

OurPlanet

United Nations Environment Programme

March 2015



Time for Global Action



Tommy E. Remengesau, Jr.
The Future
We Want

Oyun Sanjaasuren
Opportunity for
Change

Ephraim Kamuntu
A Critical
Crossroads

Frans Timmermans
A Transformative
Agenda



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Achim Steiner

Reflections



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Achim Steiner

*United Nations Under-Secretary-General and
UNEP Executive Director*

The “paradigm shift” from our prevailing business-as-usual modus operandi to sustainable development is now approaching its apex with the finalization of the Sustainable Development Goals this September. The SDG process, a shift that has been evolving for decades, has been gathering greater momentum in recent years as the Millennium Development Goals (MDGs) have drawn to a close, and governments, civil society, business, and many others, have begun to identify ways of building upon the many successes of the MDGs, and filling the gaps that they did not fully address.

Adding to the momentum has been the specter of climate change, reminding us that no strata of our system—economic, social or environmental—can continue on its current trajectory without escalating adverse consequences to mankind. As the IPCC’s Fifth Assessment Report and UNEP’s *Emissions GAP Report 2014* make clear, continued emissions of greenhouse gases will increase the likelihood of widespread and profound impacts affecting all levels of society and the natural world. Linking the SDGs, and ultimately policy, with climate mitigation will help countries build the

energy-efficient, low-carbon infrastructures of the future and achieve transformational change that echoes the true meaning of sustainable development.

The proposed 17 goals cut across all of the most critical social, economic and environmental issues of our time. Therefore, if effectively implemented, they can guide our current systems through the next stages of the transition to more equitable, inclusive and peaceful societies. To do so the SDGs should make a point of departure from the MDGs on two critical fronts—integration and universality. By noting the socio-economic and environmental interlinkages between and within goals, integration can better ensure that social, economic and environmental balance is not sacrificed to short-term economic ambitions.

Take the misnomer of “cheap oil” as an example of how short-term thinking can undermine longer-term development goals. It is tempting to see the recent decline in oil prices as an incentive to increase fossil fuel consumption. To do so, however, would be grievously misleading for two reasons. First of all, evidence



UNEP estimates that up to US\$6 trillion a year is needed until 2030 for countries to improve their energy, transport, water and urban infrastructure—the building blocks of sustainable development.

people into urban poverty as they leave small farm holdings and degraded ecosystems that can no longer sustain them. And at regional and global levels, migration can create global labour markets, but can also lead to exploitation and rising inequality.

Underlying all of these considerations, of course, is the issue of governance and accountability. We need strong institutions and rule of law to ensure that policy is effectively, consistently and transparently implemented.

This is a momentous year for humankind, as two critically important processes are set to dictate the future development trajectory of the planet. The post-2015 agenda will be finalized in September, and will hopefully highlight the imperatives of integration and universality to the successful realization of the SDGs. A universal climate change agreement is set to be reached in Paris in December. The new agreement is far more than an appendage to the SDGs. Without a robust and realistic accord that can be adequately financed through public and private capital flows, many future development gains will be eroded as the escalating impacts of climate change wreak havoc on our natural world, and therefore, by proxy, on our economies and societies.

The challenges of inequality, poverty, economic instability, environmental degradation and climate change have been identified. The SDGs and a new climate change agreement are being designed to provide the solutions. But the means of implementing these solutions are to be found primarily in the financial realm. We need to reform public expenditure and capital flows for the purposes of greening our economies, developing cleaner technologies, building new infrastructure, and for climate change resilience

and mitigation—only then can we respond to the sustainability challenge.

UNEP estimates that up to US\$6 trillion a year is needed until 2030 for countries to improve their energy, transport, water and urban infrastructure—the building blocks of sustainable development. How will we finance this when we are spending US\$700 billion on fossil fuel subsidies, money that could finance more resource-efficient economies and sustainable development?

Fortunately, we are starting to see the concept of an inclusive green economy maturing in both industrialized and emerging economies, as evidenced, in part, by the increase in the issue of green bonds, the value of which rose by over 300 per cent between 2013 and 2014.

Strong political leadership and corporate support can set us on the right course to an inclusive, equitable and peaceful future. The alternative business-as-usual trajectory, on the other hand, will see us on course to a future in which 1 per cent of the planet's 10 billion people hold 50 per cent of global wealth and resources, pushing our planetary boundaries beyond their capacity to sustain us.

With a full commitment to sustainable development and to a new climate change agreement, we could reduce poverty levels to 3 per cent, achieve sustainable growth, restore social, environmental and economic capital, and put in motion the efficient and equitable management of our planetary resources.

The choice is ours. The science is irrefutable and the facts undeniable. The only question that now remains is whether we are mature enough to act on the information before us. ▲

suggests that we must keep 60 to 80 per cent of known fossil fuel reserves in the ground if we are to have a chance of keeping temperature rise under 2° Celsius. Secondly, if the true costs of fossil fuels were factored into the cost of each barrel of oil in terms of biodiversity loss, human health and climate change impacts, the economics would look very different. One-time easy access to fossil fuels led us to structure our economies on the back of a resource that is now costing us dearly. The SDGs should be designed to safeguard against such short-termism by highlighting the complex interlinkages between society, economy and environment.

Universality is another concept that lies at the heart of sustainability. For example, globalization is an economic issue with universal applicability, affecting different people in different ways, while inequality is both social and economic and is increasingly igniting conflict and sparking social protest across the world.

Migration is a universal issue affecting many countries, especially developing ones, with rural and urban divides driving swathes of

Tommy E. Remengesau, Jr. The Future We Want

Environmental health, food security and economic prosperity are the very essence of sustainable development



**Tommy E.
Remengesau, Jr.**

*President of the
Republic of Palau*

This year is a critical one for our planet—it is the year we, as a global community, will collectively agree on a post-2015 development agenda and adopt a set of Sustainable Development Goals in efforts to ensure a future for our children. It is also the year the world will agree on an ambitious and durable global regime to address the issues of climate change and help put the world on a path towards a low-carbon economy. It is with great honour that I offer our vision of “the future we want” on behalf of the traditional leaders and the people of the Republic of Palau and fellow islanders. It is in our best interest, not only as islanders but as a human community, to do absolutely everything we can to create the future we want for our children and their children.

I believe this as a citizen of this planet. After all, I am really just a fisherman trying to protect his corner of the Pacific Ocean for his family and his country—no different from what my forebears have done for thousands of years. Our people have always understood that we are stewards of our rich and beautiful natural environment, and that Palau’s past, present and future are inextricably tied to the health of our natural resources, particularly the ocean.

Our traditions and culture date back many generations to when our ancestors first voyaged across the vast Pacific to settle these far-flung islands some 3,000 years ago. The foundation of our culture is respect, not just for one another, but for nature as well. Without respect for our Mother Earth, we

would have never survived the journey—and the same holds true today. It is with this value of respect that our local traditional chiefs, without any institutional knowledge of the science we have today, developed conservation practices that have led our people to live in harmony with the environment. This is the heart of our culture, as depicted in the Palauan flag: a full yellow moon against a deep blue ocean. The combination of the moon and the ocean is a metaphor for nature’s balance and harmony.

When resources were under threat, the chiefs declared a “Bul”—what today we refer to as conservation moratorium. Reefs would be deemed off limits during spawning and feeding periods, or when fish stocks had become depleted, so that the ecosystem could replenish itself and marine life would remain abundant and in equilibrium. The customary rules in Palau are simple: think about tomorrow; take what you need from the environment and no more.



Photo: © Jody Watt/Robert Harding Picture Library



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The unified nature of the ocean—and the importance of it being healthy, productive and resilient—is a key reason why Palau and the Pacific Small Island Developing States advocated a stand-alone goal on oceans in the framework of the Sustainable Development Goals.

Through the Sanctuary Law, Palau will effectively end all industrial foreign commercial fishing in 80% of its Exclusive Economic Zone.

A decade ago, when Palauans recognized that industrial commercial overfishing and rapid development were threatening the sustainability of our fragile marine ecosystems, we did not hesitate to act. In 2003, through extensive dialogue between government and community stakeholders, we passed the Protected Areas Network (PAN) Act, which set up a framework for a national system of protected areas. This collaborative conservation approach was necessary to ensure that local communities benefit directly from this national legislation.

In 2006 I issued a call to the Pacific Region—known as the Micronesia Challenge—to protect at least 30 per cent of their coastal waters and 20 per cent of their terrestrial resources to give biodiversity a safe haven.

When we saw that sharks, which are key to a healthy marine ecosystem were being hunted to extinction, we established the first shark sanctuary in the world and were followed by many other nations.

More recently, we have come to understand the devastating impact that large-scale industrial commercial fishing has had on our ocean, and we have responded by proposing the Palau National Marine Sanctuary. With the passage of Sanctuary Law, Palau will effectively end all industrial foreign commercial fishing in 80 per cent of our Exclusive Economic Zone and create a domestic fishing zone in the remainder to meet local and tourism needs. We are doing this to allow our battered fish stocks to recover and to enhance our own ecotourism economy.

The goal of our latest and largest conservation effort is to help restore the balance between humans and nature. It is preserving the best of our environment and helping to restore the rest.

The national policies that we pursue today—the PAN Act, the Micronesia Challenge, the Shark Sanctuary and the Palau National Marine Sanctuary—are simply modern versions of our traditional conservation practices, the “Bul”. The work we do nationally will need to be amplified and augmented by work at the international level to make a difference. The unified nature of the ocean—and the importance of it being healthy, productive and resilient—is a key reason why Palau and the Pacific small island developing states (SIDS) advocated a stand-alone goal on oceans in the framework of the Sustainable Development Goals and a robust oceans component to the SAMOA pathway, approved at last years international conference on SIDS.

As a group, the Pacific has called on the international community to recognize the central role of oceans and seas in supporting food, jobs, health, and culture. We have similarly advocated for the means of implementation necessary to ensure that we can achieve our ideals: combating illegal, unregulated and unreported fishing; halting ocean acidification; addressing marine pollution; ensuring coastal management; supporting the creation of marine protected areas; building the right infrastructure for responsible tourism; ensuring sustainable fisheries; and recognizing special requirements and aspirations of developing states, particularly SIDS, and the least developed among them.

The Millennium Development Goals (MDGs) proved that we can make historic gains by marshalling resources around a common cause and bringing stakeholders—governments, NGOs, the private sector, and local communities—together. Even the most cynical among us must marvel at the millions that were educated, vaccinated, and raised out of poverty as a result of the MDGs. The same success is needed for oceans.

Investment in sustainable ecotourism, domestic fisheries, marine resource management, data collection, monitoring and enforcement and surveillance of our waters can make a generational, transformative impact. These objectives—environmental health, food security, and economic prosperity—are the very essence of our sustainable development and the foundation of the future we want for ourselves and to ensure our children’s future. ▲

Ephraim Kamuntu

A Critical Crossroads

The economic, social and environmental dimensions of sustainable development must be fully integrated in the post-2015 development agenda



Ephraim Kamuntu

Minister of Water and Environment, Republic of Uganda

We stand at a critical crossroads that will determine the fate of our planet, our people and our prosperity. The world eagerly awaits the adoption of the post-2015 development agenda and Sustainable Development Goals. This September, the United Nations General Assembly will adopt an ambitious, universal and transformative agenda, which will cover all three dimensions of sustainable development—social, economic and environmental—galvanized by the political dimension. It will build on progress made in implementing the Millennium Development Goals and catalyse action at all levels. Uganda, which holds the Presidency of the Sixty-ninth Session of the United Nations General Assembly, will have the historic privilege of chairing the summit that will adopt this new agenda.

The inaugural session of the United Nations Environment Assembly (UNEA), held at UNEP in Nairobi last year, called for the full integration of the environmental dimension in the sustainable development agenda, acknowledging that a healthy environment is an essential requirement and key enabler for sustainable development. The UNEA outcome also called for ambitious universal implementation of the

post-2015 goals aimed at eradicating poverty, protecting the environment, and providing inclusive social and economic development in harmony with nature. It called for the acceleration of efforts to promote sustainable consumption and production, including sustainable lifestyles and resource-use efficiency.

It emphasized action to address climate change in accordance with the objectives and principles of the UNFCCC; full implementation of multilateral environment agreements; and strengthening efforts to halt biodiversity loss and combat desertification, drought and land degradation to ensure resilient ecosystems. In view of all this, I believe that transformative post-2015 development hinges on the integration and judicious balance of the three dimensions of sustainable development to achieve the desired change.

Environmental degradation and limited access to critical resources like water, land and energy are often the key causes and drivers of poverty. Lack of access to affordable energy options has contributed tremendously to a rapid decline in forest cover as households resort to unsustainable use of charcoal and firewood from the forest for their needs. Eighty-five per cent of all Ugandans depend on wood, one of the indicators of energy poverty. Increasing finance for investment in areas like renewable clean technologies will be critical for many developing countries in their quest for rapid economic growth and social transformation.

Smart investments in such technologies as rural electrification and energy-saving stoves could go a long way to relieve pressure on forests and help guarantee the integrity of water catchments. They could provide clean energy for small-scale industries, liberate women from their lot as “collectors of firewood”, and improve the health and well-being of families currently suffering indoor pollution.

Promoting the use of such renewable sources as solar power or wind in water pumping systems could contribute to conserving environmental resources, and reduce their operational and maintenance costs. The savings accrued could then be re-directed to extend services to unserved populations. It will be critical to invest in smart solutions like these that simultaneously address all three dimensions of sustainable development.



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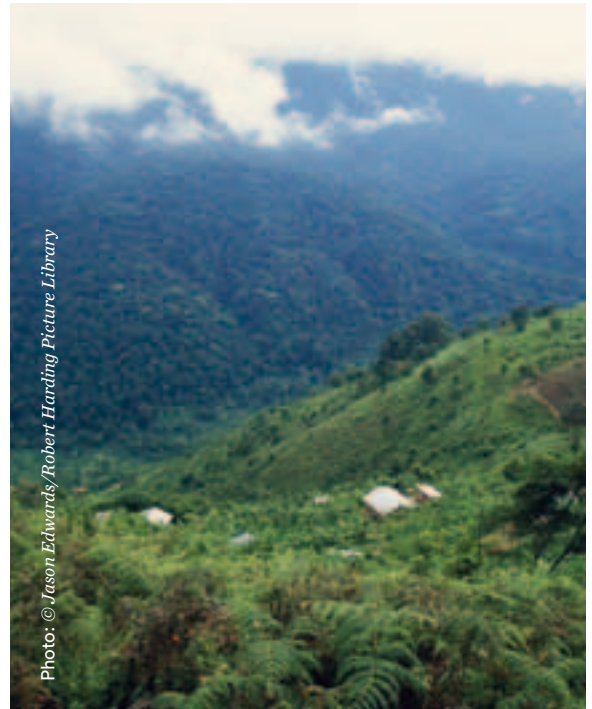


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Smart investments in such technologies as rural electrification and energy-saving stoves could go a long way to relieve pressure on forests and help guarantee the integrity of water catchments.

*The glaciers on Mount Rwenzori have decreased in area from **2.7 square miles to 0.4 square miles** in the last 100 years.*

Uganda's commitment to sustainable development is reflected in our Vision 2040 and in the ongoing preparation of the second of six successive five-year national development plans (NDP-II). For us, sustainable development must entail a structural transformation anchored on industrialization that is characterized by value addition, economic diversification and sound management of our natural resource base. Industrialization is a powerful tool for economic transformation that will generate inclusive and sustained economic growth, create productive employment and decent work, and lift millions of our people out of poverty.

The proposed 17 sustainable development goals have the potential to transform our planet. If they are to succeed in doing so, however, we must have firm commitments and follow-up action on the finances, technology, knowledge and skills required to implement them. The outcome of the July 2015 conference on financing for development will therefore be a critical indicator of the chances for success. While I recognize that the sheer magnitude of the resources required dictates that they come from all sources—domestic and external, private and public—existing commitments, and the principles of common but differentiated responsibilities, must not be negated or watered down. Quality targets and indicators are vital for tracking progress.

Nowhere is the need to integrate the three dimensions of sustainable development more evident than in the issue of climate change, which adversely affects them all in all

countries. Developing countries are particularly vulnerable to its impact. Uganda has been hard hit. At the start of the last century, the snow-capped glaciers on Mountain Rwenzori's highest peaks had a combined area of around 2.7 square miles. They now measure less than 0.4 square miles. If no action is taken and the current trend continues, the snow glaciers on the Mountains of the Moon will completely disappear in the next two decades. This will affect the environment, the tourism industry and the livelihoods of the people in the area.

For the 300 Ugandans left dead after landslides and floods swept through Buduuda, in Eastern Uganda in 2010, any action is already too late. Their tragedy is a combination of climate change, population pressure, environment degradation and social factors.

2015 is a particularly important year for integrating the economic, environmental and social dimensions of sustainable development. We expect to conclude a legally binding international agreement on climate change at COP21 in Paris this December. We hope for a breakthrough at the International Conference of Financing for Development in Addis Ababa this July, and we look forward to a new sustainable development agenda that will guide and give impetus to local, national, regional and international action in the years to come. It will take innovation, commitment and political will from all of us to ensure that this unique opportunity to secure our planet, our people and our prosperity is not squandered. ▲

UNEP at Work

Ozone Success

The Montreal Protocol as a Model for Achieving the Sustainable Development Goals and Green Economy

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The discovery of a hole in the ozone layer over Antarctica in the mid-1980s confirmed a tale of impending environmental disaster resulting directly from economic development. Thirty years later, with concerted global effort, the ozone layer is healing itself, and the strategy driving its recovery exemplifies how international partnerships can work together successfully towards a common goal.

The ozone success story is a model for united action that countries can learn from when implementing the post-2015 development agenda, to be rolled out in New York later this year. It is clear that this agenda will integrate

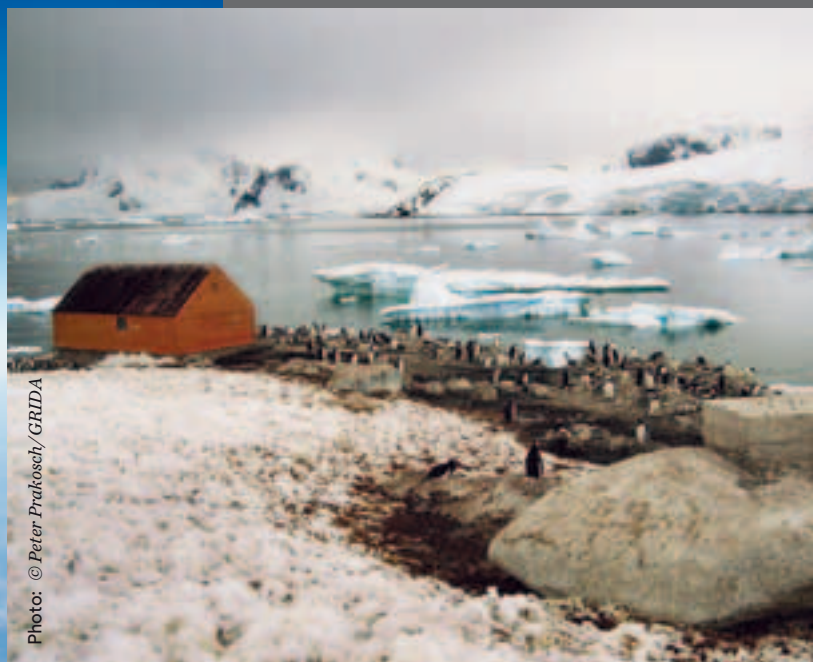
social, environmental and economic factors in equal parts into measures of development.

These sectors cannot be considered in isolation without understanding their impacts on others. Development cannot be a zero-sum game, where benefits to one sector are made at the expense of another.

This premise is fundamental to the concept of Green Economy. In an era when around 1 billion people still live on less than US\$1.25 a day, it is clear that conventional economic growth has not been the panacea hoped for by some.

Photo: ©Shutterstock

Two million prevented cases of skin cancer per year by 2030 is one estimated social benefit of the Protocol's implementation; and in terms of environmental benefit, immeasurable damage to crops, forests and wildlife from ultraviolet radiation has been averted.



four implementing partners, UNEP has been key in its execution.

More than US\$3.7 billion has been contributed to the Multilateral Fund for the Implementation of the Montreal Protocol to cover the incremental costs incurred by developing countries in converting to non-ozone-depleting-substance technologies. The resulting changes in practices, and especially in developments in the chemical manufacturing industry, have altered global consumption and production patterns, greening global value chains.

Two million prevented cases of skin cancer per year by 2030 is one estimated social benefit of the Protocol's implementation; and in terms of environmental benefit, immeasurable damage to crops, forests and wildlife from ultraviolet radiation has been averted.

The behaviour of taking global action to achieve a development goal of universal benefit needs to be emulated in the sustainable development agenda. The Montreal Protocol resulted from a careful assessment of the social and environmental costs of continuing a course of action against its economic benefits, undertaken globally.

This is the exact premise behind the post-2015 development agenda. The ozone success story can be used as a model for common international action and global partnership, among all stakeholders, in taking on and committing to the work required to fulfil the sustainable development goals and develop a global green economy.

See more at: www.ozone.unep.org

Green Economy should generate growth whilst eliminating persistent poverty and environmental degradation, areas where conventional economic growth has failed.

In response to the ozone crisis, the Montreal Protocol was, uniquely for an environmental treaty, universally ratified; it now has 197 parties. It brought together scientists, industry and government to work in an unprecedented partnership towards a common goal.

The success of this global partnership was made through the acceptance by governments of international scientific assessments, which

then informed policy, both nationally and internationally. Leaders took decisions to eliminate the consumption and production of ozone-depleting substances because there was solid scientific evidence linking human activities to ozone depletion—and linking that, in turn, to an increased incidence of skin cancer in people—as well as up-to-date information on the technological developments on alternatives to ozone-depleting substances.

Action was based on people's needs and concerns as well as on plausible future scenarios indicating the implications of inaction. As the host to the Montreal Protocol, and one of its

Frans Timmermans A Transformative Agenda

Europe is pressing for ambitious, integrated goals, universally applicable to all countries



**Frans
Timmermans**

*First Vice-President
of the European
Commission*

It is no coincidence that 2015 is the European Year for Development. We are at a pivotal moment in the history of our planet, and the European Union must continue to lead the movement for a sustainable use of its resources. As the First Vice-President of the European Commission, with overall responsibility for sustainable development, I take our leadership role very seriously. “Our world, our dignity, our future” is the motto of this European year, and signals our global outlook.

2015 will be a defining year for sustainable development, not just in Europe but for the world. In Addis Ababa, in July, we will aim to strengthen the financing for development; at the 70th UN General Assembly in September, we will agree new global sustainable development goals; and in Paris, in December, we will adopt a new international climate change agreement. The European Union will come with ambitious goals for all of these talks.

Sustainable development has long been at the heart of the European project, and we have always looked at the term in a broad sense. The EU treaties, which bind our 28 member

countries, give legal recognition to its economic, social and environmental dimensions. Under the leadership of the EU institutions, our Member States have agreed on a long-term policy agenda in which economic growth, social cohesion and environmental protection go hand in hand and are mutually reinforcing. We have a vision for growth that is built around job creation and poverty reduction (“inclusive”), education and innovation (“smart”), low-carbon emissions and low resource use (“sustainable”).

Europe has always taken a global lead on the environment and promoted ambitious international targets. In 2005, we launched the biggest emissions trading scheme in the world, the cornerstone of our policy to combat climate change. We have the world’s highest standards to protect, conserve and enhance our natural capital and biodiversity.

The new European Commission, in office since November 2014, is determined to take these policies to the next level, fully integrating their social, economic and environmental dimensions. We are setting up a new and forward-looking energy and climate framework for 2030, leading us towards a low-carbon and resource-efficient economy. For example, this year we will revise the emissions trading scheme, making it more effective, and we will take action for a European Energy Union, which will reduce our carbon footprint and aid the transition to renewable energy sources.

This will be reinforced by our flagship economic policy, an investment plan which will attract €315 billion of public and private investment into the EU economy. The new commission will achieve its economic goals with the building of



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Our Member States have agreed on a long-term policy agenda in which economic growth, social cohesion and environmental protection go hand in hand and are mutually reinforcing.

More than **half** of all development aid comes from the EU, making it, collectively, the world's largest donor.

socially and environmentally sustainable new industries. Renewable energy infrastructure will be among the targeted projects.

Action on the circular economy is symbolic of our new approach. We will present new proposals to increase re-use and recycling in Europe, and boost both intelligent product design and the market for recycled materials. This will help build a new generation of European businesses with innovative technologies which export clean products around the globe and create sustainable jobs in Europe, helping to curb our unemployment levels, especially among the young.

Europe's commitment to sustainable development goes well beyond the Union's borders. The United Nations Millennium Development Goals have now guided EU development policy for 15 years. More than half of all development aid comes from the EU and its member countries, making us, collectively, the world's largest donor. Along with other international partners, we have achieved remarkable results. The proportion of people in poverty has been reduced by more than half, while 9 out of 10 children—both boys and girls—in developing countries now start school.

Building on our European experience, we are building consensus for a new transformative post-2015 agenda with a new set of global development goals. We want an ambitious framework that is universally applicable to all countries, brings together poverty eradication and sustainable development, and will further integrate the social, economic and environmental dimensions. National ownership and leadership will be of key importance, supported by political commitment at the highest level.

We will also continue to emphasize the promotion of fundamental rights. Democracy, the rule of law and gender equality are all key prerequisites to achieving true sustainable development and, ultimately, protecting human dignity.

Together, we have started a journey to a more sustainable future. The European Union will act with determination in this crucial year, and the rest of the world must act too. Wangari Maathai, environmental activist and the first African woman to receive the Nobel Peace Prize, in 2004, said, "You can make a lot of speeches, but the real thing is when you dig a hole, plant a tree, give it water, and make it survive. That's what makes the difference." There will be lots of nice speeches this year. In Europe we'll make sure there is action too. ▲

Oyun Sanjaasuren Opportunity for Change

*UNEP should provide leadership
in integrating the environmental,
economic and social agendas*



Oyun Sanjaasuren

*President of UNEA
and former Minister
of Environment and
Green Development,
Mongolia*

This year brings opportunities for genuine transformations, with the SDGs being agreed nationally, regionally and globally. What should we and what can we do towards building the future we want? Development experience has shown that most countries have made significant progress when their goals and strategies have been defined clearly and meaningfully with concrete end results.

The first session of the United Nations Environmental Assembly (UNEA), held in June, 2014, was attended by more than 1,200 participants, including 110 ministers from 159 UN Member States and major groups and stakeholders. It comprised the largest participation ever at a session of UNEP's governing body. It provided an important floor for interactive debates and dialogue for and amongst governments and major stakeholders on the critical issues of the SDGs and the post-2015 agenda, including sustainable consumption and production (SCP), Environmental Rule of Law, and illegal wildlife trade.

Ministers of environment and major groups of representatives shared success stories showing a multitude of powerful models for achieving environmental protection and economic growth by creating green and decent jobs in their national contexts and for improving people's health and food

security. Transforming our economies is possible. Solutions are within our reach. And best practices need to be scaled up and replicated.

The high-level segment in UNEA's last two days focused on "SDGs and the Post-2015 Development Agenda, including SCP." Participants shared a vision for constructing an "ambitious, universal, implementable and realizable post-2015 development agenda that fully integrates the economic, social and environmental dimensions of sustainable development in a coherent, holistic, comprehensive and balanced manner, including comprehensive and action-oriented sustainable development goals with the aims of eradicating poverty, protecting the environment and promoting inclusive social and economic development in harmony with nature."

By the end of this century, the world's population is projected to reach 11 billion. If our consumption patterns and ever-increasing demand for food, energy and water continue, we will require far more resources than the planet has to offer. Humanity must learn from history, and be more responsible and proactive in shifting to the sustainable consumption and production that will allow our economies and societies to grow—and grow sustainably within the means of the planet, whilst creating equity and human well-being.

Human well-being depends on many ecosystem functions and services. The sustainable delivery of food, water, energy and materials, and the regulation of natural hazards, diseases, pests, pollution and climate, all depend on the functioning of the various components of the Earth's system and the interactions among them. Global environmental change affects human well-being and social and economic development, just as development strongly influences the global environment. Human development is now closely linked to the management



Photo: © Sisse Brimberg & Cotton Coulson/Robert Harding Picture Library

Advocates of the global environmental agenda have a historic opportunity to incorporate it into the economic and social agendas, to build a set of truly sustainable development goals.

*By 2100, the world's population is projected to reach **11 billion**. If we continue to consume food, energy and water as we are, we will require far more resources than the planet has to offer.*

of land, water, forest and other natural resources—and of the atmosphere, ocean and marine ecosystems.

There is growing evidence that the climate is changing, that critical environmental services are degrading, and that there are risks of crossing critical tipping points in the Earth's system. These changes can have potentially irreversible implications for human societies.

The evidence also indicates that only modest progress is being made towards sustainability. UNEP's Global Environment Outlook-5 assesses the state of the environment in different regions, for different sectors and for the world as a whole, and concludes that we are not moving towards sustainability, with only three of 90 indicators showing significant improvement. Development indicators have shown some gains, yet about a billion people remain poor and hungry, and many more experience chronic threats to their livelihoods, health, and well-being.



Photo: © Shutterstock



An Oxfam study released prior to the World Economic Forum in Davos indicated that the wealthiest 1 per cent will soon own more than the rest of the world's population. It showed that their share of the world's wealth increased from 44 per cent in 2009 to 48 per cent last year—and is expected to exceed 50 per cent by 2016. Addressing such disparity poses a major challenge for a more interconnected and resource-efficient world.

At Rio+20, the nations of the world agreed to develop SDGs that integrate environmental and development indicators to set targets for the future, and discussed other options and opportunities for environmental stewardship and equitable development.

Advocates of the global environmental agenda have a historic opportunity to incorporate it into the economic and social agendas, to build a set of truly sustainable development goals.

The leading environmental agency of the UN system, UNEP—and its lead forum and decision-making body, UNEA—has an essential leadership role.

The Open Working Group of the General Assembly on SDGs has proposed a set of 17 goals and 169 targets. The proposed SDGs signal a strong message that economic growth cannot continue to be at the expense of the environment. All 17 goals emphasize sustainability and nearly half of the goals directly complement the efforts of UNEP and the environmental agenda. Undoubtedly, this is a significant advancement in environmental dimension of integrated sustainable development.

In the coming months leading up to September, we must focus our discussions on “how” we can successfully implement the SDGs to reach our goals and targets. Detailed plans



of implementation require a coherent monitoring and evaluation framework, a plan to mobilize financial resources, and strategies to complement existing national and regional efforts.

UNEP can provide leadership in creating coherent and accurate monitoring and evaluation frameworks to provide

a credible platform for action: without an accurate measurement system of our progress, we risk undermining the significance of the SDGs.

UNEA, meanwhile, will continue to provide the stewardship on moving towards the future we want using an integrated and universal approach to the SDGs. ▲



The Poverty-Environment Initiative

*Filling the gender gap to end poverty
for sustainable development*

Poverty eradication is the greatest global challenge facing the world today and is indispensable to sustainable development.

Ensuring women's equal rights to access, own, control and inherit land and natural resources has a positive impact on environmental sustainability, economic growth and poverty reduction.

Women's and girls' traditional responsibilities as food growers, water and fuel gatherers, and caregivers connect them closely to natural resources and the climate, making them important agents of change in sustainability efforts but also more likely to be impacted by environmental hardships. The participation of women in environmental decision-making and policy processes is thus crucial for advancing sustainability. Investing in resources to increase the opportunities for and participation of women and girls has resulted in progress across all the MDGs.

The proposed SDGs to "End poverty in all its forms everywhere" (Goal 1) and to "Achieve gender equality and empower all women and girls" (Goal 5) are inextricably linked in the work of the Poverty-Environment Initiative (PEI), a joint UNDP-UNEP programme. Working across 28 countries in four regions—Africa, Asia and the Pacific, Europe and the Commonwealth of Independent States, and Latin America and the Caribbean, PEI seeks to support governments to include a gender perspective in environmental, natural resource and climate policy and budgeting.

To monitor the implementation of the SDGs, countries need to improve availability of and access to data disaggregated by, for example, income, gender, age, race, ethnicity and migratory status. In 2014, PEI supported a rapid assessment of gender, the environment and natural resource relevant data and indicators in Malawi. The assessment found a dearth of data and indicators on women's roles and access to environment and natural resources. Urgent steps must be taken to remedy this.

In an innovative study, UN Women and PEI Africa, together with the World Bank, are undertaking an assessment of the cost of the gender gap in agriculture productivity in Malawi, Tanzania and Uganda. The study will not only explain the various factors behind the gender gap,





but will also cost its impact in agricultural productivity in terms of foregone GDP and poverty reduction efforts. The study aims to inform agricultural policies and programmes to be more gender sensitive, thereby increasing agricultural productivity and related economic and social returns, such as poverty reduction and food security. Elsewhere, Rwanda has already demonstrated that improving women's land and inheritance rights has contributed to increasing both agricultural productivity and environmental protection.

In Mali, the Poverty-Environment Initiative commissioned a study on the integration of gender considerations into poverty-environment policies and actions. The study highlighted that, unlike development areas such as health and education, the natural resource sector in Mali does not have targeted objectives and budgets for gender, despite the 2012–2017 National Development Plan highlighting gender in all its main chapters.

In Rwanda, a women-led cooperative is demonstrating the benefits of environmental sustainability. In Kabeza village, a set of technologies ranging from rainwater harvesting and biogas systems to terracing and tree planting have been adopted, supported by PEI Rwanda and the Rwanda Environment Management Authority. Flooding, siltation and fertilizer pollution have decreased, and food security, incomes and access to water and energy by the villagers have increased. The use of the technologies has improved the villagers' quality of life and enhanced environmental sustainability.

PEI celebrates its 10th anniversary in 2015.

See more at: www.unpei.org



Atiur Rahman

Banking on Sustainability

A central bank integrates financing for economic, environmental and social ends



Atiur Rahman

*Governor of
Bangladesh Bank*

High-profile international and global discourses and negotiations on combating threats to sustainability from anthropogenic climate change present an impressive collective response to a looming existential threat. But they tend to make it seem that responses must necessarily be on global and megabuck scales, overshadowing the need for smaller-scale national initiatives promoting transition to sustainable, inclusive societal lifestyle norms.

Such initiatives of transition to sustainable development paths mainly entail inclusive rechanneling of existing resources towards sustainable production and consumption options rather than the massive infusion of additional resources. Substantial engagement in such rechanneling is affordable for all economies, regardless of income levels.

Central banks, regulating monetary and financial policies, have a crucial handle on bringing about shifts of central resources towards inclusive, environmentally sustainable development options. Carefully crafted policy interventions uphold and enhance macroeconomic and financial stability within and beyond the usual time horizons of conventional monetary and financial policies, focused on business cycles. Rechanneling financing towards promoting inclusive, environmentally sustainable growth need no longer be viewed as heretical by monetarist orthodoxies now that QE and other unconventional easing measures are

being tried out to prop up growth in major advanced economies. Arguably, these measures would work better with a deliberate sustainability-supportive directional bias, reducing spillovers of liquidity into the creation of destabilizing asset price bubbles.

As the country's monetary and financial-sector regulatory authority, Bangladesh Bank (BB) is statutorily mandated to maintain price and financial system stability, while supporting the government's objective of fostering inclusive, environmentally sustainable economic growth. It shapes and pursues monetary and financial sector policies, taking this full mandate holistically into account. Within overall envelopes of monetary expansion consistent with price and output stability, its financial sector policies promote and facilitate inclusive financing of output initiatives of all population segments, alongside promoting financing for "green" options in output processes and practices.

Growth slowdown threats from the 2008–2009 global financial crisis prompted a massive heightening of BB's inclusive, green-financing promotion initiatives. Countrywide sustained and ongoing sensitization and motivation campaigns included all banks and financial institutions—state and privately owned, local and foreign—and clientele groups, and paid off richly in forging their enthusiastic engagement.

BB's key priorities are sustainable approaches to rapid poverty reduction through narrowing down inequalities in advancement opportunities and in food and energy security. Targets, in terms of percentage share of total new lending, are set consultatively for agriculture, SMEs and green projects—including renewable energy, waste treatment and the adoption of environmentally benign output practices—with the aim of enhancing and stabilizing adequate sustainable financing.



Photo: © CC BY-NC-ND Akram Ali/ CARE Bangladesh

BB's key priorities are sustainable approaches to rapid poverty reduction through narrowing down inequalities in advancement opportunities and in food and energy security.

Agriculture gets less than one twentieth of total bank credit, mainly from state-owned banks, despite producing around a fifth of total GDP. Given agriculture's importance for food security, private-sector banks have been tasked to enhance their agricultural financing to at least 2.5 per cent of their total lending. SMEs, contributing around 29 per cent of GDP, get about 26 per cent of total credit; the targets are mainly to maintain stable growth in financing.

The volume of green financing is still paltry, in low single-digit percentages of total lending; the targets set are therefore higher, at 5 per cent of total new loans for older banks, 3 per cent for newly licensed banks, and 4 per cent for non-bank financial institutions. These will increase steadily, with growing emphasis on financing the green options for agriculture and SMEs.

BB now offers low-cost refinance lines to lenders against their SME and green financing. Some development partners (e.g. Asian Development Bank and Japan International Cooperation Agency) co-finance these lines, while Islamic sharia-based banks and financial institutions fund a separate line at BB that supports sharia-based SME and green financing. Macro-prudential measures, like lower equity margin requirements for socially and environmentally beneficial lending options, are also being used (e.g. loans for procuring buses require a lower equity margin than those for cars).

Environmental risk grading guidelines are being used to foster practices of differential loan pricing and equity margins, lowering financing costs for low environmental risk projects and prompting mitigating modifications in the higher risk rated ones. BB has also provided enabling infrastructure for inclusive financing, and issued guidance for adopting low-carbon, energy-efficient internal processes and practices. It led modernization of the payments system, and the financial sector IT infrastructure has spawned an exponential growth of financial service delivery based on mobile phones and smart cards, thus vastly benefiting the under-served poor. Banks without branches in rural communities lend for agriculture through microfinance institutions (MFIs) and other agents: sharecroppers can access agricultural loans from a BB-funded window, disbursed by a reputable MFI.



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Photo: © CC BY-NC-ND WorldFish M. Yousuf Tushar

In Bangladesh, agriculture gets less than 1/20 of total bank credit, despite producing around a 1/5 of total GDP.

Inclusive and green financing initiatives of the Bangladesh financial sector include the following:

- A cluster of over 1,000 handicraft-making SMEs of Jamalpur district were given Taka 1.12 billion in finance and e-commerce training by 15 banks and financial institutions in 2014, enabling them to sell their products online, locally and abroad.
- Trust Bank, a private-sector commercial bank, has extended Taka 0.55 billion financing for installing 1,900 cow-dung biogas plants in rural households. These reduce dependence on fossil fuels, produce organic manure to enhance soil fertility, and foster profitable cattle rearing—all raising rural income and well-being. Financing has also been extended for installing larger biogas units, producing fuel for electricity generation.
- IFIC Bank, another private-sector commercial bank, has extended Taka 0.2 billion financing for constructing a “green” knitted garment factory compliant with USGBC/LEED standards.
- IDCOL, a non-bank financial institution, has financed the installation of over three million household solar PV systems in remote off-grid rural areas of Bangladesh, with a huge beneficial impact on quality of life.

BB initiatives are yielding positive outcomes in terms of macroeconomic and financial stability, domestic demand-driven broad-based inclusive growth in output and a faster decline in poverty. While the global slowdown lingers, Bangladesh’s real GDP has been growing at a steady 6+ per cent annual average rate, with declining single-digit inflation. Bangladesh’s agriculture, SMEs and green projects have faced no credit crunch at home, either during or following the global financial crisis.



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Photo: © CC BY-NC Zorrah

Incremental output from agricultural and SME financing has helped uphold stability in output and prices in the real economy, while bolstering institutional stability in the financial sector by diversifying and broadening asset and liability portfolios in the new inclusion client bases.

External sector viability of the Bangladesh economy has steadily gained strength, with strong domestic currency and foreign exchange reserves at a level covering 23 per cent of the domestic monetary base, sufficient to finance six months' imports.



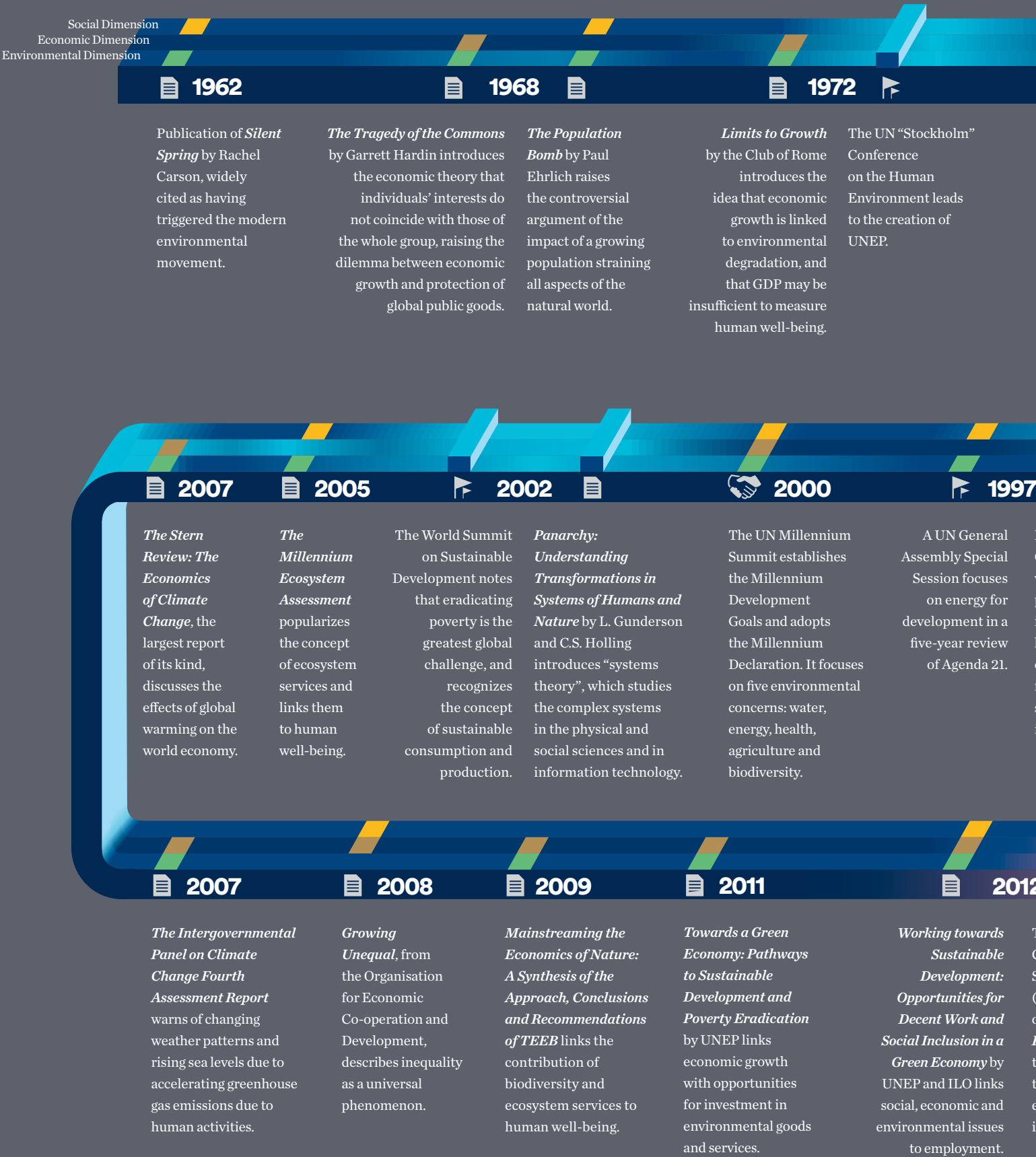
Photo: © CC BY-NC-ND WorldFish
M. Yousuf Tushar

BB's sustainability-supportive financing promotion is mainly working by rechanneling existing liquidity towards the desired directions; the modest net new liquidity infusions by way of refinance from its own funds are always kept within margins permitted by its annual monetary programmes, consistent with price stability.

Its experiences thus far with sustainable development finance promotion initiatives indicate that such initiatives can indeed be used as tools to enhance stability, rather than undermine it. The positive outcomes from these initiatives are deepening the ingraining of a socially and environmentally responsible financing institutional ethos in Bangladesh's financial sector. ▲

Towards Integration

The 50-year journey to combining economic, social and environmental measures of well-being



See more at: www.unep.org/post2015



Social Dimension



Economic Dimension



Environmental Dimension



Integrated



Agreement



Event



Publication

1977

The International Covenant on Economic, Social and Cultural Rights, a human rights agenda, is established.

1979

The World Meteorological Organization, UNEP, FAO, WHO and UNESCO convene the First World Climate Conference to assess climatic knowledge and the effects of climate variability on society.

1982

The UN World Charter for Nature calls for an understanding of our dependence on natural resources and the need to control our exploitation of it.

1987

Our Common Future (The Brundtland Report) by the UN World Commission on Environment and Development broadens sustainable development beyond environmental concerns, producing the most quoted definition of “sustainability”.

1990

The Human Development Index by Amartya Sen is released through UNDP “to shift the focus of development economics from national-income accounting to people-centered policies”.

1997

New York’s Catskill-Delaware watershed protection plan is the first well-known example of “payments for ecosystem services” being put into practice.

1995

The UN Commission on Sustainable Development-3 introduces the concept of sustainable consumption and production.

Our Ecological Footprint: Reducing Human Impact on the Earth by M. Wackernagel and W. Rees is the first academic publication about the ecological footprint.

1994

The Barbados Programme of Action on the Sustainable Development of Small Island Developing States is the first agreement that recognizes the special case of SIDS and promotes an integrated approach.

1992

The UN Conference on Environment and Development (the Rio Summit) declares, “human beings are at the centre of sustainable development. They are entitled to a healthy and productive life in harmony with nature.” Agenda 21 is launched and the Framework Convention on Climate Change, the Convention on Biological Diversity, and the Convention to Combat Desertification are adopted.

2012

The United Nations Conference on Sustainable Development (Rio+20), through its outcome document, *The Future We Want*, agrees to develop a set of SDGs that address economic, environmental and social issues.

2013

The Open Working Group on the SDGs is established and commences work.

2014

June: The first session of the UN Environment Assembly discusses integration of social, economic and environmental dimensions into sustainable development.

July: The Open Working Group on the SDGs produces its final package of goals and targets.

2015

January: Intergovernmental negotiations on the post-2015 agenda stocktake all issues and introduce first discussions on monitoring, reporting and accountability.

March: The Third UN World Conference on Disaster Risk Reduction, to be held in Sendai City, Japan.

July: The Third Finance for Development Conference, to be held in Addis Ababa, Ethiopia, is expected to discuss finance for the sustainable development agenda.

September: The UN summit for the adoption of the post-2015 development agenda, to be held in New York, USA.

December: Twenty-first session of the Conference of the Parties to the UN Framework Convention of Climate Change, to be held in Paris, France.

Zeid Ra'ad Al Hussein

Universal Goals, Universal Rights

The Sustainable Development Goals must be grounded in recognition of our common humanity



Zeid Ra'ad Al Hussein

United Nations High Commissioner for Human Rights

Just as human rights are universal, so too is the struggle to realize them for everyone, everywhere. To some degree, every country in the world has major human rights issues to resolve, be they in the midst of conflict or in its aftermath, or dealing with wide wealth gaps, institutionalized discrimination or the lack of a democratic space. Clearly, any attempts to resolve our common shortcomings must be grounded in our common humanity.

If there is one document that captures the essence of this—and that must be on the table for every policy discussion at the national or international level—it is the Universal Declaration of Human Rights. Adopted more than 60 years ago, it is a set of absolutely fundamental, inalienable principles, relevant in every context, in time of peace and conflict, and at every stage of development. It is indisputable that for peace, security and development to be sustainable, they must be anchored in respect for human rights.

As the international community works towards the elaboration of Sustainable Development Goals, required by the Rio+20 document to be “universally applicable to all countries”, the key guiding texts must be the Universal Declaration of Human Rights—as the common standard of achievement for all peoples and all nations—and the international treaties that have fleshed out these rights in legally binding form.

The idea of universal applicability of the SDGs recognizes our interconnectedness and the “butterfly effect” that increasingly defines the modern world. That metaphor, drawn from chaos theory—that a butterfly flapping its wings can influence the occurrence of a hurricane in a distant land several weeks later—well illustrates the current geopolitical landscape.

The demand for cheap clothing or diamonds in one part of the world fuels rights abuses in another. Similarly, unemployment, inequality and discrimination anywhere can facilitate recruitment for extremist causes elsewhere. And clearly, the impact of environmental pollution and climate change knows no borders.

States negotiating the SDGs have acknowledged that development and human rights shortcomings are universal, and that the enjoyment of human rights, such as the right to education, the right to food, the right to water and the right to health, are entitlements for everyone, everywhere, in “developed” and “developing” countries alike. This is not about charity, but about rights, about empowerment.

Therein lies the key to the successful achievement of the SDGs: in empowerment which, in practical terms, means that the people most affected by decisions and policies must be involved in crafting and implementing them.

Universality applies not just to universal application but also to universal participation and ownership of the goals. Only when tackled in such an inclusive manner will the results be truly equitable and sustainable. Otherwise communities already on the margins of society—due to poverty, discrimination, nationality or other status—may be further alienated and fail to benefit from well-intentioned but uninformed policies. Development must be by the people, for the people.

Through such participatory processes, universal goals and standards can be implemented to fit the specific context of



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Nothing reminds us more of the universality of human rights than the planet that we all share.

Environmental protection and sustainable development are human rights responsibilities.

Pollution, environmental degradation, and human-induced climate change represent not only an assault on our common ecosystem, but breaches of human rights obligations as well.

each society. Universality does not demand a one-size-fits-all approach. We all have common needs and entitlements, but customized paths.

And, of course, nothing reminds us more of the universality of human rights than the planet that we all share. Pollution, environmental degradation, and human-induced climate change thus represent not only an assault on our common ecosystem, but breaches of human rights obligations as well. Unchecked, such acts of planetary vandalism undercut the rights to health, to food, to water and sanitation, to adequate housing, and—for the people of small island states and coastal communities—even the right to self-determination.

A healthy environment is an underlying determinant of so many human rights, and states are thus obliged by human rights law both to abstain from harmful policies and practices, and to take positive action to prevent their commission by private actors. Simply put, environmental protection and sustainable development are human rights responsibilities. Useful lessons can be drawn from the work of international human rights bodies on implementing universal standards in different countries with greatly varying capacities, cultures and challenges. The expert committees that monitor the implementation of binding international human rights treaties provide individualized advice and recommendations to each country, taking into account the specific contexts. For some economic and social rights, there is also the concept of

“progressive realization” to work towards full enjoyment of all human rights by everyone within their jurisdiction using the “maximum available resources.”

This does not mean that these rights are purely aspirational. They are not. They are human rights, not hopes or desires. It is the legal obligation of every state to ensure their promotion and protection. And the UN Human Rights Office and other expert bodies are here to advise on the best means to reach this end. The need for international cooperation, assistance and aid is also invoked as necessary.

The preamble of the Universal Declaration of Human Rights emphasizes that the peoples of the United Nations have in the Charter “reaffirmed their faith in fundamental human rights, in the dignity and worth of the human person and in the equal rights of men and women and have determined to promote social progress and better standards of life in larger freedom.” On that basis, a considerable body of binding human rights instruments have been developed, and spell out concrete legal norms. They should guide states negotiating the final SDGs and guard against narrow national or regional interests trumping this larger goal.

The SDGs, if crafted and implemented in this spirit of universality and anchored in human rights law—and thus grounded in our common humanity—have real potential to fulfil the promise of a better world for all. ▲

Feike Sijbesma Triple Bottom Line

Business must focus on people and the planet, not only profit, because we cannot be successful in a world that fails



Feike Sijbesma

*Chief Executive Officer,
Royal DSM*

In just a few months' time, the UN General Assembly will outline a new set of global priorities for action. These will guide how we should best marshal the world's resources not only to sustain a growing population who harbour expectations for an ever-increasing quality of life, but also to balance that requirement with the need to preserve the unique ecosystem of planet Earth. We still do not know their final form, but the post-2015 development agenda's Sustainable Development Goals are designed to be achievable within 15 years. They will build on the successes of the original Millennium Development Goals—and on the issues that remain open—and will be increasingly interdependent. For instance, our positive potential to mitigate climate change will, in turn, impact the affordability and availability of food—and access to clean drinking water—for billions of people.

With December's COP21 summit in Paris, 2015 offers a unique opportunity to align these SDGs with a comprehensive and ambitious climate deal. Such ambition is crucial if we are serious about mitigating the effects of climate change while addressing inequality and food/nutrition security. Delaying action is not an option: it will be very costly in the long run if we do not take steps now to preserve and protect the world we inhabit from man-made environmental degradation.

One way we can do this is to create and implement a comprehensive and workable framework for a carbon pricing system. Governments need to create a globally effective carbon market as a primary driver for sustainable innovation, efficiency improvement and CO₂ reduction all over the world. We need an international market that results in a global, effective and meaningful carbon price, and an agreement which facilitates and supports global market mechanisms. This carbon price should have a floor and must be prevented from becoming a new tradable “toy”, vulnerable to financial speculation. Part of the proceeds from such a system could be used for innovation in, for instance, developing new technologies to reduce CO₂ emissions significantly. This will create a new playing field for business to compete on, and, subsequently, new opportunities for economic growth.

If we change the paradigm from one that solely focuses on quarterly or annual profitability, and take a broader view of success which reasons from societal and environmental needs, we can see more clearly what could and will be achieved. At Royal DSM, we have adopted a “triple bottom line” approach where we equally and simultaneously value our achievements in three dimensions: people, planet and profit.

For example, our company seeks—in collaboration with strategic partners in the value chain—to demonstrate the commercial viability of sustainable renewable technologies for the conversion of biomass, especially crop waste/residues. Our strategy is to license our technology and expertise to bio-based entrepreneurs in a commercially viable and sustainable way, thus enabling them to convert corn crop residue into green biofuels, which will ultimately be competitive with gasoline.

Governments need to create a globally effective carbon market as a primary driver for sustainable innovation, efficiency improvement and CO₂ reduction all over the world.



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Royal DSM and POET's new bioethanol processing plant will process **770 tonnes** of maize residue daily to produce **20 million gallons** of ethanol per year.

In Iowa, USA, our new joint-venture plant with POET, one of the world's largest bioethanol producers, will purchase the waste corn stover not used in food production from farmers on commercial terms. The plant will process 770 tonnes of waste corn cobs, leaves, husk and some stalk, daily, to produce 20 million gallons of cellulosic ethanol per year, later ramping up to 25 million gallons per year. The biomass will be harvested sustainably in ways that remove only about a quarter of the residue above the ground, thus maintaining—or even improving—nutrient and soil organic matter levels.

This is just one example of an innovative approach to our need for cleaner fuel sources. It demonstrates the possibilities inherent in the new “circular”—rather than in the old linear—economy. We have an opportunity, particularly in the current low oil price environment, to redeploy oil fuel subsidies towards renewable energy technologies.

In our view, and many others, climate change should be perceived not as a threat but as the greatest economic opportunity since the industrial revolution. New jobs can be created

in the renewable energy sectors and new, more sustainable products and processes will be developed as old methods are phased out. The New Climate Economy Report clearly indicates that addressing climate change can go hand in hand with economic growth.

Over the next 15 years, the UN SDGs will only succeed if they receive the priority attention and focus of governments, businesses, science and civil society.

Later this year in Paris, governments worldwide must align over a series of new measures to create a more sustainable operating environment for businesses through consistent policy initiatives—including financial policy instruments to incentivize and reward innovation and the delivery of low-carbon technologies.

If we, as global political and business leaders, do not grasp this opportunity to act, people today—and future generations—will not understand why we did not. We cannot be, nor call ourselves, successful in a world that fails. ▲

UNEP at Work

UNEP Finance Initiative

Working towards Greening the Financial System



Photo: © World Bank

The Third International Conference on Financing for Development, to be held in Addis Ababa, Ethiopia, in July this year, will discuss how we finance the implementation of the Sustainable Development Goals. According to the UNEP Inquiry, the monies required annually until 2030 are around US\$1 trillion of additional direct investment in infrastructure-related industries (e.g. energy, transport, buildings). In addition, there is a need to mobilize a further US\$5 trillion a year for other underlying investment that does not even include the “softer” investments in health and education. It is clear that public financing can meet only a fraction of these needs and that governments will need to look to the private sector to bridge the funding gap.

Availability of financing for the SDGs is often framed as an “enabling condition”, and finance seen as an “instrument” or a “mechanism”. However, UNEP views finance as an organic system that also needs to change and become



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more sustainability focused. As we place our efforts on repurposing brown economies towards greener economies that are based on more sustainable production and consumption, the financial economy likewise

requires a shift towards a “sustainable financial system”. A lot of work is needed to raise awareness, build capacity and promote early action among not only lenders, investors and insurers but also regulators. In short, efforts



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to green “real” economy sectors like energy, transport and agriculture need to be complemented by efforts to green the financial system.

It is these areas of financing for SDGs that the UNEP Finance Initiative (UNEP FI) is actively involved in, working to align the financial system with the low-carbon, climate-resilient and green economy. It takes a two-pronged approach.

First UNEP FI is working to “change finance”, aiming to integrate environmental and social risk and opportunities into the mainstream financial system. For example, it seeks the benefits of integrating climate and other environmental and social risk considerations within the financial stability risk landscape.

Secondly, UNEP FI works to “finance change”, which means to mobilize finance for a sustainable economy, including through work with other parts of the organization. For example, aggregating the efforts of banks around the world to develop and demonstrate living definitions of “positive banking”, or challenging the insurance industry as risk managers, risk carriers and investors to come up with



Photo: © 2006 Jonathan Ernst/The World

new approaches to building resilience as an integral aspect of sustainable development.

Finally, UNEP FI works to facilitate dialogue between policymakers, financial institutions and financial regulators to ensure private finance mobilization policies and mechanisms are efficient and effective.

It is hoped that these complementary work streams will ultimately culminate in a sustainable financial system that is fit for financing a sustainable economy. The financial system cannot be incentivized to become sustainable without a strong drive towards a Green Economy.

On the other hand, the Green Economy is not achieved without a large-scale mobilization of private finance. Ultimately, however, what drives both the Green Economy and the sustainable financial economy is the political commitment and will of the international community to meet its SDGs. The ultimate success in mobilizing financing for SDGs rests in our will and trust towards them.

See more at: www.unepfi.org

Joan Walley

Don't Cut Them

Reducing the number of Sustainable Development Goals would risk making the historic mistake of marginalizing the environment



Joan Walley

UK Member of Parliament and Chair of its Environmental Audit Select Committee

It seems like yesterday, but it's almost a quarter of a century since the first Rio Earth summit. Yet while Local Agenda 21, which came out of it, did much to engage communities, the reality is that it has not moved us far enough. The need for action is even more pressing as we approach "planetary boundaries" that will limit our ability to use natural resources to support further growth and already require immediate action to avoid further damage to our planet.

However insistent the UN, however conscientious or successful national governments may be, we shall only succeed once this agenda is firmly embedded in the hearts and minds of people at a local level. Leadership in carrying it forward has clearly failed so far. If only the Rio streets, and TV coverage around the globe, had been as passionate about the need for a resounding result from the Earth summit and its successor in 2012 as they were for the other global event in Brazil—the World Cup—we would be in much better shape.

How do we begin to tackle the outstanding issues of sustainable development? Who should lead? How can we make the UN process relevant to governments, businesses and citizens so that their every action chimes with and delivers the Sustainable Development Goals, due to be agreed in September? How geared up is the synthesis of the Millennium Development Goals with the SDGs? And what can we do to make environmental protection central?

The UK's Environmental Audit Select Committee, which I chair, conducted an inquiry into these issues—following on

from previous inquiries before and after the 2012 Rio summit—which sought to hold the government to account and to ensure continued informed and open debate.

Our inquiry focused on the UK's aims and ambitions for the SDGs; the extent to which these are coordinated across the government; how the goals will influence the country's policies and aid programmes; consultation, accountability and reporting arrangements; and the implications for environmental sustainability.

We concluded that the timings of the SDGs and the UNFCCC climate change negotiations in Paris this year present an important opportunity to embed climate change mitigation throughout the goals so as to avoid development that exacerbates global warming while building decarbonization and adaptation plans into development and infrastructure investment. For, as the UN High-Level Panel on the Post-2015 Development Agenda, co-chaired by the UK Prime Minister, concluded, "Without tackling climate change, we will not succeed in eradicating extreme poverty."

Indeed it is not just poverty that needs addressing; so does the inequality that prevents sustainable development by undermining social cohesion and excluding many people from the benefits of growth. The SDGs should include inequality targets, and design programmes to tackle it and poverty simultaneously.

The UK Government's efforts to reduce the number of goals from 17 down to 10 risks relegating environmental sustainability to a side issue. The Committee concluded that the Open Working Group's consensus in agreeing 17 goals was historic and powerful and the UK Government should not seek to unpick it. Doing so risks shattering the carefully negotiated consensus and opens the possibility of the goals on environmental sustainability being omitted.

That would be a historic mistake. If we are to take the UN's three pillars of sustainable development—environmental, social and economic—as our starting point, it is clear that environmental

The UK's Environmental Audit Select Committee emphasizes that the British Government should not seek to reduce the number of SDGs from 17 to 10, noting what a historic and powerful consensus they signify.

sustainability must be at the very heart of the SDG process. The UK Government must push for an EU position which favours coverage of all the pillars of sustainable development, as set out in the Open Working Group's 17 goals.

It is also important that the poorest and most vulnerable groups are not further impoverished by changing trade rules and agreements on international trade. Our government should demand the highest standards of environmental protection in trade deals and ensure unequivocally that there is no room for them to be undermined through dispute settlement mechanisms.

Sustainable and resource-efficient consumption is also essential. It is therefore disappointing that resource efficiency appears to be losing momentum inside the EU's work programme, where negotiating ambitious targets could do so much to decouple economic growth from natural resource use.

We were warned, in evidence to the Committee, that the relevance of the goals to the domestic agenda had not been sufficiently



Photo: © Mark Edwards/Robert Harding Picture Library

The UK Government must push for an EU position which favours coverage of all the pillars of sustainable development, as set out in the Open Working Group's 17 goals.

explored in the UK and other OECD countries. The SDGs apply just as much to the actions of developed countries as to those of developing ones: here in the UK that means our environment department, our cabinet office, and—above all—our Treasury

should pursue policies consistent with sustainable development. We also need a mechanism to monitor and report on the UK's Sustainable Development Indicators. But to return to the World Cup analogy, none of this will happen unless citizens around the globe take this agenda into their hearts and support it as they would their own football team.

Communicating sustainable development is vital, but so far little priority has been given to it in the UK. So we recommended that our government should engage with young people—those who will be the next generation of professionals, planners, policymakers and strategists with responsibility for the sustainable development agenda. We must invest in education for sustainable development, embed it in our national curriculum, and support organizations, such as our National Union for Students, that are already forging ahead by demonstrating how sustainable development can be embedded on campuses.

I am heartened by the progress and leadership that charities are making to reach out to people and show their support for the SDGs. One such is the Hard Rain Project, a photographic exhibition bringing alive the need for sustainable development, which has so far been seen by 15 million people. It is essential that the arts, sport, education and all aspects of society immerse themselves in a shared vision of our collective future. Encouragingly, events are now planned for next autumn, linked to the UN decision on the SDGs, in cities and university campuses around the globe, as a next step in making sustainable development a reality. ▲



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Anantha Kumar Duraipappah

Can the Goals be Sustained?

The SDGs must become integral to economic policymaking and will require fundamental changes in how progress is measured



Anantha Kumar Duraipappah

Director, UNESCO Mahatma Gandhi Institute of Education for Peace and Sustainable Development

The new set of 17 Sustainable Development Goals is a bold new step by countries to correct the short-sightedness of many of our existing policy discourses, including the gaps we did not address through the Millennium Development Goals. They aim to address not only the aspirations of today's generations, but also the hopes and dreams of future ones. They are not just focused on a single dimension of well-being but cut across both its subjective and objective constituents. Focusing on the ends is definitely a step in the right direction. Countries will need resources to achieve these laudable goals. To realize the education goal, for example, countries will need to invest in training teachers, building schools, and information technology, among other things.

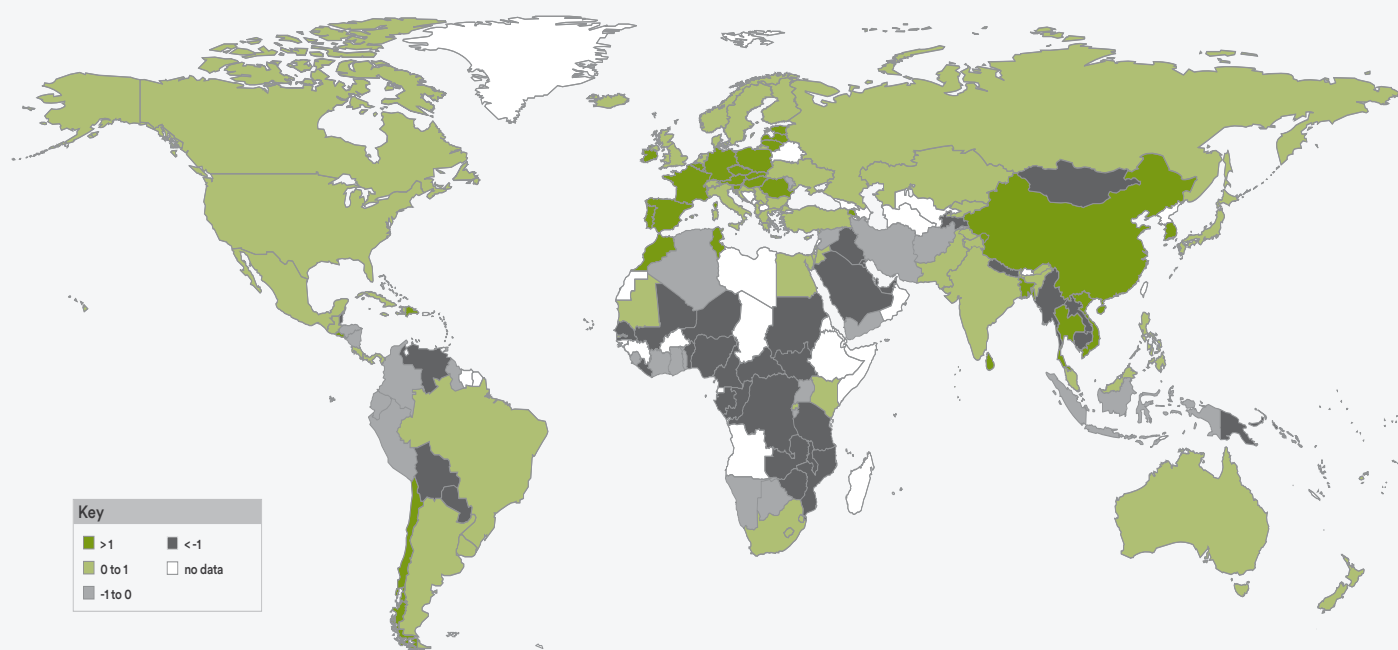
Similarly, in halting biodiversity loss, investments need to be made to conserve and/or restore forests, for example, and to protect endangered species. However, our present economic systems are so structured that only investments in tangible assets—such as roads, schools, bridges and other infrastructure—are considered in decision-making. Investments in people are rarely considered in countries' economic strategies, and even less so are investments in such natural systems as forests, fisheries and ecosystems.

These are instead treated to a large extent as expenditures in the national accounting system. It will not be sufficient, therefore, for the international community merely to approve these goals and adopt them as guidelines unless they also build strong implementation frameworks rooted in the logic of national economic growth. If the SDGs are to succeed, they cannot merely complement national policies: they must become integral to economic policymaking.

The question is, are the proposed SDGs doomed to fail from the very start? Countries use Gross Domestic Product (GDP) as the quintessential indicator to evaluate whether they are progressing. GDP is the market value of all final goods and services produced in a country, and captures the flow of income it can produce from the assets it possesses. This is not to say that maximizing GDP is a bad goal. But it is equally—or more—important to ensure that this flow of income is sustainable. And that involves making sure that the basket of assets that a country owns increases, rather than decreases, over time. None of our international targets on growth, poverty, employment, human settlements, oceans, inclusive institutions, etc. will succeed unless we can strengthen and safeguard the resource base which sustains them.

This necessitates a fundamental restructuring of our national accounting systems. What is required is the development of an indicator that supplements GDP by providing a new world view of sustainable development based on the logic of long-term sustainability. One such framework is the Inclusive Wealth Index, developed in 2012, which measures the inclusive wealth of nations by assessing the social value of a country's productive base, including its previously overlooked natural and human capital. The most recent Inclusive

Growth in Inclusive Wealth Index per capita



Source: *Inclusive Wealth Report 2014 (UNU-IHDP and UNEP)*

*In national accounting, only about **18%** of countries' assets are generally included; the remainder—mostly human and natural capital—is ignored or only partially accounted for.*

Wealth Report—a collaborative effort from the United Nations University and the United Nations Environment Programme, released in New Delhi in December 2014—assessed the changes in inclusive wealth in 140 countries between 1990 and 2010. It was sobering to find that only 61 per cent of them showed positive growth rates for inclusive wealth per capita (see map).

The report also revealed that the system of national accounts used by most countries tracks only approximately 18 per cent of a country's assets: the remaining 82 per cent of inclusive wealth—of which human and natural capital account for 54 per cent and 28 per cent, respectively—is ignored or only partially covered. Unsurprisingly, the state of natural capital is a cause of concern: it increased in only 24 countries, and made the largest contribution to changes in wealth in only 12. The potential for investment in natural capital is large and is worth exploring when countries design implementation strategies for the SDGs and economic development simultaneously.

The good news is that countries have already begun to acknowledge the utility of broadening their system of national accounts to include inclusive wealth accounts. The Indian Government, for example, has established a high-level panel

to explore the challenges and opportunities to develop inclusive wealth accounts. Operating under the auspices of the National Statistics Authority and the intellectual leadership of Sir Partha Dasgupta of Cambridge University, the panel identified measures that can be implemented in the short-, medium- and long-term to facilitate a transition from the present system of national accounts to one of inclusive wealth accounts. Countries with large natural resources would do well to create such accounts in order to allow them to monitor and track how well the resources are managed and used and, more importantly, the sustainable basis of their social, economic and environmental policies.

The Inclusive Wealth Index also has the potential of providing a broader picture of inequality. At the moment, most inequality indicators—such as the Gini coefficient—only monitor it in terms of income or material wealth. The Inclusive Wealth Index, on the other hand, includes access, ownership and the use of human and natural capital across various sectors of society. The planned theme for the 2016 report is inequality and sustainability.

Looking to the future, how we measure the progress of our new development agenda over the next two decades will be fundamental in ensuring the success and sustainability of the SDGs. Unless we begin to supplement mainstream indices, such as GDP, we will not be able effectively to measure and improve the well-being of individuals and societies around the world.

The critical mass around the SDGs, and the transformative shifts envisioned for the post-2015 world, makes this an opportune time to ask these questions. Unless we make fundamental changes, we may not be able to do much more in the next 15 years than we have achieved in the last 15. Business as usual within the present economic systems is not an option if we are serious about achieving the Sustainable Development Goals. ▲

Looking to the future, how we measure the progress of our new development agenda over the next two decades will be fundamental in ensuring the success and sustainability of the SDGs.

UNEP at Work

The Three Dimensions of Sustainable Development

Is an Integrated Approach beyond our Reach?

Photo: © Shehzad Noorani/Robert Harding Picture Library



Even before the 1987 Brundtland Report, *Our Common Future*, there was a growing recognition that sustainable solutions can be achieved through integrating their social, economic and environmental dimensions. It is very encouraging, therefore, to see that nations renewed their commitments to sustainable development in 2012 at Rio+20, and affirmed that a new integrated agenda beyond 2015 would ensure the promotion of an economically, socially and environmentally viable future for our planet and for present and future generations. They called for the development of Sustainable Development Goals.

During the first United Nations Environment Assembly (UNEA-1), in June 2014, ministers concluded that the post-2015 sustainable development agenda should fully integrate economic, social and environmental dimensions in a "coherent, holistic, comprehensive and balanced manner". This was reiterated by the UN Secretary-General in his December 2014 synthesis report *The Road to Dignity by 2030*.

UNEP has developed a simple and clear conceptual framework that draws on lessons that have been learnt from both the millennium development goals and the global environmental goals. By working in silos we can achieve specific sectoral targets but this may impact gains in other areas: environmental damage, such as climate change, can defeat developmental gains. By not building on environmental opportunities, we can unnecessarily hamper development.

The Open Working Group on SDGs distilled the top key issues in all dimensions of sustainability. It also identified interconnected issues, where two or more dimensions need to be integrated. These include access to water, sanitation and energy; food security; sustainable growth; sustainable industrialization; resilient infrastructure; inequality; and inclusive prosperity. Underlying these were more general issues, such as sustainable consumption and production, and good governance.

Integration can occur within a sector (e.g. between climate change and biodiversity), or between any of the three dimensions of sustainability. It has also referred to linking the humanitarian, development and security functions of the UN. UNEP's conceptual integrated framework, a trilogy, states that the road to sustainability needs to address at least three key principles:

- a) **Leave no one behind** and provide a life of dignity for all.

The poor, vulnerable, and marginalized—in both developed and developing countries—should be assured a minimum level of social and environmental protection, and a basic standard of living. Poverty, accordingly, needs to be redefined to be multi-dimensional. Can the world agree to guarantee a minimum standard of living for all? One that ensures social protection, secure tenure of assets, and the right to live in a clean, healthy and productive environment? That ensures access to basic services through sustainable energy? Addresses pollution, water-related diseases,



degraded lands, and waste? And encourages green, decent and meaningful jobs?

- b) **Live within our means** and achieve greater prosperity in an inclusive manner within the capacity of the Earth's life support system.

Human well-being and social and economic functioning ultimately depend upon responsible management of the planet's finite resources. Growth can be decoupled from increasing material and resource use—and from the environmental and social impacts of unsustainable consumption and production—through a shift towards an inclusive and resilient green economy. Many initiatives

already provide solutions, and all require that we do more and better with less (decrease material intensity of products and waste, and eliminate harmful and adverse subsidies and incentives), responsibly manage the planet's finite natural resources, consume better and safer, stimulate innovation in sustainability, move away from a “throw-away” behaviour, and address over-consumption, obesity, hunger, stunting and malnutrition in all its forms.

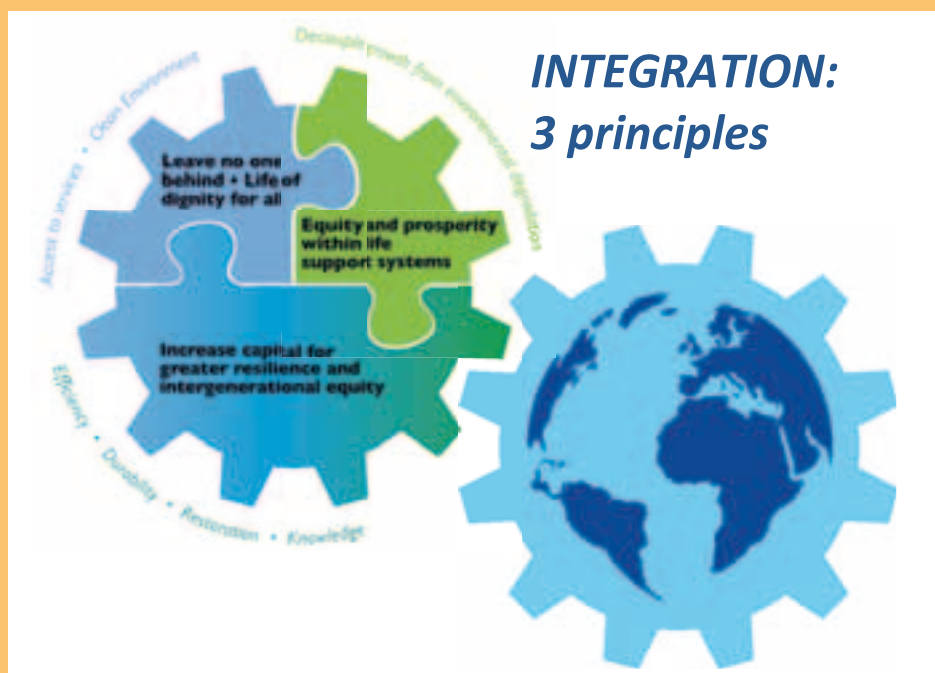
- c) **Leave something behind** by increasing natural, social and economic capital to achieve greater resilience and secure future generations' livelihoods.

If we are to achieve the first two principles

above, we can not do it with today's shrinking resource base. In addition, where would the resources come from to assure a healthy legacy for future generations and ensure inter-generational equity? Investment is needed now to provide the means to achieve the multiple aspirations of sustainable development for today and secure the assets of future generations. This would also ensure resilience to social, economic, political and environmental shocks and disruptive change. These investments must produce more and better natural capital (through ecological restoration), social capital (e.g. knowledge, skills, societal cohesion) and economic capital (e.g. sustainable infrastructure, efficiently built environments and longer-lasting economic assets).

Such an integrated approach may appear too complex and daunting to implement. However, many examples exist of successful interlinkages that follow the above three principles. With today's data revolution, we have no excuse not to call for more integration of the aims and the means. An integrated approach is within our reach, but requires political and multi-stakeholder commitment to reform our institutions, create the incentives for interlinked solutions, and take a longer-term view towards economic and social progress and our planetary health. UNEP has and continues to help governments, civil society and the private sector to reach for an ambitious, integrated and universal agenda.

See more at: www.unep.org/post2015



Sascha Gabizon Alexandra Caterbow Emerging Challenges

Gender and chemicals are important cross-cutting issues in the transition to truly sustainable societies



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Humanity is at a crossroads. Either we strengthen global efforts for a just transition to environmentally sustainable societies, or we veer from one tipping point to the next, towards an abyss which might bring the end of civilization.

The transition requires a combination of incentives and legislation to support what is good and to halt what is bad. We also need to balance economic, social and environmental interests. There can be no development when people are ill from pollutants, when the environment is destroyed, or when half the world's people do not have equal rights.

The UN's proposed SDGs form a key political framework for all countries to guide such a transition. They present a comprehensive agenda: universal, transformative, ambitious, integrated and addressing emerging issues, not just those of the past. They include cross-cutting targets which address challenges such as gender equality and minimizing exposure to chemicals. And they set targets for social protection floors and universal access to public services to reduce women's burden of domestic and unpaid care work, essential for moving from the current exploitative economic model to an equitable and environmentally sustainable one.

Women have long served as buffers in times of economic crisis and austerity, taking on more and more unpaid tasks at home and doing double job shifts to make a living. In most countries, women often work 30 to 40 per cent more hours than men, in some, twice as many. And they are responsible for 80 per cent of subsistence farming in parts of sub-Saharan Africa.

The rapid increase of economic inequality—with just 1 per cent of the world's people owning as much as the other 99 per cent—can be changed. It is just a matter of political will. Corporations can be taxed differently, applying ecological and social criteria. And those who do not want to become socially responsible must be prevented from influencing politicians with their money. In 2013, the lobbies of the pharmaceutical and medical industries and the financial sector spent more than €1 billion to lobby policymakers in Washington and Brussels.

When the European Commission developed its comprehensive chemicals legislation—based on the commitment to substitute all hazardous chemicals in consumer products initiated at the 2002 Johannesburg World Sustainable Development Summit—the American chemicals industry disclosed it was spending over €50 million to try and stop it. A number of international chemical companies continue to invest in dubious lobbying activities—such as opposing transparent consumer information—instead of becoming socially and environmentally responsible. We need global standards for the transparency and accountability of corporations and independence of science.

The SDGs include some quite strong environmental goals. That is good, but it would have been even better if they had a goal on “zero hazardous chemicals” or “a healthy environment for all”. A toxin-free environment for everybody is essential to the health and well-being of people and the planet. Everyone should have the right to be born into surroundings where they are not exposed to hazardous chemicals, especially in their earliest days.

Research increasingly shows that common chemicals in food and consumer products can be linked to diseases and disorders like cancer, asthma, diabetes, infertility, and neurological problems. All of these are growing strongly, presenting not just a tragedy for those affected, but increasing costs to society, estimated soon to reach tens of billions of euros in Europe alone. Growing numbers of chemicals identified as potential “hormone disrupters” (endocrine disrupting chemicals) can interfere with the human endocrine system and are found in baby toys, pesticide residues in food, biocides used in homes,



In 2013, the lobbies of the pharmaceutical and medical industries and the financial sector spent more than €1 billion to lobby policymakers in Washington and Brussels.

*The incidence of breast cancer has increased by up to **50%** over the last **20 years**, which cannot be explained by genetic and lifestyle factors alone.*

plastic boots and food packaging, cosmetics, water bottles, etc., usually without full disclosure or labelling of ingredients.

Many chemicals, including endocrine disrupting ones, are linked to increasing cancer levels: the incidence of breast cancer, for example, has increased by up to 50 per cent over the last 20 years, which cannot be explained by genetic and lifestyle factors alone. Breast cancer is essentially a women's disease (men have a 100 times lower risk). It is unacceptable that one in eight American women now risks developing the cancer. And it is also strongly increasing in developing countries, possibly through growing use, for example, of hazardous pesticides. Some scientific studies have also associated the use of garden pesticides with an approximate 40 per cent increased risk. In total, more than 200 chemicals have been associated with an increased incidence of breast tumours, and research on twins has found 67 per cent of

breast cancers to be linked to environmental causes, compared to just 27 per cent to inherited risks. Increasing evidence links breast cancer risk and environmental factors.

Many hazardous substances are unregulated—or only partly regulated—despite more than 20 years of scientific evidence demonstrating that we should be very worried about emerging risks such as endocrine disrupters, manufactured nanoparticles, and neurotoxins found, for example, in neonicotinoid pesticides. Indeed, most countries have not even yet regulated such old, well-known risks as lead in paint, asbestos in homes and schools, and mercury used in small-scale gold mining.

Health threats from hazardous chemicals are particularly serious in developing and transition countries, which need stronger legislation, control and enforcement, and often have insufficient public budgets. Every year that governments fail to apply the precautionary principle sees another generation of children born into a contaminated environment with reduced potential for a healthy life. Many very persistent chemicals are passed from mother to child and possibly to the next generation(s). Even when not persistent, endocrine disruptors can also have such epigenetic effects, affecting those as yet unborn.

UNEP's Global Chemicals Outlook (GCO) estimates that some 900,000 people die from exposure to hazardous chemicals every year. Many are exposed in the workplace, but—as health effects often set in after a latency period of several years—employers are frequently let off the hook, and victims and their families do not get justice.

The GCO estimates, too, that the cost of pesticide poisoning in sub-Saharan Africa now exceeds the total annual overseas aid that the region receives for basic health services, excluding HIV/AIDS.



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Photo: © Peter Essick/Robert Harding Picture Library

*A toxin-free
environment for
everybody is essential
to the health and well-
being of people and
the planet.*



Photo: © Ashley Cooper/Robert Harding Picture Library



In some countries, reports the Pesticide Action Network, women make up at least 85 per cent of those applying pesticides on commercial farms and plantations, often working whilst pregnant or breastfeeding. The chemicals sector must urgently stop opposing globally binding agreements to phase out and substitute hazardous substances of concern.

The costs of cleaning up and supporting victims should not be shouldered by taxpayers. If the global chemical industry paid a tiny 0.1 per cent tax on its US\$3 trillion turnover each year, more than US\$3 billion would be available annually for financing chemical regulation and clean-up and related health costs and innovation for safe substances. Innovative financing mechanisms are already being discussed internationally, but should be given greater urgency.

UNEP and WHO should launch a global programme on solutions, awareness and policy guidance on gender and chemicals and on specific women's and children's diseases linked to hazardous substances. Denmark already informs expectant parents about the risks of hazardous chemicals to their children. Women International for a Common Future carries out its "Nesting" campaign in 10 countries for the same purpose.

The SDGs, when implemented with the full participation of civil society, can achieve a transformation to equality and living within planetary boundaries. Indigenous peoples have taught us that when we plan actions, we need to understand their impact on the seventh generation to come. The SDGs should help us leave our seventh-generation grandchildren a world in which they can live with dignity and well-being. ▲

UNEP at Work

Enhancing South-South Cooperation: Building the Capacity of Developing Countries to Promote Green Economies

Green Sufficiency Economies for Living Well in Ecological Civilization



Photo: © Tao/Robert Harding Picture Library

The United Nations Conference on Sustainable Development (Rio+20) outcome document entitled “The Future We Want” emphasized the importance of Green Economy as a sustainable development tool, and acknowledged the existing different approaches, visions, models and tools to achieve sustainable development in accordance with each country’s context and priority.

In February 2013, the United Nations Environment Programme Governing Council took note and requested that UNEP “collect such initiatives, endeavours, practices and experiences on different approaches, visions,

models and tools, and to disseminate them, and facilitate information-sharing among countries, so as to support them to promote sustainable development and poverty eradication”.

In response to this request, and to the often-articulated wish of developing countries to exchange and share good practices with other countries of the South, the project *Enhancing South-South Cooperation – Building the Capacity of Developing Countries to Promote Green Economies* was launched in 2013. This project showcases four national-level sustainable development initiatives that are related to Green Economy: China’s *Ecological*

Civilization, Bolivia’s *Vivir Bien* (Living Well), Thailand’s *Sufficiency Economy*, and South Africa’s *Green Economy Transition*.

China’s *Ecological Civilization* is a development strategy that is focused on establishing “a resource efficient and environmental-friendly society based on the carrying capacity of the environment, observing the law of nature and aimed at realizing sustainable development”. It is a reaction to years of unsustainable extraction of natural resources, and uncontrolled growth, and has received high-level support from within the Chinese Government. *Ecological Civilization* seeks a balanced approach to



Photo: © Robert Seitz/Robert Harding Picture Library



Photo: © Sybil Sassoon/Robert Harding Picture Library

development, with environmental indicators becoming increasingly influential in setting the policy agenda at the national, local and regional levels. Today, 16 provinces and more than one thousand villages are competing for national environmental honours, more than 20 provinces are piloting pollutant cap-and-trade programmes, and carbon trading is taking place in seven provinces.

Conceptually linked to the Chinese strategy, Thailand's *Sufficiency Economy* serves as a guiding sustainable development philosophy for many government projects, and in 2002 it was officially incorporated into Thailand's National Economic and Social Development Plan. The concept stresses a balance between human and economic development, promotes moderation, rationality and resilience as means of poverty eradication and sustainable development, and has led to efforts to mainstream environmental and social issues in the national development agenda. In this context, *Sufficiency Economy* is seen as reinforcing a transition to a green economy and to an environmentally friendly society.

Bolivia's concept of *Vivir Bien* (Living Well) challenges anthropocentric approaches to development, and views nature as a sacred being that humankind must live in harmony with.

This translates into government policy that is centred on expanding and protecting the rights of *Pachamama* (Mother Earth); expanding and protecting the rights of peoples, including the right to live free of all forms of poverty; setting the duties of states, communities and individuals with respect to the protection and restoration of the environment; and recognizing peoples' knowledge and practices for "living well". This has resulted in legal recognition of the plurality of Bolivian society, as well as the enactment of two laws that establish and protect the rights of Mother Earth as being equal to those of humans.

In South Africa, a more orthodox Green Economy approach has gained significant traction, where the concept is intricately linked to the country's key socioeconomic issues: poverty, inequality and unemployment. The emphasis is on generating local knowledge and technical expertise to address the interdependence between economic growth, social protection and natural ecosystems. South Africa's National Strategy for Sustainable Development and Action Plan (NSSD) recognizes that Green Economy should be promoted as a holistic transition, and actions on Green Economy are decentralized and implemented through a number of national and sector-specific programmes.

See more at: www.unep.org/greeneconomy



Cultivating Crabs

An alternative livelihood wins the day in cyclone-prone Bangladesh

“Now I can feed my family without thinking of death,” says Rahmat, a fisherman from Shyamnagar in southern Bangladesh. “Crab fattening (has) become a solution to live with the change of climate nowadays.”

In 24 hours in 2009, cyclone Aila tore through the region, destroying Rahmat’s house and livelihood as a fisherman and farmer and taking with it his monthly US\$350 income. The challenge of rebuilding his life was immense, but Rahmat found assistance in a crab-fattening programme in the Sundarbans, the largest single mangrove forest in the world, close to where he now lives.

Bangladesh’s Centre for Coastal Environmental Conservation launched the US\$295,000 project to fatten crabs in bamboo cages and restore the mangroves in January 2010. Framed as an “adaptation to climate change initiative”, it targeted a clutch of communities near the Bangladesh-India border, with support from the Asia-Pacific Forum for Environment and Development, a small programme housed at the UNEP regional office.

The project initiated “community conserved areas”, where mangrove forests are being restored and planted with the aim of creating protective barriers against natural disasters: a green buffer zone of mangroves can be seen lacing more than five kilometres of the coast, protecting river banks from erosion and preventing tidal surges.



Photo: © David Woodfall/Robert Harding Picture Library



Photo: © Nic I'Anson/Robert Harding Picture Library

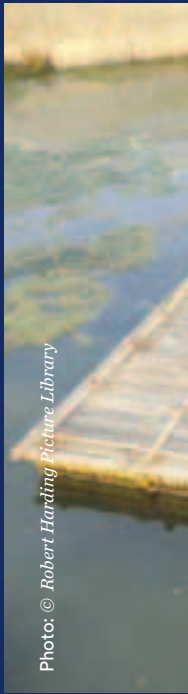


Photo: © Robert Harding Picture Library

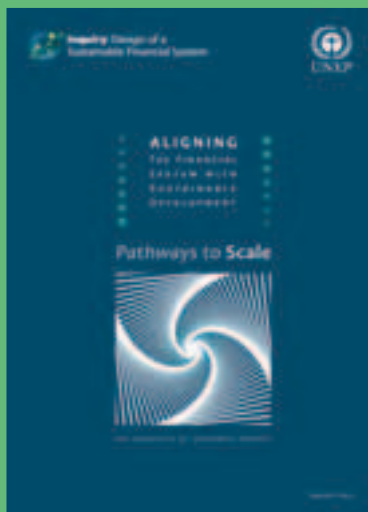


With greater immediately economic impact, however, the project comprises a crab-cultivating scheme that has trained the 150 Sundarbans stakeholders involved how to rear crabs for sale and export. The crab cages are placed directly in the mangroves forests, so providing the “cultivators” with a direct income from the mangroves. And when better grown, the young mangroves in the community conserved areas can also be used for cultivating crabs, thus expanding the resource base.

This initiative has achieved two goals: making the fishing communities aware of the resources of the Sundarbans, and teaching them how to make a living while protecting the environment. The mangrove plantation and regeneration portions of the project are proving effective in protecting embankments from being breached and preventing river bank erosion in an area particularly vulnerable to climate change. And by using the mangroves in situ, the scheme is generating income from an ecosystem that is helping to protecting the region from the impacts of climate change, providing both social and environmental and economic benefits.

See more at: www.ccec-bd.org

UNEP Publications



Aligning the Financial System with Sustainable Development: Pathways to Scale

Trying to scale up proven but limited innovations is a common development challenge, requiring the adept handling of inevitable technical and institutional barriers, and the creation of viable pathways which can overcome out-dated but often resilient conventional wisdoms.

Pathways to Scale, the UNEP Inquiry's third progress report, explores how innovative ideas and practices can be made more effective, adopted more widely and taken to scale, and as a result mobilize the trillions of dollars required for sustainable development.



Guidance Manual on Valuation and Accounting of Ecosystem Services for Small Island Developing States

Valuation and accounting of island ecosystem services is fundamental to our ability to achieve sustainable green growth in small island developing states (SIDS). SIDS are characterized by, amongst other things, a well-defined set of in situ socioeconomic, cultural and governance conditions; a population's clear perception and use of island ecosystem services; high richness in natural capital; and the delicate nature of the many ecosystems that support livelihoods and local economies.

This publication provides a methodological approach to "read" these conditions and their implications in terms of the selection, design and implementation of island ecosystem service valuation and accounting exercises. The process of ecosystem service valuation and accounting specifically for SIDS is fundamental to correct and tailor the use of these various techniques.



Natural Resources and Conflict: A Guide for Mediation Practitioners

This guide collects and summarizes good practices on the successful mediation of resource conflicts. It draws on the field experiences of mediators and mediation experts, specifically those with natural resource expertise.

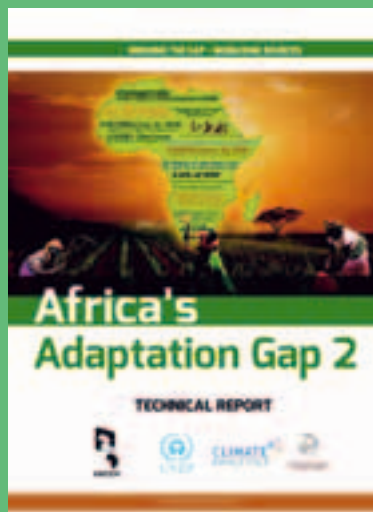
It also features lessons learned from UNEP's work on environmental diplomacy in different conflict-affected countries, with a particular focus on how to use impartial technical knowledge to equalize stakeholder information in a mediation process.



Measuring Success: Indicators for the Regional Seas Conventions and Action Plans

This report collates information on ecosystem-based indicators and indices currently being measure by regional entities, and seeks to identify common elements. From this analysis the report postulates whether a limited generic set of indicators can be derived.

A series of case studies is used to exemplify the diversity of ways indicators have been applied. For “state of the environment” reporting, ecosystem-based indicator systems have developed in an ad hoc way, influenced by regional pressures and priorities. Indicator systems linked to targets and objectives have been more coordinated (e.g. the Transboundary Waters Assessment Programme); the European Environment Agency approach to indicators is an example of pan-regional coordination associated with regulatory requirements.



Africa's Adaptation Gap 2 Technical Report

African countries are going to have to adapt to protect their peoples from the harsh impacts of climate change and to ensure that they are not derailed from their current development pathways.

Developed country parties to the climate convention committed to “assist the developing country parties that are particularly vulnerable to the adverse effects of climate change in meeting costs of adaptation to those adverse effects”. The first edition of *Africa's Adaptation Gap Technical Report*, published in 2013, provided an overview of the most relevant impacts of climate change in different sectors across Africa, as well as cost estimates for adaptation. This, second, report explores the extent to which African countries can contribute to closing the adaptation gap to better understand the resources that will be needed, and thereby the likely extent to which international climate finance must be raised, leveraged and deployed in service of Africa's pressing adaptation needs.



Africa Mountains Atlas

Africa is endowed with many dramatic landscapes, including the impressive mountains that rise above its plains. From snow-capped Mount Kilimanjaro, Africa's highest point, through the massive blocks of highlands that define the vast East African Rift Valley, to the Atlas Mountains bordering the Sahara Desert in the northern part of the continent, Africa's mountains represent a variety of ecosystems. Admired and protected for their wild character and beautiful scenery, these mountains are also vital to many of Africa's 1.1 billion people through the ecosystem goods and services they provide.

In more than 300 pages, the *Africa Mountains Atlas* uses vivid narratives, maps, tables, diagrams and graphs, as well as 73 compelling satellite images, to describe both the stark changes these mountain ecosystems have gone through or are currently experiencing, and their value to the livelihoods of those living far and near them.

All UNEP publications are available online at:
www.unep.org/publications

Environmental Champion

The Hard Rain Project

Bob Dylan's "A Hard Rain's A-Gonna Fall" inspired Mark Edwards to spend a lifetime photographing environmental and development issues

Photo: © Mark Edwards/Robert Harding Picture Library



It was the day when humanity first landed on the moon. A young photographer was lost on the edge of the Sahara Desert. Suddenly a Tuareg appeared on a camel and rescued him.

"He took me to his companions, sat me down on a rock and went into his hut," remembers the photographer Mark Edwards. "He reappeared with an umbrella, a cassette player and two pieces of wood. He rubbed the sticks together and made a fire. We boiled a pot of water and had a nice cup of tea.

"Then he turned on the cassette player and Bob Dylan sang 'A Hard Rain's A-Gonna Fall': sad forests, dead oceans, where the people are many and their hands are all empty. I could feel the words—the whole song—taking root in me. As Dylan piled image upon image, I had the idea to illustrate each line of the song."

It took him decades to do it, but it ended up with an exhibition which—with Dylan's blessing, and early backing from UNEP—has toured the world, being seen so far by 15 million people. And this September it will be relaunched in a new guise in universities around the world



Mark Edwards

*I never knew when a line from
“Hard Rain” would appear before me: a
man carrying his wife to safety during a
flood in Bangladesh, my god-daughter,
surrounded by bubbles...*

Photo: © Mark Edwards/Robert Harding Picture Library

to coincide with the planned adoption of the Sustainable Development Goals.

Dylan—now in his mid 70s—calls “Hard Rain”, which he first performed aged 21, “a song of desperation, a song of terror”. It first received resonance from the so-called Cuban Missile Crisis, which broke out a few weeks after its release, but now—largely thanks to Edwards, and with the singer-songwriter’s approval—has come to portray the interlinked environmental, economic and social crises facing the world that are to be addressed by the Goals.

Dylan has said that the words of the song “came fast—very fast. Line after line, trying to capture the feeling of nothingness”. Edwards, who as a result of his experience in the desert became the first photographer of his generation to specialize in photographing environmental and developmental issues, has retorted, “The pictures came slowly”, throughout a career that has taken him to over 100 countries.

“I never knew when a line from ‘Hard Rain’ would appear before me: a man carrying his wife to safety during a flood in Bangladesh; my god-daughter, surrounded by bubbles, showing me how high she

could jump on her trampoline; a man, whose family was too poor to cremate him, being eaten by dogs behind the Taj Mahal.”

Finally Edwards launched the travelling exhibition in 2006, hoping that, by seeing it, “it should not take quite so much imagination for us to understand the future scientists are predicting”. UNEP was a founding partner of the project and, with Dylan’s permission, the exhibition has been seen in big cities on every continent, in many universities, and at the UN’s New York headquarters—and has been endorsed by leading figures around the world.

From September it is to be shown with a new display, called “Whole Earth” which—again in collaboration with Dylan—will concentrate on presenting solutions to environmental, social and economic issues, in partnership with the British National Union of Students. It will be continually updated, and challenge those who see it to take immediate action. “Those who see it will hopefully realize that the problems are interlinked and that they need to be tackled together,” Edwards told *Our Planet*.

For as Dylan himself once said, “It doesn’t really matter where a song comes from. It just matters where it takes you.”

See more at: www.hardrainproject.com

Bob Dylan

AN ILLUSTRATION OF THE GOALS AS PROPOSED BY THE OPEN WORKING GROUP ON SDGS IN JULY 2014



GOAL 1

End poverty in all its forms everywhere

GOAL 2

End hunger, achieve food security and improved nutrition, and promote sustainable agriculture

GOAL 3

Ensure healthy lives and promote well-being for all at all ages

GOAL 4

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

GOAL 5

Achieve gender equality and empower all women and girls

GOAL 6

Ensure availability and sustainable management of water and sanitation for all

GOAL 7

Ensure access to affordable, reliable, sustainable and modern energy for all

GOAL 8

Promote sustained, inclusive and sustainable economic growth, full and productive employment, and decent work for all

GOAL 9

Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation

GOAL 10

Reduce inequality within and among countries

GOAL 11

Make cities and human settlements inclusive, safe, resilient and sustainable

GOAL 12

Ensure sustainable consumption and production patterns

GOAL 13

Take urgent action to combat climate change and its impacts*

GOAL 14

Conserve and sustainably use the oceans, seas and marine resources for sustainable development

GOAL 15

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification and halt and reverse land degradation, and halt biodiversity loss

GOAL 16

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

GOAL 17

Strengthen the means of implementation and revitalize the global partnership for sustainable development

* Acknowledging that the United Nations Framework Convention on Climate Change is the primary international, intergovernmental forum for negotiating the global response to climate change.