITIES AND COMMUNITIES

Biodiversity is essential for the functioning and wellbeing of cities and communities, underpinning natural resources, such as water and food supply, and services, such as regulating temperature, absorbing pollution, reducing disaster risk, and providing healthy urban environments.



## SDG 13: CLIMATE ACTION

Biodiversity and ecosystem services have an important role in mitigation and adaptation to climate change.



## SDG 15: LIFE ON LAND

Forests cover approximately 30 percent of the Earth's land area, containing 80 percent of terrestrial biomass and providing habitats for over half of the world's known terrestrial plant and animal species.

Conservation, restoration, and sustainable use of terrestrial and inland freshwater ecosystems is essential for sustainable development



## SDG 17: PARTNERSHIPS FOR THE GOALS

Achieving the 2030 Agenda requires a revitalised and enhanced global partnership bringing actors together, mobilising all available resources to finance sustainable development.



## SDG 2: ZERO HUNGER

Nature and its ecosystem services support all food systems and agricultural productivity, with soil fertility, water quality, and supply. A rich biodiversity is a key factor for achieving food security and improved nutrition.



## SDG 4: QUALITY EDUCATION

Education systems are crucial for raising awareness on the importance of biodiversity for sustainable development. Awareness and appreciation of the diverse values of biodiversity reinforce people's willingness to make the needed behaviour changes to take action.



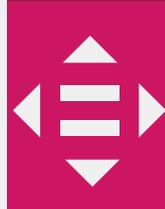
## SDG 6: CLEAN WATER AND SANITATION

Biodiversity and healthy ecosystems support water-related ecosystem services such as provision of clean drinking water, regulation of the availability of water, and buffering against water-related hazards and disasters.



## SDG 8: DECENT WORK AND ECONOMIC GROWTH

Marine and terrestrial ecosystems underpin many economic sectors providing employment, for example agriculture, forestry, fisheries, energy, and tourism.



## SDG 10: REDUCED INEQUALITIES

Acknowledging rights to sustainable management of natural resources, and building an environment for equitable benefit-sharing has the potential to reduce socioeconomic and political inequality.



## SDG 12: RESPONSIBLE CONSUMPTION AND PRODUCTION

Biodiversity provides renewable natural resources that require sustainable consumption and production to ensure their long-term availability.



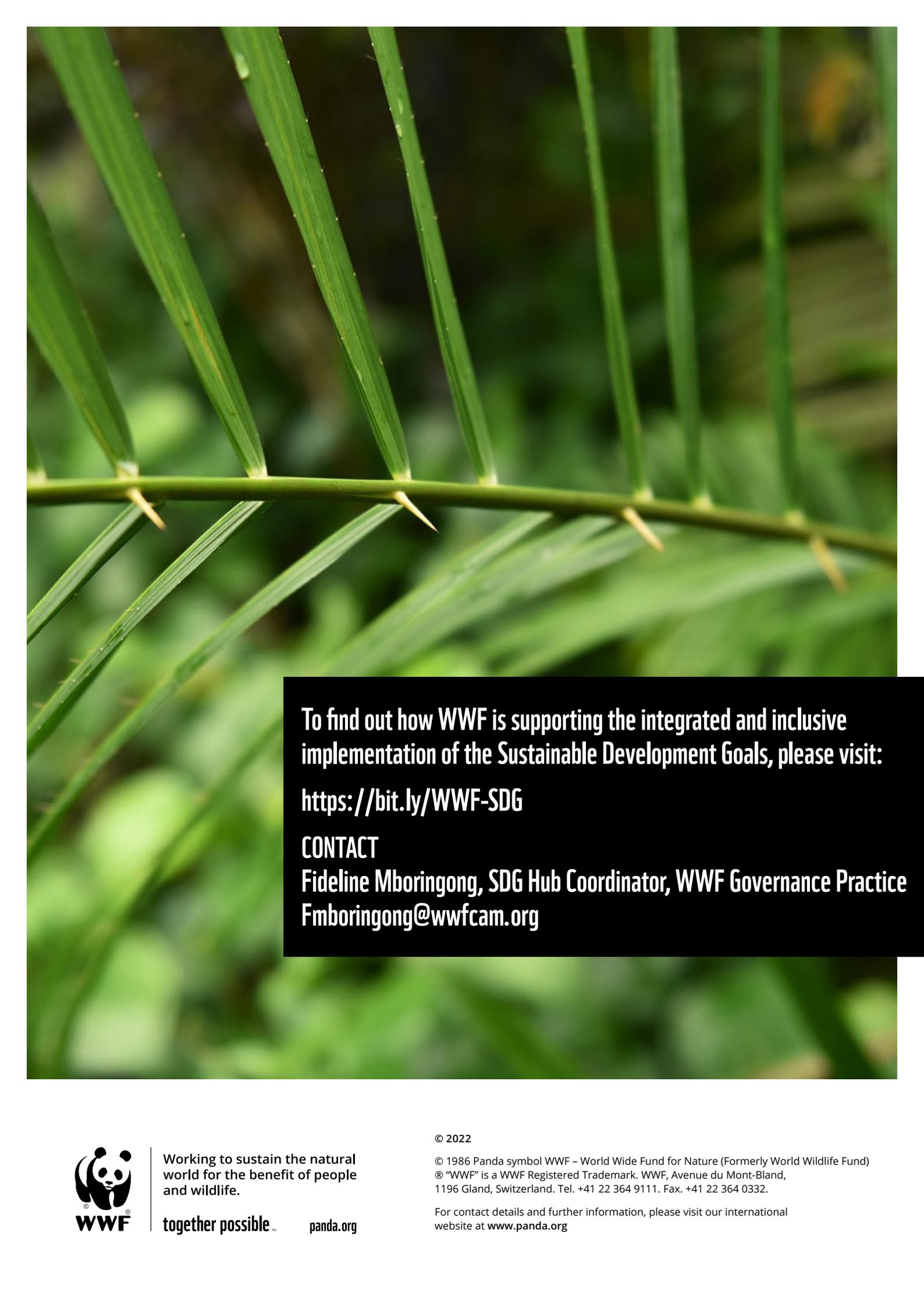
## SDG 14: LIFE BELOW WATER

The oceans and seas provide essential ecosystem services and sequester carbon, supporting the livelihoods of billions of people worldwide.



## SDG 16: PEACE, JUSTICE AND STRONG INSTITUTIONS

Promoting effective, accountable, and transparent institutions at all levels, and enhancing the role of law and equity for governance of biodiversity, natural resources, and ecosystems is pivotal in in guaranteeing inclusive and peaceful societies



To find out how WWF is supporting the integrated and inclusive implementation of the Sustainable Development Goals, please visit:

<https://bit.ly/WWF-SDG>

**CONTACT**

**Fideline Mboringong, SDG Hub Coordinator, WWF Governance Practice**  
**Fmboringong@wwfcam.org**



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

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