

Our Planet

HELLE THORNING-SCHMIDT UNIQUE OPPORTUNITY SHA ZUKANG THE FUTURE WE WANT
MAURICE STRONG CHANGING COURSE RICHARD BRANSON GOOD BUSINESS




WORLD ENVIRONMENT DAY | 05 JUNE
Green Economy: Does it include you?

2012



ONLY ONE EARTH
The Care and Maintenance of a Small Planet
by Barbara Ward and Hazel Dearsley

1974



World Environment Day 1992
Only one Earth
Care and share
United Nations Environment Programme

1992

40 years of WED



WANTED!
SEAS AND OCEANS
DEAD OR ALIVE?

2004



WORLD ENVIRONMENT DAY
5 JUNE
Forests: Nature at Your Service
In support of the UN International Year of Forests

2011



We the Peoples
United for the Global Environment

1995



MELTING ICE - A HOT TOPIC?
ask...

2007



**GREEN CITIES
PLAN FOR THE PLANET!**
WORLD ENVIRONMENT DAY
5 JUNE 2005

2005



**KICK 2
THE HABIT!**
TOWARDS A LOW CARBON ECONOMY

2008



WORLD ENVIRONMENT DAY • 5 June 2006
DESERTS AND DESERTIFICATION
DON'T DESERT DRYLANDS!

2006



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* All dollar (\$) amounts refer to US dollars.



2012 INTERNATIONAL YEAR OF
**SUSTAINABLE ENERGY
FOR ALL**

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Global Outlook on Sustainable Consumption and Production Policies: Taking Action Together

The Global Outlook on Sustainable Consumption and Production (SCP) Policies, developed by the United Nations Environment Programme (UNEP) with the financial support of the European Commission, provides a non-exhaustive review of policies and initiatives that are promoting the shift towards SCP patterns. This report identifies examples of effective policies and initiatives being implemented worldwide. It reviews 56 case studies ranging from global multilateral agreements and regional strategies to specific policies and initiatives and shows progress achieved in promoting SCP, highlighting best practices and offering recommendations to scale up and replicate these important efforts.



Moving Towards a Climate Neutral UN: The UN System's Footprint and Efforts to Reduce It (2011 edition)

The most recent analysis of the UN's performance in implementing the UN's Climate Neutral Strategy. The report includes the details of the greenhouse gas emissions for 54 entities in 2010, as well as a breakdown of emissions by activity. It also details progress in reducing emissions and plans for the future. With a Foreword by UN Secretary-General Ban Ki-moon, and a Preface by the UNEP Executive Director, Achim Steiner, this report is the first and last word in the UN's sustainability performance to date.



21 Issues for the 21st Century:

Results of the UNEP Foresight Process on Emerging Environmental Issues

The UNEP Foresight Report contains a description of the 21 emerging environmental issues identified through the UNEP Foresight Process.

The process, which was led by the UNEP Chief Scientist with support from UNEP Division of Early Warning and Assessment, involved the identification of emerging issues by UNEP colleagues and a Foresight Panel comprising of 22 distinguished members of the scientific community cutting across a wide spectrum of environmental related disciplines and world regions; the debating and prioritisation of the identified issues by the Foresight Panel; the scoring of prioritised issues via an electronic consultation involving more than 400 scientists worldwide; and a further debating and ranking of the final list of issues by the Foresight Panel, putting into consideration the outcome of the electronic consultation.



Towards a Life Cycle Sustainability Assessment: Making informed choices on products

Every day, unsustainable patterns of consumption, unsustainable production methods and population growth challenge the resilience of the planet to support human activities. At the same time, inequalities between and within societies remain high, leaving billions with unmet basic human needs and a disproportionate vulnerability to global environmental change.

To counteract this trend, UNEP and SETAC have worked together to develop

Towards a Life Cycle Sustainability Assessment. This has been achieved through the UNEP/SETAC Life Cycle Initiative.



Green Growth, Resources and Resilience: Environmental Sustainability in Asia and the Pacific

This UNEP report describes an evolving policy landscape characterised by a changing economic reality, rising demand for resources, increasingly apparent impacts of environmental and climate change, and increased risk and uncertainty.

The report provides new insights into Asian and Pacific resource use trends and outlines key actions, including reforming economic incentives and promoting more inclusive and adaptive governance approaches, that governments can pursue to help bring economic growth strategies in closer alignment with the objective of sustainable development. It also provides examples of strategies for improving resilience to help deal with the increasing levels of risk faced by societies and economies.



Achim Steiner

UN Under-Secretary-General and
Executive Director, UNEP

For 40 years World Environment Day (WED) has been the United Nations' principle vehicle for raising awareness across communities, cities, countries and continents on environmental issues, after being established at the Stockholm Conference on the Human Environment – which also founded UNEP.

And for 40 years WED has brought to the world's attention evolving and pressing challenges that everyone faces as a result of rising environmental degradation, pollution and unsustainable patterns of consumption and production.

In 1974 – the first year WED had a dedicated theme, with the banner *'Only One Earth'* – the headline underlined a simple but still relevant fact: humanity has only one home, and thus it is prudent to look after it.

In 1989 the issue of climate change was raised through the WED theme *'Global Warming: Global Warning'*.

In the 1990s WED made the links between poverty and the environment and expressed rising concern over the seas and oceans.

In 2003 a key Millennium Development Goal was brought to the fore under the hard hitting slogan *'Water—Two Billion People are Dying for It!'*

Recent WEDs have perhaps changed in character, reflecting much more sharply the urgency of bringing the environmental, social and economic strands in the DNA of sustainable development far closer together through the lens of a Green Economy.

Take *'Kick the Habit—Towards a Low Carbon Economy'* in 2008 and *'Forests—Nature at Your Service'* in 2011 for example.

The banner for WED 2012 represents not only one of the overarching themes for Rio+20 – a Green Economy in the context of sustainable development and poverty eradication – but it speaks to the issue of equity that any transformation of the global economy must address.

'Green Economy—Does It Include You?' is also addressed to nations preparing for Rio+20 – two decades after the Rio Earth Summit.

It urges all leaders – alongside ministers, companies and civil society delegates – attending to join in delivering an outcome that generates opportunity and work for the underemployed and unemployed in a way that keeps humanity's footprint within planetary boundaries. Rio+20 needs to be a defining moment that puts in place the action and the pathways to realise a sustainable 21st century.

Everyone on this planet has a stake in that. So let us make this year's WED, happening just weeks before the Summit, the moment when citizens everywhere get out and act for a positive outcome.

So that 20 and 40 years from now the WED themes are less warnings of environmental decay and more celebrations of the way the prospects for seven billion people – rising to over nine billion by 2050 – on our *Only One Earth* have prospered since 2012.

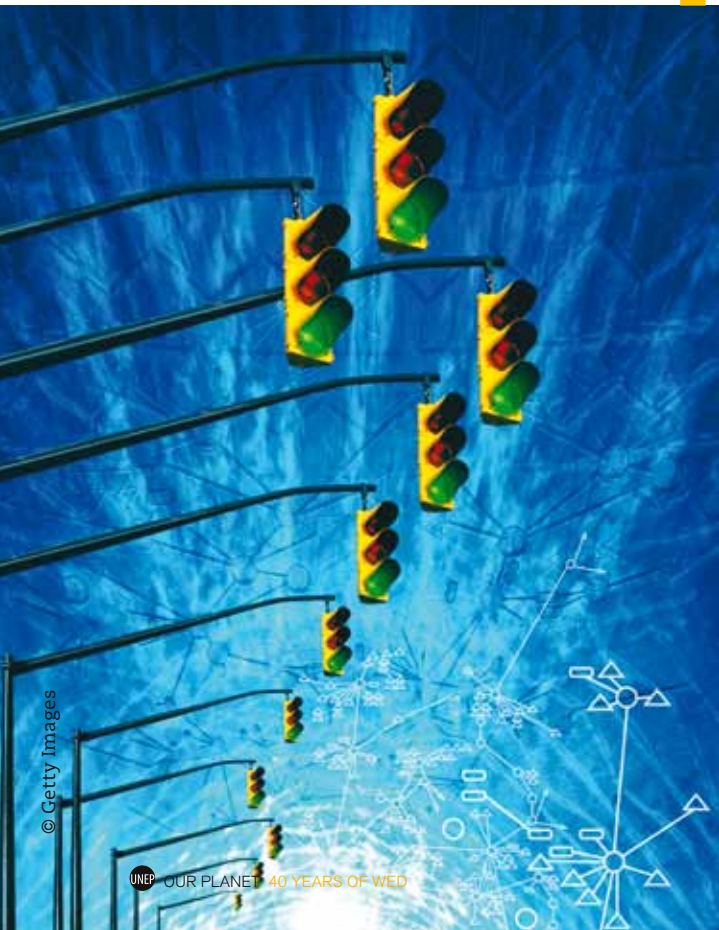


HELLE THORNING-SCHMIDT
Prime Minister of Denmark



© Getty Images

Unique opportunity



© Getty Images

Twenty years ago the first United Nations Conference on Environment and Development in Rio de Janeiro placed sustainable development on the international agenda. Now the world convenes again at the Rio+20 Conference in the same city to bring sustainability into a new era.

The world population passed 7 billion last year. By 2050 we expect that count to rise to 9 billion people. In the course of the next 20 years, it is estimated, the global demand for resources will grow 40-60 per cent. The pressure on our global natural resources and ecosystems will be enormous. If we do nothing, the basis of our economy will begin to erode. At the same time climate change and environmental degradation will present challenges to people everywhere on our planet.

The EU and its member states see the Rio+20 Conference as a unique opportunity to secure renewed political commitment to sustainable development and to achieve concrete and ambitious results. The EU has been proactive in advancing an ambitious agenda for Rio+20.

The EU has proposed a green economy roadmap as an operational outcome in Rio. This should include deadlines for specific goals, objectives and actions as a significant contribution to sustainable development and poverty eradication, covering a broad range of areas such as energy, water, agriculture, oceans, cities and chemicals. Cross-cutting issues such as eliminating harmful subsidies, green tax reforms and innovative finance should also be addressed. A green economy roadmap will be a set of routes to sustainable development, where some pathways are in common, but where countries take individual tracks in accordance with their particular needs and circumstances. Individual countries will receive coordinated advice and technical assistance from the UN system and international financial institutions to help them carry out their tailor-made plans for greening the economy. We see this proposal as holding serious potential for advancing the global transition towards green economy.

But governments cannot advance a global green transition on their own. It requires dedicated involvement and commitment from all stakeholders. The EU emphasises that private sector and civil society play key roles in delivering green growth and promoting sustainable consumption and production through investments, public-private partnerships and research and innovation.

Substantial participation from civil society and the private sector is also expected in Rio. These groups will make important contributions at the Conference and facilitate new insights, new inspiration and new partnerships among all stakeholders. The Brazilian hosts have set up nine roundtables with prominent representatives from the business world, the scientific community and NGOs, tasked to come up with

recommendations for the high-level segment in areas such as food security, sustainable development for poverty eradication and energy.

We also need a new way to measure economic growth that fully takes into account the use of our planet's resources and which integrates economic, social and environmental dimensions in a balanced manner. If we cut down all our forests and catch all our fish we may see immediate economic growth, but at the same time we will be undermining our future growth potential. This is why the EU believes that we must agree to develop indicators complementing GDP, which integrate all dimensions of sustainability in a balanced manner. We need a measure that gives us a true illustration of progress. We need to know if we are on the right track towards sustainability.

In order to establish global sustainability goals and tackle future challenges we need a strong international governance structure. Reforming the institutional framework for sustainable development is necessary and a high priority for the EU in Rio. The EU has suggested upgrading the status of the United Nations Environment Programme. This will enable the UN system to respond more effectively to environmental needs in the context of sustainable development.

Denmark has demonstrated that economic growth does not necessarily lead to an increasing use of resources. During the past three decades the Danish economy has grown significantly while energy consumption has remained virtually

“A Green Economy roadmap will be a set of routes to sustainable development, where some pathways are in common, but where countries take individual tracks in accordance with their particular needs and circumstances.”

constant. Since the 1980s the share of renewable energy in final energy consumption has been steadily rising and now amounts to approximately 22 per cent. Recently, we approved a new national energy strategy which entails a 34 per cent reduction of greenhouse gas emissions by 2020 (measured in 1990-levels) and provides for the construction of major new wind farms whose combined effect will be equivalent to the energy consumption of 1½ million Danish homes. Our goal

is that Denmark's energy consumption will be 100 per cent renewable by 2050.

UN Secretary General Ban Ki-moon has put forward an initiative to achieve “Sustainable Energy for All” by 2030. It is an ambitious plan with concrete goals for renewable energy, energy efficiency and

access to energy. I hope that other countries, private companies and civil society organizations will find inspiration from Denmark's example in this area and commit to the Secretary-General's initiative in Rio. And commitment is needed if we are to secure a global transition to a green economy – a transition that all countries stand to gain from, regardless of their level of development.

We do not want a world where competition for scarce resources creates strife and conflict among countries or in countries. We want a world where we create and share economic growth based on sustainability principles and on harnessing the opportunities inherent in a future of ever more scarce resources – for our own sake and for the sake of future generations.



SHA ZUKANG
Secretary-General of the United Nations
Conference on Sustainable Development

The future we want

Twenty years ago, in June 1992, world leaders gathered in Rio de Janeiro for a landmark event: the United Nations Conference on Environment and Development (the Rio Earth Summit). Its historic outcomes sparked an unprecedented sense of enthusiasm and optimism. Agreement was reached on important conventions and principles, addressing such issues as biodiversity, climate change and forests. The Earth Summit sent a message that working together can lead to solutions.

Twenty years later, the world has changed in ways we could have never predicted. There have been great advances in global economic growth, life expectancies and poverty reduction. The way we communicate

and do business has been significantly revolutionised. Information and communication technologies have opened new pathways and channels for education, communication and entrepreneurship.

Yet, at the same time, new challenges have emerged and old ones have intensified. We've added approximately 2.5 billion people to the globe and are projected to reach nine billion by 2050. Meanwhile, the natural capital that underpins our livelihoods is significantly diminishing. Climate change and its impacts have become more profound; there are new challenges related to water and food security; a global financial and economic crisis hindered progress in some areas of human development;

and unsustainable consumption and production patterns have accelerated, causing damage that, in some cases, is irreversible to our natural heritage.

In 1992, Rio set us on the direction of a more balanced, sustainable future; yet we have not figured out how to stay on course and how to translate principles into action. Progress in implementation has been found seriously lacking. This is why the United Nations Conference on Sustainable Development (Rio+20) arrives not a moment too soon. Heads of State and Government, business, and civil society will gather once again to recommit to the promises they made in 1992 and to put us on a sustainable path. Our global challenges and our jointly tied

destinies implore that we work together for a better future and commit to seeing it realised. In other words, this is a conference of implementation.

So, how do we ensure that Rio + 20 delivers? Many have stressed that its outcome should not be a repetition of Agenda 21 or other treaties or agreed outcomes. They say it should build upon earlier achievements, concentrate on concrete steps that address implementation gaps, and give shape and form to our vision. It must be focused, ambitious and action-oriented. I have called on delegations to accomplish deliverables of fundamental significance to poverty reduction and the common well-being of all countries, especially on food, water and energy.

The outcome document should make transformational decisions on the two themes of the Conference – a green economy in the context of sustainable development and poverty eradication; and the institutional framework for sustainable development, as well as a number of other priority areas.

The first theme points to the need to steer economic development in a more sustainable direction. It means promoting investments in sectors and activities with lower environmental impacts. At the same time, a green economy must contribute to poverty eradication, employment and other social objectives. Different development levels of different countries embarking on this path must be taken into full account. And knowledge and technology sharing will be critical in any outcome achieved at Rio. When it comes to

the institutional framework, the three pillars of sustainable development – social, economic, and environmental – must be better integrated to deliver desired outcomes. Such a framework should also include enhanced review and reporting on progress, as well as effective addressing of continuing, new and emerging challenges. I expect that strengthened governance will provide enabling conditions for more responsible, accountable action,

“Critical areas for action, which may provide focus for Sustainable Development Goals, include water, energy, food, jobs, cities, oceans, disaster preparedness, poverty eradication.”

at the international, regional and national levels.

For many participants, another expected outcome at Rio is the launch of a process to elaborate Sustainable Development Goals (SDGs), which can build upon the Millennium Development Goals and feed into the post-2015 UN development agenda. Such goals should protect the health of

the environment, while ensuring that the needs of the most vulnerable are addressed. They would be designed to help governments and other stakeholders focus their energies and monitor progress. Critical areas for action, which may provide focus for SDGs, include water, energy, food, jobs, cities, oceans, disaster preparedness and poverty eradication, among others.

Finally, Rio+20 offers an opportunity for governments and major groups, including business and industry, to announce new and measurable commitments to make sustainable development a reality. These commitments, along with the SDGs, will help ensure that all sectors of society are engaged and that promises are kept.

After 1992, we were not able to adequately stand by our commitments as a global community. We must ensure that it is different this time. Given the magnitude of our world's challenges, it is essential that Rio+20 be equally ambitious in scope. We need firm commitments that make a difference in the lives of the poor, and we need decisions that help humanity live within the carrying capacity of the planet. Governments, members of civil society, and business and industry should come to Rio ready to commit; come with initiatives that will break new ground. They must send a strong message to younger generations: we are responsible, we think long-term, and we are willing to work for the good of all humankind.

The Rio+20 outcome document is titled “The Future We Want” and this is what we need to deliver: the vision, hope, determination, and action to create a better future for all.



MAURICE STRONG
Secretary-General of the
1972 Stockholm and 1992
Earth Summit conferences.



Changing course

There have been immense changes in the world since the first UN Conference on the Human Environment in Stockholm in 1972 put the environment on the international agenda – and since governments agreed to Agenda 21, the blueprint for creating a sustainable way of life, at the 1992 Rio Earth Summit.

Notable progress has been made in awareness and understanding the issues we must address, in our capacity to do so – and in recognising the urgency of the need for decisive action and the dire consequences of failure to act. Deeper commitment to sustainable development has been accompanied by an increasing number of positive examples in applying it. Yet most of the problems now facing the world have been on the table for decades, some ever since Stockholm.

These have now reached crisis proportions – not as a result of lack of proclaimed commitments by governments to action, but because of their dismal performance in carrying them out.

If they had implemented the many conventions, treaties and declarations they have negotiated – from Stockholm to Rio to Kyoto to Johannesburg – we would be well along the road to sustainability. Instead, their failure has left us on a course that threatens the very future of humankind. The past 30 years have been characterised by irresponsible capitalism, pursuing limitless economic growth at the expense of both society and the environment, channelling more and more money into fewer hands, with little or no regard for the natural resource base upon which such wealth is built.

Rio+20 presents a new opportunity to make the “change of course” urged by business leaders at the Earth Summit two decades ago. This would require fundamental changes in how we manage the activities which impact on the Earth’s sustainability, and a degree of cooperation beyond anything we have yet experienced. The transcendental importance of

the actions that need to be taken requires that they be firmly rooted in our deepest moral and ethical principles.

Yet the meeting takes place at a time when political priorities are focussed on the immediate issues of economic and financial crises, and accompanying political turbulence, in much of the world. Competition and conflict over scarce resources are escalating and resistance to change in patterns of production and consumption has deepened. The result is a significant decline in the priority accorded to longer term issues, notably the environment and climate change. This recession in political will threatens far more damaging consequences than the more immediate issues that have given rise to it.

It has never been more important to heed the evidence of science that time is running out in our ability to manage successfully our impacts on the Earth's environment, biodiversity, resource and life-support systems on which we depend. The ecological problems at the root of both our environmental and financial crises have the same source – the fundamental deficiencies in our economic system. We must rise above the lesser concerns that pre-empt our attention and respond to the reality that the future of human life depends on what we do, or fail to do, in this generation.

All this underscores the urgent need for decisive action at Rio+20.

The necessary change of course will require radical changes in our current economic system, particularly by those countries, mostly Western, which have dominated the world economy during the past century. They will be most resistant to change, yet they have monopolised the economic benefits that have accompanied our cumulative damage to the Earth's life-support systems, its precious biological resources and its climate.

The Green Economy is not just a slogan, and Rio+20 must produce strong new impetus to its national, local and global achievement. An economy that integrates sustainable development principles with responsible capitalism can produce enough wealth to meet everyone's needs. The Earth Summit 2012

must clearly draw a roadmap – for the urgent transition to renewable energy – to set the world on a path to an economy, sustainable, equitable and accessible to all.

The key is an immense increase in economic efficiency – in the production of goods and services, in the use of energy, and in the development, use and reuse of resources. Some

nations – notably Japan, Germany and some other European countries – have demonstrated that this is not only feasible, but produces significant economic, as well as environmental, benefits. The more developed countries, which have contributed most to global

environmental problems, have a responsibility and an interest to fulfil the commitments they have made to provide developing ones with access to the finance and technologies they require to green their economies.

Civil society organizations in each country should assess the performance of their governments in implementing both past commitments and those they undertake in Rio. A new instrument in the form of 'Earth Bonds' should be established for purchase by private sector foundations, funds and individuals for investment in sustainable development projects, principally in developing countries. And a system should be established – based on principles 21 and 22 agreed in Stockholm in 1972 – to give victims of environmental damage in one country access to the courts of the responsible country so that they can seek compensation.

There is a real need to clarify and strengthen the role of UNEP by agreeing to accord it the status of a specialised agency, without treating the environment, which is a systemic issue, as a sector. This could lead to the establishment of a World Environment Organization. The UN's outdated Trusteeship Council should be given a new role covering the global commons and the environment, and Rio+20 should endorse – and be grounded in – the Earth Charter.

Some will deem such measures unrealistic under today's conditions. But denial cannot change the reality, only increase its dangers. The need for such actions is real and urgent. Rio+20 cannot do it all, but it can – and must – set these processes in motion and give them the support and impetus they require.

*“We must rise
above the lesser concerns
that pre-empt our attention
and
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the future
of human life depends
on what we do,
or fail to do,
in this generation.”*



“For ten days, Rio will be the centre of the world,” says the diplomat Laudemar Aguiar, responsible for the logistics of the United Nations Conference on Sustainable Development, Rio+20.

The Brazilian Government wants the event to be the largest conference of the UN history surpassing the Copenhagen Summit of 2009 in attendance. Aguiar predicts the presence of 150 Heads of State and a total of 50,000 visitors, including diplomats, journalists, businessmen, politicians and environmental activists.

ARRIVALS

Reception teams will welcome official delegations at the international airports of Rio de Janeiro, São Paulo, Brasília, Manaus, Recife, and Porto Alegre. Other international airports may be added, depending on the number of Heads of State or Government entering Brazil through them.

Upon arrival in Brazil, foreign officials will receive expedited customs and immigration clearance as long as their arrival and departure data have been informed by Note Verbale at least five business days in advance.

To check for connecting flights from major Brazilian cities to Rio de Janeiro, please visit the website of Infraero (Brazilian Airport Infrastructure Authority) or check with the appropriate airline.

Reception teams will welcome delegations at the following airports in Rio de Janeiro: Antonio Carlos Jobim International Airport (GIG) and Santos Dumont Airport (SDU).

TRANSPORTATION

In Rio de Janeiro, special shuttle services will be offered by the Brazilian government to representatives of Member States, intergovernmental organizations, the UN system and media between airports and hotels, and hotels to Riocentro, from 12 to 23 June 2012. A valid Conference pass will be required to access this service. Prior to obtaining a Conference pass, the following proof of identification will be accepted:

Representatives of Member States or intergovernmental organizations: diplomatic passport, embassy ID, official letter of credentials or official letter of participation issued by governments or organizations;

Representatives of the UN system: a valid UN Laissez- Passer or grounds pass;

Representatives of media: a valid ID together with a copy of the e-mail from the United Nations approving participation in the Conference.

In addition to parking places for the official convoy, up to four places in the Riocentro area will be available for delegations led by Heads of State or Government, and up to two places for other official delegations. Accordingly, participants are encouraged to use the shuttle service instead of automobiles whenever possible, which would also promote the Conference theme of sustainability.

Further questions about transportation should be forwarded to the Rio+20 CNO at rio20.transporte@itamaraty.gov.br

VENUES

MAIN VENUE: RIOCENTRO

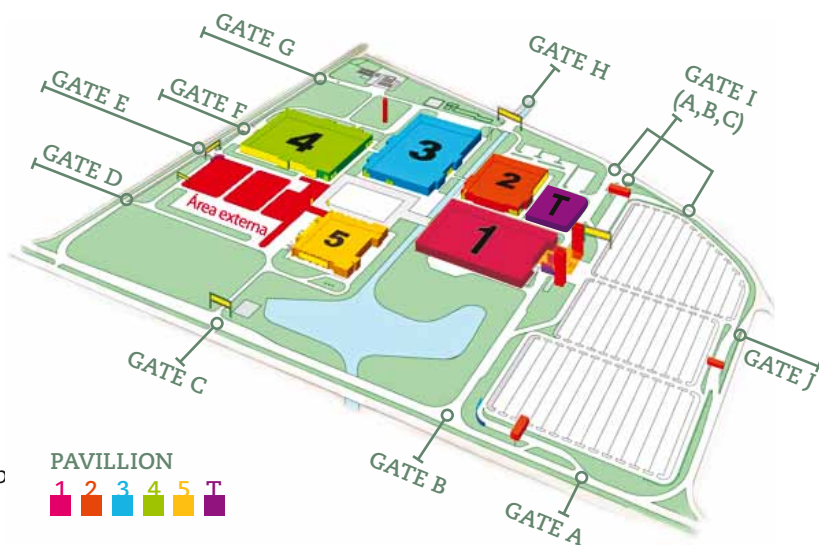


Riocentro is the official site of the United Nations Conference on Sustainable Development. It is located on Avenida Salvador Allende, nº 6.555, Barra da Tijuca, Rio de Janeiro.

Riocentro is a convention center with five interconnected pavilions totaling 100,000 m², within a total area of 571,000 m². A temporary pavilion will also be added for side events.

In 1992, with only three pavilions, Riocentro hosted the United Nations Conference on Environment and Development (1992 Earth Summit).

During the Rio+20 Conference, the Riocentro area will be under the responsibility of the United Nations; only those previously accredited by the UN will be able to enter this area.



■ **Pavilion 1:** participants entrance; accreditation area for the press and official delegates.

■ **Pavilion 2:** food court and other services.

■ **Pavilion 3:** media centre and conference rooms.

■ **Pavilion 4:** arrival area of convoys whose Heads of Delegation are not Heads of State or Government; VIP lounge for Brazilian and foreign authorities; room for bilateral meetings of officials who are not Heads of State or Government; delegation support offices; two ecumenical rooms for meditation (one for women and one for men); an auditorium seating 272 people.

■ **Pavilion 5:** arrival area for convoys of Heads of State or Government; exclusive VVIP lounge for Heads of State or Government; plenary hall: participation in plenary sessions will be limited to six delegates per country, who will be seated in two rows of three seats each, as in plenary sessions of the United Nations General Assembly;

■ **Temporary pavilion:** representatives of the major groups accredited by the UN will occupy the temporary pavilion, between Pavilions 1 and 2; this area will be used for side events such as conferences, seminars, and presentations.



FLAMENGO PARK (PARQUE DO FLAMENGO)

Civil society activities will be held at the Park under the responsibility of the Civil Society Steering Committee for the Rio+20. The Summit for the Peoples will be one of those activities.

MODERN ART MUSEUM (MUSEU DE ARTE MODERNA) AND VIVO RIO



Located in the gardens of Flamengo Park, the MAM's facilities will hold an exhibition about sustainable development, as well as a biodiversity fair. The area surrounding MAM will host government and civil society activities. Vivo Rio, a 200-seat theatre adjacent to the MAM, will hold civil society activities and serve as a rebroadcasting area.

MAUÁ PIER (PÍER MAUÁ) AND CITIZENSHIP ACTION CULTURAL CENTER (CENTRO CULTURAL AÇÃO DA CIDADANIA)



Mauá Pier will be the setting of government-hosted exhibitions on sustainable technologies, among others. The Citizenship Warehouse will host activities related to cultural and social inclusion.

For more information on the conference, see:

www.uncsd2012.org/rio20/

www.unep.org/rio20

www.rio20.gov.br/

OTHER VENUES



ATHLETES' PARK

Athletes' Park, located across the street from Riocentro, will host pavilions from member countries, United Nations agencies, and the Brazilian government, in addition to other activities related to the Conference.



JACAREPAGUÁ RACING CIRCUIT (AUTÓDROMO DE JACAREPAGUÁ)

During the Conference the racing circuit will be a major area for exhibitions, events, and civil society participation.



BARRA ARENA (ARENA DA BARRA)

The Arena will host civil society activities and serve as a venue for registration and other activities, in addition to rebroadcasting events from Riocentro.



RICHARD BRANSON
Founder and Chairman,
the Virgin Group



Good business

Protecting our natural resources is one of the biggest entrepreneurial opportunities of our lifetimes. We have the technology to realise it. We now need the right government policies to put the capital in place to build a new economy, one that puts people and the planet ahead of business as usual and creates a more equitable way of life in harmony with the planet.

So far business, or capitalism, for the most part, has been a means of making money. How it has been made has not been as important as the end result. One of the most devastating theories of the 1970s was that – no matter what it took to achieve it – the primary purpose of business was to maximise value for its shareholders. This led to a variety of social ills where businesses pollute, discard employees at the drop of a hat or create unsustainable short-term gains.

Capitalism has created economic growth and brought many benefits, but at a cost not reflected in the balance sheet. Business as usual is wrecking our planet. Resources are

being used up. The air, the sea and the land are heavily polluted. The poor are getting poorer. Many are dying of starvation, or because they cannot afford life saving medicine. Nearly half of the world's population lives on less than \$2 a day and two out of three of these people have no access to drinking water.

The short-term focus on profit has driven most businesses to forget about their important long term role in taking care of people and the planet. All over the world people are demanding that this changes – as we've seen in the "occupy" movements.

My new book *Screw Business as Usual* (Virgin £12.99) tells the story of a seven year journey. When it began, I thought I was doing reasonably well as an entrepreneur and as a caring human being. My business life was running

smoothly and my personal life was very happy. But as I grew older it seemed that I was not making a big enough difference, particularly given my incredible good fortune, and I

realised that I hadn't even begun to scratch the surface of what needed to be done to help ensure the survival of the planet. I was also very aware that there was too much poverty in the world. I had always wanted Virgin to be a strong role model of social entrepreneurship, but now I knew we would have to do more to

help drive change and get everyone across all our businesses to be part of it.

“Business should not just avoid polluting but undo the pollution of the last couple of centuries and restore harmony with nature.”



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*“Last October
Virgin Atlantic
unveiled an even
more exciting breakthrough:
turning waste gases from
industrial steel production
into jet fuel.”*

setting about showing them how. In shipping — which emits about a billion tonnes of carbon dioxide a year — it has rated vessels for energy efficiency on an A to G index. This will allow buyers to pick the best ships and ports to favour the cleanest vessels, providing information to allow the market to work better.

Similarly it has developed an innovative financing system for improving the energy efficiency of buildings that gives lenders almost watertight security by having the loans for double glazing, solar panels etc repaid out of slightly increased property taxes. It tested the idea in Miami and Sacramento and quickly saw \$650 million committed from private enterprise to retrofit buildings, slash energy consumption, and create thousands of jobs.

Business must recognise that long-term shareholder value is more likely to be created by companies that value their employees, act as good environmental stewards and think long term. Companies that consistently manage and measure their responsible business activities have consistently outperformed their FTSE 350 peers on total shareholder return.

Business should not just avoid polluting but undo the pollution of the last couple of centuries and restore harmony with nature. It should help the less fortunate to build a way of earning a living so that they can live with dignity. And it should reinvent how we live to create a far more balanced, healthy and peaceful world. Capitalism should operate in such a socially responsible way that it will give poor people economic freedom. Then new opportunities for entrepreneurship will arise.

My journey started in earnest after Al Gore turned up at my house in London. He presented a bleak choice. Cut all carbon emissions and keep the world's temperatures within a safe range and have a chance of averting a global catastrophe. Or do nothing and watch as the world warms up and sea levels rise. My first thought was to look for entrepreneurial ways to tackle the problem. Maybe I could make a grand gesture that could be both helpful in itself and stimulate others to follow. So I pledged that any dividends the Virgin Group took from our airlines or train businesses over the next ten years would be invested in renewable fuels — and particularly in trying to find an alternative to jet fuel.

I first checked out ethanol, only to learn it was not a good idea for

planes as it freezes at 5,000 metres! So we have invested in scientists who have been developing fuels that do not freeze — fuels from algae, fuels from isobutanol, even fuels from mallee eucalyptus trees: Virgin Australia is working with a company to turn the trees' woody biomass into biocrude oil, to be refined into aviation fuel, and biochar that can be ploughed into soil to improve its quality while sequestering carbon. And last October Virgin Atlantic unveiled an even more exciting breakthrough: turning waste gases from industrial steel production into jet fuel.

These investments are all looking really positive, but to balance the Earth's temperature we need to cut 25 gigatons from the world's annual carbon emissions. So our foundation, Virgin Unite, set up the Carbon War Room to create a new global approach in building market-based solutions for carbon reductions, bringing together a like-minded group of international entrepreneurs to blend the power of business with capital and technology to help break down market barriers and attract funds into successful solutions.

It has identified 25 sectors that it believes can do this — including shipping, aviation, I.T., and energy efficiency in buildings — and is



MARGARET CHAN
Director-General
World Health Organization

“The links between health, sustainable development and economic growth become starkly clear when we realise that lack of access to health services impoverishes people because they cannot work, while using health services impoverishes people because they cannot pay.”

Healthy development

The future we want is a healthy one. Better health contributes to sustainable development simply because healthy people are better able to learn, earn and contribute positively to their societies. This was well captured in the original Rio Declaration in 1992 where Principle 1 speaks of “human beings as the central concern of sustainable development...living a healthy and productive life in harmony with nature”. The role of health was reaffirmed at the Johannesburg summit ten years later and is even more vital today. I believe that in 2012 we need to make the case for health more strongly, and we have the evidence to do so.

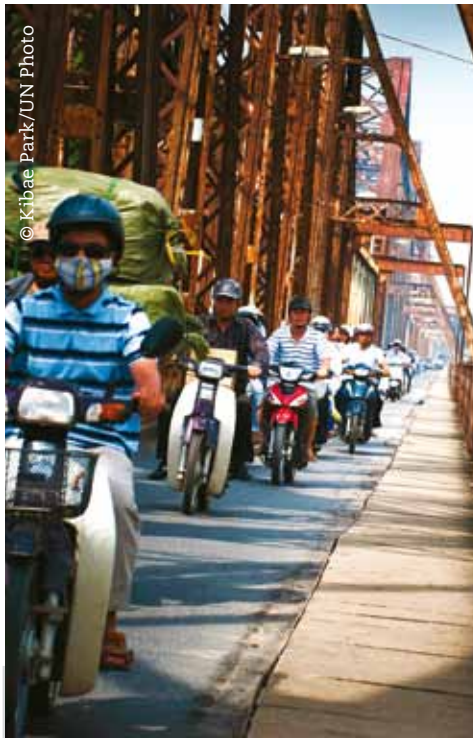
We need to start thinking about the relationship between health and sustainable development in three complementary ways. Health as a contributor to the achievement of sustainability goals; health as a potential beneficiary of sustainable development; and health as a way of measuring progress across all three pillars of sustainable development policy.

Let's start with the last point. Progress towards sustainable development requires metrics that integrate the economic, environmental and social dimensions of policy. Investment in health alone cannot solve the problems

of sovereign debt, volatile food prices or the environmental impact of climate change. But for those of us that are concerned to promote a fairer, greener and more sustainable approach to globalisation, people's health remains vitally important as a measure of the impact of policies in all these areas. Not only are health outcomes readily measurable, health concerns are immediate, personal and local. Measuring the impact of sustainable development on health can therefore generate public and political interest in a way that builds popular support for policies that have more diffuse or deferred outcomes (such as reducing CO₂ emissions).

A healthy environment is a prerequisite for good health. Reductions in air, water and chemical pollution can prevent up to one quarter of the overall burden of disease. Environmental change (through deforestation, air pollution, desertification, urbanisation and changing land use) have been causally linked to many pressing global health problems – including malaria, water-borne diseases, malnutrition, AIDS, TB, maternal health and non-communicable diseases (such as cancer, heart disease, chronic respiratory disease and diabetes). But while health can be a major beneficiary of economic and environmental development, this will not happen automatically. Twenty years after the first Rio Summit, decisions that guide urban planning, transport and housing development too often still create rather than reduce air pollution, noise and traffic injuries, and limit rather than promote physical activity. Agricultural and food policies too often make it harder, not easier to access to healthy and nutritious foods.

Evidence shows we can do things differently. WHO's Health in the Green Economy series points to many examples. Studies of active transport systems show that cycling to work can reduce mortality by 30 per cent. Access to rapid transit systems also goes hand in hand with more equitable health outcomes because people are better able to access the services they need. The right mix of climate change mitigation policies for residential buildings can contribute to a reduction in health risks from extreme weather conditions. Energy policies that reduce air pollution could halve the number of childhood deaths from pneumonia and substantially reduce the one million deaths each year that occur



© Kibae Park/UN Photo

“A green economy is one that maximizes benefits, but with health and human well-being as the bottom line.”

from chronic lung disease. Cleaner cooking fuels are particularly important: current evidence suggests that replacing biomass or coal stoves with cleaner fuels can help improve the health of up to three billion people.

We often refer to the health co-benefits of environmental policies and the need to multiply the health dividends from sustainable development, but essentially what we are talking about is a need for policy coherence. As the world seeks to address the challenges posed by ageing populations, growing cities, increasingly mobile populations, competition for scarce natural resources, financial uncertainty, and the vagaries of a changing climate, it is no longer

viable to think of solutions in terms of individual sectors. Similarly, there is little to be gained by policies (such as scaling up the use of diesel fuel) that reduce greenhouse gas emissions, but risk increasing levels of respiratory or cardiac disease as a result of air pollution. A green economy is one that maximises benefits, but with health and human well-being as the bottom line.

Lastly, there is the specific contribution that health policy can make to sustainable development. WHO estimates that 150 million people each year suffer severe financial hardship because they fall ill, use health services and have to pay for them on the spot. Many have to sell assets or go into debt to meet the payments. A hundred million people are pushed below the poverty line for these reasons. The links between health, sustainable development and economic growth become starkly clear when we realise that lack of access to health services impoverishes people because they cannot work, while using health services impoverishes people because they cannot pay.

Protecting people from catastrophic expenditure and ensuring access to essential services (including reproductive and sexual health services) through Universal Health Coverage is an essential element of any strategy to reduce poverty and build resilient societies. From this perspective, health is not just a desirable side effect or co-beneficiary of sustainable development. Rather, it needs to be seen as an essential pillar in its own right – with potential to increase economic growth, improve educational opportunities, limit the negative impact of population growth, reduce impoverishment and foster social cohesion.

UNEP at work



Short lives, devastating impact: UNEP launches new coalition to tackle short-lived climate pollutants.

Pollutants that are short-lived in the atmosphere such as black carbon, methane and hydrofluorocarbons (HFCs) are responsible for over 30 per cent of current global warming, with particularly large impacts in urban areas and sensitive regions of the world like the Arctic. They also are known to have harmful health and environmental impacts.

Addressing these short lived climate pollutants can have immediate, multiple benefits. Reducing them will protect human health and the environment now and slow the rate of climate change within the first half of this century.

Recognising that mitigation of the impacts of short lived climate pollutants is critical in the near term for addressing climate change, the governments of Bangladesh, Canada, Ghana, Mexico, Sweden and the United States came together with UNEP earlier

this year to initiate the first effort to treat these pollutants as a collective challenge. Together, they have formed the Climate and Clean Air Coalition to Reduce Short Lived Climate Pollutants (CCAC), a unique initiative to support fast action and make a difference on several fronts at once: public health, food and energy security and climate. The Coalition is open to countries and non-state actors that are committed to taking action on short lived climate pollutants, and wish to join in this global effort.

CCAC Objectives

The Coalition's initial focus is on methane, black carbon, and HFCs. At the same time, Partners recognise that action on Short lived climate pollutants must complement and supplement, not replace, global action to reduce carbon dioxide, in particular efforts under the UNFCCC.

“...the Climate and Clean Air Coalition to Reduce Short Lived Climate Pollutants (CCAC) is a unique initiative to support fast action and make a difference on several fronts at once: public health, food and energy security and climate.”

The Coalition’s objectives are to address short lived climate pollutants by:

- Raising awareness of short lived climate pollutant impacts and mitigation strategies;
- Enhancing and developing new national and regional actions, including by identifying and overcoming barriers, enhancing capacity, and mobilising support;
- Promoting best practices and showcasing successful efforts; and
- Improving scientific understanding of short lived climate pollutant impacts and mitigation strategies.

The Coalition intends to serve as a forum for assessing progress in addressing the challenge of short lived climate pollutants and for mobilising resources to accelerate action. It works to catalyse new actions as well as to highlight and bolster existing efforts on near-term climate change and related public health, food and energy security, and environmental issues.

STRUCTURE

The Climate and Clean Air Coalition to Reduce Short Lived Climate Pollutants is a partnership of governments, intergovernmental organizations, representatives of the private sector, the environmental community, and other members of civil society. The Coalition is government-led, but is highly cooperative and voluntary. Its governance structure includes the following;

- A Working Group with representatives from the Partners oversees the cooperative actions of the Coalition.
- A High-Level Assembly of the Coalition Partners convenes to set policy, take stock of progress and initiate future efforts.
- A Scientific Advisory Panel is responsible for keeping the Coalition abreast of new science development on short lived climate pollutants, answer specific questions of the Coalition and inform policy discussions.
- A Secretariat is hosted by UNEP in Paris.

WHAT ARE SHORT LIVED CLIMATE POLLUTANTS?

Short lived climate pollutants (SLCPs) are agents that have relatively short lifetime in the atmosphere - a few days to a few decades - and tend to have a warming influence on climate. The main short lived climate pollutants are black carbon, tropospheric ozone and methane, which are the most important contributors to the human enhancement of the global greenhouse effect after CO₂. These short lived climate pollutants are also dangerous air pollutants, with various detrimental impacts on human health, agriculture and ecosystems. Other short lived climate pollutants include some hydrofluorocarbons (HFCs). While HFCs are currently present in small quantity in the atmosphere their contribution to climate forcing is projected to climb to as much as 19% of global CO₂ emissions by 2050.

WHY DO WE NEED TO ACT?

Short lived climate pollutants are impacting public health, food, water and economic security of large populations, both directly through their impacts on human health, agriculture and ecosystems, and indirectly through their effects on climate. Short lived climate pollutants have become a major development issue that calls for quick and significant worldwide action.

www.unep.org/ccac/



JUAN SOMAVIA
Director-General,
International Labour Organization

Doing the job

The global economic model of the past decades has failed to improve the lives of too many in society and has wreaked havoc on the health of our planet. Continued overuse of natural resources threatens the environment and means production costs will rise, businesses will be disrupted, jobs will be lost and living standards will fall. Indeed, over a million Asian forest workers have already lost their jobs through unsustainable logging practices.

The transition to a greener economy is not just environmentally critical but also makes perfect economic and social sense. It brings improved livelihoods, social inclusion and more and better jobs. But for this to happen, people and their livelihoods must be at the core of policy-making – unlike today.

At the ILO we believe that the Decent Work Agenda offers a coherent policy framework that can integrate the macroeconomic, employment, social and environmental dimensions of this shift. The concept of sustainable enterprises is particularly relevant – aligning enterprise growth and the



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creation of productive employment and decent work with sustainable development objectives. And so is that of Green Jobs which contribute to reducing the economy's environmental footprint and are carried out under decent work conditions, including healthier and safer workplaces.

The shift towards a greener economy will affect employment and income distribution. Will it help us tackle the social challenges facing the world in the 21st Century? What will happen to the more than 200 million unemployed, the largest number ever recorded? Will there be opportunities for youth in a greener economy when some 400 million additional jobs are needed over

the next decade for young people entering the labour market? What of the more than 940 million working poor – nearly one in every three of the world's workers? Or the billions suffering persistent social exclusion in terms of access to basic social security, modern energy, decent housing or sanitation?

As with any structural change, the move towards a greener and more sustainable growth model will entail both job creation and losses. Alarmist claims that caring for the environment would cost growth and jobs are misplaced: green measures can have a positive impact on net employment. A recent analysis of 20 studies covering eight countries and the EU shows such policies

had a net impact of between a 0.5 to 2 per cent increase in employment. This is clearly not enough to solve the employment problem, but it makes a contribution.

The biggest impact is likely to be neither creation nor destruction, but transformation of many jobs across the economy. The biggest opportunities from greening the economy are in improving existing jobs and incomes. This is true for agriculture, which still employs one in every three workers, but concentrates 70 per cent of the world's poor. Studies by UNEP and the ILO suggest that investing in sustainable smallholder farming could lift tens of millions out of poverty. Similarly, 10-20 million informal waste pickers could be integrated into formal, modern recycling systems massively improving their incomes and conditions, with great environmental and economic benefits. Women play a key role in managing natural resources and form the majority of the world's poor: moving towards a greener economy offers an opportunity to promote gender equality.

Neither net gains in employment nor accelerated poverty reduction and social inclusion will happen by default. Environmental concerns alone will not lead us towards a greener and fairer economy. If policies are to be successful and sustainable they will need a strong employment and social component.

We need to focus on fiscal policies and price signals like eco-taxes which penalise resource consumption and pollution and reward employment by shifting the cost burden from labour to energy and resources. Early identification of needed skills and programmes for upgrading them is required to avoid the bottlenecks holding back green growth in many countries and sectors.

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Greening the economy opens up an avenue for strengthening awareness and honing skills that promote the safety and health of workers. Greening traditional industries can help address many long-standing occupational safety and health hazards, but growth in green sectors like renewable energies, waste management and recycling may bring new ones. The implications must be carefully considered before deploying new technology and implementing new production processes.

It will be crucial to ensure that enterprises – particularly the small and medium-sized ones that provide most employment and create most new jobs – can make the transition. They need access to information, technology, finance, skills and green markets – often not easy to provide. And targeted programmes will be needed to overcome social exclusion. Access to clean, modern energy for the 1.3 billion people who lack it will not happen automatically. Deliberate policies can enormously boost the quality of life, particularly for women, but energy access will have a big spin-off effect, opening up a whole range of new employment and income generation opportunities.

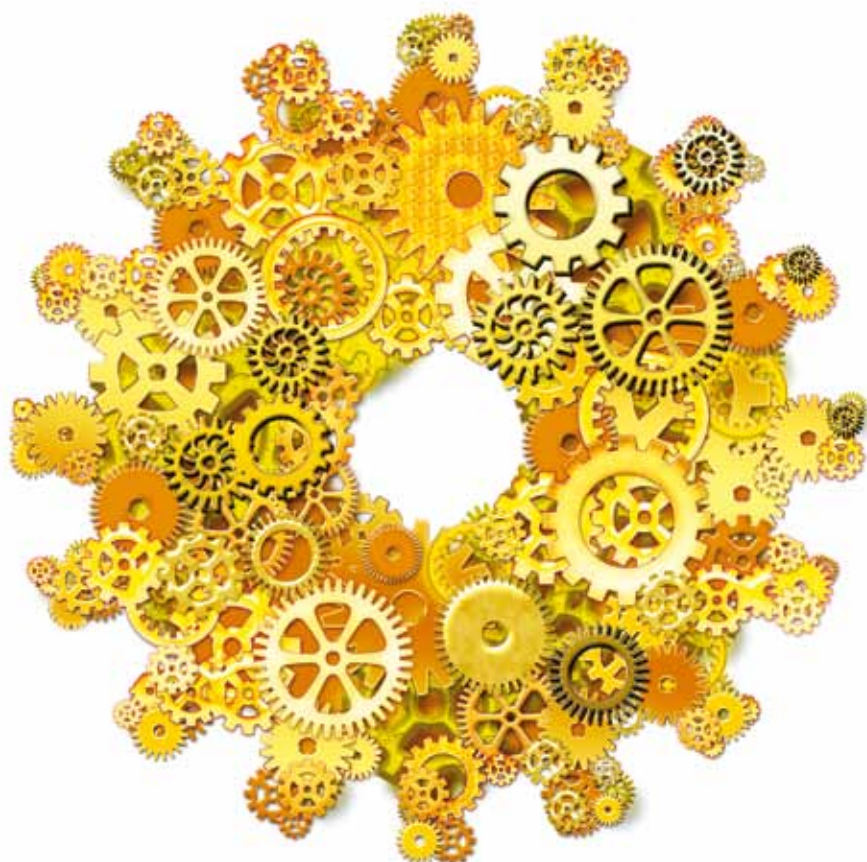
Identifying as early as possible the industries, enterprises and workers most likely to be affected is key. For example, greening transport will imply a shift to rail and mass transportation, with a tremendous impact on people working in those industries. Governments, unions and employers can work together to develop preventive strategies and make the transition economically and socially sustainable.

Finally, social protection floors have proven to be highly effective during the global economic crisis. They helped to boost household incomes and aggregate demand, giving many countries more room to manoeuvre. They will also be very useful as countries embark on green transitions, for example by protecting redundant workers. Income support schemes can pay poor households for environmental services they provide through protecting forests and marine life – and compensate them for energy price increases resulting from subsidy reforms or pricing of emissions that would otherwise hit them disproportionately hard. While the poor consume much less energy, a much bigger part of their household expenditure is directly linked to its cost.

Many of the changes that will occur in moving towards a fairer and more sustainable future are predictable and manageable. A firm commitment to social dialogue would give governments, social partners and all stakeholders a unique opportunity to ensure this transition benefits people, the economy and the environment. There can be substantial net gains in employment, social inclusion and poverty reduction if economic and environmental measures are complemented with appropriate decent work policies. Rio +20 will be a crucial moment for solidifying this goal backed by firm commitment to action.



RITA MISHAAN
Rio +20 Central American and
Guatemalan Coordinator (2010-2011)



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Good Governance!

Rio + 20 seeks to secure renewed political commitment for sustainable development, assess the progress and implementation gaps in meeting previously-agreed commitments, and address new and emerging challenges.

Throughout the preparatory process, two major issues were identified for the ongoing negotiations; a green economy in the context of sustainable development and poverty eradication; and the International Framework for Sustainable Development (IFSD).

Discussions on the IFSD approached the major issue of Governance at the International, Regional and National Level. Member states raised questions on how institutional frameworks can support and promote sustainable development, nationally and regionally, and on what can be done to strengthen them. They also asked what actions are required to build stronger bridges between the three pillars of sustainable development – economic, social and environmental – and what changes and adjustments are needed to strengthen the global institutional architecture.

The Implementation Plan of the 2002 World Summit on Sustainable Development – held in Johannesburg on the tenth anniversary of the original Rio Earth Summit – affirmed that: an effective institutional framework for sustainable development at all levels is key to the full implementation of Agenda 21, the follow-up to the outcomes of the World Summit on Sustainable Development and meeting emerging sustainable development challenges. Measures aimed at strengthening such a framework should build on the provisions of Agenda 21, as well as the Programme for the Further Implementation of Agenda 21 of 1997, and the principles of the Rio Declaration on Environment and Development, and should promote the achievement of the internationally agreed development goals, including those contained in the Millennium Declaration, taking into account the Monterrey Consensus and relevant outcomes of other major United Nations conferences and international agreements since 1992. It should be responsive to the needs of all countries, taking into account the specific needs of developing countries including the means of

implementation. It should lead to the strengthening of international bodies and organizations dealing with sustainable development, while respecting their existing mandates, as well as to the strengthening of relevant regional, national and local institutions.

So, what has happened since then? Why have we not achieved all the agreements established along the road? Are we too afraid to launch the ideal framework for sustainable development at the global, regional and national levels? Or is there a common political arrangement, the kind that is agreed in silence, among the strong and powerful political leaders of the world whose economic and industrialised interests have the last word? How can we advance towards the challenge of confronting the excessive production and consumption that uses 80 per cent of the planets natural resources for the benefit of only 20 per cent of its population? Needless to say, at the present rate of population growth, we will need three and a half or four planets by 2050 to feed humanity.

So, is there any possible solution for achieving true and desirable global “sustainable development”? Are we willing to agree to a cohesive and united force to achieve international governance? And, what about the regional and national levels? These are some of the questions that remain unanswered. But it is up to us, the member states, regions and working groups, to push forward some of the solutions.

During the Central American consultation process we agreed that over the last 20 years the United Nations system has never enabled an Environmental Agency to have a “high level mandate” that fully implemented Agenda 21 principles, or had the potential to coordinate

among the different international bodies or generate a cohesive political force to ensure that the three pillars were aligned in the same direction

The main lesson learned, time and time again, is the lack of comprehensive political coherence among the international, regional and national institutions “in charge” of sustainable development. It is a long way from the political will expressed, 20 years ago, to say the least.

If we are to approach sustainable development, we must generate “good governance”. This, in turn, is essential for sound economic policies, solid democratic institutions that are responsive to the needs of the people and improved infrastructure that can form the basis for sustained economic growth, poverty eradication, and employment creation.

So, during our national and regional discussions on this regard, we concluded that the challenges to consider are; changing the format of existing institutions and improving coordination between them.

The Commission on Sustainable Development should undergo a change of architecture that gives it more leverage at the highest level, transforming it into a “Council for Sustainable Development” to deal with the subject within the United Nations system and serve as a forum for the discussion of all the

issues related to integrating the three dimensions of sustainable development.

When it comes to improving coordination among existing institutions, it is important to highlight the history generated in the course of the deliberations of the Intergovernmental Panel on international environmental management of UNEP, which supported the concept of programmatic clustering of multilateral environmental agreements.

Strengthening UNEP as a program should be raised to a higher level. It should be given the power to mobilise more financial resources and implement projects at national and regional levels. Such a new architecture for UNEP should, in turn, strengthen its regional offices and include national presences to accompany implementing and monitoring actions on the ground.

Ultimately, generating and strengthening a new framework of international institutions for sustainable development is, as always, down to decision makers who are willing to make a difference. What is certain is that – two decades after the Rio Earth summit and four decades since nations met in Stockholm for the first major international political conference specifically dedicated to the environment – we do not have 20 or 40 more years in which to decide the future of the Planet or the survival of future generations.

“Strengthening UNEP as a program should be raised to a higher level. It should be given the power to mobilise more financial resources and implement projects at national and regional levels.”



**SEED Awards
2011
WINNER**

In Depth Seed Initiative Winners

Bringing Green Economy to the Grassroots at Rio+20

The SEED Initiative is a global partnership for action on sustainable development and the green economy.

Founded by UNEP, UNDP and IUCN, SEED supports innovative small-scale and locally driven entrepreneurs around the globe which integrate social and environmental benefits into their business model.

The 2011 winners were recently announced at a ceremony in Nairobi, Kenya. Achim Steiner, UN Under-Secretary-General, and UNEP Executive Director, said: “The SEED Winners illuminate a business model that cannot only be successful but have outcomes that meet the environmental and social imperatives of communities and countries across the globe. They underline that a transition to a Green Economy is not only a future possibility but a reality that is shaping the present and will define the decades to come if accelerated and scaled-up - Rio+20 is that opportunity in June next year.”

The winners represent 35 innovative start-up ventures in: Burkina Faso, Cameroon, Egypt, Ghana, Kenya, Madagascar, Nepal, Nigeria, Rwanda, Senegal, South Africa, Sri Lanka, Tanzania, The Gambia, Uganda, Zimbabwe.

The 2011 SEED Gender Equality Award Winner



Nepal:

The “Solid Waste Management and Community Mobilisation Program” is a waste collection and recycling initiative of over 1,000 households and businesses and is run by a women’s environment committee and supported by a local municipality. Landfill waste is reduced via recycling and biogas plants are fuelled by organic waste. A savings cooperative has also been established for 150 female members.

The 2011 SEED Award winners (by country)



Burkina Faso

- The “Solar bread oven” is a large hybrid solar/gas-fired oven usable for all kinds of baking and roasting. The oven will be distributed through local women cooperatives via a franchising network.
- The “Recycling Centre for Used Plastic Bags” run by a women’s environmental group has developed a technique to weave fashion accessories, decorative objects, and city clothing out of used plastic bags.
- “Voute Nubienne - Building Earth Roofs in the Sahel” The Nubian Vault Association trains entrepreneurs in the ancient technique of building durable roofs from unfired earth.



Cameroon

“TAYAB ECO-ORCHARDS” aims to relieve the effects of land scarcity leading to further deforestation.

Egypt

“Karam”, a local partnership initiative, is driven by a social enterprise marketing traditional Egyptian handicraft products from natural or recycled resources which are made by rural artisans.



The Gambia

“GreenTech Company Ltd” markets briquettes made from groundnut shells in combination with fuel efficient stoves.



Ghana:

- “Waste Enterprisers” has developed innovative ways of reusing human waste with the aim of improving sanitation services for the poor and restructuring the economics of sanitation in developing countries.
- “Recycle Not A Waste Initiative - RECNOWA” trains and employs street youth from disadvantaged communities to clear their streets of plastic and other material waste and transforms them into handmade designer products.
- “Man and Man Enterprise” and its business partners create employment by producing biomass-fuelled cooking stoves made from scrap metals.

- “Bamboo substitute for timber: new livelihoods for rural communities in Ghana” works on the full bamboo value chain from reforestation to production and marketing of substitutes for timber products, creating alternative sources of income for rural communities.
- “Rural Transportation and Renewable Products Conversion Centres for Agro-residues” works to establish an innovative shared-infrastructure service for rural farmers, providing cargo bikes for the collection of crops and agro-residues which are converted to renewable energy sources.



Madagascar

“SEPALI - Community-based Silk Producers Association” provides technical and financial assistance to farmers of silk moths raised on indigenous trees which can be intercropped with existing agricultural produce.



Kenya:



- “Enhancing Grassroots Women’s Economic and Social Empowerment in Kitui County, Kenya, through Sustainable Aloe Farming” provides rural income and facilitates the rehabilitation of wasteland by producing aloe-based skin care products.
- “Kisumu Innovation Center - Kenya” is a social business marketing recycled handicraft products in cooperation with a local women’s and orphans’ self-help group and a nationwide marketing partner.
- “Organic Farm Inputs and Farm Produce” supplies organic farmers with certified inputs and organic fertiliser while organising sales opportunities.
- “Watamu Community Solid Waste Management and Recycling Enterprises” is creating a plastic recycling value chain. The results are cleaned-up beaches and new employment opportunities for women and youth.
- “Use solar, save lives” trains youth in manufacturing solar-powered lanterns which are distributed to poor rural households.

Nigeria

“Sawdust Entrepreneurial Initiative Among Oko-baba Communities In Lagos, Nigeria” encourages the recycling of waste sawdust into briquettes as a cheap and clean alternative fuel for stoves.



- “Upscaling the silviculture-based enterprises of coastal communities in Kenya” supports community-based organizations and small-holder farmers in establishing mangrove-based operations, such as aquaculture, bee keeping, and ecotourism.
- “Promoting bamboo as a craft and technology application with a view to conserving Taita Hills Forests” supports bamboo plantations and the marketing of bamboo and other non-timber forest products, relieving the pressure for cutting down forests.

Rwanda

“Project for producing edible mushroom spores” is pioneering the local production of primary mushroom spores through a laboratory run by a cooperative of HIV-infected women and widows.



Senegal



- “Feed yourself, care for yourself and beautify yourself with the same plants” is a women’s cooperative and a phyto-pharmaceutical laboratory is building a supply chain of natural ingredients based on fair-trade principles.
- “Reusing waste charcoal as biochar” is a family-run business which is producing biochar from waste charcoal and clay.

South Africa

• “Thrive” works in the areas of waste, local food, water, energy, and biodiversity to produce tangible environmental benefits while at the same time building capacity, creating jobs and generating income for local communities.

• “Everpix-ACT-SA communities: natural tree products and community resource management” aims to augment rural income and incentivise tree planting by manufacturing and marketing products from indigenous trees grown by local communities, such as Marula nut oil.

• “Why Honey” is a start-up aiming to increase an insufficient local bee population and building a fair-trade supply chain for honey and apiculture products by training women bee-keepers to become micro-entrepreneurs.

- “The Development of a Khomani San Cultural and Nature Guiding Enterprise and Association” is an eco-tourism enterprise that employs members of the local indigenous community.
- “Imai Farming Cooperative” is a women’s cooperative which is increasing and stabilising farmers’ incomes and reducing waste by processing surplus fresh vegetable produce into pickles.



Sri Lanka



“Community-based, sustainable and commercially viable Aloe vera products as alternative income generation for fisherwomen in Bar Reef Special Management Area in Kalpitiya” low-cost aloe vera cultivation is offering an alternative livelihood to fisherwomen who use the unproductive lands of the coastal areas to produce beverages and supply the cosmetic industry.

Tanzania

- “Butterfly farming for pro-poor tourism and environment conservation”: replicating their successful project in Zanzibar, this partnership is setting up a butterfly park as a tourist attraction, at the same time generating income for local farmers through butterfly farming.
- “Plastic Waste Recycling as an Alternative to Burning and Landfilling” collects plastic waste which can be sold to the initiative’s recycling facility which in turn produces plastic pellets for industrial use.
- “Enhancing women farmers’ access to profitable markets by developing a toolkit for value-added post-harvest solar fruit drying, handling and utilisation of horticultural crops for local and regional market procurement in East Africa” tackles a critical lack of food preservation and storage means through innovative solar drying technology.



Uganda

“Solar Sister - African women led grassroots green energy revolution” runs a direct sales network of women entrepreneurs, selling solar-powered lanterns to rural households.



Zimbabwe

“Sustainable development through processing natural products” supports women entrepreneurs to harvest, process and market Marula-tree products.



Further details about all SEED Winners can be found on the SEED website at www.seedinit.org

WWW

This page contains links to websites to help you research issues related to Sustainable Development. Our Planet magazine does not, however, endorse the viewpoints of any of the groups to which we link, and we cannot guarantee the accuracy of the information posted on these sites. Rather, we hope to provide you with a broad range of opinions and perspectives.

Rio+20

www.uncsd2012.org/rio20/

The official website of the UN Conference on Sustainable Development, to be held in Rio de Janeiro, Brazil, June 20-22 2012. Information for delegates, media, stakeholders and campaigners.

www.unep.org/rio20

UNEP's Rio+20 site provides a wide range of resources linked to the conference, including background briefings and policy notes, and a series of articles by politicians, businessmen and women, scientists, and civil society, drawing upon their unique views on the conference.

www.rio20.gov.br/

The official Brazilian government site with useful information for delegates and attendees. In English, Portuguese and Spanish.

World Congress on Justice, Governance and Law for Environmental Sustainability

www.unep.org/delc/worldcongress

Held immediately prior to Rio+20 (17-20 June), this high-level event will bring together legislators and senior judges from around the world to contribute to the outcome of Rio+20 by presenting its findings to the conference.

Stakeholder Forum

www.earthsummit2012.org

The Stakeholder Forum brings together many policy-makers, local governments, think-tanks, NGOs, schools and all kinds of community-based organizations to express their views at the conference.

The Future We Want

www.un.org/en/sustainablefuture/

An opportunity to join the debate on Rio+20 and lend your personal perspective. The contributions will be compiled and turned into a multimedia exhibition to be shown at Rio, on the Internet and then around the world. Twitter: #futurewewant.

Rio+20 Dialogues

www.riodialogues.org

An online platform to ensure broad, democratic and diverse participation in the Sustainable Development Dialogues (Rio 16-19 June), bringing together experts and stakeholders from civil society, including private sector, NGOs, scientific community, among other major groups.

Facebook

www.facebook.com/UNRioplus20

A social forum to discuss and exchange ideas and information on the conference.

World Environment Day 2012

www.unep.org/wed/

Wondering how you can celebrate WED this year? Here are dozens of easy ideas to help you adapt to a new environmentally conscious lifestyle. Sign up to stay updated with what's happening for World Environment Day. After June 5th, the site will feature a comprehensive round-up of the activities from around the globe.

Climate and Clean Air Coalition

www.unep.org/ccac

As featured on page 18, a number of countries and UNEP have come together to initiate the first effort to combat pollutants that are short-lived in the atmosphere such as black carbon soot, methane and hydrofluorocarbons.

UNEP Foresight Report

www.unep.org/publications/ebooks/ForesightReport

A unique venture led by UNEP to identify and analyse 21 emerging environmental issues for the 21st Century.

UNEP Year Book 2012

www.unep.org/yearbook/2012

Looking at key scientific issues in greater detail, the UNEP Year Book provides in-depth analysis of trending environmental topics.

Annual Report 2011

www.unep.org/annualreport/2011

A fascinating and informative insight into UNEP's progress in 2011, with snapshots of the organization's vital work around the globe.

GEO

www.unep.org/geo

UNEP's flagship Global Environmental Outlook report, now in its fifth edition, provides information for policymakers on the state of the world's environment and a series of in-depth case studies on how environmental degradation can be reversed and repaired.

Green Economy

www.unep.org/greeneconomy

The Green Economy unites all global citizens under the banner of sustainable development within the context of protecting and managing the world's resources. Learn more here, with essential tools and background on the issues involved.

Expo 2012

www.un-expo2012.org

This year's major international Expo is in Yesou, South Korea, with the theme of Oceans and Coasts: Connecting Our Lives, Ensuring Our Future- The Choice is Yours. Learn more about the UN pavilion and involvement at this site.

UN Environmental Management Group

www.unemg.org

This site brings together all the UN's cross-agency cooperation on environmental issues, with particular focus on Land, Biodiversity, the Green Economy, Sustainability and Environmental Governance.



Richard Crompton talks to **JOSEPH ALCAMO**
UNEP's Chief Scientist



the

Gap

Joseph Alcamo is a man with a mission. As UNEP's Chief Scientist, he has a dual role. He has to keep track of the constant and growing scientific data on our environment, and ensure that the organization communicates it to the outside world. At the same time, he strives to keep the scientific community up to date with the needs and demands of policy-makers.

It's a tall order. No wonder, then, that he sees this gap between science and policy as one of the most pressing issues going in to Rio+20.

"It is urgent to bolster engagement of science and policy," Alcamo says. He cites the fifth edition of UNEP's flagship publication, Global Environmental Outlook (GEO 5), undergoing its final drafting at the time of our interview, in preparation for its launch at Rio+20. The weighty tome is an attempt to consolidate in one place the current understanding of the state of the world's environment, with practical, concrete suggestions for improvement.

"With GEO 5 we've realised that the international community has set many different goals for the global environment," says Alcamo, "but it has not done a good job of reaching them. Of ninety goals set out at or since

Rio [The Earth Summit in 1992], just forty have shown progress and of those, only four have shown significant progress. So the international community have not been complying with their own goals.

“The main reason for that? There are lots of reasons, but one likely one is that science has not been informing policy the way it should be.”

This ‘gap’ takes many forms. Alcamo highlights a few: “A lack of communication between the communities. The inaccessibility of scientific results, especially in the developing world. And there are not enough forums where scientists can come together with policymakers.”

So how to close this gap? Working together with colleagues at UNEP, and in consultation with both the scientific and policy-making community, Alcamo has identified three broad areas where improvement could be easily achieved, and should yield dramatic results.

“Firstly, we need to shorten the distance between science and policy,” he urges. “The scientific community should have a quicker response time in assessing the needs of policy-makers. One example would be Climate Synthesis Reports. When the data are there, it allows policy-makers to address key negotiating issues such as the emissions gap: where we need to be in 2020 to meet our targets [a global increase of no more than 2 degrees Celsius] versus where we are according to the pledges of countries.”

“Secondly, global change research is being carried out by big organizations which have wide degrees of overlap – but often no meeting place between science and

policy. One big idea we’re looking at is to change the architecture of global change research. Along these lines UNEP is partnering with ICSU [International Council for Science], UNESCO [UN Educational, Scientific and Cultural Organization] and others in the “Future Earth Initiative”. Through ‘Future Earth’ we’re trying to bring the scientists working on issues of sustainability much closer to the users and stakeholders of this science. And then, a third area for action is to encourage scientists to listen more closely to policymakers in setting the agenda – so that research priorities are more strongly influenced by the urgent needs of society for information.”

With his office situated in UNEP’s headquarters in Nairobi, Kenya, Joseph Alcamo is acutely aware that the communities which suffer most from the information gap are those in the developing world.

“It’s a sad fact that the most vulnerable parts of the world have the least developed scientific communities,” he says. “We need to strengthen the scientific community in developing countries – and quickly. When studies are conducted on drought in Africa, for example, the expertise is often provided from outside the continent. Africa has fifteen per cent of the world population but just 1.5 per cent of its scientists. We’re losing the unique African perspective – the indigenous knowledge – on solutions.”

So what is the solution? Joseph Alcamo and UNEP have presented a wide range of ideas in the run-up to Rio+20. Among them is the idea of setting voluntary national targets for embedding sustainability studies in the structures of the scientific community and in education systems – from secondary level right through to universities. UNEP is also keen to support the creation of regional centres of excellence in the subject.

Impressive results have come from training research leaders, so that will play a part.

Response from the scientific and educational communities has so far been enthusiastic. But Joseph Alcamo insists that the policy-makers also have to be fully on board.

“Without the political commitment we won’t see the necessary investment in

sustainability-related science funding,” he says. “It’s a good investment for governments in the long term. Sustainability means food security, reliable energy, and safe communities.”

So at Rio+20 in June, Alcamo and his UNEP colleagues will be looking for a major boost in the partnership between science and society for sustainability. “Bridging the science-policy gap is going to take more than good intentions,” he states. “We need to use science better and scientists need to know more about policy needs. Only then can we close the gap – for good.”

“We need to strengthen the scientific community in developing countries – and quickly. When studies are conducted on drought in Africa, for example, the expertise is often provided from outside the continent. Africa has 15 per cent of the world population but just 1.5 per cent of its scientists. We’re losing the unique African perspective – the indigenous knowledge – on solutions.”



Targeting goals



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Measured by the number of treaties and international agreements adopted over the last four decades, the world's response to the environmental challenges it faces has been impressive. Over 500 international environmental agreements have been concluded since 1972, the year of the Stockholm Conference and the establishment of the United Nations Environment Programme (UNEP). These include landmark conventions on climate change, biological diversity and desertification adopted at the Rio Summit in 1992, several treaties governing chemicals and hazardous waste, and a host of important regional agreements.

But despite the impressive number of legal instruments and good intentions, real progress in solving the environmental challenges themselves has been much less comprehensive.

UNEP's Global Environment Outlook-5 (GEO-5) assessment, published on June 6th, has measured progress towards – and gaps in – achieving internationally agreed environmental goals. The assessment – which provides the international community with up-to-date information on the state and trends of the global environment – selected 90 environmental goals and objectives of particular relevance to policy makers as a starting point. Goals are negotiated and agreed to by the international community in order to achieve an intended purpose – development that meets the needs of the current generation without compromising those of future generations. Some include targets and indicators to help measure progress.

The sector by sector analysis highlighted the following:

Atmosphere.

Significant progress has been made in eliminating substances that deplete the ozone layer, as well as through the phaseout of lead in gasoline – but there has been little or no progress on serious issues such as indoor air pollution and climate change.

Biodiversity.

There has been some progress in terms of policy responses, such as by increasing the coverage of

protected areas, but little or no progress on many issues such as the risk of extinction of species, and a continuing, serious decline in the condition of wetlands and coral reefs.

Water.

Significant progress has been made in increasing the number of people with access to clean drinking water, accompanied by some advances in access to sanitation and water efficiency measures. But little or no progress has been made on some issues such as marine pollution, and there is increasing concern that the total freshwater supply is being used unsustainably in many regions, especially through groundwater depletion.

Land. Some progress has been made to ensure better access to food, although combating desertification and droughts has seen little or none.

Chemicals.

There has been some progress in dealing with heavy metals, persistent organic pollutants and radioactive waste.

GEO-5 concludes that lack of progress is partly due to the lack of specific, measurable targets and data. Few international environmental goals incorporate such targets. Those that do exist include: the Millennium Development Goal 7 targets to reduce by half the proportion of people without sustainable access to safe drinking water and basic

sanitation; the Aichi Biodiversity Target 11, to conserve by 2020 at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas; the complete phase-out of certain chemicals, such as ozone-depleting substances (under the Montreal Protocol), the use of lead in gasoline, and persistent organic pollutants (POPs) listed under Annex I of the Stockholm Convention. It is worth noting that the few issues that do have measurable targets include all of those on which significant progress has been made – eliminating substances that deplete the ozone layer; phasing out lead in gasoline; and, to some extent, improving access to safe drinking water.

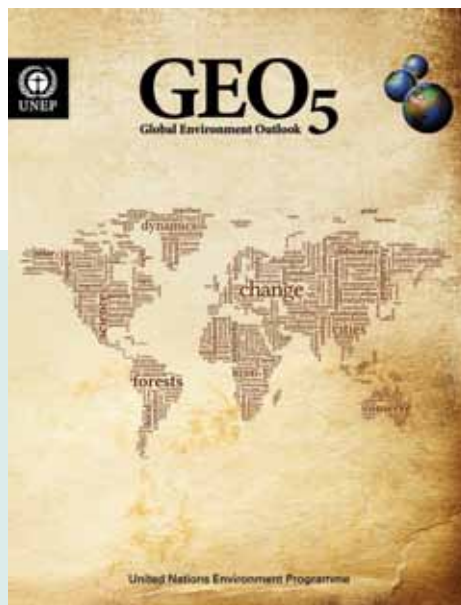
The availability of specific, measurable, agreed targets is particularly poor in such areas as chemicals and waste management, the extent of critical habitats such as wetlands and coral reefs and for freshwater, marine and air pollution. GEO-5 also found that there is a need for more reliable data on issues such as freshwater pollution, groundwater depletion, land degradation and chemicals and waste. Moreover, even many countries that do have data follow their own national guidelines rather than standard international ones, making it difficult to determine global trends or compare the situation in different countries.

The Millennium Development Goals (MDGs) show how adopting specific, measurable targets can spur great efforts to collect and coordinate data on the issues they cover. As the 2011 Millennium Development Goals report states:

“As a result of recent efforts, more data are now available in the international series for the assessment of trends for all MDGs. In 2010, 119 countries had data for at least two points in time for 16-22 indicators; in contrast, only four countries had this data coverage in 2003. These advances are the result of increased national capacity to venture into new data collection initiatives, as well as to increase the frequency of data collection.”

In summary, despite the large number of international environmental goals, the international community has made very uneven progress in improving the state of the environment. In fact, there has been little or no progress – or further deterioration – on about half of the environmental issues reviewed in GEO-5.

Among other things, GEO-5 demonstrates the value of establishing specific, measurable targets that cover a broad range of environmental challenges. If priority is given to issues the international community has made least progress in addressing so far, it indicates, these would include: climate change; indoor air pollution; extinction risk of species; extent and condition of natural habitats, especially coral reefs and wetlands; invasive alien species; loss of traditional knowledge; access to food; desertification and drought; freshwater supply; fish stocks; marine pollution; and extreme events.



The GEO Process

The GEO process is conducted every five years with hundreds of scientific and policy experts and institutions from around the world. It culminates in UNEP’s flagship assessment report — the Global Environment Outlook. To date, four assessment reports have been produced in the GEO series, with the fifth in the series, GEO-5, published on 6 June. These assessment reports provide a comprehensive analysis of the state, trends and outlooks of the global environment as well as policy options for action.

In the lead up to the Rio+20 conference on sustainable development, GEO-5 provides an update of the state and trends of the global environment, including from an Earth System perspective; considers the drivers of environmental change; analyses promising policy options in the regions and provides policy options that could help countries speed up their realisation.

For access to GEO products and more information on the GEO Process visit www.unep.org/geo

Additional resources:

[Keeping Track of our Changing Environment report
www.unep.org/geo/GEO5_Products.asp](http://www.unep.org/geo/GEO5_Products.asp)

[GEO-5 Summary for Policy Makers report
www.unep.org/geo/GEO5_SPM.asp](http://www.unep.org/geo/GEO5_SPM.asp)

Forthcoming Published reports:

[Measuring progress towards meeting goals and the full GEO-5 Assessment report are available at www.unep.org/geo](http://www.unep.org/geo)

innovation



A Green Whitewash

A report published in the Canadian journal *Environmental Research Letters* suggests that simply by painting more buildings, rooftops and hard landscaping white, we could save as much CO₂ as is produced by all the world's cars in 50 years.

The result would be gained because white surfaces reflect heat back into space rather than absorbing it. Thus urban areas would be cooler, and there would be a net gain from reduced air-conditioning use.

Other researchers have suggested altering crops to have a lighter reflective colour, to speed up the process. But conflicting reports indicate the result of cooler patches on the Earth may be less cloud cover. Trials are now due to investigate.

Riding above the waves

Wind turbines are a vital tool in the battle against global climate change. But on a local level, they are often deeply unpopular. Because they may need to be sited in high-wind areas, such as coastlines and highlands, they can conflict with areas of natural beauty.

Now floating wind turbines are being tested off the coast of Norway. Unlike traditional marine wind turbines, which need to be fixed to the sea bed, thus limiting their use to shallow waters, the floating turbines can operate far offshore, where wind speeds are considerably higher.

An additional advantage is that they can be unanchored and towed to port for repairs, reducing the need for costly and potentially dangerous on-site maintenance.



An eco-friendly robot

A robot which safely decomposes in the environment is being developed by engineers at Bristol University in the UK. Conventional robots are predominantly made of rigid resilient materials, many of which are toxic, non-biodegradable and have a negative impact on the natural ecology.

Any robot deployed in the environment must therefore be continually tracked and, once it has reached the end of its useable life, must be recovered, dismantled, and made safe. The aim is to create autonomous soft robotic artificial organisms can exhibit an important characteristic of biological organisms: graceful decomposition after death.

“Once a biodegradable robot has reached the end of its mission, for example having performed some environmental cleanup activity following an oil spill, it will decompose into harmless material,” says project leader, Dr Jonathan Rossiter.

When wrinkles are a good thing

Researchers from Princeton University in the US may be on the verge of a breakthrough in boosting power output from flexible, low-cost solar cells.

Current solar panels are typically made of silicon, which is both more brittle and more expensive than plastic. So far, plastic panels have not been practical for widespread use because their energy production has been too low. But the team discovered that microscopic folds in the surface of plastic photovoltaic material can boost output by 47 per cent.

The tiny wrinkles channel light waves and increase the exposure to light. The discovery could open the door for a whole range of new applications for cheap, tough and flexible solar panels, potentially including items such as curtains or backpacks.



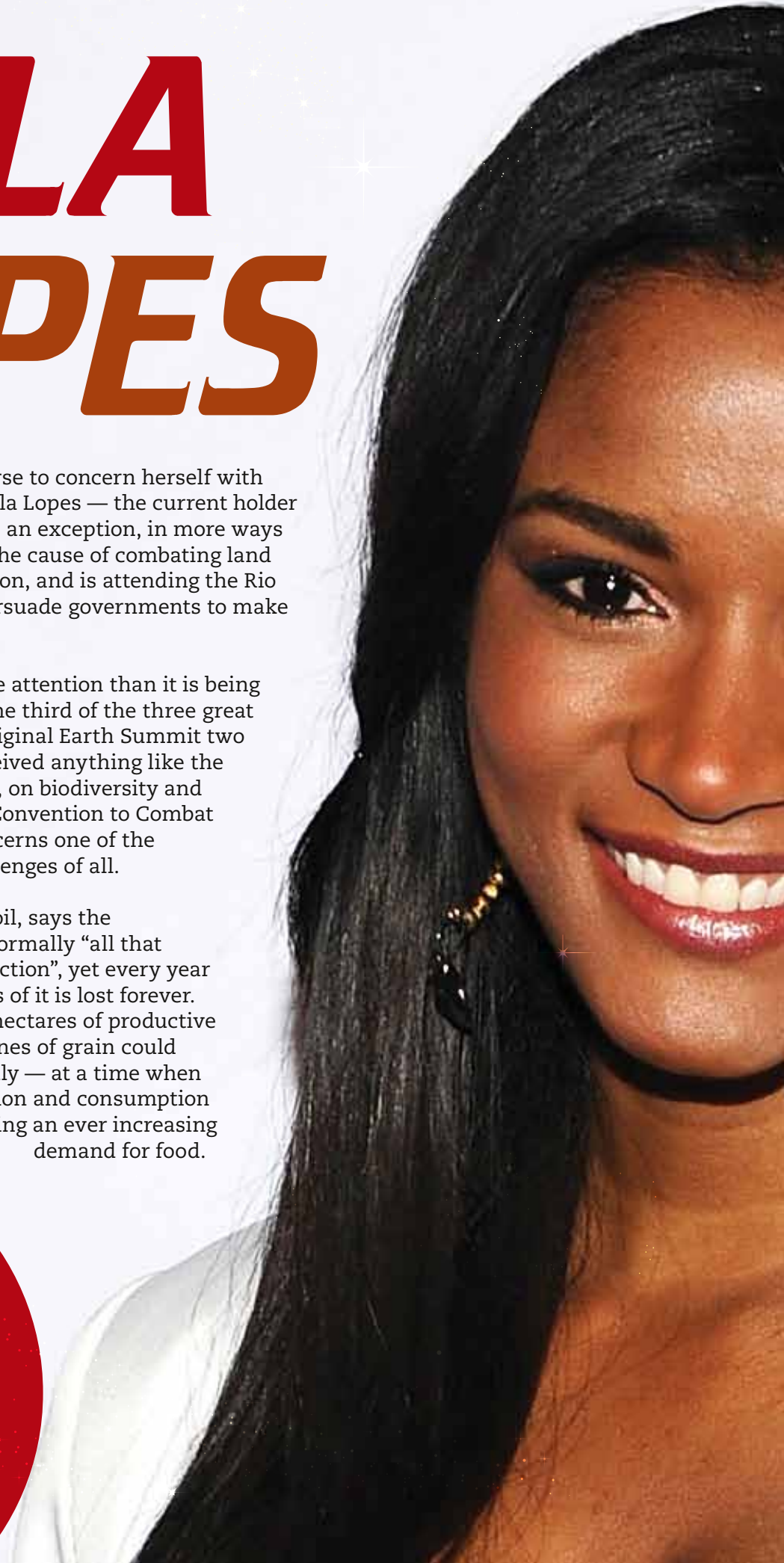
LEILA LOPES

You don't expect Miss Universe to concern herself with down to earth issues, but Leila Lopes — the current holder of the title — is proving to be an exception, in more ways than one. She has taken up the cause of combating land degradation and desertification, and is attending the Rio +20 summit to help try to persuade governments to make it “a priority issue”.

It certainly needs much more attention than it is being given. It was the subject of the third of the three great conventions agreed at the original Earth Summit two decades ago, but has not received anything like the attention given to the others, on biodiversity and climate change. Yet the UN Convention to Combat Desertification (UNCCD) concerns one of the greatest environmental challenges of all.

Just six to ten inches of topsoil, says the convention's secretariat, is normally “all that stands between us and extinction”, yet every year a staggering 75 billion tonnes of it is lost forever. Put another way, 12 million hectares of productive land, on which 20 billion tonnes of grain could be grown, disappears annually — at a time when rising population and consumption is creating an ever increasing demand for food.

“The demand for food is only going to continue to increase around the world, so we need to save land so that people can farm on it and make a living.”





Ms Lopes was born 25 years ago in Angola, one of the countries most affected — and part of the drylands which cover 40 per cent of the world’s land surface and are home to 2.7 billion people — but says she was “not aware” of the problem when growing up, as she lived near the beach in the coastal city of Benguela. Her interest was sparked, she told *Our Planet*, when she attended a meeting “which gave me an understanding of how severe land degradation was, its impact on the environment, and how it especially affected my continent of Africa, and the rest of the world”. Earlier this year she was appointed a UNCCD Drylands Ambassador.

“Governments need to commit to tackling land degradation, share knowledge, and find ways to restore the same amount of land that is lost each year”, she says.

“The demand for food is only going to continue to increase around the world, so we need to save land so that people can farm on it and make a living”.

She adds:

“Drylands are not wastelands. People think that because the land is dry and desolate it should

be abandoned because nothing can be done with it, but this is not the case. It’s important for people to understand that this land CAN be saved and that we CAN cultivate it. If we invest in our land and teach people proper sustainable farming techniques, we are doing something good.”

She sees her job as creating some of that missing attention, explaining: “if we start to educate people about the issue, we can do something about it. As Miss Universe, I will lend

my voice to help raise awareness about drylands and desertification. I can create a lot of awareness because fans all over the world really do want to know what I am involved in and the causes I support. And when attending the Rio+20 Summit, I will promote the issue as much as I can. It’s our future.”

*“As Miss Universe,
I will lend my voice
to help raise awareness
about drylands
and desertification.”*



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www.unep.org/ourplanet

www.unep.org/40thAnniversary

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