

SUSTAINABLE DEVELOPMENT GOALS



From promise
to practice

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you can grow up to do anything.



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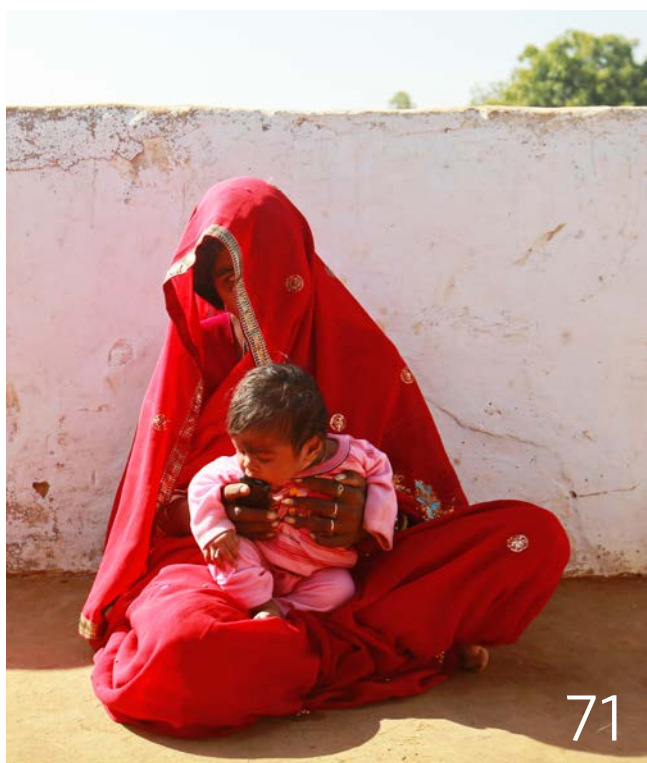
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End poverty in all its forms everywhere

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

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Our common goals

The 2030 Agenda presents long-term solutions to the forces that threaten the world and human society. But success will only be possible through joint endeavour, between countries and across all communities

By **António Guterres**,
Secretary-General, United Nations

We live in a dangerous and unstable world of multiple interlinked challenges.

These include old and new conflicts, global humanitarian and human rights crises, climate change and environmental decline, pervasive and entrenched economic and social inequalities and massive youth unemployment.

The 2030 Agenda and its 17 Sustainable Development Goals (SDGs), adopted in 2015, provide a coherent, holistic framework for addressing these challenges and their interconnections.

The SDGs are universal; applicable to developed and developing countries alike. They require member states to address the social, economic and environmental dimensions of sustainable development in a balanced manner. Their implementation must embody the principles of inclusiveness, integration and ‘leaving no one behind’; they should be supported by an effective means of implementation; and they must promote social justice, effective institutions and durable peace.

Key priority

Inclusive and sustainable development is a key priority for the United Nations. It is also, by far, the best way to prevent conflict and maintain stability. Governments need to take the lead, but actions by UN member states alone will not be sufficient.

The 2030 Agenda recognises that all stakeholders need to work together in pursuit of common goals. Parliamentarians, civil society organisations, the private sector, members of the scientific and academic communities and other stakeholders were important in formulating the SDGs. They need also to play a prominent role in working to achieve the goals, reviewing progress and keeping governments accountable.

Exchange of experience

Achieving the SDGs can only be a joint endeavour if all stakeholders are aware of these global goals and understand how they can contribute. Follow-up, review and learning from the experiences of others are essential.

We can already see at this early stage the importance of integrating the SDGs into national and regional development plans, mobilising resources, building relevant capacity and engaging all stakeholders.

At the global level, such exchange of experience is occurring at the High-level Political Forum on sustainable development. This is the United Nations’ central platform for follow-up and review of the 2030

Inclusive and sustainable development is a key priority for the United Nations. It is also, by far, the best way to prevent conflict and maintain stability

Agenda. At the 2017 Forum in July, 44 developing and developed countries will participate in Voluntary National Reviews in which they will present the steps they have taken to implement the SDGs. The Forum is a rich and practical resource for all countries to implement this universal agenda.

I commend the United Nations Association – UK for promoting partnerships for sustainable development and wish it every success in communicating the message of our common goals as broadly as possible.

Our collective responsibility in the coming years is to take the framework provided by the 2030 Agenda and translate the ambition of the SDGs into reality for all people, everywhere. ●

◀ António Guterres speaks with newly arrived Syrian refugees at a Jordanian government receiving centre. Conflicts present perhaps the greatest challenge to the SDGs, directly and indirectly

Now is the time to act

To achieve the Sustainable Development Goals we must strengthen the international system

By **Natalie Samarasinghe**,
Executive Director, United Nations Association – UK

It is just over a year since the ambitious 15-year agenda of the Sustainable Development Goals (SDGs) was launched: a global blueprint to “promote social progress and better standards of life in larger freedom” in the memorable words of the UN Charter.

This is a crucial period for the SDGs. According to the World Bank and think tanks like the Overseas Development Institute, if we do not see concrete steps taken during the first 1,000 days, then the outlook for their achievement will be bleak. Strong action is needed now if we are to: increase momentum towards the targets that are within reach – on poverty and deforestation, for instance; upscale efforts to meet those where progress has been slow (e.g. hunger and maternal mortality); and turn the tide in the areas where the world remains seriously off track, notably climate change and inequality.

Governments - and publics - must eschew insularity and embrace the need to strengthen global cooperation and institutions

Action has started. As you will see in the pages of this publication, around the world, even in the most trying of circumstances, attempts are underway to implement the SDGs – some ambitious, some imaginative, all integral to the success of the project.

Yet there is no shortage of reasons to be fearful. From the rise of xenophobia to seemingly intractable conflicts and the lowest ebb in big power relations for several decades, all signs point towards a dangerous and fragmented end to the decade.

Syria’s civil war has set back its progress by some 35 years. Violence has brought famine to parts of Nigeria – a middle-income emerging economy. Global displacement and the inadequate response of many governments have put development gains at serious risk,

with over 65 million people forced to flee their homes facing an uncertain future.

Meanwhile, narrow nationalism risks undermining American and European commitment to the goals. The new US administration has signalled its intention to withdraw from the Paris Agreement on climate change and has frozen funding to development NGOs that offer abortion counselling or advocate abortion as a family-planning option, even if the money is spent on other crucial services. In the UK (the second-largest donor after the US) there is increasing pressure to reduce aid spending. Earlier this year, a misleading tabloid campaign appeared to influence the decision to cut aid to a girls’ rights NGO in Ethiopia.

First 1,000 days

Against this backdrop, it is encouraging that we have in António Guterres a highly competent diplomat at the helm of the United Nations. UNA-UK was at the forefront of a global campaign to reform the selection process to secure the best possible person for the job. Mr Guterres has a proven track record in conflict diplomacy and fundraising, and a reputation as a passionate advocate for the vulnerable. With the world in the grip of the most significant displacement crisis since records began, his background as UN High Commissioner for Refugees is an asset.

Our ability to meet the SDGs is intertwined with our ability to deal with this crisis. The UN’s ‘three pillars’ – peace, development and human rights – are mutually reinforcing. Guterres’ early decisions to prioritise work on peace and security and to increase the Secretary-General’s capacity for mediation reflect this.

In these crucial first 1,000 days, states must not prioritise low-hanging fruit, as many did with the Millennium Development Goals, the SDGs’ predecessors. They must target those groups most at risk of being left behind, such as refugees and migrants, and concentrate on the most transformational interventions, which may relate to Goal 16 on just, peaceful and inclusive societies, rather than more traditional development areas.

States should also recognise that the SDGs are shared, universal goals. Warm words about partnerships



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are not enough. A broad coalition uniting governments, international organisations, the private sector, civil society and all of us, as global citizens, is needed. So too is domestic action by rich countries, on which progress in some of the most elusive targets, such as reducing waste, depends.

And states must work hard to ensure that the post-1945 international system survives this turbulent time in global affairs. Despite the horrific headlines that dominate our screens, the world has, by and large, made enormous strides in terms of development over the past 70 years. It has also managed to avoid all-out global conflict.

Eschew insularity, embrace cooperation

This system is now under threat. Governments – and publics – must eschew insularity and embrace the need to strengthen global cooperation and institutions. This should include supporting Mr Guterres in revitalising the organisation’s role in peace and security, where it can make a unique contribution. Given heavy resource constraints, it will need to step back in other areas to achieve this.

Development is the obvious candidate. Over the lifespan of the SDGs, the UN should move away from direct delivery on the ground, where it is no longer always the best-placed actor, and focus on encouraging, advising and monitoring states and other implementers. As the only UK charity devoted to strengthening the UN, UNA-UK will continue to support this endeavour, calling for UK leadership, for UN development reform and for public engagement.

This publication, the latest volume in UNA-UK’s global development goals series, is an integral part of this programme. We bring together authors – from the UN, national governments, business, academia and civil society – to provide an appraisal of the SDGs and the context for achieving them, as well as evidence-based recommendations on implementation.

What emerges is a sense of the challenges created by the interplay between complex factors: inequality; instability; climate change; political, social and cultural pressures; and, not least, the global economy. These are challenges which the UN will be indispensable in meeting, but which it cannot meet alone. ●

▲ Haiti, October 2016, the aftermath of Hurricane Matthew. In the SDGs’ first 1,000 days, the focus needs to be on those most at risk of being left behind



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Keeping the 2030 Agenda alive

The world already looks very different to the place it was when UN member states adopted the SDGs in September 2015. How can we ensure that the international community remains committed to the pledges it made?

By **Richard Jolly**, Honorary Professor and Research Associate, **Gabriele Köhler**, Honorary Associate, **Robin Luckham**, Emeritus Fellow and **Philip Mader**, Research Fellow, Institute of Development Studies, University of Sussex

The UN 2030 Agenda for Sustainable Development and its companion, the Paris Agreement on climate change, aspire to nothing less than ‘transforming our world’. The 2030 Agenda – adopted by all 193 UN member countries less than two years ago – commits to good governance and peace, overcoming hunger and poverty, and “leaving no one behind”. The Paris Agreement, pledging to take action to limit global warming to 2°C maximum, has been ratified by more than 130 countries. These are two of the most-referenced global policy promises for economic, social and climate justice and a sustainable future for people in all parts of the world.

But these promises are increasingly at odds with the politics and economics we currently witness around the planet. Is the Sustainable Development Agenda becoming but a distant dream? Will the agenda survive? The time is now to speak out clearly against the threats, renew the commitment, and open up new avenues for progress.

The challenges

Racism and xenophobia are on the rise. In some countries, elected politicians are unashamedly sowing hate on a scale not seen since the 1930s, most obviously under President Trump in the USA, but also in many parts of Europe (such as Hungary, the Netherlands, France).

Distressingly, governments in countries like Britain are colluding or providing only weak opposition to neo-nationalism, claiming that they must preserve special relationships with their allies. Meanwhile, identity-based verbal abuse, outright oppression and violence are rearing their ugly heads across Europe as well as in countries such as Myanmar, Nigeria and Burundi, and threaten to halt and reverse progress on development that ‘leaves no one behind’.

The climate change targets of the Paris Agreement are already being challenged by fossil fuel corporations and the governments that support or condone them – although the fight back is also beginning. The promised funding for climate change mitigation is not yet forthcoming.

Meanwhile environmental activists are being arrested, persecuted, assaulted and even killed (as, for example, in Honduras and Brazil). Despite the systematic, evidence-based research of the Intergovernmental Panel on Climate Change on the destructive impact of humanity – heralding the

Anthropocene era – serious science, particularly in the USA, is under threat from ‘alternative facts’.

Democracy is under threat and needs to be actively defended. Democratic deficits are widening and human rights protections are being dismantled. New authoritarianisms are emerging, barely concealed by democratic facades. Human rights are being systematically undermined in Turkey, Hungary, the Philippines, Palestine and many other countries. De facto military juntas are being re-established in countries such as Egypt and Thailand. Several countries including India, Nepal, Ethiopia, China, Russia and others are closing down civil-society organisations.

The right to asylum is being destroyed and international cooperation is in disarray even as we experience the largest number of refugees since World War II. Governments in Europe and elsewhere are introducing exclusionary policies and failing to work together to manage the arrival of refugees with a modicum of humanity, at the same time that public hostility towards refugees is rising. The UK government recently reneged on its promise to accept (only) 3,000 unaccompanied child refugees. Meanwhile, migrants – who are keeping global interlinkages (value and care

New authoritarianisms are emerging, barely concealed by democratic facades

chains) going – are economically exploited and socially and culturally denigrated and excluded.

Violence is a rising tide, perpetrated both by states and by violent social actors outside of them. Violence is driving people to flee their homes and countries in increased numbers. Terrorism is a genuine threat, but provokes disproportionate responses, which undermine civil liberties. Civil wars continue year after year, and efforts at peaceful conflict resolution struggle or fail, as in Syria, Yemen and the DRC. They are entangled with the geopolitical interests of the major regional and global players, who are funding or supporting the violence.

The building of peace is pre-empted by the tendency to use massive lethal force to determine events on the ground. At the same time governments are reinforcing their military and security capabilities, increasing their military expenditures and competing for resources and strategic real estate in ways that recall the military competition of the Cold War. In comparison, the resources devoted to constructing peace remain tiny. Although multilateral peacebuilding enjoyed a resurgence

◀ Ankara University, Turkey. Police detain a demonstrator protesting against the dismissal of academics following a post-coup emergency decree. A global trend undermining human rights threatens democracy

after the end of the Cold War, it is now under threat, severely underfinanced, and – as a result – finding it ever harder to deliver sustainable peace in conflict-torn places.

Inequality has risen to unprecedented levels, which flies in the face of social and economic justice. Eight men (yes, all men!) own and control as many assets as half the world's population. Austerity politics continue, and systematically deprives societies of education, well-functioning affordable healthcare, infrastructure for energy, water, public transportation, high-tech communications and actions to reverse climate change.

Fiscal austerity, which denies governments the revenues to deliver these services, has become a creed blindly followed even in countries with budget surpluses, such

Social protection, the success story of the 1990s and early 2000s, is being dismantled

as Germany. The tax reform needed to augment fiscal budgets and to redistribute incomes and wealth seems to have dropped off the agenda: some countries are even threatening to intensify tax competition, and considerable tax flight and evasion still goes on largely unchecked. The irrational and uncontrolled financial system that wrought such national and global havoc and personal distress is about to be unleashed again in the US.

Social protection, the success story of the 1990s and early 2000s, is being dismantled, notably with Brazil and India decreasing real spending on their famous cash transfer and employment guarantee schemes. Five per cent unemployment is now considered 'full' employment – a complete disregard of the millions of women and men, and especially those in marginal age groups, who cannot find proper and properly paid employment. They face a descent into income poverty and even hunger – quite contrary to the promise of the Sustainable Development Agenda. Children are the group worst affected by these misguided policy decisions.

An agenda for fighting back

What must happen to make sure that commitments to the Sustainable Development Agenda don't degenerate into farce? The starting point for any fight back must be careful analysis and honest recognition of the mistakes made by progressive actors and groups, which have opened the space for the conservative wave we now face. An active civil society can protest attempts by governments to withdraw from commitments made. Academic research can keep alive the focus on global

priorities and oppose misguided perceptions. But that may not suffice to stem the rollback. A long-term strategy is needed, mobilising a wider range of groups, national and international, drawing on the dynamics of disaffected youth movements around the world, building stronger trade union and civil-society support, emboldening political opposition and focusing on transforming the political system from the inside and the ground up.

Five priorities for action, in all countries, North and South

- Build coalitions of opposition, from the grass roots. The women's and LGBT movements have shown how to build support for 'non-partisan' powerful vocal alliances across the issues that concern us. We also need to rebuild progressive political parties and organised political movements, while seeking new and sometimes unexpected alliances. These could include hitherto disconnected groups, working with progressive local and alternative businesses investing in genuinely sustainable technologies or even finding common ground with more peace-oriented members of defence establishments.
- Develop new ways to engage with and influence public opinion, including more effective use of social media to expose, delegitimise and offer alternatives to the exclusionary narratives put about by some social media pundits and the popular press. Fake news should be challenged with credible evidence and convincing arguments, which address the real concerns of fellow citizens.
- Focus on the root causes of poverty, unemployment, inequality and violence – and the need for strengthening government action and services, raising revenue fairly and progressively, not cutting government services and expenditure.
- Set out a positive vision of solidarity and long-term sustainability. The SDGs can be a starting point, but communities and countries must choose and fight for their core priorities. Failures to deliver on human needs, human rights and the SDGs must be publicised, using local, national and global information, to build the outrage needed to drive democratic opposition and transformation. The multilateral system of the United Nations, reinvigorated and broadened to better represent the concerns of the developing South, can be an effective support in this endeavour.
- Build long-term commitments for a more humane future for all, fully within the planet's delicate boundaries. Speak out boldly again for solidarity, equality, diversity, sustainability, unconditional human rights, peaceful solutions to conflictual situations – and transform our world. ●



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QUALITY

High quality health systems must be based on the needs of everyone and must be adapted to progress in medical science. They cannot be guided, organised or determined by power groups or by the companies involved in the health industry.

SOCIAL RESPONSIBILITY

Governments must consider the health and well-being of their citizens as priorities, and must allocate the necessary human and financial resources to achieving this purpose. The Services provided by national health systems and humanitarian projects in the health field must be free of charge and accessible by everyone.

*From «Manifesto for Human Rights Based Medicine»
San Servolo, Venice, 2008*

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The poverty trap in an era of inequality

Breaking the cycle of poverty requires an understanding of the circumstances that sustain it. What can be done to address poverty that is intentional and not accidental?

By **Jonathan Glennie**, Director, Sustainable Development Research Centre, Ipsos

If you are caught in a trap it means you can't get out until someone lets you out. When people talk about a 'poverty trap' that is what they mean. In

the pre-Sustainable Development Goals (SDGs) era, culminating in the Millennium Development Goals, the focus was heavily on the world's very poorest countries (with a particular concern for Africa).

Back then, the poverty trap was understood as a lack of capital and credit,

sometimes exacerbated by geographical circumstances. The solution, it was argued, was an injection of finance to kick-start growth and poverty reduction. Whether such a solution worked or not is a matter of debate. Some say there was not enough aid; some say there was too much.

◀ Children in the Aguablanca district of Cali, a city with one of the largest black populations in Colombia. Afro-Colombians constitute a disproportionate amount of the poor, in a country whose development has been held back by high levels of income inequality

Let's look at two countries that have fared very differently in the last 50 years. South Korea is perhaps the world's most inspiring development success story. In 1967 its GDP per capita was within touching distance of Ghana's, just under \$1,500 and just under \$1,000 respectively (constant 2010 US\$). By 2015 South Korea could boast GDP per capita of \$25,000, an increase of almost 1,700 per cent, while Ghana's had increased just 70 per cent to \$1,700.

Ghana has remained in a poverty trap, while South Korea has successfully escaped it. (And, yes, South Korea did receive significant international aid in the 1970s that probably helped it on its way.)

So far, so conventional. But there is a problem with this conventional narrative. It has come to imply that poverty is best understood as a kind of unfortunate circumstance that sensible economic policy, including often a large injection of cash, will be able to overcome.

Poverty, in this way of thinking, has been the natural lot of most humans for most of history. Some have now emerged from it, others are still stuck in a trap.

But what if that trap is not just an accident? What if that trap has been set?

Setting the trap

One of the main contextual transformations in the mid-2010s, compared to two decades ago, is that there are very few low-income countries left – and even some of those are seeing fairly strong growth rates. Almost all countries are now either middle-income or high-income. But a large proportion of people in most middle-income countries remain in poverty. Perhaps not always the most extreme form of poverty as measured by \$1.90-a-day style data, but deep poverty nonetheless.

How can that be explained? These countries already have access to capital and credit, and many have done for generations.

Why, then, are so many still mired in poverty? The standard answer, building on the 'poverty trap' literature, is that the political and business elites in countries such as this have the *means* but have not yet shown the *will* to invest in the right way in poor communities.

But what if it is even more sinister than that? What if the wealthy classes want the poor to remain poor? What if they are themselves setting the poverty trap?

I lived in Colombia for some years. It has been a middle-income country for decades and has been described to me as a 'vidadero': a great place to play if you have the cash.

Living well in Colombia depends a great deal on income and wealth differentials.

If the wages and capital of the majority improved significantly, gone would be the cheap maids, labourers, food and travel. The affluent, often flamboyant, lifestyle enjoyed by wealthy Colombians would be threatened. The privilege to which you have

What if the wealthy classes want the poor to remain poor? What if they are themselves setting the poverty trap?

become accustomed and which you hope to hand on to your children begins to look less sustainable.

It is perfectly plausible, even logical, to deduce that those currently benefiting from great inequality will do their best to maintain it.

As we enter the era of the SDGs we are seeing more countries that resemble Colombia. As inequality between countries continues to reduce (as poorer countries very gradually converge with wealthier ones) inequalities within countries are increasing.

This is the poverty trap facing billions of people in the world today. Whether they are extremely poor or living above the \$1.90 poverty line, they are miles away from having anything resembling a life of reasonable opportunity and stability.

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This is not an accident of nature but a consequence of a specific set of instincts and decisions intended to maintain high levels of inequality. This matters because the policies and actions required to respond to the poverty trap depend on one's analysis.

There are three things necessary for countries to develop and progress: technological advance, economic growth and political struggle. Technological advance has been rapid and transformative over the last 50 years, and even economic growth has picked up for many countries (that's why we have so many middle-income countries). But the final factor is also crucial.

The lack of political rebalancing is the main reason that so many middle-income countries remain middle-income, with vast swathes of their citizens living either in extreme poverty or one or two rungs above that. And no amount of capital injection from the outside is going to change that.

This is about politics and power. It is about voice and struggle. It is about taking on vested interests and winning, somehow, in the face of great odds. And the role of the international community is to recognise that these political struggles are necessary and to place itself firmly on the side of the marginalised.

Fortunately, there is a win-win for wealthy elites – if only they can see it.

Growth and development

A few years ago my wife and I visited South Korea. My wife is Colombian so her comparison was not with Ghana but with that country, and it was equally stark. In 1967, Colombia's GDP per capita was significantly higher than South Korea's, just under \$2,500. However, by 2015 it was less than a third of South Korea's: around \$7,500. My wife noted that her country had failed to capitalise on its better

economic position, remaining among the ranks of the middle-income countries – a story echoed throughout Latin America and much of the world.

Colombia, like so many other middle-income countries, has not made the shift from exporting non-value-added natural resources to becoming a manufacturing economy. And its economy is sluggish for that reason. What South Korea did was invest in education and labour-intensive industry in order to turn this around.

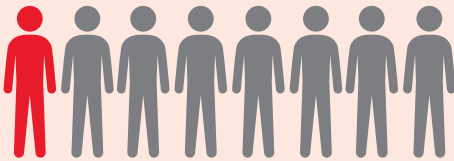
It took the crises of the post-Second World War world to provide South Korea with the context within which to do this, as it facilitated taking on vested interests – particularly landowners. But it has led to growth and development beyond that which anyone could have expected – a kind of progress that even the most stubborn of elites could be persuaded to want for their own countries. ●

1 NO POVERTY



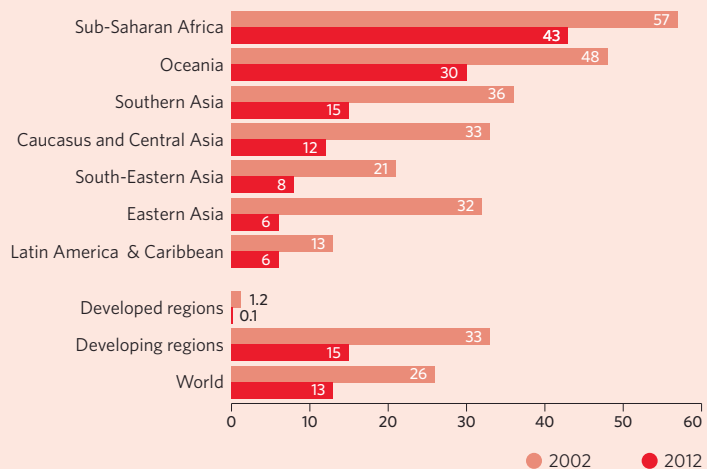
End poverty in all its forms everywhere

1 in 8 people lived in extreme poverty in 2012



The international poverty line is currently defined as 1.90 US dollars per person, per day using 2011 purchasing power parity (PPP). In the decade from 2002 to 2012, the proportion of the global population living below the poverty line dropped by half, from 26 to 13 per cent. Poverty remains widespread in sub-Saharan Africa, where more than 40 per cent of people were living in extreme poverty in 2012.

Proportion of the population living below 1.90 US dollars a day, 2002 and 2012 (percentage)



Source: The Sustainable Development Goals Report 2016, United Nations



© Zohra Bensemra/Reuters

Hope for a new generation

For people born today, the SDGs offer hope of growing up in a world where malnutrition becomes a thing of the past. What will this take to achieve?

By **Corinne Woods**, Director of Communications, United Nations World Food Programme

When I look ahead to the year 2030, I conjure up a vivid image in my mind of a young girl. If she was born today, she will be just reaching her 13th birthday by 2030. Sometimes, I

imagine her in braids and a school uniform eating breakfast before school somewhere in Africa. Or perhaps walking through the wet humid heat of the morning on her way to lessons somewhere in Southeast Asia, with her books swinging in a bag at her side.

The girl I see in my mind is on the cusp of the most productive period of her life. Perhaps she is preparing for exams. She

▲ Newly displaced refugees wait for food supplies at a processing centre in Qayyara, south of Mosul, Iraq. Undernutrition in the early years causes lasting damage that will impact the rest of that person's life

may even be thinking further ahead to a future career as a doctor, a teacher, a nurse or a lawyer.

At 13 years of age, she won't be so far away from providing a return on the

investment of her parents, her teachers, the community she lives in and the government of the country that is her home. She should be getting ready to embrace a future of opportunity and prosperity.

Everything about this girl – her optimism, her good health and the myriad possibilities available to her – represents what we at the World Food Programme (WFP) are seeking to deliver. And as I imagine her growing up over the next 13 years, I feel confident that we have the roadmap to guide us to the kind of future that she wants and needs.

That roadmap is captured by the second of the Sustainable Development Goals (SDGs), or the ‘zero hunger’ goal as we like to call it at WFP. For the girl who lives in my imagination, SDG 2 is her guarantee

and wasting, can cause significant losses in national productivity and economic growth equivalent to anything between 8 and 11 per cent of GDP. That is the kind of hit that no functioning modern economy can sustain for long.

When I think of my girl, I hope that she is one of the ones who strikes lucky. I like to think she is blessed with a healthy mother and has a happy childhood. In my mind, she has chubby cheeks, a winning smile and perfect skin.

I imagine her mother having the money she needs to shop at markets where farmers provide fresh food at a good price so that even the poorer sections of society can afford to buy what they need for a balanced meal. I see her sitting with her

in terms of battling hunger, improving nutrition, supporting farmers, reducing waste and protecting the genetic diversity of seeds, plants and animals. Now, we must come together so that we can speak with one voice about what is required to keep up the momentum and ensure that SDG 2 is the standout global goal.

I can imagine a conversation with my girl in 13 years’ time. I will tell her how we cut through the competing agendas, rose above our ideological differences and, collectively, delivered the kind of change designed to ensure that her life was different, that her opportunities remained open and that she was allowed to reach true fulfilment as a citizen of the world.

A solemn commitment

When we all signed up to the 2030 Agenda for Sustainable Development, we made a solemn commitment to leaving no one behind. The vision I cherish for my girl – whether she is in Africa, Asia, the Middle East or Central America – is that she, and millions like her, will never be left behind.

This means paying special attention to reaching the most vulnerable. There is a good chance that my girl could grow up as a refugee fleeing conflict or natural disaster. She could find herself living in a community afflicted by desperate poverty, or battered by successive climate shocks like droughts or floods. She could have the misfortune of suffering from diseases such as HIV, tuberculosis or malaria. Or she could be a member of a discriminated and persecuted minority.

Undoubtedly, the challenges she faces may be enormous, but together we can make sure that none of them is life-shortening or life-threatening.

As we move through the gears over the next decade and a half, we must keep her at the forefront of our minds. She and her brothers and friends are too important to be left behind.

If, collectively, we remain true to our commitments around SDG 2, we have the opportunity to change her life and feed her dreams, along with the lives of so many others. That is the future I imagine for my girl. ●

The vision I cherish for my girl – whether she is in Africa, Asia, the Middle East or Central America – is that she, and millions like her, will never be left behind

from the world. It is our pledge, as the global community, to deliver by 2030 a life that is free from hunger, where food security is a given, where farms are productive and sustainable and where everyone can get the right kind of nutritious food they need for a healthy life.

A lifetime of challenges

As she grows up over the coming years, my girl will face challenges at every turn. Even before she is born, her fate could be sealed if her mother is undernourished. We know now that there is a critical period during the first 1,000 days from conception to the age of two, where undernutrition can have an impact that will live with her for the rest of her life.

If her mother does not have access to the right kinds of nutritious foods, and if she continues to go hungry during her time as an infant, there is every possibility that her growth, learning and productivity will be affected. This is devastating for her and potentially catastrophic for the economy of the country that she is living in. Undernutrition, leading to stunting

family, enjoying a meal and laughing in the company of her older and younger siblings.

I don’t want her to be one of the two billion people who suffer from micronutrient deficiencies, the 51 million children under five years of age who are low weight, or the more than 150 million who are stunted. My girl must not become just another statistic, because I have vested too much in ensuring that her life is going to be better than so many others who have gone before her.

I want my girl to know that WFP will be true to its commitment to deliver zero hunger by 2030 and that we will work tirelessly with national governments, non-governmental organisations, donor governments and the private sector to ensure that her future is framed by the targets we have set ourselves under SDG 2.

We must make sure that my girl feels the weight of a coalition of the world behind her, carrying her forward to 2030 and the golden future that beckons beyond that milestone. Across the humanitarian and development community we can all stand proud for the work we have done so far

The University of Brescia, Italy (UNIBS) is a public institution founded in 1982 that provides higher education in the areas of health, engineering, economics and law to nearly 15,000 undergraduate and post-graduate students. Cooperation and sustainable development have always been top priorities in the agenda of UNIBS, which is an active member of the Sustainable Development Solutions Network (SDSN) of the United Nations. UNIBS contributes to achieving the targets set by the Sustainable Development Goals, by providing educational programmes, implementing development-oriented research activities and providing technical assistance to institutions operating in resource-limited countries. These activities are made possible by the presence at UNIBS, among others, of:



United Nations
Educational, Scientific and
Cultural Organization

UNESCO Chair on Training and Empowering
Human Resources for Health Development
in Resource-Limited Countries
University of Brescia



Institute of Infectious and Tropical
Diseases - University of Brescia



WHO Collaborating Centre for
TB/HIV collaborative activities
and for TB elimination



Research Laboratory on
Appropriate Technologies for
Environmental Management
in resource-limited countries



Training course at community level on safe use of drinking water in a rural area in Senegal



Spectrum of international collaboration at the University of Brescia, Italy



Health education at the community level in a rural area in Mozambique

Research programmes targeted to SDGs

Research projects are carried out both in industrialised countries and in resource-limited settings, addressing both health and technological issues.

Among the former, specific attention is paid to poverty related diseases (AIDS, tuberculosis and malaria) and to food security within the general scheme of agro-ecosystem assessment and management. Among the latter, environmental management, access to safe drinking water and sanitation systems and solid waste/energy management (both in rural and urban areas) is given particular attention, as well as natural risks and climate change impact management.

Technical assistance to institutions operating in developing countries

Technical assistance in educational and research programmes in the health and the environmental sectors is provided to universities and governmental bodies and institutions in resource-limited countries, as well as to non-governmental organisations in Africa, Latin America and South East Asia (CeTAmb LAB, UNESCO Chair and WHO Collaborating Centres).

Educational programmes targeted to SDGs

Training programmes focusing on international cooperation and the Sustainable Development Goals are offered at both undergraduate (electives) and postgraduate (PhD, Master, Summer School) levels. Training programmes mainly focus on:

- health (UNESCO Chair on Training and Empowering Human Resources for Health Development in Resource-Limited Countries*, www.unibs.it/ricerca/unesco-chair-cattedra-unesco);
- appropriate technologies in environmental management (CeTAmb LAB <http://cetamblab.unibs.it/>);
- sustainable food production;
- climate change adaptation and mitigation.

Scholarships

A Master and PhD scholarship programme targeted at international students is offered on a yearly basis. Visit the website: en.unibs.it > Quick links > Scholarships looking for open calls.

* The authors are responsible for the choice and presentation of views contained in this publication and for opinions expressed therein, which are not necessarily those of UNESCO and do not commit the Organisation





© China Stringer Network/Reuters

Secure, sustainable food supply

Ending hunger won't be achieved through scientific progress or policymaking alone. Coordinated action will require fundamental changes on the part of producers, consumers and governments

By **Glenda Humiston**, Vice President, Agriculture and Natural Resources, University of California

In most respects, agriculture can be considered one of the great success stories of humankind. After centuries of subsistence living, occasional outbreaks of mass starvation and general anxiety about the availability of food, the 20th century saw agriculture evolve into previously undreamed of capacities for production of food and fibre.

The developed world now enjoys an era of plentiful foodstuffs – so much so that this abundance is now coupled with intermittent

concerns about the economic consequences of overproduction and, more recently, the medical costs related to unhealthy diets and/or obesity. Yet, despite such productivity gains, food security for many is still elusive.

The 2000 United Nations Millennium Declaration sought to reduce global hunger by 50 per cent by 2015. However, the 2015 report, *The State of Food Insecurity in the World*, published by the Food and Agriculture Organization of the UN, identifies about 793 million people that remain undernourished globally.

Although this number is down 167 million over the last decade – and represents progress to be sure – it is far from meeting

the goal of halving the proportion of the chronically undernourished. This calls for new approaches – a larger vision of sustainable agriculture and healthy food systems that will more fully engage diverse stakeholders and the general public.

All too often, initiatives aimed at developing a secure and sustainable food supply revolve around new variations of engineering: enhancing supply chains, reducing food waste, increasing productivity, managing natural resources, improving food safety and human health, and so on. Or they centre on socio-economic issues, involving impacts of globalisation, urbanisation, demographic

◀ Farming rice on terraces in Guangxi, China. Increasingly, consumers are far removed from the sources of their food and unable to understand the needs of the producers

trends, capitalisation of natural resources, access to land or the value of labour and livelihoods of those involved with farming. These issues are habitually managed in silos, which only exacerbates the problem. Most experts and activists operate in their specific arena and find it difficult to work in an interdisciplinary manner.

Competing narratives

If we are to find some practical ideas to achieve food security and sustainability we must develop a better understanding of the multiple competing narratives that lead to competing strategies – and the loss of a coherent public voice with the power to demand sustainability.

Such discord allows those interests that are more narrowly defined and better organised to rule the day – much as we are seeing in recent political upheavals around the globe. More importantly, we must utilise such an understanding to effect far-reaching systemic change throughout our farm and food systems.

This is neither new nor unique to farm policy. In fact, the concept of sustainability itself has long suffered similar discord, as noted by University of California Professor Richard Norgaard in 1988:

“The politics of sustainable development is taking a different course. Environmentalists want environmental systems sustained. Consumers want consumption sustained. Workers want jobs sustained. Capitalists and socialists have their ‘isms’ while aristocrats, autocrats, bureaucrats and technocrats have their ‘cracies’. All are threatened. Thus... sustainability calls to and is being called by many, from tribal peoples to the most erudite academics, from Levi-clad eco-activists to pinstripe-suited bankers. With the term meaning something different to everyone, the quest for sustainable development is off to a cacophonous start.”

Similar cacophony has long existed in food and farm systems work, where simplistic discourses often emphasise extremes of policy

positions: reform versus degradation, family farms versus factory farms, organic versus biotechnology, and so on. Price pressures, questionable farm policies, new technology and ever-changing market forces can, and often do, push farmers into unsustainable situations throughout the developed and developing worlds.

While it is relatively easy to identify these forces, it has proved extremely difficult to develop the policy instruments that would motivate individuals, let alone governments, to support either sustainable agriculture or food security. The causes, triggers, paths and effects are not always obvious, and are often fragile.

For example, the traditional supposition that capital is accumulated through control

of the tangible means of production (land, labour, water, etc.) is increasingly incorrect. Ownership and control of the intangible assets (information, brands, patents, etc.) is where the true power now resides.

Impediments to change

John Kotter, a thought leader in systems change, asserts that a high level of complacency and a low sense of urgency constitute the two most significant impediments to change. In the political world, this manifests as many government programmes being viewed as untouchable.

The benefits of the programme are concentrated in one strongly motivated, politically active segment of society, while injuries, though greater in total, are spread

SDG-BASED MARKET INCENTIVES FOR FARMERS

GLOBALG.A.P. is a global partnership of leading retail chains, food brands and farmers that develop certification standards for good agricultural practices. As a non-government organisation, we define and implement such farming standards through an open private and public stakeholder process across global food supply chains.

By linking small, medium and large-scale farms to local and global corporate food buyers, we help farmers utilise globally recognised certificates to access new markets. Market incentives encourage farmers to adopt safe and sustainable farming practices and measure their contribution towards the Sustainable Development Goals (SDGs).

GLOBALG.A.P. farming practices focus on food safety, environmental and social aspects and have already been applied by more than 175,000 farmers in over 120 countries. Customised training programmes enable more and more farmers to achieve our certification.

Once certified, each farm has a solid foundation to begin implementing and reporting compliance with a number of SDGs. An annual independent

check through GLOBALG.A.P.’s global certification and integrity programme enables third-party assured data to enter a reporting system for farm contributions to SDGs. We offer this added authentication through an extensive infrastructure involving 140 independent certification bodies featuring international ISO-based accreditation from more than 34 countries.

GLOBALG.A.P. is in the process of employing new information technologies to further advance the gathering, processing and reporting of farm-level information beyond the GLOBALG.A.P. baseline, thus enabling assurance of SDG compliance levels in the supply chains of food brands. GLOBALG.A.P. facilitates the creation of a transparent market with the potential to accelerate the transformation of the global food sector towards 2030 goals.

For more info: www.globalgap.org



GLOBALG.A.P.

throughout the public. Similarly, as the resources to produce, process and distribute food become concentrated into fewer hands, consumers become further removed from their source of food and less able to understand the needs of those that actually produce it. This can leave both consumers and farmers vulnerable to a global economy that pursues only the highest return on investment.

Research done by Kotter on over 100 of the largest firms attempting to implement major change initiatives – with results ranging from great success to total failure – identified eight components fundamental to building stable and enduring change within systems:


- establish a sense of urgency;
- form a powerful guiding coalition;
- create a vision;
- communicate the vision;
- empower others to act on the vision;
- plan for and create short-term wins;
- consolidate improvements and produce more change;
- institutionalise new approaches.

We recognise that in our current globalised, market-oriented food systems, there are many actors other than the state

Although the actions are quite straightforward, they do represent a shift from traditional activism, with its focus on political change. This offers huge opportunities as we recognise that in our current globalised, market-oriented food systems, there are many actors other than the state.


In other words, not all solutions are to be found in changes aimed at governance. For example, through their purchases, consumers send strong messages to producers, retailers and others in the food system about what they want and are willing to pay for. As this information filters through supply chains, it affects the choices of agribusiness as well as the various sectors involved in food distribution.


2 ZERO HUNGER



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

In 2015, more than half of the adult population in sub-Saharan Africa faced moderate or severe food insecurity; the level was severe for one-quarter of adults in the region





Globally, nearly 800 million still suffer from hunger

Percentage of children under age five with stunted growth, 2000 and 2014

Region	2000 (%)	2014 (%)
Oceania	38	39
Sub-Saharan Africa	36	43
Southern Asia	35	50
South-Eastern Asia	27	38
Northern Africa	18	24
Western Asia	17	24
Caucasus & Central Asia	15	27
Latin America & Caribbean	11	17
Eastern Asia	7	19
Developed regions	5	4
Developing regions	26	36
World	24	33

In 2014, an estimated 158.6 million, one in four children under age five, were affected by stunting. Chronic undernutrition puts children at greater risk of dying from common infections, increases the frequency and severity of infections and contributes to delayed recovery.

Source: The Sustainable Development Goals Report 2016, United Nations

Besides the obvious needs for cooperation, initiative and credibility there must also be a way to harness the energy and drive of many people throughout the system to make a large change initiative be effective.

The good news is that there has already been much progress in this regard as more regions work to develop comprehensive food systems that link consumers more closely with their farmers, and link both groups to opportunities along the entire supply chain.

Done well, the entire region, and a wide array of sectors, can enjoy improved economic growth.

Such collaborative enterprises capture the imagination and build momentum for the longer-term tasks of reforming key institutions, rethinking economic strategies, and challenging widely held social values.

This is a vital component of sustainable agriculture and healthy food systems – a vision that all people can engage with in their daily lives. ●

LEAVE US OFF THE MENU



It is the position of the American Academy of Nutrition and Dietetics that appropriately planned vegan diets are healthful, nutritionally adequate and may provide health benefits for the prevention and treatment of certain diseases. These diets are appropriate for all stages of the life cycle, including pregnancy, lactation, infancy, childhood, adolescence, older adulthood and for athletes.

J Acad Nutr Diet. 2016;116:1970-1980.



Sandra Higgins

BSc (Hons) Psych, MSc
Couns Psych, MBPsS
Psychologist
Director, Eden Farmed
Animal Sanctuary, Ireland
& Go Vegan World

Every animal, including humans, is driven to meet their survival needs. Once we have met our basic physiological needs, we can afford to seek the higher needs of life: contentment and pleasure, meaning and purpose. Our collective survival is only secure and sustainable as long as we respect the interdependencies of the Earth's system.

The world's seven billion people consume varying amounts of the planet's resources. Nowhere is this unequal meeting of needs more obvious than in the fact that billions of people are routinely denied the right to adequate food and nutrition. While millions of children die of malnutrition before their fifth birthday, billions more are sick and dying from diet related diseases, including some cancers, diabetes, heart disease and stroke.

Even within wealthy countries in the US and Europe, some people have economic security and convenient access to nutritious food, while others live with chronic food insecurity and in food deserts where they have little choice but to consume a grossly inadequate diet.

The Earth has more than enough resources to take care of the needs not only of the existing population, but even of the nine or ten billion projected for 2050. However, it cannot be expected to sustain life based on our global food system as it is currently evolving.

Every year, we meet the needs of some of our seven billion population by killing seventy billion land animals, trillions of marine animals, and countless other animals, mostly to be used as food. The global consumption of animals as food has quadrupled since the 1960s and is projected to rise significantly in decades to come.

But animals are not food. They are sentient cohabitants of the Earth with the same desire to live free of harm as us. All the major world dietetics associations concur that a 100% plant diet, devoid of animal foods, is adequate for all stages of life from infancy to old age, and that it helps prevent and even treat many western world diseases and causes of premature mortality.

The demand for animal foods is being aggressively promoted by the global food system and the co-option of national food policies. The literature on sustainability equates the growth in the human population with the need to increase the number of animals we use as food and their "productivity". However, while the growth in the human population by 2050 is around 20%, the projected global increase in the production of animal flesh by 2050 is 76%, (most of it to meet the growing markets in developing countries).

This begs the question why organisations that claim to support sustainability continue to promote animal consumption instead of plant based agriculture and veganism.

Animal agriculture is one of the most significant and preventable causes of climate change and environmental destruction. We use the greatest proportion of the earth's resources in terms of land, including rain forest, water, and fossil fuel to grow crops that we recycle through the bodies of sentient beings in order to extract nutrients in the form of flesh, eggs and milk causing them terrible harm, taking their young lives from them, and giving a very poor return. Animal agriculture is anything but sustainable and to mistakenly attempt to make it more sustainable is to miss the more fundamental point that it is inherently 'unjust'. The injustice of world hunger, war, and oppression of humans stems from the same commodification that underpins the injustice of animal use.

As long as we compartmentalise violence according to some arbitrary factor in our victims such as their race, gender, intelligence or species, we will never target injustice at its roots or eliminate it from our lives. As long as we continue to justify the oppression of others on the basis that they belong to a different species to us, we will never consider true sustainability through plant based agriculture and we will always have oppressed, hungry humans.

Global response to epidemics: will Ebola be our game changer?

What must we learn from our collective response to the devastating Ebola epidemic in West Africa if we are to have any hope of ensuring 'healthy lives for all' by 2030?



© John Moore/Getty Images

By **Joanne Liu**, International President,
Médecins Sans Frontières

At the peak of the West Africa Ebola epidemic, infected people died in the streets, abandoned by their families. Others died in crowded Ebola care centres, with scant relief provided by solely palliative care. As a medical humanitarian NGO, Médecins Sans Frontières (MSF) found itself at the vanguard of this response – but by default. The disastrous delays in international mobilisation dictated our position.

The Sustainable Development Goals (SDGs), like the Millennium Development Goals (MDGs) before them, set ambitious targets for protecting people's health. Yet their silence on short and medium-term capacity to respond to epidemics sets them up to fail. For when affected countries cannot bear the burden of response themselves, support must be forthcoming. Epidemics are a symptom of weak health systems, and everyone agrees we must strengthen these systems – this just does not happen overnight.

In 2014/15, the West African countries affected by Ebola had long been the focus of efforts to this end. Not one of them withstood the rigours of this outbreak. At a minimum, this raises questions on the real-world outcomes of current approaches to health system development. It certainly proves that, for the foreseeable future, developed nations must remain prepared to intervene.

Today, we have a paradox. We can send astronauts into space, map the human genome and prove the existence of the Higgs boson subatomic particle. But collecting ourselves to control the deadly spiral of Ebola in West Africa? This has proved beyond us.

Affected countries should have called for external support earlier, as soon as national authorities realised they could not

Non-affected countries should have delivered rapid, direct support. Instead, they froze trade, closed borders and focused on domestic security concerns. Ebola was not a failure of means. It was a stark failure of any political will to act

contain outbreaks. More critically, non-affected countries should have offered and delivered rapid, direct support. Instead, they froze trade, closed borders and focused on domestic security concerns. Ebola was not primarily a failure of means. It was a stark failure of any political will to act.

Health and security: a hollow marriage of convenience

While outbreaks of SARS, H1N1 and MERS caused alarm prior to the West Africa Ebola epidemic, the severity and human toll of Ebola gave the world a terrible fright. A more enduring sense of urgency was born, with an ongoing focus on epidemic preparedness. Ebola also served to weld health and global security together. This focus on security has given implementation of International Health Regulations (IHRs) more traction, strengthening disease surveillance and outbreak alert systems.

On the flipside, however, Ebola also illustrated that non-affected countries only responded to an uncontained epidemic when they felt threatened themselves. Strong surveillance and alert systems lose their value entirely if they do not go hand in hand with rapid emergency response. A missing or delayed response is equivalent to installing smoke detectors without any means to put out the fire.

Our global interconnectedness means that making everybody healthy depends on making each of us healthy. Or, to be a little starker with the facts, we are only as safe as the most fragile states. And Ebola clearly demonstrated that we cannot disconnect individual patient care from collective care.

We cannot just quarantine people and hope for the best. People went

underground in 2014 and 2015 and the virus spread apace. One of the main lessons of the West Africa Ebola crisis, for MSF and for everyone involved, is that epidemics start and stop in communities. Communities must be at the centre of the response: from earning the trust needed to dispel the rumours and myths surrounding the disease to giving local authorities their rightful role in orchestrating interventions.

Today, the global health security architecture is focused on reform, preparedness, collaboration and funding. Which all bear relevance. But this convenient coupling of health and security focuses on the mechanisms of preparedness alone. To guarantee results, the paradigm must change to incorporate response – a concrete, direct response to the medical needs of affected communities. Global health security requires the delivery of aid where aid is needed.

In the spotlight – still?

The West Africa Ebola epidemic will likely be the poster child for such public health emergencies for years to come. It is widely considered a wake-up call for rapidly evolving, deadly global health threats. Evaluating the response to Ebola of the World Health Organization (WHO) for the Ebola Interim Assessment Panel, Barbara Stocking characterised the emergency as a “defining moment for the health of the global community”. Yet two years down the road, the sense of urgency has waned. The full legacy of Ebola – concrete preparedness and response to pandemics – remains unharnessed. What will it take?

Permanently in the shadows

And while the 2014/15 Ebola outbreak might not have captured the world's attention soon enough, most other

◀ An MSF health worker in protective clothing carries a child suspected of having Ebola at a treatment centre in Paynesville, Liberia. MSF was at the forefront of the response by default. None of the local healthcare systems could withstand the outbreak



© Luc Gnago/Reuters

epidemics never catch it at all. Examples include the perennial measles outbreaks that take place in protracted crises such as in the Democratic Republic of Congo (DRC) and Central African Republic, and the yellow fever epidemics that struck in Angola and the DRC in 2016.

Last August, MSF vaccinated 710,000 people in Kinshasa in response to the DRC's yellow fever epidemic, deploying international staff from 19 countries and dozens of Congolese staff. Two months before that, we vaccinated 350,000 people against yellow fever in Matadi, DRC. This is just a small glimpse of what it takes to bring one epidemic under control in a single country.

Whether small or large, contained early or late, epidemics always leave lasting scars on affected communities. In low-income countries, they overwhelm state infrastructures and cripple economies. And when epidemics disrupt health systems, they have terrible knock-on effects – limiting care for chronic illnesses like HIV, heart disease and diabetes, as well as routine maternal and child health services.

Courage to declare and will to prepare

Even if international support is available for the next big epidemic, affected countries must be prepared to formally declare outbreaks. This is the trigger for emergency funding, the release of health commodities such as vaccines, and the deployment of external support. Faced with the economic risk of travel and trade restrictions, and the political risk of being branded a pariah nation, countries will continue to delay declaration if they do not have positive incentives to do so.

Epidemic preparedness also means having the right tools ready to deploy before outbreaks begin. This entails working to develop and adapt new vaccines, treatments and rapid diagnostic tests and making them accessible and affordable to everyone who needs them during health crises. Research and development initiatives triggered by Ebola include the WHO 'Blueprint for action to prevent epidemics' and the Coalition for Epidemic Preparedness Innovations (CEPI).

If the outcomes of these initiatives meet these criteria for people the world over,

▲ An actor, playing the role of a vaccine against Ebola, performs at a school in Abidjan, Ivory Coast during an awareness campaign. Effective response to epidemics requires the affected communities to have a good understanding of, and to be able to dispel, the myths and rumours surrounding the disease

they could demonstrate that industry, philanthropy, governments and NGOs can indeed work together to develop urgently needed, lifesaving tools. We cannot stop outbreaks from happening, but we can prevent them from becoming pandemics.

Responding to epidemics is about preventing the preventable. However sensible our long-term development objectives may be, communities continue to suffer from deadly outbreaks of disease when the systems meant to protect them are simply unable to cope. With their eyes fixed on the horizon, the MDGs failed to see the problems at their feet. The Ebola chaos ensued.

To right that wrong, the 2030 Agenda for Sustainable Development must incorporate the full scope of measures required – both prevention and response – to deliver what is promised: protecting people's health. ●

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Health literacy and the SDGs

So much of the 2030 Agenda depends on improving people's health and life expectancy. Critical to this will be empowering citizens so that they are better able to access, understand and use information to lead healthy lives

By **Nata Menabde**, Executive Director, World Health Organization Office at the UN

Good health is the key to productive societies. When people are healthy, they can go to school and work, and they are less likely to go hungry or live in poverty. This understanding is recognised by the central place given to health in the 2030 Agenda for Sustainable Development. Health has its own goal, SDG 3 (ensure

healthy lives and promote wellbeing for all at all ages) but health and its social determinants cut across all the goals.

Halting the rise of antimicrobial resistance and chronic diseases like diabetes, heart disease, stroke and cancer requires policy support and implementation from all sectors and parts of society. Given the current health, social and political challenges, more action is required to promote and protect health through

a multifaceted response. This includes improving governance to promote healthy public policies and encouraging people to make the healthy choice the only choice. But people can only make such choices if they understand their implications.

The Shanghai Declaration on health promotion, endorsed at the 9th Global Conference on Health Promotion to support the SDGs, identified health literacy as a key action area to achieve the Agenda

◀ A child, 10, starts a fire indoors to cook for her family in Wakiso District, Uganda. More than four million people annually die prematurely from illness attributable to the household air pollution from cooking with solid fuels

for Sustainable Development. It reinforced the notion that it is not only about communicating information and developing skills (health education), but also about taking actions to enable individuals to “gain access to, understand and use information in ways which promote and maintain good health” for themselves, their families and their communities.

This means going beyond merely being able to read a flyer, understand food labels or comply with a doctor’s prescription. In other words, health literacy is not just the responsibility of individuals. Health literacy is a strategic approach and a tool to empower citizens, using various forms of communication and action taken through health systems and other policies. It has the potential to support and determine the levels of citizen engagement, inform citizens’ arguments for their claims to the right to health and shape community action and government accountability.

We need higher levels of health literacy if the decisions made by policymakers and health advocates are to have a positive impact on health. Better health literacy promotes equity in terms of access and opportunities for health. It helps ensure that health systems support clear, accurate, appropriate and accessible information for diverse audiences.

The question now is to clarify and demonstrate more explicitly how health literacy can support the SDGs, using specific goals as examples. These examples go far beyond the health sector, however. Health literacy is the responsibility of, and requires action from, many sectors. Only through such coordinated action can the co-benefits of health literacy, across the SDGs, be realised.

SDG 1: No poverty

Levels of health literacy determine an individual’s response to health information and their use of health services. The higher the health literacy, the higher the protective behaviour adopted. When individuals are able to protect themselves, their family

and their community, they are less likely to adopt risky behaviour such as smoking or having unprotected sex, which can cause illnesses that may lead to job loss or catastrophic health expenditure.

SDG 2: Zero hunger

A good understanding of basic nutrition is essential to sustain a balanced diet and prevent all forms of malnutrition. A health-literate parent will try to ensure that their children obtain the required nutrition for healthy growth. This will substantially enhance the impact of government policies and interventions aimed to prevent malnutrition and hunger across all relevant sectors.

SDG 4: Quality education

A healthy child is less likely to have high rates of absenteeism from school. A health-literate school administration can ensure that the school curriculum includes sessions on health education. These will enable students to acquire the key competencies to better protect themselves, by promoting a healthy lifestyle and developing skills to handle peer pressure. Students develop habits in school that they may keep throughout their lives.

SDG 8: Decent work and economic growth

A decent work environment promotes the levels of health literacy of its workers through health education, and ensures workplace policies protect staff. Health literacy also empowers workers to demand better, safer working conditions.

SDG 9: Industry, innovation and infrastructure

The mobile revolution represents a unique opportunity to expand access to health information and communication, and therefore to enhance health literacy. However, governments need to ensure that the information provided is of high quality, and that any private-sector involvement is free from any conflicts of interest.

SDG 10: Reduced inequalities

Health literacy predetermines the right to health. It is a tool for the most vulnerable

population groups to ensure their right to health is respected.

SDG 16: Peace, justice and strong institutions

Those with higher levels of health literacy are empowered to hold their governments to account – whether for access to essential medicines, universal health coverage, removing environmental air pollutants or tearing down discriminatory laws and practices.

A political choice

In summary, health doesn’t just happen. To save lives and improve wellbeing, governments must implement and enforce health and other policies to make healthy choices available. They must ensure that effective health systems are in place, and are strengthened across all functions to perform as societies deserve and expect.

Citizens must be given the knowledge to choose healthy options where those choices exist. Effective health literacy is not only about individual literacy but about putting in place health-literate systems that would make the healthy choice the obvious choice.

Rapid changes in communication technologies have democratised engagement in health, allowing more people to have the most up-to-date health information at their fingertips. These revolutionary developments have given people more control over their health than ever before. Health ministries and academic institutions play a critical role in ensuring that nationally available health information is accurate, relevant, accessible, understandable, reliable and timely. They need to work with communications outlets to package and disseminate information via multiple platforms – from social media to television and radio, to poster and megaphone campaigns.

As highlighted at the Shanghai conference, health is a political choice that requires investment in people and systems. We must ensure that people are part of the solution, and that no one is left behind, as we embark on this collective journey to transform our world for the better by 2030. ●

Improving child survival

The global commitment to slash child mortality by 2030 promises to save millions of lives. But achieving it requires a step change in how we facilitate healthy living for society's most vulnerable



© Sean Gallup/Getty Images

By **Stefan Peterson**, Associate Director, Programme Division, and Chief of Health, United Nations Children's Fund (UNICEF)

Recent decades have witnessed incredibly rapid progress for children. More children now go to school, receive the life-saving benefits of vaccination, and have access to clean water, sanitation and hygiene than at any time in history. Crucially, more children today survive to see their fifth birthday.

Of all these achievements, the improvement in child survival is perhaps most impressive.

Since 1990, the global under-five mortality rate has dropped by more than half: the lives of 122 million children aged under five have been saved – a number equivalent to the entire population of

Mexico. In 2015, 19,000 fewer under-fives died every day than in 1990.

Deaths from diseases such as pneumonia, diarrhoea and malaria – diseases that have plagued humankind since time immemorial – are falling rapidly. This is thanks to the roll-out of vaccines, improvements in drinking water, and inexpensive, high-impact prevention measures such as oral rehydration salts, insecticide-treated bed nets and vitamin A supplementation.

And progress in sub-Saharan Africa, the region that bears the greatest burden of under-five mortality, has accelerated rapidly. Under-five mortality fell by an average of 4.1 per cent per year between 2000 and 2015.

But the job is not finished, and progress is in peril. In 2015, 5.9 million under-fives died from preventable causes. Inequity was

▲ A pregnant woman feeds her children at the Roma settlement of Ponorata, Romania. Under-five mortality rates for the poorest are almost double those of the richest

at the root of the majority of these deaths: children from the poorest households are almost twice as likely to die before the age of five as those from the richest. Children born to uneducated mothers are almost three times as likely to die as those whose mothers have at least a secondary education. And children from rural areas are 1.7 times more likely to die as children from urban areas.

In other words, we are still not reaching the most marginalised with the proven, low-cost, high-impact interventions that we know can save lives.

This is often due to weak health systems, which fail to deliver services where they are

most needed. In too many cases, it is also due to a failure of governments to prioritise the most disadvantaged groups – those who are marginalised through financial deprivation, geographical remoteness, educational, social or ethnic status, and many other forms of social exclusion.

If under-five mortality remains at today's levels, 94 million children under the age of five will die between 2016 and 2030. Recognising this potential tragedy, the world committed in 2015 to an ambitious target: to cut under-five mortality to 25 or fewer deaths per 1,000 live births – under the framework of the Sustainable Development Goals (SDGs).

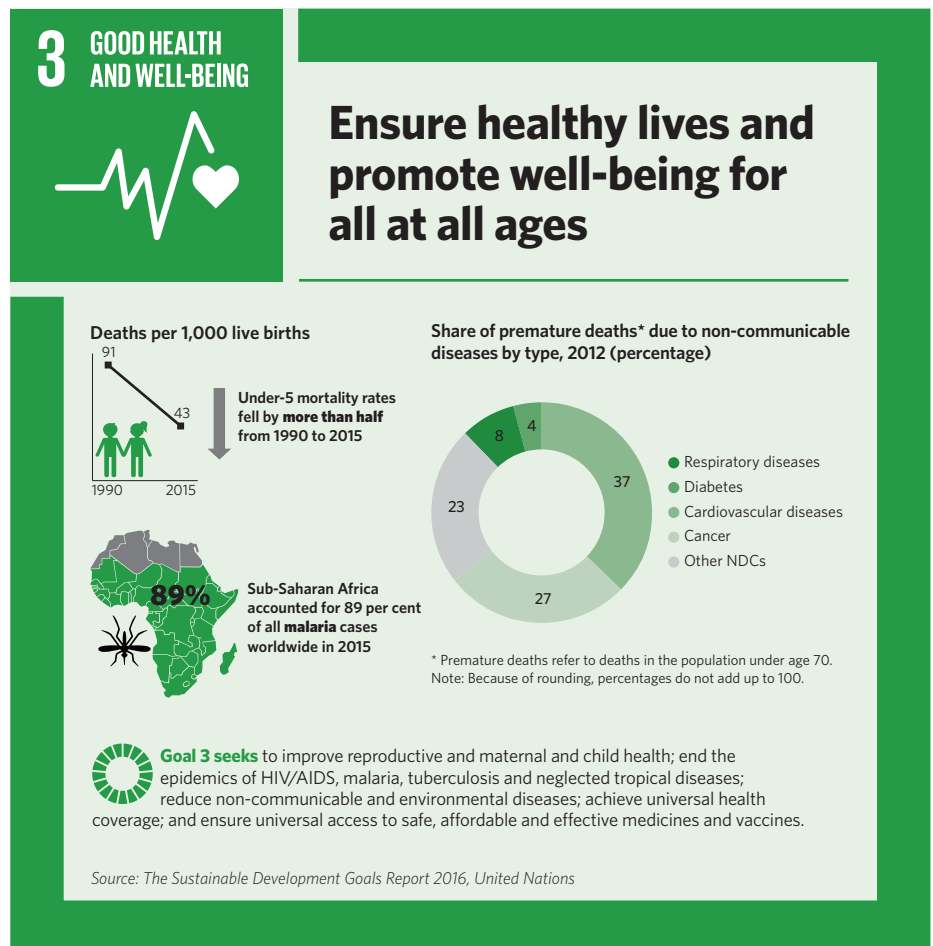
But reaching this goal will be a challenge: over two thirds of low-income countries and more than a third of lower-middle-income countries need to accelerate progress to achieve the target. Indeed, 30 countries will need to at least double their current rate of reduction, and 11 will need to triple their rate, to reach the goal.

If we are to save the lives of 94 million under-fives, achieving the SDG target in the process, there is an urgent need to step up the pace of action.

Firstly, we must challenge long-standing inequities in health outcomes by:

- increasing investment and breaking down financial barriers to access;
- eliminating the barriers that keep people from achieving good health, including discriminatory practices that block people from accessing services;
- establishing community-based services that are accessible and affordable for the most disadvantaged.

Secondly, we must work to strengthen health systems. Recognising that a large share of child mortality today takes place in fragile contexts and during emergencies, these efforts must include preparation for emergencies and efforts to build resilience. Strong community health systems provide a critical foundation for resilience, allowing communities and nations to respond to disasters and weather emergencies, including public health emergencies and natural disasters.



Finally, we must move away from vertical programmes that prioritise one disease while neglecting others, and promote joined-up, integrated health systems that put the child at the centre. Health systems can serve as platforms for delivery of a whole package of interventions and services – a hub for different sectors and diverse partners, including government, civil society and the private sector, to work together to improve health outcomes. Health systems must also emphasise the importance of sustainable food systems and physical environments that are conducive to child health, particularly in countries facing the ‘double burden’ of under- and over-nutrition.

Prioritising the vulnerable

Improvements will not be achieved solely by expanding access to essential medical services. Improving the quality and accessibility of these services, thereby

increasing people’s willingness to use them, is also critical. An excellent example of the importance of quality of care is around the time of birth. In many countries, the number of women coming to medical facilities to give birth has increased, but this has not resulted in uniform improvements in child survival. This is primarily due to the fact that the quality of care in many facilities is sub-standard, with negative consequences for mothers and their newborn babies.

We must also focus on the factors that often result in poor health in the first place. These include poverty, gender, nutrition, education, water and sanitation, climate vulnerability, girls’ education, discrimination, and political and social rights.

Ultimately, the key to success will be to prioritise the most vulnerable, the most marginalised, the most deprived children and families. Only in this way can we create a safer, fairer world – for every child. ●

Vision for The Gambia



OneSight brings vision care to an entire country. Up next: the world

Applying expertise worldwide

Around the world, one in seven people need glasses, but lack access to vision care. This lack of access is a barrier to human achievement and possibility.

Clear vision enables a student to receive a quality education, men and women to be gainfully employed and all people to connect through interpersonal relationships.

With over 28 years of operational expertise, OneSight is the leading global organisation focused on bringing sustainable and urgent vision care solutions to the US and communities around the world who need it most.

We believe that through permanent access and sustainable practices, vision care can become readily available to every community, country and continent in our lifetime.

Short-term Vision Care Clinics meet immediate needs, and can be a doorway to future sustainable partnerships. In addition to access, OneSight's sustainable programmes create infrastructure and employment in the countries they serve.

There are 23 Sustainable Vision Centers in operation today (all locally run), providing over five million people with access to affordable vision care. By 2020, OneSight will provide access to more than 20 million people.

All patients receive new eyewear manufactured to their exact prescription. We have a curated assortment selected from trusted manufacturers meeting international standards, providing patients with high-quality fashionable frames. So, patients walk away with confidence - seeing their best and looking their best.

“We believe that through permanent access and sustainable practices, vision care can become readily available to every community, country and continent in our lifetime”

The path to sustainability

The process of opening a Sustainable Vision Center begins with countries or regions being identified through a vetting process. OneSight prioritises countries that have the greatest need (based on the *Global Need for Glasses* study done in partnership with Deloitte, 2015). Specifically, countries lacking internal systems and resources to solve the problem themselves are given priority for Vision Centers.

These permanent Vision Centers use existing healthcare infrastructure to provide access at an affordable price (defined by the local market) to the surrounding population (within one day of travel to the clinic). By securing in-country government partners, local programme managers and manufacturing pathways, OneSight creates a stable foundation for sustainable work.

Once identified, an existing ophthalmology department is modified and a pilot test is conducted to determine if patient traffic will support the cost of operating a permanent clinic. OneSight diligently tracks marketing efforts, traffic and costs to forecast the performance of clinics over time.

Next, OneSight leads the transition to full sustainability and a hand-off of operations to local staff. Once pilot programmes are complete, the OneSight team moves in conjunction with in-country partners to

implement permanent Vision Centers throughout the country. Systems, distribution, training and support are all considered as a long-term plan is carried out. Local marketing efforts are increased and high-quality advertisements are distributed on local channels. Training sessions are held for employees who manufacture and dispense products, lead marketing efforts, perform IT functions and oversee finance.

From there, monitoring and evaluation continue to ensure the programme is operating and being managed efficiently. The Vision Centers implement a clearly defined customer experience model and evaluate their performance using customer satisfaction surveys. OneSight provides funding should additional training or programme adjustments be required.

Finally, a transition is made to local leadership running the programme. For the following two years monitoring and secondary support continue.

Access for an entire country

OneSight opened the first Sustainable Vision Center in The Gambia. The 2013 pilot programme began with one center. Today, a manufacturing lab and seven Sustainable Vision Centers provide the entire population of 1.8 million people with access to vision care.

No longer hindered by lack of transportation or the high cost of glasses, Gambians (including local dignitaries) interact with outreach teams, vision care professionals and local people like never before. OneSight achievements in The Gambia include:

- seven Sustainable Vision Centers;
- 187 local jobs created;
- one Eyewear Manufacturing Center;
- 12 students sponsored to study optometry;
- 1.8 million Gambians (the entire country) have access to vision care;
- 5.4% profit for the National Eye Health Program in 2016.

Join us

Clear vision converts possibility to reality. Parents are able to provide for families. Children discover joy in learning. Communities connect to one another. Without clear vision, potential is lost. We're committed to eradicating the vision care crisis in our lifetime. But, we cannot do it alone. Creating a viable solution to the need for vision care is possible because of partners who cover the cost of our daily operations, infrastructure, and supplies. Your support and global reach would enable OneSight to quickly reach thousands more patients each year. And because of the generosity of partners, more donations from individuals go directly to providing vision care for those in need. Join OneSight's effort through in-country partnership or sponsorship and see how clear sight fuels human potential.

For more information, visit: www.onesight.org



Obstacles to WASH

Water, sanitation and hygiene (WASH) are essential for both human survival and sustainable development. How can we ensure that everyone has access to these basic necessities?

By **Beatrice Mosello**, Research Fellow and **Mariana Matoso**, Senior Research Officer, Overseas Development Institute

There are seven billion people in the world today. Despite huge progress in extending access to water and sanitation over the last four decades, 2.4 billion still lack access to decent toilets, and 663 million people rely on unsafe drinking water sources.

We know what we need to do. The international community, in Sustainable Development Goal (SDG) 6, set out a clear ambition to ensure the availability and sustainable management of water and sanitation for everyone by 2030. We know how much it takes to do it: about three times more than current investment, or \$114 billion every year until 2030, according to the World Bank. We know who should do it: national governments, city authorities, international organisations, the private sector and civil society.

And we also know about the costs of failure. There is now abundant evidence of the consequences of unsafe drinking water and poor sanitation on health, livelihoods and economies. It is a health crisis.

The World Health Organization (WHO) warns that some 315,000 children under the age of five die each year of preventable diarrhoeal illnesses linked to dirty water and poor sanitation and hygiene. The longer-term impacts of diarrhoea experienced in early childhood contribute to malnutrition, and render children more susceptible to other diseases, with lasting impacts on growth and development. Many neglected tropical diseases, affecting millions of people worldwide, including those in impoverished areas of wealthy countries, are also water and hygiene related.

It is an economic crisis. In 2015, lack of access to sanitation cost the global economy \$223 billion – a rise of 22 per cent since 2010. Developing countries are experiencing economic losses of up to 1.5 per cent of their annual GDP.¹ If every single person had access to WASH, it would lead to a projected increase of 3.2 billion productive days per year through health and education benefits alone.²

Poverty and inequality

Lack of access to WASH reinforces gender inequalities. According to UNICEF, in sub-Saharan Africa, women and girls devote an average of 200 million hours per day to collecting water – time that could be better spent on other things, including girls' education. The lack of facilities in schools for menstrual hygiene management also contributes to girls' absence from school,

poorest and most vulnerable. The United Nations estimates that 2.5 billion people will live in megacities, cities and towns by 2050. Most urban growth will occur in developing countries – overwhelmingly in smaller cities and towns that already have poor services and receive little attention or resourcing from policymakers.

On top of this, climate change poses a growing risk to the delivery of safe and sustainable services, threatening both infrastructure and the integrity of the resource base. Good data on these pressures and impacts are scarce, especially at smaller scales (i.e. towns and communities) where they are most needed for decision-making.³

Undermining progress

It is clear that if we fail to achieve SDG 6, we undermine progress towards other goals on poverty, inequality, health and wellbeing,

It is clear that if we fail to achieve SDG 6, we undermine progress towards almost all of the other SDGs

particularly after menarche. Women and girls risk attack when defecating in the open, or when they use shared facilities.

And poor WASH can exacerbate poverty and inequality. People living in peripheral neighbourhoods of cities, or remote rural areas, are less likely to have access to services than those closer to urban centres. This is because those employed in low-paid and/or temporary jobs are often obliged to rent poorly serviced accommodation.

To complicate matters further, macroeconomic shocks, political instability, conflict and large-scale migration threaten to undermine gains, especially for the

economic growth, sustainable cities and communities, gender equality, zero hunger and quality education – almost all of the other SDGs in fact. So what is preventing action?

First, sanitation and hygiene have low political salience. At the national level, high-level commitment has often failed to translate into progress on the ground because not enough attention has been paid to understanding what drives action from politicians and civil servants.⁴ At the local level, municipal governments have lacked the political autonomy necessary to control local development and make decisions, as



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▲ October 2016, women wash clothes in a canal near Les Cayes, Haiti. Hurricane Matthew destroyed the sanitation infrastructure, polluting water sources and creating the risk of waterborne diseases such as cholera

well as the means to generate revenue to invest directly in basic services.⁵

Second, WASH interventions have not always responded to local needs. Especially in fragile contexts, state-owned water and sanitation utilities may lack the capacity, resources and reach to provide services to marginalised people. Often, the only WASH programmes remaining are those delivered through isolated, short-term and donor-supported initiatives. This is the case, for example, in South Sudan, where years of conflict and piecemeal water and sanitation

interventions have resulted in a lack of critical infrastructure, resources and capacity for WASH delivery and management.

Third, in low-income settlements, where needs are greater and formal provision is thin, markets for water and sanitation services are fragmented and dysfunctional. Customers do not have reliable information on costs and benefits when selecting their service providers, and usually end up paying more for lower-quality services. People can also be excluded from the market because they lack tenure security, because of the temporary nature of their employment, or because of discrimination based on ethnicity, religion, gender or age. For example, young Cambodian women, moving from farm to town in search of jobs

in garment factories, often end up sharing unhealthy and unhygienic accommodation in informal settlements around the capital Phnom Penh.

Finally, we do not know enough about new institutional forms that could ensure sustainable and inclusive WASH in the face of rapid social and environmental change. Although state-owned utilities will remain the central actors in urban WASH, population growth is outstripping their ability to meet demand.

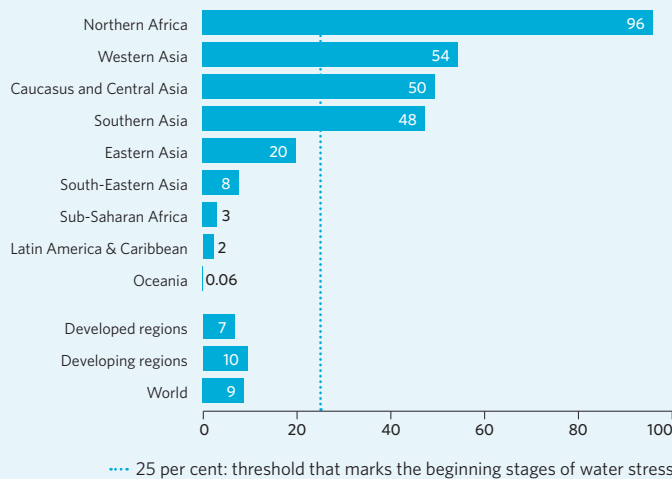
Non-state actors (such as communities and the private sector) increasingly have to fill the gaps. In contexts where institutional roles and responsibilities are unclear and limited, this can generate challenges, but also bring opportunities. In Maputo,

6 CLEAN WATER AND SANITATION



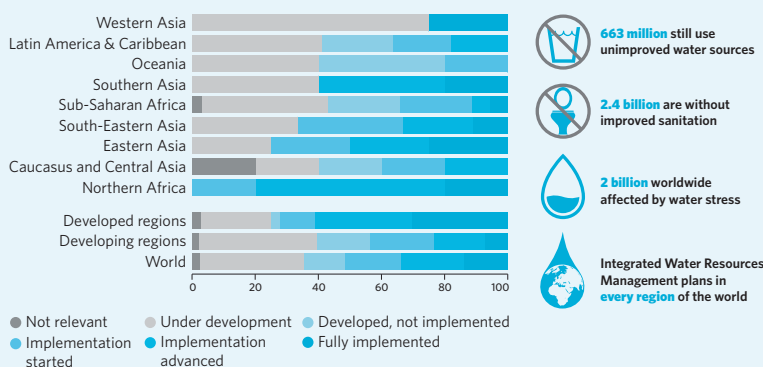
Ensure availability and sustainable management of water and sanitation for all

Level of water stress: freshwater withdrawal as a proportion of available freshwater resources, around 2012 (percentage)



Water stress affects more than two billion people around the globe, a figure that is projected to rise. Water stress affects countries on every continent, which hinders the sustainability of natural resources, as well as economic and social development.

Proportion of countries in various stages of implementing national Integrated Water Resources Management plans or equivalent, 2012 (percentage)



663 million still use unimproved water sources



2.4 billion are without improved sanitation



2 billion worldwide affected by water stress



Integrated Water Resources Management plans in every region of the world



The 2030 Agenda recognises the centrality of water resources to sustainable development and the vital role that improved drinking water, sanitation and hygiene play in progress in other areas, including health, education and poverty reduction.

Source: *The Sustainable Development Goals Report 2016, United Nations*

Mozambique for example, after years of negotiations, institutional reforms now allow the inclusion of small-scale water providers as part of a delegated management arrangement with the utility.

To overcome these obstacles, we call for:

- New institutional models that harness service provider networks beyond the utility: this is especially true for small but growing towns, where utilities may not exist (unlike in cities), and community-based management may not work (unlike in villages). Scaling up the activity of small-scale private entrepreneurs, and engaging them within a regulated framework to ensure quality and affordability for all, is key.
- More accountability – particularly in relation to citizens’ power over providers: civil society and non-governmental organisations have a key role to play in vocalising poor people’s concerns and entitlements, while building the capacity of governments and service providers to respond. Other forms of accountability, such as budget tracking, citizens’ engagement, and pressure from unions, should be also explored.
- Investing in water and sanitation markets that recognise poor people as valued customers: this should start by addressing the structural barriers to effective WASH markets, such as tenure insecurity. Existing service providers and entrepreneurs should collaborate to find new market solutions, and engage the government for better regulatory frameworks that ensure the affordability and quality of services. ●

- 1 See Toilet Twinning, Statistics, www.toilettwinning.org/serious-stuff/statistics/ (accessed 20 December 2016).
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- 3 Calow, R. and N. Mason, 2014, The real water crisis: inequality in a fast changing world, Overseas Development Institute.
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- 5 Cummings, C., I. Langdown and T. Hart, 2017, Who gives a crap? The politics of improving sanitation in cities, Overseas Development Institute.



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Creativity
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Creativity Prize

The Prize was shared by two teams of researchers:

1) Dr. Rita Colwell (University of Maryland at College Park) and Dr. Shafiqul Islam (Tufts University, USA)

for using chlorophyll information from satellite data to predict cholera outbreaks at least three to six months in advance.

2) Dr. Peter J. Webster (Georgia Institute of Technology, USA)

for applying knowledge of the effects of ocean-atmosphere interactions on monsoon strength to provide one to two-week lead time forecasts of monsoonal floods for highly populated coastal regions.



Dr. Rita Colwell



Dr. Shafiqul Islam



Dr. Peter J. Webster



Surface Water
Prize

Surface Water Prize

Dr. Gary Parker (University of Illinois Urbana-Champaign, USA)

for contributing to our understanding of meandering rivers, the shapes they take, and how they change themselves and their floodplains as they migrate.



Dr. Gary Parker



Groundwater
Prize

Groundwater Prize

Dr. Tissa H. Illangasekare (Colorado School of Mines, USA)

for improving the fundamental understanding of fluid flow and chemical transport in porous media, leading to the reliable prediction of the long-term fate of pollutants in groundwater systems.



Dr. Tissa H. Illangasekare



Alternative Water
Resources Prize

Alternative Water Resources Prize

Dr. Rong Wang & Dr. Anthony G. Fane (Nanyang Technological University, Singapore)

for developing hollow fibre membranes that combine forward osmosis with a reverse osmosis (RO)-like inner selective layer and a previously undiscovered positively charged nanofiltration (NF)-like outer selective layer, which effectively reduces the effects of scaling and flux losses.



Dr. R. Wang Dr. A. G. Fane



Water Management &
Protection Prize

Water Management and Protection Prize

Dr. Daniel P. Loucks (Cornell University, USA)

for the development and implementation of systems tools that provide an effective, dynamic, and successful framework for addressing practical water resources management problems worldwide.



Dr. Daniel P. Loucks

Nominations are open for the 8th Award. Nominations can be made online until 31 December 2017.

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Integrating development with environmental protection

The development and environment sectors have mostly operated independently of each other. What are the practical challenges of coordinating effective action that ensures development is environmentally sustainable?

By **Maria Ivanova**, Director, and **Natalia Escobar-Pemberthy**, Research Associate, Center for Governance and Sustainability, University of Massachusetts Boston

Humans are always setting goals. Ambitious visions allow us to chart trajectories, articulate strategies and mobilise resources. Goals create global narratives that define national and local priorities and actions. We have aimed to put a man on the moon, create a common European market, eradicate smallpox and halve poverty.

At the UN Sustainable Development summit in September 2015, 193 governments agreed to 17 Sustainable Development Goals (SDGs) covering all aspects of sustainable development. At the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change (COP21) in December that year, they committed to staying within 2°C of warming worldwide and to reach zero net carbon emissions in the second half of the century.

These goals are ambitious – articulating high expectations – and universal, committing all countries to their implementation. They will frame policies for the next 15 to 30 years, requiring action across the world and

accountability by all actors. These goals are not entirely new. They follow on previous commitments to enhance development and to operate within environmental limits. The innovation is in combining them into one integrated agenda that seeks to match contemporary planetary challenges.

Core philosophy

The vision of an international agenda for development dates back to the end of the Second World War. Then, governments saw development as a strategy to reduce poverty and to enhance security and stability in the international system by providing for basic needs. This was the core philosophy of international and national development agencies. It was on this foundation that the Organisation for Economic Co-operation and Development (OECD) created international development goals in the 1990s, and supported efforts to articulate the eight Millennium Development Goals (MDGs) that were adopted in 2001. The MDGs incorporated policy areas including education and health, to gender equality, environmental sustainability and foreign aid.

Global environmental goals have been articulated through global environmental conventions since the early 1970s. As



early as 1971, for example, the threat to wetlands from increased development led to the Ramsar Convention on Wetlands of International Importance. The Convention on International Trade in Endangered Species of Wild Fauna and Flora was adopted two years later.

Global environmental conventions on ozone-depleting substances, biodiversity, desertification, climate change and chemicals and waste followed. They all articulated global goals for particular issues, and created the governance mechanisms to support and review implementation.

Goals for development and goals for environmental protection took on some similar characteristics. The MDGs sought to motivate action and improve the ability



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of countries to deliver on core development indicators. The use of concrete targets and indicators proved an effective instrument for focusing efforts, monitoring the evolution of different strategies and prompting global political mobilisation. Environmental conventions also set up objectives, which, though more general, offered guidelines on the purpose and implementation of each agreement.

Universal and inclusive

The new SDGs bring together the development imperative of the MDGs, the environmental ambitions of the global environmental conventions and fundamental social goals. They were conceived as universal and inclusive,

▲ A family tries to reach safety after their home was flooded in Jalalpur Bhattian, Pakistan. The SDGs recognise the extent to which human wellbeing is dependent on environmental and climate protection

applicable to “all nations and peoples and for all segments of society”. They explicitly recognise that development cannot be achieved without safeguarding the ability of the planet to maintain the conditions critical to human wellbeing, and are therefore “integrated and indivisible and balance the three dimensions of sustainable development: the economic, social and environmental”.

The SDGs incorporate an environmental dimension both collectively and individually. They emphasise the connection between poverty eradication and environmental

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sustainability – as well as the importance of efficient use of resources and meaningful contribution from multiple stakeholders. Some are specific environmental goals, such as SDG 13 (on climate action), SDG 14 (on life below water) and SDG 15 (on life on land). Others include critical environmental dimensions on topics such as SDG 6 (on clean water and sanitation), SDG 7 (on clean energy), SDG 11 (on sustainable cities) and SDG 12 (on responsible consumption and production).

There are also specific targets to create the necessary frameworks, policies and partnerships to ensure implementation. Some of the targets contribute to the reduction and eradication of the harmful effects of development on the environment. This is the case for SDG 1 (on poverty eradication), SDG 2 (on food security), SDG 6 (on sanitation), SDG 9 (on innovation), SDG 16 (on effective institutions) and SDG 17 (on partnerships for the goals).

It is through various targets attached to the goals that the fundamental connections between the environment, economic wellbeing and social development are reflected. As Table 1 illustrates, each of the 17 goals incorporates a number of economic, social and environmental dimensions, as well as finance and governance mechanisms. The scope of the SDGs also includes values and lifestyles, and equality. Cutting across all the other goals is SDG 17 (on the means of implementation via global partnership). This goal has the largest number of targets (19). It incorporates targets relating to finance, technology, capacity-building, trade, institutional coherence, partnerships, data, monitoring and accountability.

Learning from the past

Global goals are a key governance instrument and have two equally important dimensions: the articulation of the problem and the implementation of the solution. With the articulation of the 17 SDGs and their associated targets now complete, countries are embarking on a journey to attain them. To this end, it will be important to learn from the successes and challenges of past efforts.

Table 1. Integrating the dimensions of sustainable development through targets

Global Goals		Targets				
		Economic	Social	Environmental	Finance & Governance	Total
Goal 1	Poverty	2	2	1	2	7
Goal 2	Hunger	2	2	1	3	8
Goal 3	Healthy lives	0	8	1	4	13
Goal 4	Education	1	5	1	3	10
Goal 5	Gender equality	0	6	0	3	9
Goal 6	Water and sanitation	0	2	4	2	8
Goal 7	Energy	0	1	2	2	5
Goal 8	Economic growth and employment	4	5	1	2	12
Goal 9	Infrastructure	3	1	1	3	8
Goal 10	Inequality	2	5	0	3	10
Goal 11	Cities	1	3	4	2	10
Goal 12	Consumption and production	2	1	5	3	11
Goal 13	Climate change	0	1	2	2	5
Goal 14	Oceans	2	1	5	2	10
Goal 15	Terrestrial ecosystems/ biodiversity	1	1	7	3	12
Goal 16	Peaceful societies	0	3	0	9	12
Goal 17	Means of implementation	Cross-cutting				19
Total number of targets						169

At the University of Massachusetts Boston, we have launched a research initiative to measure and explain the level of implementation across global environmental conventions. The goal is to provide a solid empirical foundation for efforts at improving implementation. Drawing on the national reports that

countries submit to the conventions, an environmental conventions index tracks and compares implementation results across countries, within countries (across issues and over time) and across conventions.

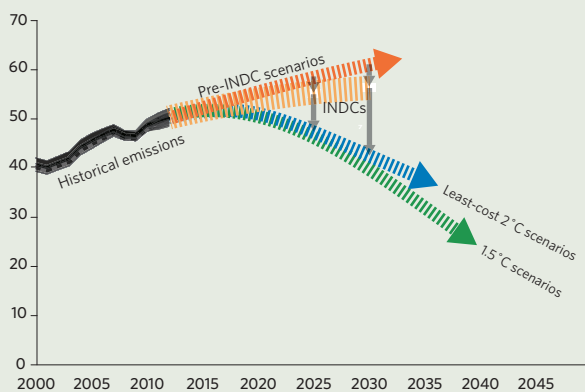
The index is a composite score derived from the answers to the questions in

13 CLIMATE ACTION



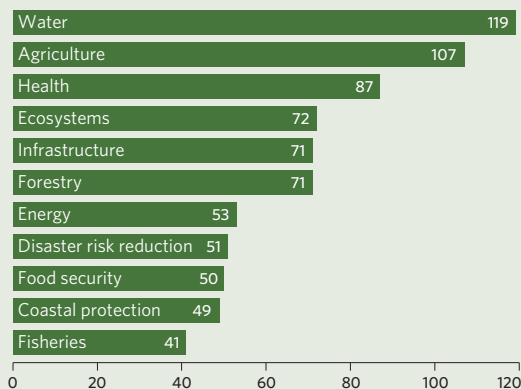
Take urgent action to combat climate change and its impacts

Comparison of global greenhouse gas emission levels in 2025 and 2030 resulting from the implementation of the intended nationally determined contributions (INDCs) and under other scenarios (GtCO₂ eq/yr)



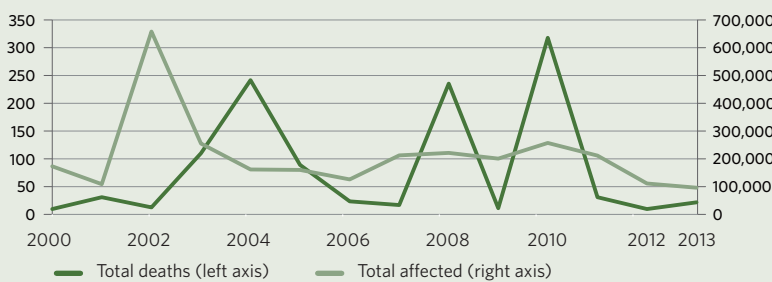
The Paris Agreement requires its parties to identify their “intended nationally determined contribution” (INDCs). Progress will be tracked every five years. Current commitments fall well short of the 2°C limit required to avert catastrophic climate impact.

Number of parties that referred to an area or sector as a priority, as communicated in the adaptation component of the INDCs



Most INDCs include an adaptation element, several stressing it as their main priority. The top three priority areas – water, agriculture and health – coincide with the top climate threats identified: floods, droughts and higher temperatures.

Total number of deaths and affected persons resulting from natural disasters worldwide, 2000-2013 (thousands)



Natural disasters, many of which are exacerbated by climate change, are increasing in frequency and intensity. Between 2000 and 2013, the average annual death toll has been 83,000 and a further 211 million have been affected on average each year.

Source: The Sustainable Development Goals Report 2016, United Nations

the national reports submitted to each convention secretariat. Findings to date illustrate that:

- implementation has improved over time;
- many developing countries are more consistent with reporting and show higher performance than we initially expected;

- many countries report consistently, even when the dataset shows poor results;
- the complexity of the reporting process is not necessarily a deterrent to reporting compliance;
- institutional support from the convention secretariats is important to ensure regular reporting and facilitate implementation.

The record of national implementation of global environmental conventions illustrates that the effective achievement of the SDGs will require robust governance mechanisms for action and accountability at both national and international level. Ultimately, more systematic and comprehensive empirical work will be critical. ●

The value of nature-based solutions

Nature-based solutions to water security offer innovative, cost-effective, integrative approaches to aid progress of the SDGs and contribute to solving complex challenges around water management



By *Andrea Erickson-Quiroz*,
Managing Director,
Water Security,
The Nature Conservancy

High in the Andes, under the leafy canopy of tall kapok trees, cotton-top tamarins with manes of white fur jump from branch to branch. Bright yellow, green and red birds appear briefly before they fly deeper into the forest. This captivating beauty only hints at the value of Colombia's forests: a set of natural systems that for millennia have provided water security.

The forests and páramos (alpine tundra ecosystems) across Colombia serve as natural infrastructure to collect, infiltrate, filter, store and move water to thirsty cities at lower elevations. Páramos alone generate around 85% of drinking water in the country. Current estimates project that by 2050 nearly 84% of Colombians will be living in urban areas. Growing cities will be looking to secure more water, even as extreme climate events are increasingly frequent and severe. Already, flooding and drought have stunted crops and exacerbated soil degradation, destroyed built infrastructure and caused economic hardship.

Many other countries face similar challenges. Around the world, leaders are trying to find ways to meet the water, food and energy needs of growing populations at a time when clean, reliable water resources are becoming more scarce and more expensive.

Natural solutions

But there is a solution – nature. The lands around our water sources serve as vital infrastructure that can improve water quality and quantity for cities around the world. By protecting existing forests, replanting barren pastureland and using cover crops, we can reduce the amount of sediment and nutrient pollution entering our waterways. Additionally, these

nature-based solutions can help reduce our carbon footprint, maintain critical ecosystems and build healthier, more resilient communities in the face of climate change.

Many parts of the world have progressed towards ensuring access to clean, reliable water for both people and nature, but more will be needed. The Sustainable Development Goals (SDGs) provide a pathway for working toward solutions that tackle water and food security, alleviate poverty and improve health and well-being. Goal 6 focuses on ensuring available and sustainable management of water and sanitation for all. Solving water security will be essential to meeting so many other vital targets. Yet nature-based solutions to water security in particular offer innovative, cost-effective, integrative approaches that will aid progress in multiple SDG's beyond water security.

Nature-based solutions for water security are the subject of *Beyond the Source: The environmental, economic and community benefits of source water protection*, a new study developed by The Nature Conservancy along with the Natural Capital Project, Forest Trends, the Inter-American Development Bank and the Latin American Water Funds Partnership.

The report illustrates that four out of five cities globally can benefit from nature-based solutions to improve water security. For half of these cities, these investments could be made for as little as US\$2 per person, per year. One in six cities could pay for source water protection activities through annual water treatment savings alone.

In addition, the report analyses the quantifiable co-benefits to carbon mitigation, biodiversity and the health and well-being of rural communities. The report takes a deeper

Optimisation portfolio results for six Colombian cities and their source watersheds

City source watershed	Hectares in portfolio	Percent of total watershed area	Percent improvement from baseline (through restoration and agricultural BMPs)			Percent future degradation avoided (through protection)		
			Carbon storage	Nitrogen reduction	Sediment reduction	Carbon loss mitigated	Nitrogen increase mitigated	Sediment increase mitigated
Cartagena	17,832	7	26	-10	-34	15	20	24
Medellín	12,032	10	15	-10	-14	16	20	20
Cali	2,491	14	9	-11	-12	15	22	27
Bogotá	21,888	8	10	-10	-15	20	19	35
Bucaramanga	11,831	16	9	-10	-14	18	19	22
Cúcuta	41,462	17	10	-10	-15	16	19	22

Results based on restoration targets of 10 percent reduction for sediment and nutrient loads and a 10 percent increase in carbon storage (with results reported as percent change). Protection targets were 17 percent avoided damages to these services (with results reported as percent of future degradation avoided). Results are based on InVEST models using national-level datasets.



look at one country, Colombia, to explore the potential to scale nature-based water security activities to a national level and achieve multiple co-benefits simultaneously.

By investing in the source watersheds of six major cities, Colombia has the potential to make meaningful progress toward its SDG commitments. For example, through forest protection, habitat restoration and agricultural best management practices, Colombia's watersheds could see water base flows increase by an average of 5%, improving water security for over 3.3 million people.

At the city level, nature-based solutions used to reduce nitrogen by 10% in Cartagena's source watershed, for instance, could also generate a 34% reduction in sediment run-off and a 26% increase in carbon storage. Taken together – if investments in carbon mitigation, water security and biodiversity are optimised in a single portfolio – the average savings in public investment in the six watersheds could be up to 60% overall.

Water funds

Models such as water funds can be especially effective in aligning actors to capture the value of source water protection. Water funds enable downstream users to invest in upstream nature-based land conservation activities for the purpose of securing improved water quality and in some cases quantity, providing a public-private partnership mechanism and a framework for governance and finance.

The water funds' monitoring, reporting and verification systems (currently in place or under design) collect data to assess these funds' impacts on local and national carbon, social and water footprints – an essential process for national governments to demonstrate progress toward international goals, particularly the SDGs.

Colombia is a clear leader in recognising the value of nature-based solutions for securing water and moving the needle on other national-level goals. Already, the

country has six water funds in operation and another three in development. Colombia has enacted legislative and institutional mandates that promote sound water management and investment in watershed management through local and regional environmental authorities.

These investments include annual revenues directed either toward payments to landowners for ecosystem services or direct land acquisition in source watersheds. Colombia also committed at UNFCCC's COP 20 in 2014 to restore one million hectares of degraded landscapes by 2020.

The Colombian government included the SDGs as cross-cutting goals for its 2014-2018 national development plan and created a cross-sectoral, multi-agency commission to align efforts and monitor progress across ministries and agencies at the national level.

The case of Colombia exemplifies how a combination of national and local political will, effective partnerships and innovative models can come together for source water protection, and how together these efforts can help a country meet global commitments.

While every watershed and every country will be different in terms of its biophysical, socio-economic, cultural and political contexts, this analysis suggests these results might apply in other geographies. Nature-based solutions can contribute to solving complex challenges around water management that in turn bear multiple co-benefits. Water is core to achieving the vision of the SDGs, and concrete mechanisms such as water funds can demonstrate progress on multiple SDGs. ■

■ Native gallery forest in the Colombian Llanos

Helping those most at risk

Climate change threatens to hamper development for some of the world's most vulnerable nations. What can the international community do to ensure these countries adapt successfully?



© Joe Penney/Reuters

By **Peter Thomson**, President of the 71st session of the UN General Assembly

In my home country, Fiji, the effects of climate change are manifesting in tropical cyclones of increasing ferocity. Our neighbouring countries – Tuvalu, Kiribati and the Marshall Islands – are threatened with complete inundation by rising sea levels caused by global warming. In these islands, climate change is an existential threat, making resilience the new hallmark, if not question mark, of development.

This precarious future is shared by people and economic systems located in low-lying coastal areas. Some of these low-lying areas, rice-producing river deltas for example, are central to humanity's food security – as are major economic centres located at sea level around the world.

It is now accepted beyond all reasonable doubt that anthropogenically created

greenhouse gases are causing global warming. 2016 will have been the warmest year on record. As the world warms, desertification spreads, climate events such as droughts and storms intensify, and glaciers and ice melt. The resulting loss of habitat, agriculture and fresh water supplies, and the consequential human hardships, will displace many millions of people, making human migration the twin ramification of climate change in the 21st century.

In response, humanity has put in place the Paris Agreement on climate change and the 2030 Agenda for Sustainable Development, the latter containing the 17 Sustainable Development Goals (SDGs). The full implementation of these measures will bend our path away from the precipice of unsustainability to which we are currently headed. Indecision and inaction on climate change will undermine the SDGs. Sustainable peace will be increasingly

▲ **Flooding in Senegal's capital, Dakar. The Green Climate Fund, in conjunction with the African Development Bank, is financing a project to tackle urban flooding in Senegal**

threatened as natural resources become strained: according to the World Bank, water scarcity could cost regions such as the Sahel and Middle East up to six per cent of their GDP by 2050, due to water-related impacts on agriculture, health and incomes. Conversely, the right climate change decisions and actions will be a win-win for both the climate and for the achievement of the SDGs.

Advancing implementation of the SDGs has to be the priority of every government and enlightened stakeholder. Correct climate solutions to reduce emissions and strengthen resilience will simultaneously benefit multiple SDGs, such as those on people's health, biodiversity, economic growth and equity. In the wake of natural disasters, the linkages are

clear between people's livelihoods, climate-resilient infrastructure and robust economies. They are manifest in smart urban planning and the viability of businesses that are most dependent on natural resources such as agriculture, fishing, forestry, tourism and global trade.

Support mechanisms

The UN provides a network of support for governments, of developing states in particular, to achieve their sustainable development ambitions. No fewer than 40 UN specialised agencies, funds, programmes and other bodies support governments at the global, regional, national or sub-national level, standing ready to advance climate action.

Such action includes increasing sustainable and resilient low-carbon energy, transportation, infrastructure, land use, urban planning and economic growth. Increasingly, efforts are undertaken in partnership with the private sector, philanthropy, academia and civil society.

Practical mechanisms now exist to assist developing countries in facing the challenges of climate change, providing a spectrum of options for governments. These include the Green Climate Fund (GCF), the Global Environment Facility (GEF) and the Adaptation Fund.

With over \$10 billion in mobilised resources, the GCF, which was established by the parties to the UN Framework Convention on Climate Change (UNFCCC) in 2010, has the capacity to fund projects on a scale from micro (under \$10 million) through to macro (over \$250 million). Impressively, this relatively new fund was projected to approve close to \$2.5 billion of funding in 2016.

Supported projects include:

- glacial lake outburst flood risk reduction in northern Pakistan in collaboration with the UN Development Programme;
- climate-resilient agriculture in Namibia with the European Investment Fund;
- urban flood management in Senegal with the African Development Bank;
- sustainable energy for the eastern Caribbean with the Inter-American Development Bank.

The GCF board recently met in Samoa where it approved eight new funding proposals valued at \$315 million and accredited seven new partner entities.

Since its establishment just before the 1992 Rio Earth Summit, the GEF has invested almost \$15 billion in developing countries and countries with economies in transition. It has leveraged over \$75 billion more for roughly 4,000 projects in 167 countries, collaborating with over 18 agencies on implementation.

The Adaptation Fund pioneered direct access for developing states to climate financing, wherein national and regional entities manage all aspects of their funded climate adaptation and resilience projects. It also offers a Readiness Programme for Climate Finance to enhance governments' capacity to receive and manage climate financing. Since its creation under the

The greening of financial systems around the world is becoming a reality

Kyoto Protocol in 2001, it has allocated \$358 million to support 55 adaptation and resilience projects in 48 countries, with more than 3.7 million direct beneficiaries.

This list could go on, including support via regional development banks. The Asian Development Bank, for example, currently provides about \$400 million to the Pacific Small Island Developing States. This figure is projected to increase to between \$750 million and \$800 million a year by 2020 to address climate change impacts in the islands.

These public funding mechanisms are a critical part of the equation, but they will not be sufficient to meet the world's pressing climate and development challenges. There is some positive news in this regard. Various surveys show that the business sector is far more aware of the SDGs than the average person on the street. This makes good sense, for the transformational nature of the SDGs will demand economic activity that by definition will be good for businesses that engage.

The price tag for global transformation to sustainability is high, with rough estimates for financing the SDGs ranging from \$5 trillion to \$7 trillion of incremental annual investment.

Current public finance falls far short, even if developed countries meet the global commitment of 0.7 per cent of gross national income from developed states.

For the SDGs to be achieved, private investment will most definitely be required to create new financing streams and reorient existing streams in support of sustainable development.

Deep transformation

More positive news is that the greening of financial systems around the world is becoming a reality, with the growing realisation that sustainability applies to every aspect of human activity.

The outcome communiqué of the 2016 G20 summit in Hangzhou confirmed commitment to address the issues of climate change and green finance. Green bonds were projected to exceed \$75 billion in 2016 and impact investments topped \$15 billion in 2015. Initiatives are growing to establish and transparently report sustainability standards for industry, stock exchanges and corporate procurement.

More smart business leaders need to come forward – CEOs, financial managers, policymakers, shareholders, regulators and company directors – who see the writing on the wall and are prepared to take responsible action. In short, sustainability should join profit as a key fiduciary responsibility for all concerned. And as consumers in the marketplace, we should all do the right thing and reward such responsibility in our choices of products and services.

Ultimately, addressing the climate challenge will require deeply transforming the way the world does business and how people live. Every empowered person can contribute – in large ways and small – through civil life and daily habits, and in their home, community and work life. Ultimately, responsibility rests in the hands of governments. And therein lies the irreplaceable role of the UN in defending the global commons. ●



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Protecting unique environments

How can we safeguard specific geographic areas that are vital to supporting life on Earth?

By **Inger Andersen**, Director General, International Union for Conservation of Nature (IUCN)

The rich diversity of life is not distributed evenly around our planet. Neither are people, whose activities can either threaten or conserve biodiversity. The result is that some environments contribute much more to the global persistence of biodiversity than others. What does this mean for the world's governments as they strive to conserve nature, as enshrined in the UN's Sustainable Development Goals (SDGs)? And how can IUCN, as the world's conservation union, help?

Some may ask why the protection of biodiversity is important in the first place. Aside from the intrinsic value of biological

diversity on our planet, nature and nature's infrastructure – made up of millions of interdependent species and ecosystems – form the very basis of life on Earth as we know it. Nature produces the water we drink, the air we breathe and the food we eat. Without nature and its diversity, life on Earth would not exist. When nature is degraded, species diversity suffers. But human wellbeing is frequently also affected. This makes nature conservation and the protection of biodiversity key to the achievement of the SDGs.

While all biodiversity is important, the question has long been asked: are particular areas more important than others? And, if so, which are they?

The particular importance of some environments for global biodiversity has

been recognised for many decades. IUCN members such as BirdLife International and NatureServe have dedicated considerable efforts to identifying such key sites across our amazingly beautiful planet.

This work has generated great conservation benefits, but also some policy confusion. Should governments focus on safeguarding key sites for birds, for plants or for freshwater? Which would have the biggest conservation benefits? These are extremely difficult questions to answer. But governments and policymakers need this information to make the right decisions for environmental conservation. It was in this light that, in 2004, IUCN members asked the union to consolidate existing approaches into an overall standard for the identification of Key Biodiversity Areas.

◀ **Tea plantations in the Western Ghats mountain range, Kerala, India. The region, considered to be one of the world's most precious biodiversity hotspots, is vulnerable due to development and the high population density of the neighbouring area**

Experts from the IUCN Species Survival Commission and the IUCN World Commission on Protected Areas joined forces to meet this challenge. They convened numerous workshops, regional consultations, an extensive dialogue with future users of the standard and a peer-review process that generated nearly 1,800 comments. Based on this work, IUCN launched a report: *A Global Standard for the Identification of KBAs* at its 2016 World Conservation Congress in Hawaii.

The IUCN Congress also provided the platform for launching the Key Biodiversity Areas Partnership. This work will support the implementation of the standard and maintain the World Database of Key Biodiversity Areas. Around 15,000 sites worldwide have so far been identified. The partnership comprises IUCN and 10 other international conservation organisations, including the Amphibian Survival Alliance, BirdLife International, Conservation International, Global Wildlife Conservation, NatureServe, The Royal Society for the Protection of Birds, the Wildlife Conservation Society and the World Wildlife Fund, as well as funding agencies like the Critical Ecosystem Partnership Fund and the Global Environment Facility.

The first job of the Partnership will be to establish a community – including institutions involved in identifying important sites at national level – and support it in identifying Key Biodiversity Areas around the world that follow the new standard. This will be a mammoth task. However, it is nothing compared to the subsequent work needed to ensure an effective protection of those areas.

Making sure that these environments retain their global importance will require a concerted effort from multiple sectors of society. Four stand out as particularly crucial: governments; non-governmental organisations; the private sector; and local and indigenous communities. These sectors are helping to share the costs of protecting

environments of immeasurable value to the world as a whole, even in situations where the destruction of these sites might yield greater short-term returns to some.

For governments, ensuring the persistence of Key Biodiversity Areas is essential to delivering on their commitments to global conventions and goals. Most importantly, the SDGs require this. The goals include targets for protecting Key Biodiversity Areas, namely target 14.5 for important marine sites (by 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information), target 15.1 for terrestrial and freshwater sites (by 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements), and target 15.4 for mountain sites (by 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development).

Achievement of the SDGs will in turn fulfil national commitments to multilateral environmental agreements and targets, including the Ramsar Convention on Wetlands, the World Heritage Convention, the Convention on Biological Diversity and the Aichi Biodiversity Targets.

Concerted effort

Governments report their efforts to establish and effectively manage protected areas to Protected Planet (see www.protectedplanet.net). This is a global information resource on protected areas, jointly managed by the United Nations Environment Programme (UNEP) World Conservation Monitoring Centre and the IUCN World Commission on Protected Areas.

NGOs harness Key Biodiversity Area information to guide their conservation strategies and actions. The Alliance for Zero Extinction is an excellent example of this. This is a partnership of nearly 100 NGOs, dedicated to identifying and

conserving all sites holding at least one highly threatened species. These are places that, unless conserved, will be lost – resulting in global extinctions. Colombia's Sierra Nevada de Santa Marta National Park is a famous example, holding at least a dozen species assessed as endangered or critically endangered on the IUCN Red List of Threatened Species.

For the private, financial and development sectors, knowledge of the locations and importance of Key Biodiversity Areas helps highlight conservation opportunities. This knowledge is also fundamental to effectively managing risk, undertaking robust environmental impact assessments, targeting the offsetting of environmental damage accrued elsewhere, and maintaining access to capital and social licence to operate.

Key Biodiversity Areas lie at the heart of the International Finance Corporation Performance Standard 6, which helps drive public financing through the World Bank Environmental and Social Standard 6. Companies can access the Key Biodiversity Areas' data to guide their decision-making through the Integrated Biodiversity Assessment Tool.

Perhaps most important in the long-term safeguarding of Key Biodiversity Areas are the local communities that live in and around these environments.

Conserving such areas serves an important role in generating local employment, stabilising land use and maintaining the human benefits of the ecosystem. Many also have sacred, historical, educational or other cultural values to local communities. The fact that their environment contributes significantly to the world's natural heritage is an enormous and enduring source of pride for local and indigenous communities around the world. Frequently, these communities establish indigenous and community conserved areas as mechanisms to ensure that their values persist into the future.

Safeguarding Key Biodiversity Areas will not be an easy task, and will require a concerted effort from across society. However, protecting these crucial areas is essential if the world is to develop sustainably, and must be prioritised if the SDGs are to be reached. ●

Ocean science and sustainable development

The ocean is vital to our planet's functioning, but human activity has put its health in jeopardy. How can we help the ocean to recover and sustain our future?

By **Vladimir Ryabinin**, Executive Secretary, Intergovernmental Oceanographic Commission (IOC); Assistant Director-General, United Nations Educational, Scientific and Cultural Organization (UNESCO)

In a sustainably evolving civilisation, the wellbeing of current and future generations is achieved without breaching a long-term equilibrium between consumption of natural resources and their self-replenishment. The evolution of our civilisation has taken us to the epoch of Anthropocene – Earth's most recent, and strongly human-influenced, geological time period. At present our civilisation finds itself operating near the 'limits to growth'. Poorer and less privileged communities are already feeling the discomfort, but eventually it will affect even those who 'have it all'.

executing error-free decisions. Unfortunately, for the ocean and for us, we are very far from this ideal scenario.

The current threats to ocean health are massive. They stem mostly from various kinds of pollution, alteration of the environment, intrusion into and destruction of species' habitats, warming of the ocean, ocean acidification and unsustainable fishing. According to the first *World Ocean Assessment*, published in 2015, the world is running out of time for returning the ocean ecosystems to a healthy state.

Below are just some examples of negative impacts of multiple stressors on the ocean. Ocean acidification, 'the other carbon problem', creates a host of devastating effects. For example, it makes it more difficult for ocean zooplankton to grow, reproduce and protect themselves by building shells. Coral reefs, the cradles of biodiversity, suffer from

A healthy ocean may keep our planet running for an unknown but hopefully sufficiently long period of time. But preserving its health requires knowledge

With a relatively small exception, humans now operate everywhere on the continents. Now we are turning to the ocean. A healthy ocean may keep our planet running for an unknown but hopefully sufficiently long period of time. But preserving its health requires knowledge – as well as immaculately

a combination of heatwaves and acidification and are now dying on a massive scale. Due to warming from the surface and nutrient deposition, accompanied by changes in ocean mixing and circulation, the ocean loses its oxygen. Coastal megacities are now growing rapidly, especially in Southeast Asia.



© Fairfax Media via Getty Images

The pumping of underground water from aquifers, coupled with cities' huge mass, causes cities to subside. At the same time sea level is rising: fastest in the western part of the Pacific, where sea surface temperature is also very high, attracting severe tropical cyclones. Together, these factors result in increased exposure of coastal populations in Southeast Asia to ocean-related hazards.

The phenomena occurring in the ocean due to climate change are often counterintuitive. For example, with the melting of the ice sheets, the gravitational attraction of ocean water by them reduces. This results in sea-level fall near the ice sheets and in sea-level rise at large distances from the area of melting. The biggest regional rise takes place in tropical areas, with potentially devastating effects on small-island developing countries.

The warming of Arctic waters does not lead to easier 'grazing' conditions for fish such as salmon and cod. This is because the fatter and more nutrient-rich cold-water copepods, on which the fish used to feed, are being replaced by skinnier ones from the lower latitudes. The chain of implications



System and provides other crucial services, for example tsunami warnings.

SDG 14 includes 10 targets that, combined with SDG 13 on climate change, encompass the majority of issues that the ocean faces. Addressing these challenges will strongly contribute to progress on other SDGs – for example, with regard to food, water, energy, sustainable cities, and reduction of poverty and conflicts.

Ocean information service

To plan the work on SDG 14 implementation, the UN is organising a major conference in New York on 5-9 June 2017. The solutions to be sought include new scientific developments, specifically focused on the SDG targets and their implementation and monitoring. The key requirement will be for a new science-based ocean information service for humanity.

This service's desirable configuration might look as follows: modern ocean observations, already rather comprehensive for ocean thermodynamics in the upper 2,000 metres below sea level, would be expanded into the deep ocean, in polar ocean basins, and in the domains of ocean biology and ecosystem health – even encompassing, where possible, ocean economics and social aspects. This would provide a comprehensive and objective description of the current state of the ocean. The Earth system models, with modern ocean modules, would provide predictions or projections of external factors affecting the state of the ocean. Ecosystem management tools would use the above data to guide ocean governance and related decisions.

The design and assembly of such a system will require significant national commitments and wide acceptance of the underlying vision and ideas. And further effort will then be needed to elaborate the solutions, promote them and turn them into a consolidated programme of action under the framework of SDG 14. In this regard, a broad decadal campaign on ocean science for sustainable development might be highly instrumental, preferably under the auspices of the UN. Such an information service has the potential to greatly benefit the 'blue' economy and facilitate protection of our ocean and sustainable use of its ecosystem services. ●

stretches far, affecting polar birds and marine mammals.

Deterioration of the environment, as well as shortages of resources and increased competition for them, increases the likelihood of various conflicts. It is very important therefore that our decisions on development and environment start to be based, as soon as possible, on scientific considerations. In 2015, the UN adopted three major frameworks aimed at turning the evolution of this planet into a sustainable mode.

In March 2015, The Sendai Framework for Disaster Risk Reduction 2015-2030 was agreed. In September 2015, the UN endorsed the 2030 Agenda with 17 Sustainable Development Goals (SDGs), including one (SDG 14) specifically on the ocean. And in December 2015, the Paris Agreement on climate change was concluded, which should help the world to limit global warming by continuously tightening national commitments. The agreement came into force in November 2016.

Ocean is at the heart of sustainable development. Producing oxygen, absorbing

▲ Snorklers over the Great Barrier Reef, Australia. In 2016, the reef experienced its worst-ever bleaching event, which killed a quarter of its coral

roughly a third of the excess carbon from the atmosphere and more than 90 per cent of the corresponding heat, it provides huge, diverse, but largely invisible life support to humankind. To protect the ocean, we need to better understand it in its complexity. We need to know precisely, and quantitatively, its current state; anticipate its future state; and act in accordance with best scientific guidance.

Tools to achieve this include ocean observations, research, assessments and services. Working together, they create knowledge and convert it into improved ocean and planet governance, helping to inform decisions at global and local levels. The UN provides a platform for this needed collaboration. Within this system, and working with partners, the Intergovernmental Oceanographic Commission of UNESCO coordinates ocean research and capacity-building in ocean science within its 148 member states. It leads on the Global Ocean Observing



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Healthy oceans, healthy planet

Human activity has left the oceans – and the life they support – in a perilous state. Could a new UN ocean treaty bring oceans back from the brink?

By **Sofia Tsenikli**, Senior Political Strategist, Greenpeace International

The oceans are our planet's true life source. They regulate the climate and give us oxygen. They are a major food source and food security provider for over three billion people who depend on

marine and coastal biodiversity for their daily nutrition and livelihood. The oceans have also been offering us a buffer against climate change. They have absorbed around 30 per cent of all the additional fossil carbon ever emitted by human activities and 90 per cent of the excess heat – with major consequences for the oceans' chemistry and ecosystems.

It is clear that humanity depends on healthy oceans, just as we as individuals depend on a healthy body to survive. Governments recognised the importance of oceans for our collective future at the UN Summit on Sustainable Development with the adoption of a dedicated Sustainable Development Goal (SDG) for oceans



◀ Children collect plastic bottles among the garbage washed ashore by a storm surge in Manila Bay, the Philippines. There are more than 150 million tonnes of plastic in the ocean today

oceans, which will disrupt ocean ecosystems for millions of years.¹

While we empty our seas of fish, we fill them with waste. Over 150 million tonnes of plastic are in the ocean today – at all depths of the water column, from surface to ocean floor, and at all latitudes, including within Arctic ice. At the same time, oil companies like Shell and BP ignore our planetary boundaries and look further and deeper in our oceans for the last drops of oil. There are even plans to mine the seabed for minerals, which would cause unprecedented impacts to already fragile ocean systems.

Governance gap

Major change is needed to the way in which industry and governments treat the oceans. To restore the seas, and increase their resilience and productivity, science tells us that we must establish a well-managed network of ocean sanctuaries both in coastal waters and on the high seas.

This is especially true if we want to deliver the ambition of the Paris Agreement to keep global warming to 1.5°C. Doing so will likely not be possible unless we preserve and strengthen the oceans' natural carbon-sink capacity. Despite recent announcements of new marine protected areas in national and international waters, only three per cent of the world's oceans are protected. This falls dangerously short of the target to protect 10 per cent by 2020 set by SDG 14, and is a far cry from the goal of 30 per cent of highly protected areas by 2030 agreed at the 2016 International Union for Conservation of Nature congress in Hawai'i.

The situation is especially dire on the high seas – the two thirds of the ocean surface that, as a global commons, does not belong to any one country but to all mankind. Lacking an international legal framework to designate and effectively manage high-seas sanctuaries, only a shocking one per cent is under protection

today. To fill this governance gap, governments at the UN are currently negotiating a new ocean treaty under the UN Convention on the Law of the Sea, for the conservation and sustainable use of the open ocean. The negotiations are coming to a crucial stage in 2017, when the Preparatory Committee, where these discussions are taking place, is expected to agree its recommendations to the UN General Assembly.

The UN conference to support the implementation of SDG 14 in June provides an important opportunity to call for urgent ocean action and the swift conclusion of a strong UN ocean treaty to help meet the global ocean conservation goals.

In a world where everything is interconnected, there is no such thing as a dying ocean and a thriving, living planet. There is hope when more and more people stand up against corporate interests, speaking truth to power and demanding a better future. In West Africa, local communities strive for a better tomorrow by fighting for sustainable fisheries, and an end to overfishing in their waters by foreign fleets from China, Russia and Europe.

Greenpeace has been campaigning to end the plunder of global tuna stocks and the associated human rights violations. It has joined forces with consumers, demanding that corporations adopt just and sustainable practices throughout their supply chain. Around the world, the 'people vs oil' movement has been taking on oil giants, and communities are saying no to plastics in our oceans.

The 2030 Agenda for Sustainable Development states that "the future of humanity and of our planet lies in our hands". The SDGs give us a clear direction of travel and a global understanding that anything that falls short of these goals is simply not enough. Let's join forces in this journey to overcome the major challenges of our time, protect the global commons – like the oceans – and build a green, just and peaceful future for us all. ●

¹ Payne, J.L. et al., 2016, 'Ecological selectivity of the emerging mass extinction in the oceans', *Science* 353:1284–6, <http://science.sciencemag.org/content/353/6305/1284>

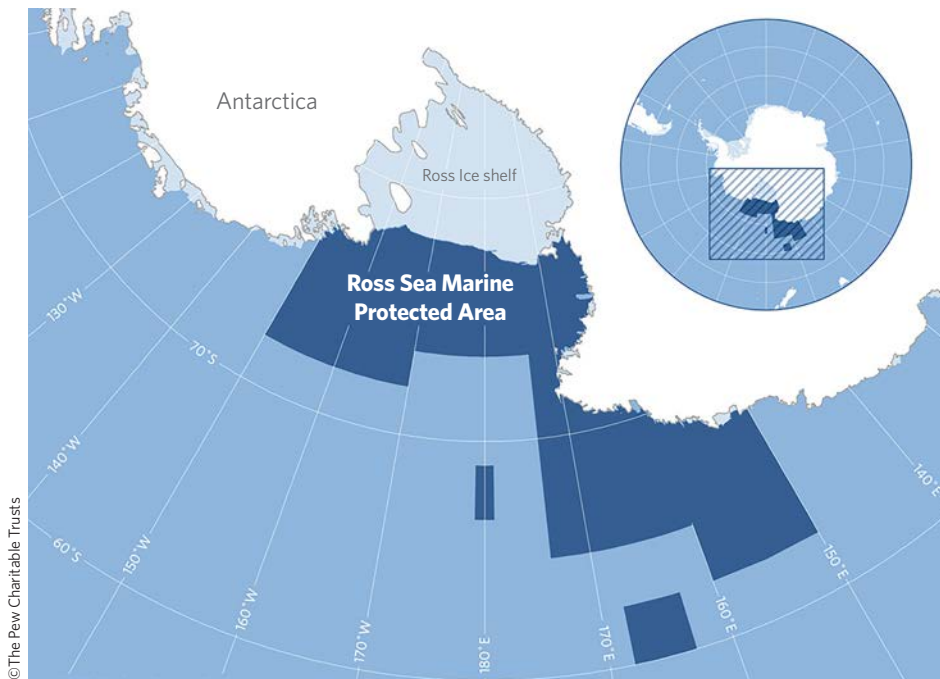
(Goal 14). This sets specific targets for oceans' protection, including on pollution, overfishing and conservation.

Meeting these ocean targets is more urgent than ever. Decades of over-exploitation and abuse caused by short-term corporate interests and governments' inaction have pushed the oceans to the brink of collapse. Global overfishing remains out of control.

For example, the Pacific bluefin tuna population has been driven down by over 97 per cent due to rampant overfishing. What is true for tuna is unfortunately true for many marine species. In fact, a recent study warns that humanity is driving an unprecedented extinction of life in the

Case study: protecting marine life

Over a decade of diplomacy has culminated in the creation of the world's largest marine protected area, the Ross Sea region MPA, protecting 600,000 sq miles of the Southern Ocean from commercial fishing for 35 years



©The Pew Charitable Trusts

By **Andrew Wright**, Executive Secretary, Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR)

The adoption of the Ross Sea region Marine Protected Area (MPA) by the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) in October 2016 was the culmination of sustained scientific and diplomatic effort led by the US and New Zealand. Work began in 2004 when CCAMLR asked its Scientific Committee to prioritise the work required to establish a representative system of MPAs.

In 2005, the Scientific Committee advised the Commission that MPAs may have a number of functions including:

- protection of representative habitats;
- protection of areas vulnerable to human activities;

- ecosystem functions and services;
- facilitating science.

A bio-regionalisation workshop in 2006 identified 11 bioregions in the Convention Area (an area south of the Antarctic Convergence, considered the boundary of the Antarctic region) that demonstrated heterogeneity in the Antarctic marine ecosystems. These regions were considered appropriate for developing MPAs, and for the next two years received priority attention.

In 2009, CCAMLR endorsed the Scientific Committee's recommendations proposed by the UK for a protected area over the South Orkney Islands southern shelf. It also endorsed milestones agreed by the Scientific Committee to guide its work towards establishing a representative system of MPAs within the Convention Area by 2012.

To provide a general framework to support this work, on the basis of a proposal by Australia in 2010, CCAMLR began to consider an overarching conservation measure to facilitate the designation of MPAs. It adopted this measure in 2011. Also that year, CCAMLR refined the mechanism supporting the planning and development of MPAs by defining nine large-scale 'planning domains'. These both encompassed all 11 bioregions as well as the entire Convention Area. The planning domains were intended to reflect the scale and location of ongoing research, as well as provide logical reporting and auditing units.

Initially, the US and New Zealand submitted separate proposals for an MPA in the Ross Sea region, but these were subsequently amalgamated into a single proposal. A separate proposal for East Antarctica – with Australia, the EU and France as proponents – was also developed. Ultimately, in 2011, the Scientific Committee advised the Commission that the MPA proposals for the Ross Sea region and East Antarctica were based on the "best available science".

The challenges experienced during the sustained negotiations of the 1.55 million sq km Ross Sea region MPA were wide-ranging and substantive. Russia maintained reservations in respect of key features of both the Ross Sea region and East Antarctica proposals. These included: the available evidence that the ecosystems are threatened; the size of the areas proposed for protection; responsibilities for research and monitoring; review periods and mechanisms; the durations of the proposed MPAs; and the impacts of establishing MPAs on existing fishing operations.

Until 2015, these concerns were supported to varying degrees by China, the Republic of

Korea, Japan, Ukraine and Norway. Support was secured from the majority of these members at the 2015 annual meeting. That meeting also endorsed the addition of a krill research zone to the proposed MPA.

At CCAMLR's annual meeting in 2016, all members, including Russia, agreed that the proposal should have a fixed duration, and that areas previously closed to fishing in the Ross Sea region outside of the proposed MPA be opened. As a consequence, approximately 72 per cent of the Ross Sea region MPA, in the general protection zone, is closed entirely to commercial fishing. The krill research zone – an area where no krill fishing has occurred since 1992 – covers 322,000 sq km of the MPA. The current total allowable catch for the Ross Sea toothfish fishery is 2,870 tonnes.

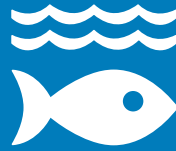
A special research zone of almost 110,000 sq km within the MPA is reserved for research associated with toothfish, where there is an allocation of 15 per cent of the total catch set for the Ross Sea toothfish fishery. The allocation of fishing effort in areas outside the MPA will be the subject of a three-year research effort to accumulate data from new fishing areas. This means that future effort will be distributed in a precautionary manner – a decision scheduled for CCAMLR's annual discussion in 2020.

The MPA will come into force on 1 December 2017 and be in place for at least 35 years. Mechanisms are in place for substantive periodic reviews, supported by research and monitoring plans that will be developed during 2017.

The Ross Sea region MPA represents a major contribution by CCAMLR members to achieving the goals for marine spatial protection agreed by the global community at Johannesburg in 2002 and reiterated in the 2010 Aichi Biodiversity Targets, the Rio+20 Sustainable Development Goals and the 2015 UN Sustainable Development Summit.

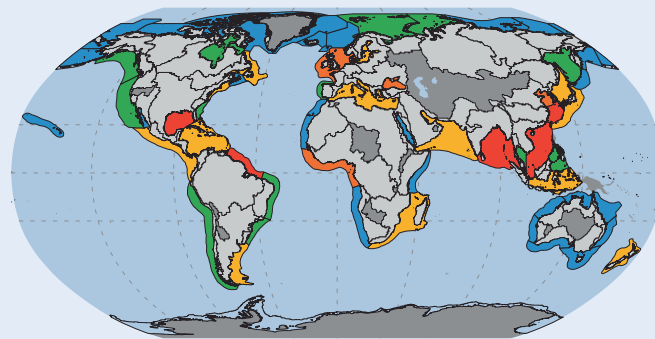
The adoption of the Ross Sea region MPA will also serve as a significant reference for ongoing discussions at the UN in relation to sustainable fisheries, oceans and the law of the sea. It will also help in current negotiations relating to the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction. ●

14 LIFE BELOW WATER



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

Nutrient risk indicator categories of large marine ecosystems

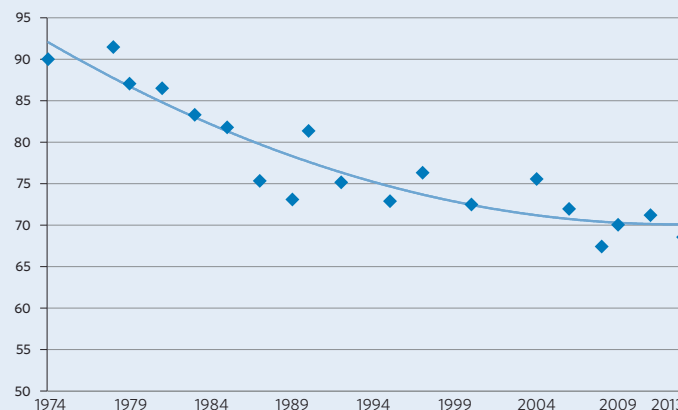


- Risk level 1 (very low)
- Risk level 2 (low)
- Risk level 3 (medium)
- Risk level 4 (high)
- Risk level 5 (very high)
- No data



Coastal regions are particularly vulnerable to pollution. Five important marine ecosystems (Bay of Bengal, East China Sea, Gulf of Mexico, North Brazil Shelf and South China Sea) supporting more than 780 million people are at very high risk of coastal eutrophication – excessive nutrients in water causing dense plant and algal growth and the death of animal life from lack of oxygen.

Proportion of fish stocks within biologically sustainable limits, 1974-2013 (percentage)



Overfishing damages fish habitats, reduces biodiversity and impairs the functioning of ecosystems, which in turn poses a threat to global food security and the economy. Having declined from 90 per cent in 1974 to 69 per cent in 2013, the proportion of world marine fish stocks within biologically sustainable levels appears to have stabilised over the last few years.

Source: The Sustainable Development Goals Report 2016, United Nations

Restoring lost land

Maintaining or increasing the amount of useable land on the planet can help to achieve many of the Sustainable Development Goals



© Feisal Omar/Reuters

By **Monique Barbut**, Executive Secretary, United Nations Convention to Combat Desertification (UNCCD)

The UN General Assembly recently declared that achieving land degradation neutrality “would serve as an accelerator to ending poverty and hunger, tackling inequality, empowering women and stimulating economic growth.” It cannot come too soon.

For a very long time, land was forgotten. It was unappreciated and undervalued. As a result, we have witnessed unprecedented rates of land degradation and ecosystem loss. The Food and Agriculture Organization estimates that during the last 40 years nearly one third of the world’s arable land has been lost to erosion and continues to be lost at a rate of more than 10 million hectares per year. These areas become desert-like. Of the 8.7 million species thought to have lived on planet Earth, eight per cent are extinct and 22 per cent are at risk of extinction because of habitat destruction.

The degradation of land impacts not only nature and biodiversity but also undermines the poorest and most vulnerable communities. About one billion people in developing countries live in extreme poverty. Two thirds of them live in rural areas. Hunger and poverty are often a direct consequence of land degradation, declining soil fertility, unsustainable water use and drought.

As incoming Secretary-General António Guterres said in his remarks to the General Assembly on taking the oath of office on 12 December 2016: “Climate change, population growth, rapid urbanisation, food insecurity and water scarcity have increased competition for resources and heightened tensions and instability”. The cumulative impacts of productive land resource scarcity could overwhelm the capacity of a number of governments to meet the basic needs of their people.

◀ April 2016, herders in Somaliland during a severe El Niño-related drought that affected millions across the Horn of Africa. Somaliland, a semi-autonomous region in Somalia, suffers from high levels of land degradation

The situation is particularly telling in Africa. The continent is experiencing an unprecedented demographic explosion. The population will nearly double from 1.1 billion people in 2016 to an estimated two billion by 2050. Since 1950, an estimated 65 per cent of all agricultural land in Africa has been affected by degradation to some degree. This means that more than a quarter of the continent may become unproductive. Occurring together, these trends are alarming: agriculture is the basis of most African economies, accounting on average for more than a third of GDP.

Vicious cycle

Up to 80 per cent of the African population rely on natural resources for their survival. Already, over 67 million people in the vulnerable Sahel region live with the effects of land degradation and desertification, while a third of Africa’s population live in drought-prone regions. Increasing water scarcity will impact hydroelectric power generation, which accounts for 80 per cent of total electricity production in 18 African countries. An estimated 60 million people are at risk of having to move from the degraded and desertified areas of sub-Saharan Africa over the next 30 years.

The cumulative impacts of productive land resource scarcity could overwhelm the capacity of a number of governments to meet the basic needs of their people

Yet, as Shakespeare’s Lear says, “the wheel is come full circle”. Land is increasingly recognised as underpinning any effective global effort to achieve sustainable development for all. Sustainable Development Goal (SDG) 15 (life on land), in particular target 15.3 on land degradation neutrality, is creating a vital link between land and other critical development challenges.

Land degradation neutrality turns a vicious cycle – degrade, abandon and migrate, and then degrade again – into a virtuous cycle. In a practical sense, the term means that the amount and quality of useable land resources remain stable or

increase. We can do this by better managing the land we have and by rehabilitating what we have degraded. When land degradation neutrality is achieved at scale, we will have more healthy and productive land everywhere, for everyone. The interconnected nature of peace, development, environment and rights means the pay-offs can be dramatic.

For example, restoring lost or degraded land helps climate change mitigation. Land is the second largest carbon sink, after the oceans. Restoring the soils of degraded ecosystems has the potential to store up to three billion tonnes of carbon annually. This is equivalent to storing up to 30 per cent of annual CO₂ fossil fuel emissions. It also helps communities adapt to a changing climate. Sustainably managed land is more drought and flood resistant and is more resilient to erosion.

At the same time, land rehabilitation gives people and communities their livelihoods back. The total employment effect of the restoration economy ranges from 10 to 40 jobs per \$1 million invested (supporting SDG 8 (on work and economic growth)). To put this in perspective, the oil and gas industry supports approximately five jobs per \$1 million invested. Restoring just 12 per cent

of degraded agricultural land could boost smallholders’ incomes by \$35-40 billion per year (SDG 1, on ending poverty) and feed 200 million people per year within 15 years (SDG 2, on zero hunger).

In the sidelines of the UN’s climate conference in Marrakech in 2016, African leaders endorsed the ‘Triple S’ Initiative on security, stability and sustainability. This initiative highlights how restoring degraded lands and promoting programmes for youth employment and education, along with formalising land tenure, could provide alternatives to migration and even radicalisation on the continent.

Access and tenure rights over land often determine rural wealth and poverty. This is especially true for women. If women had the same access to, and control over, productive resources as men, they could increase yields on farms by 20 to 30 per cent (SDG 5, on gender equality). For example, where rehabilitation has happened in areas of the Batodi region in Niger, underground aquifers have risen by up to 14 metres. As a result, women are now fetching water in wells that are half an hour – not half a day – away from their homes (SDG 6, on clean water and sanitation). The cost of this land restoration and rehabilitation was low: between \$25 and \$65 per hectare.

Completing the circle

But it is not just about food and water. As renewable energy relies to a great extent on healthy and functioning ecosystems, the sustainable management of land and water together is the only way to ensure a reliable energy supply, especially for the world's poor, and to realise SDG 7 on affordable and clean energy.

While half of humanity – 3.5 billion people – currently lives in urban areas, by 2030 this will rise to almost 60 per cent. Every year, 19.5 million hectares of agricultural land are converted into urban centres and industrial space. Rapid urbanisation is exerting pressure on fresh water supplies, sewerage, land and soil resources, biodiversity and public health. Urban areas must embrace their peri-urban and rural surroundings for their own survival and to make cities work better, and in harmony, with nature's ecological processes (SDG 11, on sustainable cities and communities).

Land rehabilitation and restoration is a cost-effective, job-creating accelerator of change. To achieve SDG 15.3, we need to improve at least 12 million hectares of degraded land annually. Currently, over 100 countries are setting their own targets to achieve land degradation neutrality, according to their specific national contexts.

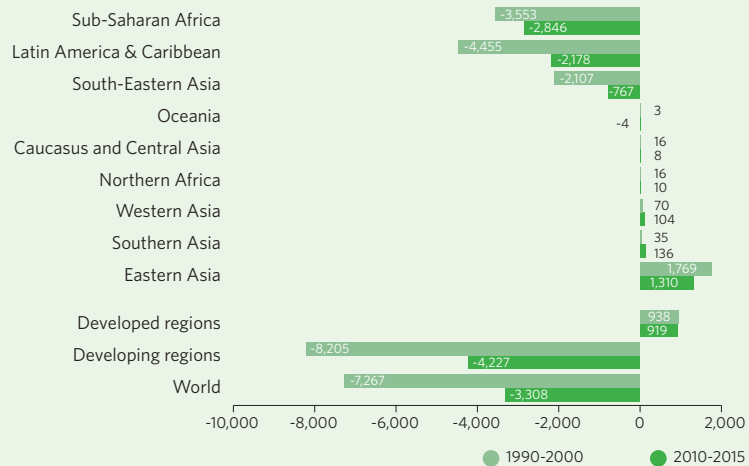
The SDGs are designed to be universal in nature. If we really are to complete the circle, many more developed countries need to take up the baton of land stewardship. ●

15 LIFE ON LAND



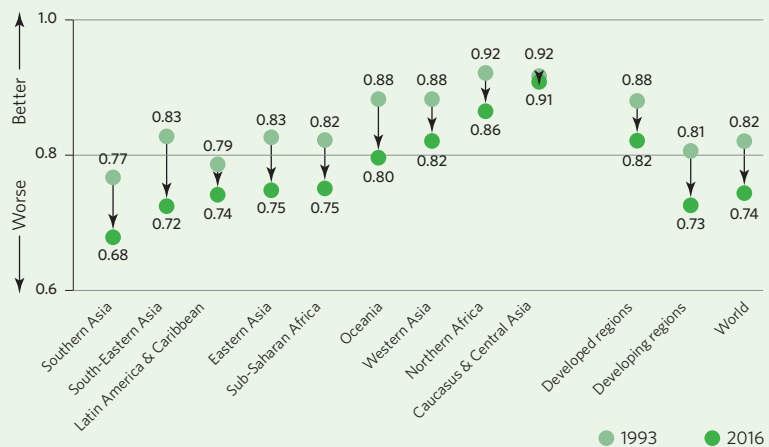
Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Annual net change in forest area, 1990-2000 and 2010-2015 (thousands of hectares)



Between 1990 and 2015, the world's forest area diminished from 31.7 per cent of the world's total land mass to 30.7 per cent, mainly due to conversion to agriculture or infrastructure development. However, the rate of destruction fell from 7.3 million hectares per year in 1990s to 3.3 million hectares per year during the period 2010-2015.

IUCN's Red List Index* of species survival, 1993-2016



In every region the survival of species is increasingly threatened. The greatest increases in extinction risk for birds and mammals have occurred in South-Eastern Asia, mainly driven by the conversion of lowland forests. *Possible values range from 1.0 (all species in the region are classified as Least Concern) to 0 (all species in the region are classified as Extinct).

Source: The Sustainable Development Goals Report 2016, United Nations



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Recognising the value in land

Championing the wider economic benefits will be key to driving more sustainable use of land

By **Hannes Etter**, **Tobias Gerhartsreiter** and **Mark Schauer**, Secretariat of the Economics of Land Degradation (ELD) Initiative

Land is the foundation of food security, economic growth and development, especially in rural areas. However, land is also a finite resource subject to growing pressures. Land productivity and terrestrial ecosystem services are increasingly threatened by degradation, deforestation and desertification. On the demand side, they face pressures from a booming

demand for food, feed and fuelwood, from unsustainable agricultural and pastoral practices and from other land uses.

Reversing land degradation and achieving sustainable land management (SLM) is essential for meeting the rising demands of a growing population. Out of almost 15 billion hectares of land worldwide, around 30 per cent is used for food production through agriculture and livestock. However, on a global scale, around 24 per cent of the world's productive lands are already degraded. Agriculture and built-up land expand at the

expense of forests and savannahs, especially in the tropics, contributing to around 12 million hectares of productive land degraded every year. The annual economic losses due to deforestation and land degradation were estimated to be €3.4 trillion in 2008, around 7.5 per cent of global GDP. Degraded land is costly to reclaim, particularly if severely degraded.

▲ Farming near Herat, Afghanistan. Over 80 per cent of its land is potentially subjected to erosion, soil fertility is declining, salination increasing and the water table falling

The areas affected by severe land degradation also often face the challenges of rapid population growth, poverty, poor soils or violent climate change-related incidents. Mismanagement of land has already led to food security crises, reduced access to energy, distressed environmental migration, poverty and conflict.

These results can have severe consequences even for communities at some distance from the affected lands, for example through increased migration. Current estimates indicate that 135 million people could be at risk of being permanently displaced by desertification and land degradation between now and 2050.

These challenges have global effects, but often the problem is drowned out by discussions on other global issues like climate change. However, the new 2030 Agenda for Sustainable Development, spearheaded by the UN, explicitly recognises the importance of the conservation and sustainable use of terrestrial ecosystems (under Sustainable Development Goal (SDG) 15) and of reversing land degradation and achieving land degradation neutrality (LDN) (this is the subject of target 15.3).

Political processes

Ultimately, reaching LDN is a highly political issue. Understanding the total economic value of land is a precondition for political processes around land.

The LDN target is in line with another set of targets: the Aichi Biodiversity Targets 14 and 15 of the Strategic Plan for Biodiversity. Land can act as a nexus to link climate change adaptation and food security. The role of healthy soils in addressing climate change and ensuring food security was also a major focus of the 2015 Paris Climate Conference.

Over 100 countries that are parties to the UN Framework Convention on Climate Change (UNFCCC) identified the areas of land set aside for agriculture and forestry that they will attempt to rehabilitate as part of their intended nationally determined contributions (INDCs).

Awareness-raising, education and capacity development are key elements for

Land degradation neutrality

Land degradation neutrality (LDN) means working to maintain or even improve the amount of healthy and productive land resources over time, and in line with national sustainable development priorities. As it is country specific, LDN will need to be implemented at the national level. We can utilise economic tools to help countries work towards it. Achieving LDN is not just about rehabilitating a few degraded zones or planting trees. It will require the reorientation and reform of various sectors and policy areas, and will also impact the economic framework of each country. Understanding the total economic values of land in the consideration of LDN will also require measuring these values against the short-term microeconomic interests that currently drive many land management decisions.

achieving LDN, but also for changing land management practices on the ground.

Ensuring that partners and stakeholders have sufficient capacity to conduct and implement activities around creating and utilising the necessary information (be it social-economic or physical) to tackle such a complex issue is crucial for stakeholders at both national and international level.

Ultimately, the goal must be to create enough capacity and understanding of land degradation and its impact, but also to ensure that the relevant parties can implement SLM. Highlighting the economic implications of degradation and SLM is a crucial step.

While the benefits of implementing SLM are now better understood by policymakers, in practice there is a lack of schemes to support the transformation of current land management practices on the ground. The main reason cited by land managers is the lack of an enabling environment, which also includes financial and legal support.

Relevant approaches that governments can pursue to foster the uptake of SLM include:



© Timothy Allery/Getty Images

- Regulatory mechanisms: these have a direct affect on allowed practices. Examples include bans of certain behaviours or mandatory guidelines for management schemes.
- Market-based approaches: these allow governments to influence markets for products and services, thereby changing the costs and benefits for land managers. Changes to the economic environment could be made through either price-based instruments (e.g. by introducing subsidies or environmental taxes) or quantity-based instruments such as tradable emissions permits under the European Union Emissions Trading System, pollution permits or biodiversity offset schemes.
- Attracting private-sector investments: this is another key strategy in implementing successful policy decisions for SLM through public-private partnerships. Besides the benefits to the private sector from sustainable sourcing, such partnerships can support the overall political agenda of SLM.



Mali: Kelka Forest

■ With most of the agricultural system of Mali dependent on rainfall – and thus vulnerable to droughts and climate change – employing climate change-adapted land management is crucial to maintaining local food security. Despite their important role in regulating local water flows and contributing to agricultural productivity, forests have been continuously eroded for new agricultural land, leading to severe declines of yields throughout the country. The ELD case study in Mali has proven that agroforestry could yield returns on investments of \$6 for every \$1 invested, while protecting the local resource base.

- monetary conditions: mobilising funding;
- fiscal conditions: removing perverse incentives and establishing favourable ones;
- technical conditions: identifying appropriate and ‘future-proofed’ SLM technology;
- legal conditions: property rights allocation;
- cultural conditions: understanding traditional norms and gender roles;
- political conditions: building capacity and establishing good governance.

Policymakers, businesses, farmers’ organisations, financial institutions and other stakeholders all need a scientifically sound basis to decide what actions are needed to address the problem of land degradation effectively and efficiently. They need to know which specific measures and investments they need to implement to restore ecosystem services and improve livelihoods, and increase resilience to climate change and food security. Assessing the economic dimension of land degradation and the added value of sustainable land use are useful tools in this context. They can both raise awareness of the issue and provide a sound foundation for strategies to prevent further natural resource loss. ●

The current shift in the political landscape towards an increased recognition of the importance of land also creates substantial rewards for businesses that invest in SLM in their value chains. The potential returns on investment are high in sectors that are more at risk from land degradation. At the same time, investments create shared value that benefit all involved in land management.

The related business opportunities are manifold, such as generating improved yields of goods like food, fibre and timber. They also include new business opportunities through new production chains and new markets, as well as through creating and ensuring social ‘licences to operate’.

To unlock this potential, two pathways are available to private-sector stakeholders. They can introduce new products (or markets) that are resource efficient and suited to restoration and rehabilitation sites. Or they can make improvements in existing markets by increasing production and adding value through more sustainable production. Cooperation with the public sector and civil society remains crucial,

▲ Forest in the Mopti region of Mali after a rainstorm

as only holistic and joint approaches will succeed and be socially sustainable.

Rural populations and local communities – particularly smallholder farmers and pastoralists – who live in the arid and semi-arid regions of the world are the main users of, and most dependent on, the land and the services it provides. They are thus also most severely affected by land degradation and desertification. As such, smallholders and pastoralists are the main beneficiaries of activities to bring man-made land degradation to an end.

The private sector is also key: connecting land users to value chains brings income, investment and management knowledge to rural areas. This shows that a transformation of the current agricultural and land management system is not only necessary to address the challenge under the SDGs, but also a suitable way to foster economic growth and prosperity. The steps to achieve this are:

The capitals approach

Business has a significant role to play in delivering the SDGs. How can the concept of 'capitals' – from natural to intellectual – help the sector to focus its contribution?

By **Mark Gough**, Executive Director, Natural Capital Coalition, and **Richard Spencer**, Head of Sustainability, Institute of Chartered Accountants in England and Wales

In a world where the interconnected and constantly changing relationships between financial, social and environmental issues are becoming more and more evident, firms that remain

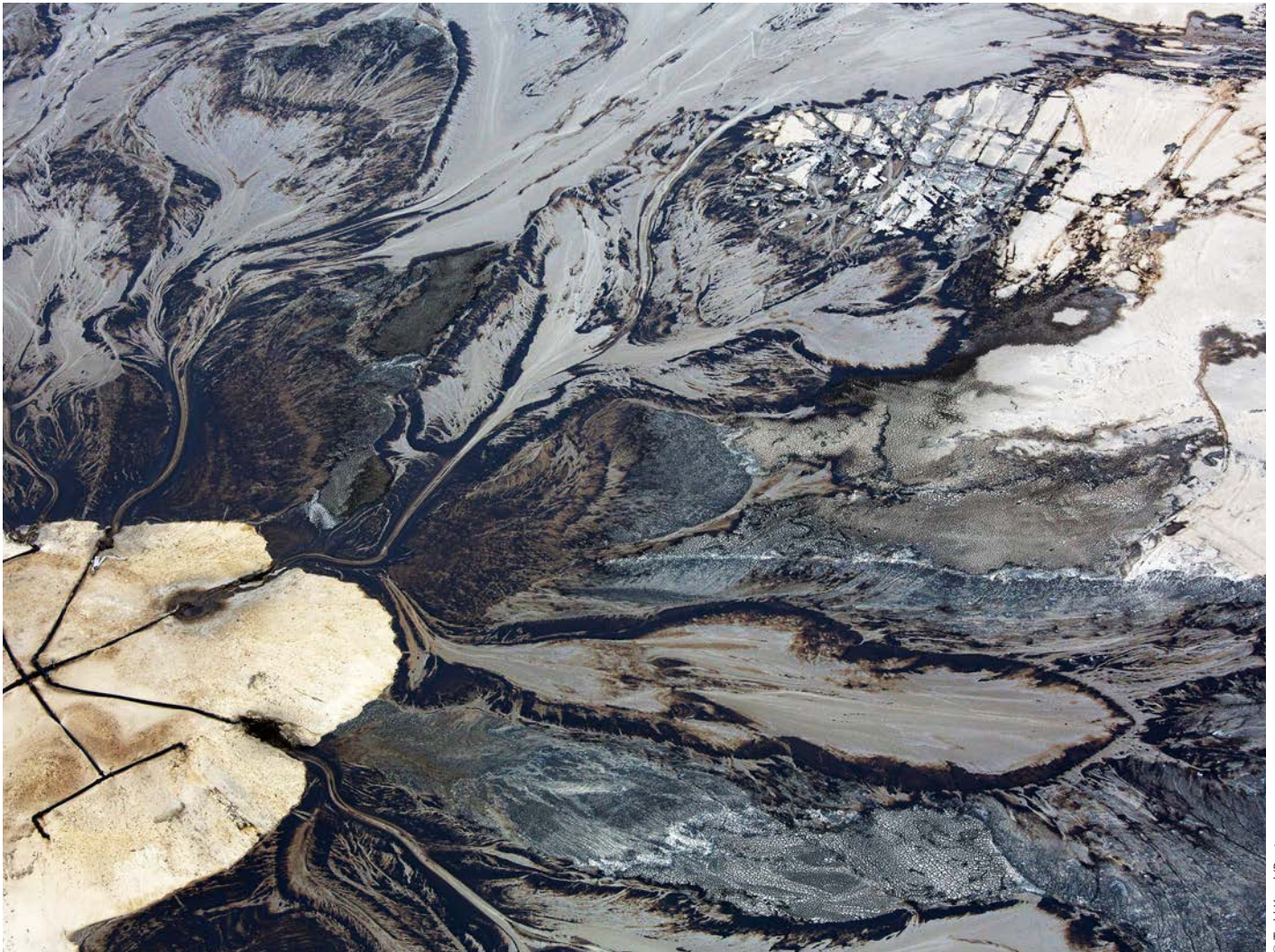
unaware of their impacts and dependencies on their non-financial relationships provoke unnecessary risk. They also fail to recognise new opportunities for efficiency, growth, resilience and development.

Business and capitals

The concept of capitals has been gaining traction as a way to address this knowledge gap. We use the word 'capitals' as a

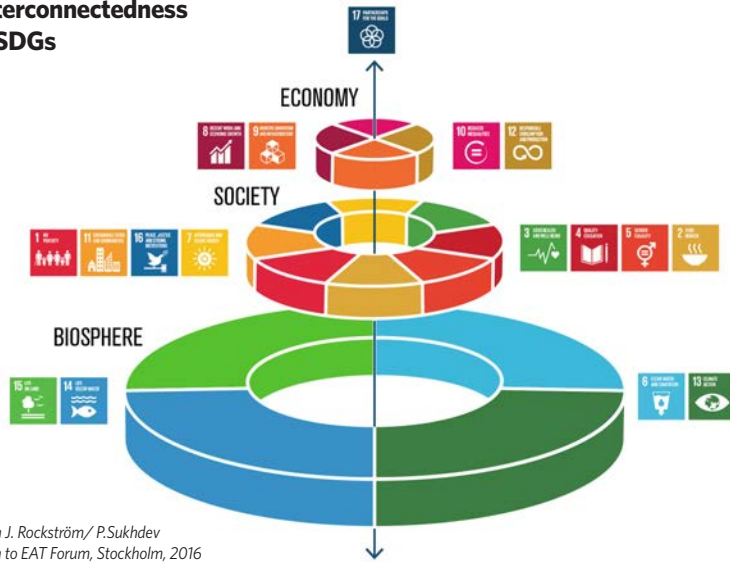
metaphor to understand the dynamic relationships that businesses, and others, have with the different constituents of our society and environment.

Capitals can range from social, human and intellectual through to manufactured, physical and natural. Understanding our relationships in these terms can be extremely useful. We can begin to think about our positive and negative impacts on



© Todd Korol/Reuters

The interconnectedness of the SDGs



Source: from J. Rockström/ P.Sukhdev presentation to EAT Forum, Stockholm, 2016

or worth', is essential if we want to implement capitals thinking in a business environment. If the vineyard, for instance, were unable to communicate the business value of designating productive land to plant unmarketable native flora, then any such proposal would be unlikely to be taken seriously at management level.

Natural capital

The materiality of the different capitals will vary greatly from industry to industry, and from business to business. What is clear, though, is that natural capital (our relationship with nature) underpins all others.

The Natural Capital Coalition is based on the theory that no individual organisation will solve the enormous problems we face by itself. It is only by working together that we will find the solutions we need. As a project hosted by the Institute of Chartered Accountants in England and Wales, the Natural Capital Coalition is a collaboration between some of the world's leading organisations. It provides a platform to share best practice and to address enduring challenges.

The Coalition's first major project was to harmonise the many existing approaches to natural capital into a single standardised global framework. This Natural Capital Protocol was published in July 2016, and has been incredibly well received. Thousands of businesses are now looking to benefit from a better understanding of their relationships with the natural world.

The Protocol was developed by a core team of 38 organisations, who came together to produce a public good, available under a creative commons licence, enabling free distribution. Over 450 organisations contributed to the Protocol's development over the two-year project. This collaborative approach has meant that governments, conservation bodies, associations, businesses and consultants are all promoting and supporting the Protocol's application – hence the considerable uptake.

The Protocol and the SDGs

The Sustainable Development Goals (SDGs) are an expression of the outcomes that the capitals approach aims to achieve.

the capitals as deposits in, and withdrawals from, a depleting finite resource, or 'account', whose balance we all depend on for continued success and survival.

This shift in perception allows us to make the corporate decision-making playing field more level. It gives a voice to non-financial information, in a game traditionally dominated by financial considerations. When decision makers begin to think in this way, there are a range of frameworks, tools and solutions at their disposal. Such solutions are often simple, yet offer significant advantages to business, society and the environment.

As we write this, it was reported that a prominent Australian vineyard and estate had reduced toxic pesticide use by 80 per cent. It did this by understanding its dependency on natural capital in the form of predator insects. By dedicating a tiny percentage of its land to growing native plant species (designed to attract such insects), the estate found that spraying pesticides became largely unnecessary. This represents a financial saving for the vineyard, a healthier local ecosystem and environment, and a safer working environment for employees. Examples like this abound.

Without an understanding of a business's dependencies (on predator insects in this case) and the way in which they impact upon operational success, factors such as native plant species are very unlikely to be accounted for in business decision-making. Win-win solutions like the above would fail to be identified.

While spraying 80 per cent less pesticide may sound trivial as a solution to the global challenges we collectively face, if this way of thinking became ingrained in the DNA of businesses, and was applied in all decision-making, it could catalyse a fundamental shift in the way that organisations function. It could also revolutionise how they see their place in the world: not as dominators of nature, but as nature's collaborators. With this renewed understanding, businesses are far better placed to determine and accelerate their contribution to the global goals that society has established.

Valuing relationships

A key insight of the capitals approach is to move beyond measuring impacts and dependencies to valuing them. The important point here is that valuing is not the same as pricing. To give something a price suggests that it can be bought. But value does not work in this way.

Valuing, which we define as 'understanding relative importance

◀ Tar sands tailings ponds in Alberta, Canada. A natural capital approach requires a valuation of the natural capital and ecosystems services that are being degraded

They represent a single operating system of strong and resilient economies, and fair and just societies, all achieved within what nature can afford. They are a wonderful articulation of how business and economic success depend on, and are innately connected to, social and environmental success. They are a cornerstone of the natural capital business case, and provide the legitimacy that organisations need to motivate and benchmark their progress.

The Protocol provides its users with the tools to ask two key questions:

- how dependent am I on nature?
- what impact am I having on its health?

To achieve the SDGs, we will all have to ask ourselves these two fundamental questions. For each SDG, governments, businesses, associations and individuals must ask how dependent we are on the

success of that goal (often more than we think) and whether or not our actions are helping to achieve it. These are two powerful questions, because they force us to acknowledge our place in a vastly complex and interdependent system, and recognise that we cannot separate ourselves from global issues.

We also realise that it is not possible to think about natural capital without being drawn into considerations of the other capitals. They are all interconnected: understanding the dependency and impact on one leads you to understand the dependency and impact on others.

The capitals approach, and the Natural Capital Protocol, not only allows organisations to ask themselves these questions, but provides a pathway to the answers. It supplies a standardised framework to identify, measure and

value impacts and dependencies on the capitals, bringing them into the decision-making process, and working to deliver on the SDGs.

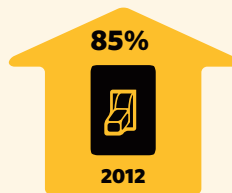
Indeed, in preparation for the 13th Meeting of the Conference of the Parties to the UN Convention on Biological Diversity in Cancún, Mexico in December 2016, the Council of the European Union called on the business sector to use the Natural Capital Protocol to increase its involvement in, and contribution to, achieving the Aichi Biodiversity Targets and the biodiversity-related SDGs.

One of the central principles of the SDGs is that they are indivisible. If we are to achieve them, businesses and individuals must recognise that our impacts and dependencies on the capitals are indivisible from our continued wealth, health and happiness. ●

7 AFFORDABLE AND CLEAN ENERGY



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



The proportion of the global population with access to electricity increased, from 79 per cent in 2000 to 85 per cent in 2012.



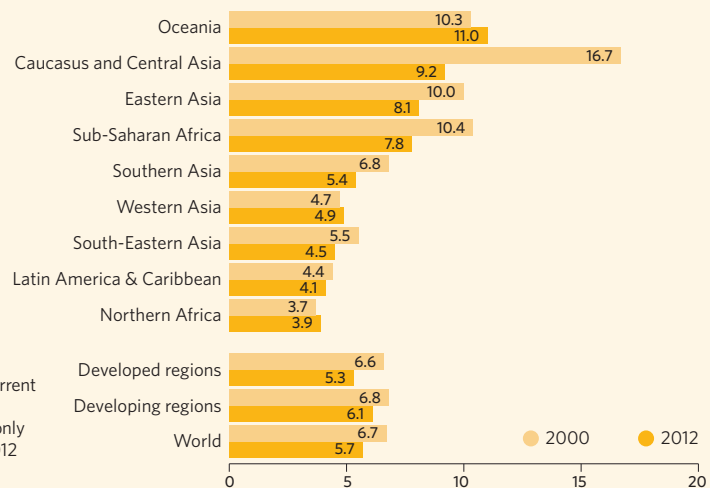
1.1 billion people still without electricity in 2012



Energy access varies widely between countries and the current rate of progress will be insufficient to achieve this goal. In addition, the proportion of renewable in the energy mix is only growing modestly - from 17.4 per cent in 2000 to 18.1 per cent in 2012

Source: The Sustainable Development Goals Report 2016, United Nations

Energy intensity measured in terms of primary energy and gross domestic product, 2000 and 2012 (megajoules per 2011 US dollars PPP)



Business growth and sustainability, hand in hand

Having developed a clear sustainability strategy, Italian tissue company Sofidel is committed to minimising its environmental impact while maximising social benefits



Can attention to environmental issues stimulate business and growth? That's what Sofidel's history demonstrates. Based in Italy, the company is one of the major global manufacturers of tissue paper for hygienic and domestic use, with operations in 13 countries in Europe and the US. It is deeply committed to sustainability, which it considers to be a strategic factor in its development.

Sofidel implemented a "Less is More" philosophy in its operations and was the first in its industry to join WWF Climate Savers, a climate leadership programme that aims to transform market-leading businesses into leaders of the low-carbon economy.

Sustainability for Sofidel means minimising environmental impacts in production, sourcing and

"Contributing to sustainable growth means building alliances with influential partners to share knowledge and experiences and pursue common goals"

logistics as well as promoting responsible consumption. The company has been working to achieve this goal by limiting the production of GHGs and purchasing certified sustainable virgin pulp, in compliance with responsible forest management schemes. As of today, Sofidel has reduced carbon direct emissions by 19.1% (carbon intensity, from 2009 to 2016), and uses cellulose from certified sustainable sources (FSC®, FSC® Controlled Wood, PEFC™, SFI®) for 100% (2016) of its overall requirements.

Another crucial factor in Sofidel's sustainability strategy is responsible water usage management, limiting its consumption in manufacturing processes. The result is that

Sofidel has achieved an average use of water per kilogram of paper produced well below what is considered best practice in the sector (7.0 l/kg vs. 15-25 l/kg).

The company's final goal is to create products with an ever shrinking ecological footprint, yet ever increasing performance. Technology innovation is the key to achieving this goal, developing products that enclose a lower share of natural capital, thanks to higher functional qualities and innovative performance.

Sustainability strategy

Business-wise, sustainability makes sense: reducing costs, setting higher market standards, going hand in hand with the needs of new consumers and customers and enhancing the company's global reputation.

Sofidel's sustainability strategy is aimed at "building an inclusive, sustainable and resilient future for people and planet", in accordance with the UN Sustainable Development Goals. Through its commitment, Sofidel aims to contribute, among others, to the following SDGs: climate action (13); renewable energy (7); good health and well-being (3); clean water and sanitation (6); responsible consumption and production (12).

Sofidel is also aware that contributing to sustainable growth means building alliances with influential partners to share knowledge and experiences and pursue common goals. To this end, the company is a member of the UN Global Compact as well as the WWF Climate Savers programme. Recently, Sofidel has also begun a partnership with WaterAid, the world's leading NGO providing access to safe water and sanitation in some of the world's poorest communities.

This is also the reason why the company is focused on raising awareness about sustainability issues among its stakeholders. This is something that is deeply-rooted. Our mission is: "Making everyday life tidier, cleaner, safer, more practical and pleasant by investing in people and innovation and promoting conduct based on sustainability, commercial transparency and respect for regulations, with the aim of creating value for customers, employees, partners, shareholders and the community." ■

Tackling inequality

What can governments do to generate growth that benefits everyone equally?

By **Mahmoud Mohieldin**, Senior Vice President for the 2030 Development Agenda, United Nations Relations, and Partnerships, World Bank Group

The 2030 Agenda and the Sustainable Development Goals (SDGs) are designed to promote equality and to leave no one behind. To achieve the SDGs, ending poverty must go hand in hand with policies that build economic growth while addressing a wide range of social needs. These include education, health, social protection and jobs.

A recent report by the World Bank Group (WBG) on poverty and shared prosperity concludes that extreme poverty worldwide continues to fall despite the sluggish state of the global economy. And, even though global income inequality is falling, its overall level remains seriously high while income inequality within nations is rising. The report warns that given projected growth trends, reducing high inequality may be a necessary component of reaching the goal of ending extreme poverty by 2030. Stimulating sustained and inclusive economic growth is an important driver to decreasing inequalities.

The WBG recognises that economic growth has many drivers. First and foremost, growth must be inclusive and sustainable. To achieve this, the WBG has identified high-impact strategies, key policies with a proven track record of: increasing poor people's earnings; improving their access to essential services; and enhancing their long-term development prospects, without diminishing growth. These policies operate best when paired with good macroeconomic management policies that stimulate innovation, promote high levels of savings and investment, allocate resource effectively and allow

for well-functioning labour markets that create jobs and enable the poorest to take advantage of those opportunities.

In other words, growth should not only achieve increases in GDP per capita. In combination with improved access to opportunities and services, particularly in education and health, growth should also lead to improvements in income inequality. Investments in human capital and resilience – the ability to recover from global shocks and threats – will protect hard-won development gains, and prevent people from sliding back into poverty.

The fight to end extreme poverty within a generation and implement the 2030 Agenda offers a rare opportunity to generate the right kind of growth that leaves no one behind.

The WBG sees the three key drivers as:

- accelerating inclusive and sustainable economic growth;
- investing in human capital;
- fostering resilience to global and domestic shocks.

Accelerating inclusive and sustainable economic growth

To accelerate inclusive and sustainable economic growth, countries must develop the capacity to collect sufficient revenue. They must also spend these resources efficiently, and adopt policies that improve governance and enable private-sector expansion.

The infrastructure sector has the potential to unlock such growth, but in recent years the demand for infrastructure investment has far exceeded available resources. We estimate that emerging markets and low-income countries face an annual gap of up to \$1.5 trillion dollars in infrastructure finance. Traditional development aid alone, also known as Official Development Assistance, stands at around \$132 billion a year. It therefore cannot finance this demand.

To fill this gap, traditional development finance has to be transformed, to become smarter. We have to create incentives to leverage other sources of finance – private and public, domestic and international. Opportunities for public-private partnerships in emerging markets, especially in infrastructure, could substantially boost global economic growth.

In an era of rapid technological transformation, development practitioners must focus on the appropriate infrastructure needed. The traditional economic path from productive agriculture to light manufacturing and then to large-scale industrialisation is no longer applicable to all developing countries. In Africa, for instance, technology could fundamentally disrupt this traditional pattern and, as a result, necessitate more tailored solutions.

Research based on WBG data estimates that 69 per cent of jobs in India are threatened by technological disruption, 77 per cent in China and 85 per cent in Ethiopia. It is vital to understand the prospective paths to economic growth available for these countries, and to adapt our approach to infrastructure accordingly. If technology leads to fundamental transformations in the kind of jobs available in developing countries, we have to increase our focus on our second major pillar in pursuit of leaving no one behind: investing in people.

Investing in human capital

When many countries face policy decisions on how to invest their limited financial resources, top of their agenda is to prioritise investments in so-called 'hard infrastructure' such as roads, ports and utilities. This is understandable and precisely why we have to be successful in increasing resources for infrastructure by including private capital in support of the development agenda.



▲ A member of the Joburg Ballet performs at a primary school in Soweto, South Africa, to promote healthy and positive choices. Investing in education is perhaps the most effective way to support equitable growth

But without more capital it will be difficult to convince countries to increase their investments in people at the scale necessary to build a workforce that can be competitive in the economy of the future.

In fact, what students learn in classrooms is a strong predictor of economic growth. Over the last 20 years or so, the world has seen, particularly in regions such as East Asia, that investments in people make a huge difference to a country's ability to grow their economy in an inclusive way. For example, one World Bank study shows that if student learning achievement had been as high over time in Latin America as in East Asia, Latin America could have matched East Asia's much higher rate of economic growth.

According to WBG data, a quarter of children under the age of five worldwide –

156 million children – are stunted. Stunting leads to an underdeveloped brain, with long-lasting harmful impacts including diminished mental ability and learning capacity and, eventually, reduced earnings. It is a humanitarian disaster and an economic issue that impairs national economies. Effective and early investment in people determines the very future of countries and will make a considerable impact in nations' ability to grow their economy and decrease inequality.

Governments that invest early in a skilled, healthy, productive workforce are enhancing their current and future inclusive economic growth potential. The cost of falling short in equipping children with foundational skills is unacceptably high, and the evidence supporting this conclusion is more evident every day. In an ever more technologically complex and digital world, governments must recognise that these investments will not just lead to inclusive and sustainable economic growth. They will also, more importantly, establish the social foundations

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that can act as a safeguard against instability, violence and conflict.

Thus, investments in human capital are just as critical as investments in hard infrastructure. But protecting these investments will require resilience to the global and domestic shocks that can affect and even reverse hard-won prosperity gains.

Foster resilience to global and domestic shocks

We are currently living in a time of multiple overlapping crises necessitating new and innovative ways of dealing with them. Many global risks – including conflicts that persist for decades, ongoing refugee crises, natural disasters and pandemics – have a significant spillover effect and can have global ramifications. These global issues, which often have direct effects on inequality, disproportionately affect the poor. They also negatively impact progress on the SDGs, creating the need for global solutions.

Currently, 65 million people are displaced. About 21 million of these are refugees, 86 per cent of whom are hosted in developing-country regions. Without support, the displaced face hardship and marginalisation, and put at risk the development progress of host communities. By opening their borders, host communities are providing a global public good, yet often find themselves alone trying to address these challenges of top of their own economic difficulties.

The WBG has developed innovative financial tools to nurture resilience for both the refugees and their host communities. These tools allow finances to follow refugees, instead of using GNI per capita as the sole indicator for eligibility for concessional finance. As a consequence, the Global Concessional Financing Facility (GCFF) was born from a partnership between multilateral banks, the UN and governments. It provides concessional financing for development projects to help middle-income countries address refugee crises.

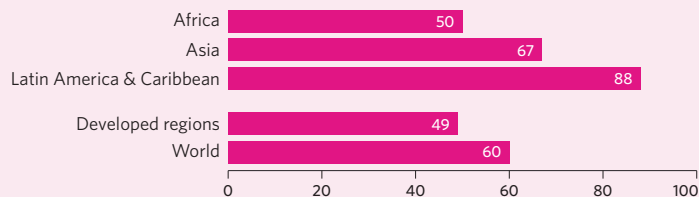
The GCFF's initial focus will be on Jordan and Lebanon and their management of an influx of Syrian refugees, filling gaps in the international response to the global refugee crisis and ensuring that sufficient financial resources are available to assist the refugee

10 REDUCED INEQUALITIES

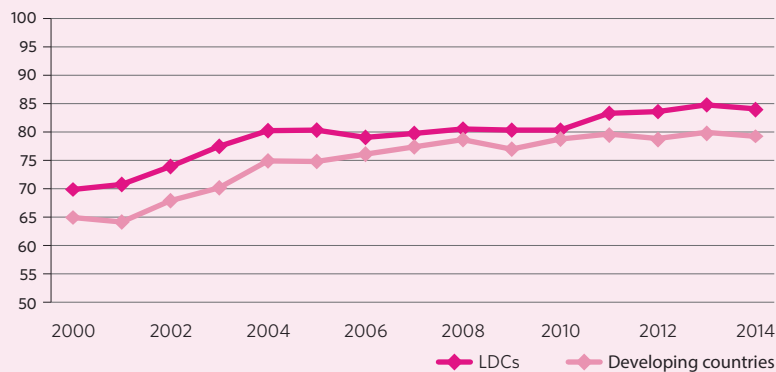


Reduce inequality within and among countries

Proportion of countries where the average annual growth rates of real income per capita were greater in the bottom 40 per cent of the population than the national average, 2007-2012 (%)



Proportion of imports (excluding arms and oil) from least developed countries (LDCs) and developing countries entering developed countries duty free, 2000-2014 (percentage)



The comparative advantage of LDCs in duty-free access varied depending on the product groups: for agricultural products, 98 per cent from LDCs versus 74 per cent from developing countries; for clothing, 70 per cent from LDCs versus 34 per cent from developing countries.

Source: The Sustainable Development Goals Report 2016, United Nations

host communities. During the September 2016 Leaders' Summit on Refugees, and using the GCFF as a framework, the WBG announced the establishment of a Global Crisis Response Platform. This will provide, systematic and better-coordinated support for managing crises across a spectrum of risks and vulnerabilities including food security, the environment and health.

Three pillars

For the world to grow sustainably and inclusively, one cannot overlook the interplay

between these three key pillars of investing in infrastructure, human capital and resilience.

Together, these pillars are imperative to all countries' development strategies and fundamental to global efforts to achieving both the WBG's goals and the SDGs.

While economic growth is an important driver to reduce extreme poverty, greater and efficient investments in physical capital such as infrastructure, human capital and resilience should be the focus of economic policy to make such growth sustainable and inclusive. ●



© Allison Joyce/Getty Images

Fighting inequalities with human rights

Unless pervasive discrimination and gross inequalities within and among countries are addressed, development will not be sustainable

By **Zeid Ra'ad Al Hussein**, UN High Commissioner for Human Rights

Rising inequalities – including yawning disparities in economic and political power within and among countries – have become a defining issue of our time.

The concentration of wealth and income in many major economies has returned to extremes not seen for 200 years. The richest one per cent of the global population now

controls as much wealth as the other 99 per cent of the world's people put together. This limits economic growth and increases instability: extreme inequalities contributed to the last global financial crisis and may well precipitate the next.

Deep inequalities are also harshly corrosive of the social fabric. They are almost always fuelled by discrimination – notably based on race, gender, religion, disability, migrant status or country of

▲ February 2017, Kutupalong Rohingya refugee camp in Cox's Bazar, Bangladesh. About 69,000 Rohingya Muslims have fled to Bangladesh from Burma since October last year due to army 'clearance operations'

origin. And, because these inequalities further undercut fair access to opportunities and services, they exacerbate that discrimination. When inequalities mirror and amplify divisions between ethnic or religious communities, they aggravate the

tendency for such societies to splinter, first into defensive groupings, then into mistrustful ones, and finally into hostile and violent ones.

This is a mix that can produce volcanic outbursts and cycles of rage and repression, destroying the bonds of respect and fairness that hold societies together.

Renewed commitment

In the 2030 Agenda for Sustainable Development, governments have recognised that “rising inequalities within and among countries”, “enormous disparities of opportunity, wealth and power” and “persistent gender inequality” are among the “immense challenges” confronting the world today.

This is why the core commitment of the 2030 Agenda is its promise to “leave no one behind” and why it is grounded in international human rights standards. It details the way forward to combat exploitation and exclusion, and to build more just and resilient societies that fulfil the rights of all – including women and others who are frequently held back by the systematic injustice and cruelty of discrimination.

The 2030 Agenda may not be a perfect or entirely sufficient programme, but it constitutes a renewed commitment by UN member states to the absolutely vital work of promoting human rights and human wellbeing. It sets out a concrete programme of action to fight discrimination and inequalities, including through two of the Sustainable Development Goals (SDGs). Goal 10 seeks to reduce inequality within and among countries, while Goal 5 aims to reduce inequalities between men and women.

The programme also includes goals for states to take action to promote universal health coverage, and universal access to education, housing, water, sanitation and other fundamental services. It includes targets on eliminating discrimination – including gender discrimination – in policies, laws and practices. And it sets targets on full employment, decent work, labour rights and the eradication of forced and child labour, as well as fiscal, wage and

social protection policies to progressively achieve greater equality.

Significantly, learning from the lessons of the Millennium Development Goals, the 2030 Agenda requires data to be disaggregated so that progress can be monitored for all social groups. This means that progress can no longer be measured in averages or aggregates, and will help to identify which sectors of society are being left behind. This will create opportunities for changing course to ensure a fairer distribution of the benefits of development.

More broadly, the 2030 Agenda promotes peaceful and inclusive societies (Goal 16), underpinned by respect for human rights. It includes targets to achieve more equal political representation, and to protect

regulation of business by governments. The Agenda’s 17 SDGs are powerful levers to diminish inequalities, build stronger social cohesion and promote national, regional and global stability and peace. They are investments that will pay instant benefits and even deeper dividends in the longer term.

Societies that uphold human rights and respect every one of their members are more resilient, more likely to resolve disputes peacefully, and less likely to engender grievances, repression and violence. In contrast, the damage done by harsh inequalities and other denials of human rights spills across borders and mutilates the destiny of generations to come.

We must ensure that implementation of the SDGs adheres to human rights standards on equality and non-discrimination, and indeed on all human rights, including the right to development

the fundamental freedoms of expression, association and peaceful assembly.

These freedoms help keep governments accountable and prevent perpetual capture of the political space by elites.

It also commits states to addressing some of the inequalities that characterise global governance systems. These include:

- the need for more equitable participation of all states in international financial institutions;
- the need for a more equitable system of global trade;
- better regulation of global financial speculation;
- governance of migration that recognises the human rights of the individuals involved.

While elements aimed at holding the private sector accountable are not fully developed, the 2030 Agenda does include an important commitment on the Guiding Principles on Business and Human Rights, which will help to ensure effective

As implementation of the 2030 Agenda advances, it will be essential that my office and all other partners continue our advocacy and efforts. We must ensure that implementation of the SDGs adheres to human rights standards on equality and non-discrimination, and indeed on all human rights, including the right to development. We must also make sure that the SDGs allow the full participation of women, minorities, indigenous peoples, Afro-descendants, youth and others who are frequently excluded.

Rising inequalities are not inevitable. The 2030 Agenda sets out a plan of action to reverse them. By working together, and securing the benefits of sound and inclusive governance, and of economies that are fair, we promote the human rights that build peace.

Otherwise, the increasing instability of our political, economic and social systems, which are being fed by rising inequalities, oppression, deprivation and exploitation, will affect us all – rich and poor alike. ●



A more assertive approach to gender rights?

With progress on achieving equal gender rights frustratingly slow, women and girls worldwide are mobilising to pressure governments to do more. What will it take to create a world where gender inequality is a thing of the past?

By **Phumzile Mlambo-Ngcuka**, United Nations Under-Secretary-General and Executive Director of UN Women

Across the world, women's voices are growing in strength and unity. In marches and demonstrations in places such as Poland, Bolivia and Uruguay, in cities like Cape Town, London and Washington DC – women have been taking to the streets in increasing numbers. Sometimes they are on their own, other

times supported by families, communities, friends and neighbours. They are standing up and calling out to protect their rights, and the gains made to date.

In these events, as they vote with their feet, women are calling for what we have promised in the 2030 Agenda for Sustainable Development, and especially in Goal 5 (on gender equality and the empowerment of women and girls).

Their calls reconfirm the essential need for: universal access to sexual and

reproductive health and reproductive rights; full and effective participation and equal opportunities for women's leadership in work and in politics; the end of all forms of discrimination; and the end of violence against women, holding perpetrators accountable.

▲ A mother, 14, with her four-month-old baby in Rajasthan, India. She was married to her husband when she was 11 and he was 13. The legal age for marriage in India is 18 but marriages like these are common, especially in poor, rural areas

This is what the 2030 Agenda and the Sustainable Development Goals (SDGs) have given us – a shared aim for our global community that puts in motion the demands of the women and girls of the world. It joins a resounding global gender equality compact that has accumulated over the last two years through the ‘Beijing+20’ review on progress 20 years on from the Beijing Declaration and Platform for Action, the Paris Agreement on climate change, the New Urban Agenda and the New York Declaration for Refugees and Migrants.

These agreements all have in common the recognition that progress on gender rights will impact whether or not we can reach all 17 SDGs. With its strong interlinkages throughout the goals, the 2030 Agenda is our key to tackling today’s complex global challenges, such as economic stagnation, political instability, deep inequalities, increased environmental degradation and a record number of refugees and migrants. Gender rights are at the core of sustainable development.

Driving grassroots and youth engagement

The SDGs are intended to benefit everyone. They are also everyone’s responsibility. They need ownership and engagement at all levels of society, and with all actors. With the end point set 13 years away, it is the young people of today who are the true Agenda 2030 generation. Right now, more than half the world’s population is under 30, and that figure is projected to rise to 75 per cent over the next decade. These young people are already demonstrating their urgency to deliver on the commitments made in the SDGs and their call to leave no one behind.

Candice Mbaita is an example of that fruitful impatience. A female innovator from Bulawayo, Zimbabwe who participated in the Building Bridges Foundation’s Road to Nairobi 2016 project and the UN SDG Action Campaign, she is bringing healthcare to patients in rural and remote areas who otherwise would not be able to make the long and difficult journey to a hospital.

Candice’s work as a woman entrepreneur in the health sector ties together Goal 5 (gender equality) with Goal 3 (good health

and wellbeing) and Goal 10 (reduced inequalities).

Another inspiring example is Rosario del Pilar Diaz Garavito, one of the young founders of the Millennials Movement in Peru. The movement reaches out to broad groups of citizens in public spaces like parks, squares and markets, and invites them to get engaged with the Global Goals through thinking about which ones are most important for their community. Focused on gender equality, Goal 16 (peace and justice) and Goal 17 (partnerships), the movement’s 2030 Agenda Ambassadors Programme supports SDG implementation through workshops, trainings and sustained local engagement.

lives and safety. For example, incidences of violence against women and girls often go unrecorded, and countries have different approaches to gathering data. This lack of clarity makes it harder to compare numbers globally, detect trends and put in place the most effective interventions. Although data gaps may sound academic, it is literally an issue where lives are at stake.

The Inter-agency and Expert Group on SDG Indicators (IAEG-SDGs) has been tasked with creating the indicators that governments use to evaluate progress in achieving the SDGs. It has developed a global framework of 230 indicators, 53 of which are related to gender. An important feature of the global indicator framework is

While governments can prioritise funding for gender equality in their public spending, donors, the UN and other partners play an important role in supporting these efforts

Taking the SDGs from a distant concept to something that people realise is critical to their own lives, families and local communities is vital to effective implementation and to holding nations accountable. It is essential that we continue to raise awareness about the SDGs at a grassroots level and ensure that, globally, people both young and old feel that these are their goals. It is with this level of engagement and involvement that we will see real progress.

Data and accountability

Progress also requires effective ways to measure and monitor our results. Without access to quality, comparable and regularly collected data, effective policies cannot be designed or implemented, and progress cannot be adequately measured. Agenda 2030 puts new pressure on governments to rectify the paucity of global data and statistics relating to women and girls, to strengthen member states’ statistical systems and to improve coordination on methodologies.

There are vast gaps in data for some of the issues that have the most impact on girls’

the overall demand for data disaggregation and the coverage of marginalised groups, to leave no one behind.

National averages mask inequalities in outcomes, obscuring the experience of the most vulnerable and those with least voice – often those facing multiple forms of discrimination – and very often women and girls from poor and rural households. Good data allows us to hone in with much more specificity on those who most need support – speaking for those who would not otherwise attract attention.

UN Women’s new flagship programme initiative ‘Making every woman and girl count’ will, over the next five years, aim to increase the production and use of gender data to support member states in their efforts to implement and monitor the gender-related SDGs. With the backing of partners like the Bill & Melinda Gates Foundation, the aim is to mobilise a wide spectrum of groups with an interest in getting better data faster and putting it into action.

Governments, including national statistical offices, regional commissions,

international agencies, private foundations, civil-society organisations and academic institutions are all part of this effort to make sure that the numbers inform policies and increase accountability at all levels.

Financing gender equality

Even when it is clear where our efforts should be directed, financing for gender equality remains a struggle. As outlined in UN Women’s *Handbook on Costing Gender Equality*, there is a persistent funding gap – of up to 90 per cent – for programmes that would lead to gender equality and women’s empowerment.

Areas of sexual and reproductive health and rights; peace and security; and ending violence against women and girls all remain underfunded in comparison with governments’ stated commitments. Yet we know that investing in gender equality would directly contribute to a number of SDGs, including Goal 5 (empowering women), Goal 1 (ending poverty), Goal 2 (reducing hunger), Goal 3 (supporting health) and Goal 10 (reducing inequality), among many others.

While governments can prioritise funding for gender equality in their public spending, donors, the UN and other partners play an important role in supporting these efforts. Such spending needs to be monitored to ensure it is responsive to women’s needs and meets its goals.

Taking forward a more assertive approach

An assertive approach to gender rights is an accountable approach, where commitments are followed up with action, adequate financing and rigorous monitoring. We need a global multi-stakeholder coalition to bring key actors together in collaboration, with innovation and the means to ensure that promises made are promises kept.

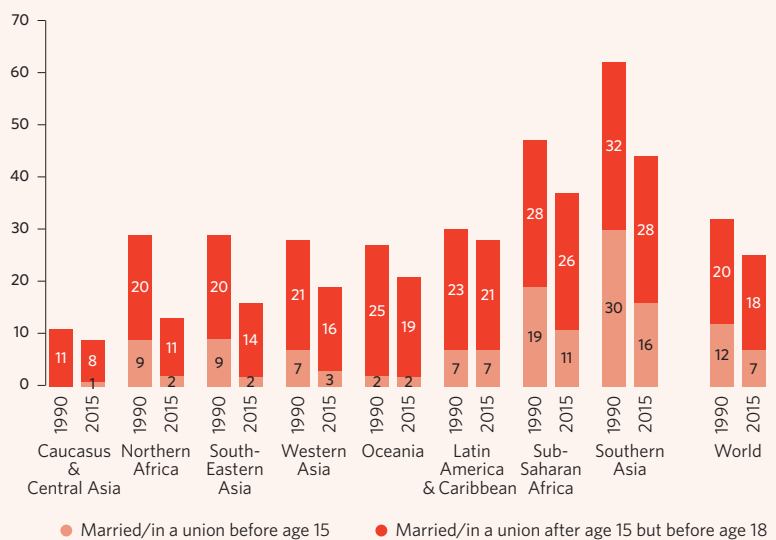
Empowering women and girls goes hand in hand with global sustainability. The more assertive our approach, the faster we will achieve our goals and therefore the greater likelihood that we will create an inclusive and sustainable world for the next generation. ●

5 GENDER EQUALITY



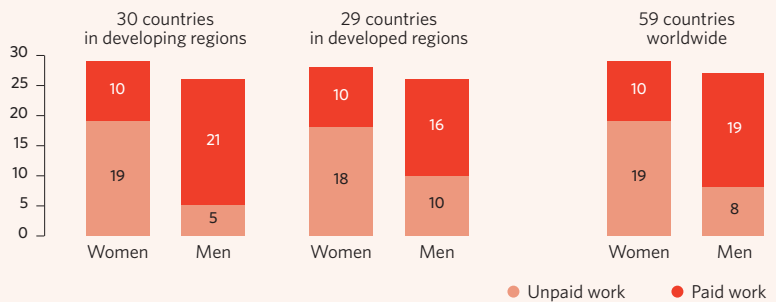
Achieve gender equality and empower all women and girls

Proportion of women aged 20 to 24 years who were married or in a union before ages 15 and 18, 1990 and 2015 (percentage)



Rates of child marriage have declined overall but remain at high levels, especially in Southern Asia and sub-Saharan Africa. The fastest progress has been recorded in Northern Africa, where the proportion has been reduced by more than half over 25 years, from 29 per cent in 1990 to 13 per cent in 2015.

Proportion of time spent on unpaid and paid work in selected countries, women and men, 2000-2014 (percentage of time spent per day)



Women and girls do the bulk of unpaid work, including caregiving and tasks such as cooking and cleaning. The combined demands of paid and unpaid work mean that women and girls work longer hours, with less time for rest, self-care, learning and other activities.

Source: The Sustainable Development Goals Report 2016, United Nations



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Without gender equality, we cannot achieve the SDGs

Despite the good intentions of governments and wider society, women still face huge inequalities, particularly in continents like Africa. If we are to achieve a sustainable future where no one is left behind, much work to close the gender gap remains



◀ **Women at work in Heremakono, Mali. In Africa, women make up 75 per cent of the agricultural labour force but control less than 25 per cent of the agricultural land**

Women's Economic Empowerment are all testament to the global pledge to support the cause.

Numerous legal and legislative frameworks have been adopted to ensure gender equality. Yet, implementation has been weak in moving from policy to action. Integrated action by multiple stakeholders – including governments, development partners, civil society and the private sector – is needed to address gender inequality and promote women and girls' empowerment.

We would need transformative cross-cutting policy solutions, technological innovations and targeted financing to ensure that every person – regardless of their sex, colour, creed, ethnicity or nationality – is on an equal footing and can advance themselves without any barriers.

Women in Africa today represent about 52 per cent of the population in AfDB regional member countries (RMCs). Our figures suggest they are responsible for 75 per cent of the agricultural labour force, and produce up to 80 per cent of the total

less than one per cent of total credit to agriculture.

A call for action

Increasing African women's access to the formal financial system would lead to greater economic empowerment and increased asset ownership. Women on the continent are predominantly found running microenterprises in the informal sector, and working in low-value-added activities that reap marginal returns.

One major problem women face is that credit markets are not gender-neutral. A recent study by the World Bank found that in countries where women face legal restrictions on their ability to work, head a household, choose where to live or receive inheritance, they are less likely than men to own an account, save money or borrow. Women often lack the assets that financial institutions demand as collateral.

All these facts and figures highlight the cross-cutting nature of gender inequality and underline the glaring gaps that result. They should be viewed as a call for action. These imbalances hamper the full participation of women in the social and economic development of their countries, and of the globe. What are the costs on the

Numerous legal and legislative frameworks have been adopted to ensure gender equality. Yet, implementation has been weak in moving from policy to action. Integrated action by multiple stakeholders is needed

By **Geraldine Fraser-Moleketi**, former Vice President and Special Envoy on Gender, African Development Bank Group

The international community is paying more attention to, and making commitments to mobilise resources to achieve, gender equality.

The UN Sustainable Development Goals (SDGs), the African Development Bank (AfDB) Group's Gender Strategy, the African Union 'Agenda 2063', and the UN Secretary-General's High-Level Panel on

food output – yet they control less than 25 per cent of agricultural landholdings.

Women occupy less than three per cent of CEO positions in RMCs. They work 50 per cent longer hours than men yet earn 30–50 per cent less. They form over 75 per cent of the poor and vulnerable population in RMCs. Four out of five women lack access to an account at a formal financial institution (compared to about one in four men). Rural areas, especially, have an acute financing gap: women benefit from only one tenth of credit to small farmers, and

sustainable development of the continent, and the world?

There is an inverse correlation between growth and gender inequality in low-income countries, and between growth and gender-related legal restrictions in all countries. A World Bank research paper demonstrated that a one percentage-point reduction in gender inequality in low-income countries is associated with higher cumulative growth in those countries over five years of 0.2 percentage points – a result in line with previous estimates.

Further progress in reducing income and gender inequality could deliver significant growth dividends.

Analysis suggests that annual economic growth in sub-Saharan African countries could rise by nearly one percentage point if inequality were reduced to the levels observed in the fast-growing Association of Southeast Asian Nations. But structural features specific to sub-Saharan African economies appear to be associated with higher inequality.

The region's continued high fertility rate limits the share of women in the working-age population, thereby postponing the expected 'demographic dividend' in terms of lowering inequality.

Changing women's legal status and property rights would have a positive effect on women's income, which would in turn affect their accumulation of assets such as pensions and insurance.

We need to focus on programmes that reform inheritance, or land redistribution, or women's ability to own personal income and assets. These factors matter greatly for a woman's ability to exit a marriage, cope with shocks and invest and expand her earning and economic opportunities.

While the personal may have been political for decades, governments and multilaterals have been reluctant to tackle laws that regulate relations within

and the International Monetary Fund (IMF) presented a joint vision of what we can do, within our respective institutional mandates, to support and finance achievement of the SDGs.

Through collective and individual actions, initiatives and additional steps to enhance extensive work already underway in our organisations, the MDBs and IMF will help countries, partners, investors and the global community move from billions to trillions of dollars as we take up the challenge of achieving the SDGs.

AFAWA partnership

In a bid to address the financial exclusion of women on the African continent, the AfDB created the Affirmative Finance Action for Women in Africa (AFAWA).

AFAWA is a multi-partnership, multi-product, 10-year programme led by the AfDB. Its aim is to raise up to \$3 billion in resources (advisory services, training, financial products, grants) to support women in business in Africa, thereby scaling up socio-economic development and industrialisation. AFAWA comprises four components:

- finance, using various instruments and offered by financial intermediaries, to serve women entrepreneurs;
- technical assistance to financial institutions, savings and credit cooperatives and women in business;
- support to Regional Member Countries to help them implement a business-enabling environment for women in business;
- a women's empowerment lab, to increase online access to information, markets, networks and training.

The AfDB has high expectations. Achieving less than has already been committed is not an option. The bank will contribute to transforming Africa's agenda. The AfDB financing facility will ensure that women have access to finance. No economic area should be viewed as non-traditional for women. Women should – and will – light Africa, feed Africa, industrialise Africa, improve the quality of life of Africans and integrate Africa. ●

Changing women's legal status and property rights would have a positive effect on women's income, which would in turn affect their accumulation of assets such as pensions and insurance

This underscores the importance of accelerating the demographic transition by raising investment in human capital.

Inequalities

Africa faces a huge infrastructure deficit, which in turn has an adverse effect on the continent's growth and economic development. The AfDB is leading efforts to promote the need for investment and facilitating the substantial involvement of the private sector in filling this gap. But the benefits of large-scale infrastructure projects are often not evenly spread to all sections of the economy or society.

Many people, particularly women and girls, are acting as 'living infrastructure' in parts of the continent, where poor infrastructure forces them to take on additional responsibilities (such as walking long distances to carry wood or water, or to reach health facilities). This is due not only to a general lack of infrastructural investment but also because of the priorities society makes concerning what type of infrastructure should be supported.

households. Some 189 countries have ratified the Convention on the Elimination of All Forms of Discrimination against Women – yet 26 have not fully endorsed Article 16, which covers equality in marriage and dissolution of marriage.

Article 16 has the greatest number of formally expressed reservations, yet all its provisions are critical to women's ability to live as equal partners in the family, and to care for themselves and their children. Any reservation to Article 16 highlights a state's reluctance to recognise women's full competence as adults within the family. Women therefore don't have equal property and inheritance rights, primarily relying on their male relatives for sustenance. In cases of domestic violence, women will find it even harder to leave a violent relationship.

Closing the gender gap

In July 2015 the multilateral development banks (MDBs including the AfDB, Asian Development Bank, World Bank, European Bank for Reconstruction and Development)



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Mobilising the world's teachers



By *Howard Stevenson*, Professor of Educational Leadership and Policy Studies, University of Nottingham



UNITED KINGDOM · CHINA · MALAYSIA

SDG 4 – to ensure inclusive and equitable education and promote lifelong learning opportunities for all – is both bold and ambitious. It is also essential if the world is to face an uncertain and fast-developing future with confidence. It cannot be a target that we fail to meet, and which then passes us by, as the 2015 Millennium Development Goal on universal primary education did. It not only let down all those for whom SDG 4 would represent real progress in their lives, but it generates a corrosive cynicism about any commitment to bring about real change.

How to make 2030 different?

The answer lies in tapping into the energy of one of the most powerful resources we have, but which we rarely recognise and seldom appreciate. It is the power of the world's teachers. Global policy-makers can help create the conditions to meet SDG 4's targets: securing the resources, building the global alliances and generating the necessary commitments. But the work will be carried out by the world's teachers.

Whether or not the aspirations of SDG 4 are achieved will ultimately depend on the ability to mobilise the collective power of a high-quality and committed teaching profession globally. This requires breaking out of closed policy circles in which the vast majority of teachers are totally unaware of SDG 4, let alone feel they have any part in realising its objectives. Making the goals of inclusive and equitable education and lifelong opportunities for all something real and meaningful for teachers is a major, but essential, challenge.

However, it is also necessary to break through the barriers that militate daily against teachers carrying out their jobs effectively and instead create the conditions whereby teaching everywhere is an attractive and sustainable career that makes a real difference to students' lives.

We know that vast numbers of teachers are constrained in their work by a lack of resources. These issues are obviously more acute in particular parts of the world, but the

legacy of the economic crisis means that resource problems are faced in some form almost everywhere. That said, the problems that teachers face cannot always be reduced to money and resources. Often teachers feel undermined as a search for 'quick-fix' solutions results in policy imposition without any meaningful consultation with professional teachers. Policy is increasingly driven by an obsession with numbers, which reduces complex educational processes to crude rankings. What might be attractive to policy-makers does not always make for good pedagogy.

The challenge is to develop a teaching profession globally in which the job is well rewarded and adequately resourced, but most importantly, it is the exciting, creative and inspiring job that is the real reason teachers want to teach. Endless policy imposition, an absence of trust, and gimmicks such as performance-related pay and privatisation will never succeed in unleashing the energy that is the collective power of teachers. That power is there, and can be built upon. The challenge is to work with teachers to make it happen. ■



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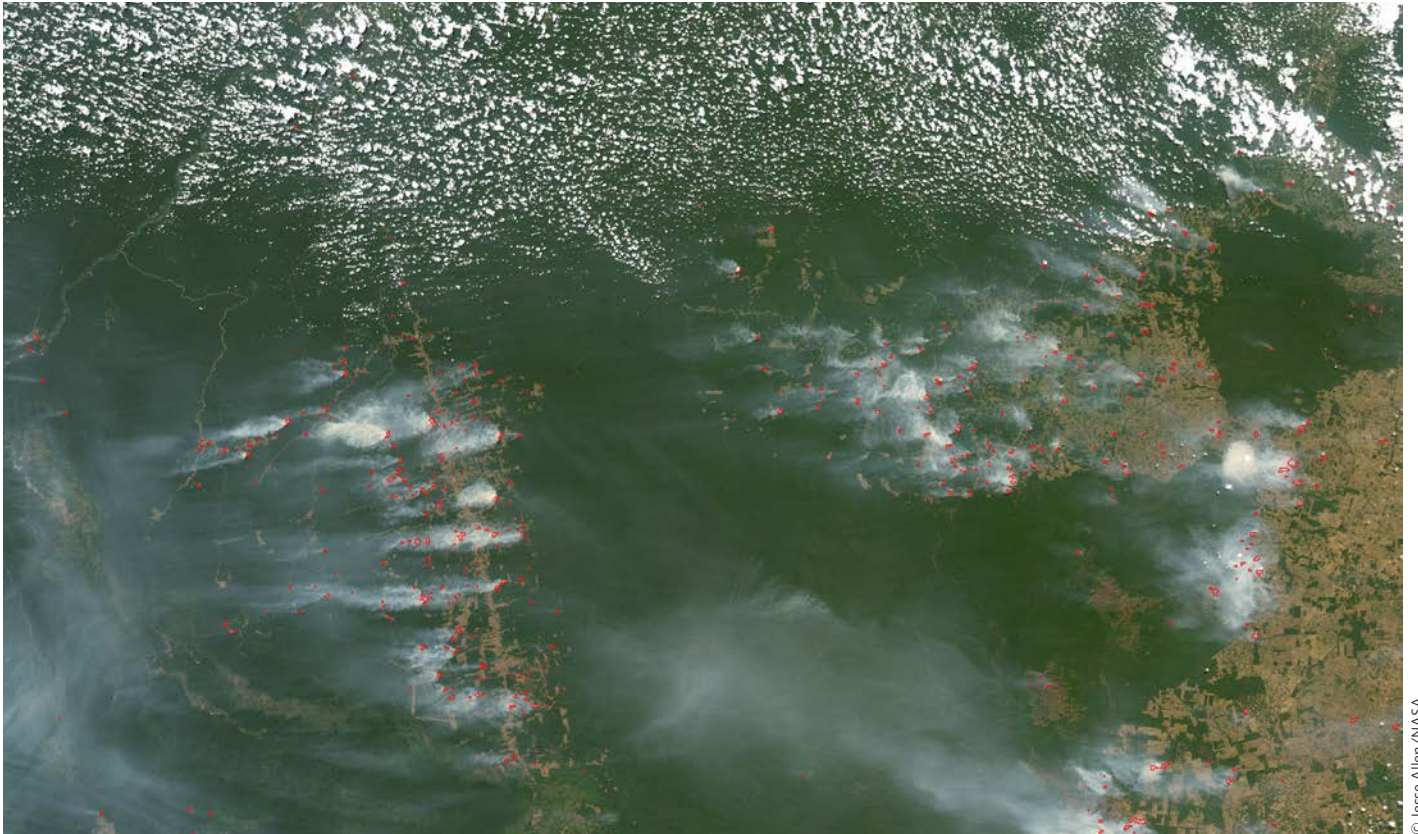
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Education International is the voice of teachers and other education employees across the globe. A federation of 396 associations and unions in 171 countries and territories, it represents some 32.5 million educators and support professionals in education institutions from early childhood to university.

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New ways to measure the goals

Innovative use of 'big data' will be critical to understanding and analysing progress towards achieving the goals by 2030



© Jesse Allen/NASA

By **Martine Durand**, Chief Statistician, Organisation for Economic Co-operation and Development (OECD)

The *Economist*, rather unkindly, called them “The 169 Commandments”.

The admittedly very numerous Sustainable Development Goal (SDG) targets form the heart of the 2030 Agenda adopted by the UN General Assembly in September 2015. The 17 goals under which these targets are grouped are global aspirations expressed in general terms: end poverty, end hunger, ensure healthy lives... and so on. The targets give definite form and specific substance to these broad visions.

Sometimes the substance becomes very specific indeed. For example, Target 3.b reads: “Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all.”

The origin of such detailed targets is not hard to find. The 169 SDG targets were hammered out by an Open Working Group (OWG) of 30 representative UN member states. The OWG was charged with ensuring “the full participation of relevant stakeholders and expertise from civil society, the scientific community and the United Nations system”. Everyone could have a say – and very many did. By the time the OWG reported in August 2014, its report reflected countless inputs from the four corners of the globe.

It is useful to divide the goals and targets into three broad domains:

- development (most of Goals 1–4 and 7–9);
- environment (most of Goals 6 and 11–15);

◀ Mato Grosso state in Brazil viewed from NASA's Aqua satellite. Checkerboard deforestation and fires (marked in red) can be seen surrounding the Xingu National Park and Indigenous Peoples Reserve. Technology is enabling leaps in the availability of reliable global information

- wider contributing factors such as human rights, peace and governance (most of Goals 5, 10 and 16).

Goal 17 covers 'means of implementation' – policies and mechanisms to achieve the goals. In addition, specific means of implementation targets are included under each of the first 16 goals.

After such a Herculean effort, UN member states carefully considered how the 2030 Agenda should be followed up. While the final agenda document left national and regional reviews largely to UN members to decide, it spelt out the procedures for global monitoring in detail. These included a suite of new bodies and reports, to be based on a set of indicators that would meet the highest standards:

"The global indicator framework... will be simple yet robust, address all Sustainable Development Goals and targets, including for means of implementation [sic], and preserve the political balance, integration and ambition contained therein."

It is a tall order indeed to demand a 'simple' system to faithfully cover 169 targets, several as complex as 3.b. But UN members feared that the 2030 Agenda would languish unless it was followed up earnestly. So, can new ways now be found to measure progress against the SDGs as the agenda demands?

Bridging the gaps

The UN Statistical Commission agreed a first set of 230 indicators in March 2016. But a third of these were classified as 'Tier 3' – meaning they still needed to be developed. Data are lacking for many other indicators: for some countries, for certain years, and also for sub-populations of interest such as women and children, or racial, ethnic or religious minorities.

Bridging the gaps in the indicator framework will take time. But new opportunities are rapidly opening up. There are a growing number of public, private

and civil-society institutions involved in the production and use of data. Bringing together these different actors will help leverage the potential of big data in what UN expert advisors sometimes call the data revolution for sustainable development. The first UN World Data Forum, held in Cape Town, South Africa, in January 2017, paved the way by gathering representatives from the various communities working on data.

Take the case of the environmental goals, where many targets are poorly served by existing official data collection. Here, technology can allow enormous leaps in the availability of reliable global information. Instead of collecting data on land clearance or desertification at a country level, for example, we may increasingly rely on sophisticated numerical analysis of satellite imagery, or 'geospatial' data.

Technology can allow enormous leaps in the availability of reliable global information

Information technology is also making economic and social data available more quickly. The latest OECD *Entrepreneurship at a Glance* report presents results from our collaboration with Facebook and the World Bank on a new online survey of small and medium-sized businesses across the world. This is providing near real-time tracking of business conditions. By polling Facebook business page owners, the survey provides a unique window into the new digital and mobile economy.

Lateral thinking can also offer new and more reliable perspectives. Take, for instance, the case of narcotic drug abuse. Traditional ways of assessing the scale of this problem include data on the volume of drugs seized, the number of arrests for drug possession, or records of medical treatments. But with the recent global epidemic of crystal methamphetamine addiction, a new approach has emerged. Researchers have been analysing samples of wastewater taken from the inlets of sewage

treatment plants to more reliably estimate the consumption of the drug in different geographical areas.

The 2030 Agenda's pledge to leave no one behind will also require greater use of administrative data in producing official statistics so as to capture the necessary level of detail. Mapping exercises conducted in many countries have shown that only about a third to a half of data currently available to monitor the SDGs come from surveys and censuses, with the rest potentially available from administrative records. At the same time, combining multiple sources of data will require clear legal, ethical and quality standards and protocols to foster trust.

Rethinking is also needed about the analytical tools that will allow users to assess where their countries most need to act to achieve the 2030 Agenda, both domestically and internationally. The OECD has recently developed a pilot methodology to help interested countries see where they stand in relation to SDG targets, how far they have to travel, and how they can identify their national priorities and global contributions. Information relating to our six pilot countries is available in our *Measuring Distance to SDG Targets* report.

Greater accuracy

Following up on the SDGs presents daunting challenges in terms of upgrading statistical capacity in both developed and developing countries.

Building on work on measuring wellbeing using measures that go beyond Gross Domestic Product (GDP), the OECD will continue to work closely with the UN system to contribute to methodological advances in the new and yet-to-be-defined 'Tier 3' measurement areas.

The OECD will work actively with existing and new partners in all countries to promote the production, use and efficient funding of data to inform policies, and to foster high-quality and trusted data processes.

New avenues are opening up to measure progress more accurately in all the countries of the world. Assessing SDG progress is not going to be easy, but success is essential if the 2030 Agenda is to be realised. The OECD will play its full part in this endeavour. ●

Urbanisation without slums

How can we ensure that towns and cities support ever-growing urban populations where no one is forced to live in slum conditions?



© Mario Tama/Getty Images

By **Elliott Sclar**, Director, Center for Sustainable Urban Development, The Earth Institute, Columbia University

We are just past the midway point in an unprecedented 100-year process of urban demographic transformation.

It began in 1950, when less than one third of the world population lived in urban places. Fifty-seven years later, in 2007, for the first time in human history, the urban population surpassed the rural. By 2050, the UN predicts that “the world will be one third rural (34 per cent) and two thirds urban (66 per cent), roughly the reverse of the global rural–urban population distribution of the mid-twentieth century”.¹

It will be a long while before the full impacts of this population reversal are fully felt and understood. In immediate terms, however, it is worth considering that by the time we reach that mid-century mark, the world’s urban population will more or less equal the world’s total population today – around seven billion people.

This wave of urbanisation will greatly influence our ability to achieve the 17 Sustainable Development Goals (SDGs) – not least Goal 11, the ‘urban goal’, which calls for making “cities inclusive, safe, resilient and sustainable”.²

This in turn explicitly requires “ensuring access to safe and affordable housing, and upgrading slum settlements”.³ Put slightly differently, meeting the SDGs requires that we do not merely limit the numbers of people living in slums, but that we act to reduce the number.

At this moment, between one quarter and one third of all urban residents live in slums (between 900 million and one billion people). So if we aspire, as we should, to global urbanisation without slums, a main order of immediate business is to reverse the present trend towards increases in slum living. It is an achievable end and should be a priority.

◀ **Cantagalo favela in Rio de Janeiro, Brazil, one of the ‘pacified’ favelas. Around 1.7 million Rio residents live in favelas, many of which are controlled by drug gangs**

Why? Because if two thirds of the human race is going to be urban by mid-century, then environmentally efficient and socially equitable cities are the necessary condition for everything else. There is no guarantee cities can fulfil this role on their own. Too many contemporary cities are essentially environmental dumping grounds and hotbeds of social and political instability. We need to reset the balance between negative pushes and positive pulls in shaping the way our mid-century urbanisation will emerge.

The most rapidly growing cities are expanding via the immigration of peoples whose existing ways of life have been lost. Immediate causes are always too complex to parse, but the longer-term underlying drivers are clear: global economic change that

- Is it possible to have cities without slums?
- Can we afford to meet the need?
- Do we have the necessary political will to act?

The answer to the first question is unequivocally “yes”. We all know what vibrant cities without slums require. Examples abound in the world’s high-income countries. It is important to remember that 19th-century industrial cities such as London and New York overcame the same problems. The challenge today, albeit on a global scale, is surprisingly similar in terms of specific solutions: safe water, good sanitation, widespread access to power and transport infrastructure, well-built dwelling units and access to decent-paying employment.

Between one quarter and one third of all urban residents live in slums (between 900 million and one billion people)

undermines older industries, the pressures of climate on existing ways of life, and the ensuing political instability resulting from the first two.

Although these migrations have a primary impact that is local, they are nonetheless the result of global phenomena and thus have serious negative consequences that spread across the world. The most obvious contemporary impacts are the massive international population migrations that are presently shaking up the political order in the high-income nations of Europe and the Americas.

Finding the positive

Addressing the creation of an urbanisation process without slums holds out the promise of providing a powerful brake on the forward motion of this instability. The often touted simple notion of stopping urbanisation in its tracks is always raised but remains an illusion. Urbanisation has been going forward for over 10,000 years. Our challenge is to make it a process of positive pulls instead of negative pushes.

Three big questions need to be addressed to meet this challenge:

The answer to the second question – can we afford to meet the need? – is also almost assuredly “yes”. From 2003 until 2005 I co-led the task force on slums for the Millennium Development Project, part of the UN-led effort at achieving the Millennium Development Goals, which preceded the SDGs.

Our report, *A Home in the City*, contained global cost estimates for slum upgrading and the costs of ensuring future urbanisation without slums.⁴ Our estimates came to an average cost of \$670 per slum dweller for upgrading existing slums and \$400 per person for avoiding future slums through planned development.

If we assume 900 million existing slum dwellers and another 1.75 billion potential slum dwellers (25 per cent of a mid-century urban population of seven billion), the cost of upgrading existing slums would be \$600 billion, while the cost of avoiding future slums would be an additional \$700 billion.

In other words, applying these numbers against present demographic data, I estimate that the cost of creating a process of global urbanisation without slums would be in the order of \$1.3 trillion. Can the world

afford that? It can. The estimated full costs of the US- and UK-led invasion of Iraq are currently running well over \$2 trillion. Joseph Stiglitz and Linda Bilmes estimate the ultimate cost of the invasion will be more than \$3 trillion.⁵ The cost of an urban world without slums is roughly half the cost of that one war to date. Thus, whether we invest in urbanisation without slums or not is a question of our values, not of our resources.

Reframing the dialogue

Which brings us to the hard question: do we have the necessary political will to act? At the present moment, no. Right now, the nations of the world are more inclined to address manifest symptoms like international mass migrations rather than root causes like stabilising the cities and nations whence these migration flows originate.

Our challenge is to reframe the global dialogue. What became clear from the time I spent visiting urban slums in Asia, Africa and Latin America is that there are a large number of innovative, potentially effective local solutions promoted by local people, NGOs and governments at different levels. But these social pilot projects rarely achieve sufficient operating scale to make a measurable difference.

We could do much to address the pessimism inherent in the current answer to the third question. How? By providing a better understanding of how much could be done with a comparatively small amount of resources to bring these effective efforts to sufficient scale. There is nothing like success to breed more success. ●

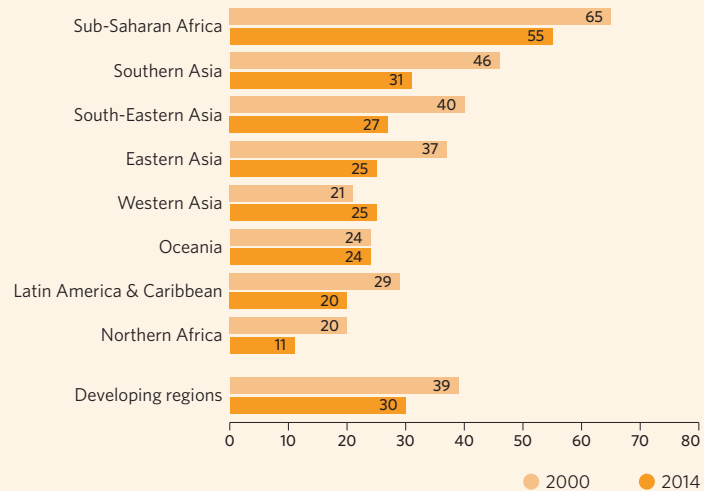
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11 SUSTAINABLE CITIES AND COMMUNITIES

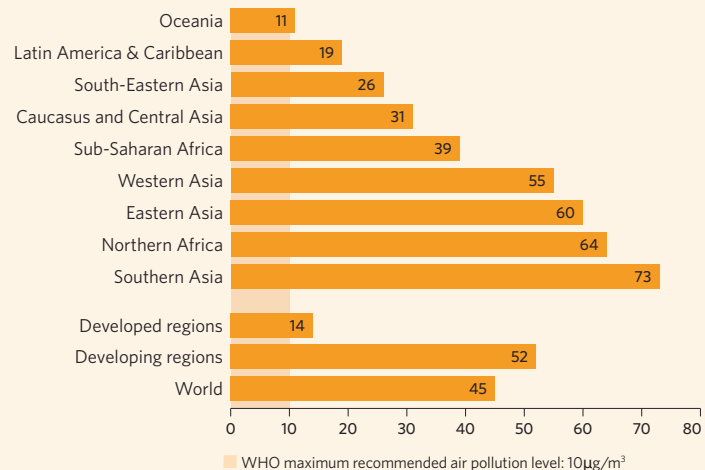



Make cities and human settlements inclusive, safe, resilient and sustainable

Proportion of urban population living in slums, 2000 and 2014 (percentage)



Average annual mean of particulate matter of 2.5 microns in diameter or smaller (PM_{2.5}) concentration levels in urban areas (µg/m³), 2014



 More than half the world's population live in cities. By 2030, it is projected that six in 10 people will be urban dwellers. Despite numerous planning challenges, cities offer more efficient economies of scale on many levels, including the provision of goods, services and transportation.

Source: The Sustainable Development Goals Report 2016, United Nations



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Universal SDGs – implementing the goals in rich countries

The 2030 Agenda is about more than empowering developing countries on a path to sustainable development. Achieving a sustainable future for all will also require fundamental changes in the way developed countries operate

By **Derek Osborn**, President, and **Farooq Ullah**, Executive Director, Stakeholder Forum

At the UN summit meeting in September 2015, world leaders adopted the Sustainable Development Goals (SDGs) as the core element of a new 2030 Agenda for Sustainable Development. They declared: “These are universal goals and targets which involve the entire world, developed

and developing countries alike. They are integrated and indivisible and balance the three dimensions of sustainable development.”

The principle of universality recognises that none of us can achieve long-term, sustainable and equitable success alone in the new world order. The world is a complex and interconnected place with equally complex and interconnected challenges. That means that we must

▲ Residents, activists, friends and family members of victims of gun violence march through Chicago carrying nearly 800 wooden crosses bearing the names of people murdered in the city in 2016

overcome traditional barriers, work with new partners in new ways and be willing to make decisions for the long term that transcend the interests of individual nation states and stakeholders.

In earlier times, development was often conceived as one-way progress from the

poorer conditions of the less developed countries to the 'more advanced' state of the more prosperous, developed countries. The development agenda was 'simply' about how to help the least developed and the still developing countries to accelerate their transition towards the happier state of those supposedly well-developed countries.

Finding new pathways

But what if the ways of life and the economies of the developed countries are evolving in ways that do not constitute a desirable or sustainable model? What if those advanced economies are the very ones that are already placing the most excessive burdens on the planet's ecosystems and natural resources, while causing the worst pollution?

What if the basic economic model underpinning the so-called advanced economies of the world is itself unsustainable, in that it equates progress with never-ending growth of GDP and of material production and consumption? What if the basic structures of today's businesses operating in the global market inevitably feed that engine of consumption and produce ever-widening inequalities?

What if the governance and accountability structures developed in Western democracies and exported elsewhere favour short-termism and do not encourage (or even allow) decision-making for the long term?

Rich, developed countries are currently struggling to get the measure of these new challenges. They are grappling with how to reshape their own economies and societies to take account of the unavoidable reality of the planetary boundary that surrounds us all.

The SDGs have an important part to play in helping to bring about the necessary changes. They offer an inspiring, common vision of the more sustainable future we all want. The details of the goals and targets pinpoint many of the specific issues that need to be addressed and the changes that need to be made.

The SDGs also embody a pact between developing and developed countries. While developing countries need to find new

pathways that avoid the historical pitfalls of past development patterns, developed countries need to reduce the negative impacts of their current socio-economic systems and their unsustainable patterns of consumption and production. The two transformations are interconnected and need to be undertaken in parallel and in partnership.

The SDGs point us towards a more sustainable future. A future in which scarce

common and individual wellbeing that we can all aspire to and work towards without damaging the planet around us.

We need an evolution of intellectual, moral and political thinking that will raise equity, fairness and long-termism over short-term self-interest and inequality, and counter rising trends of isolationism and tribalism. We need a new industrial revolution to create the technologies of

Developing countries now have much to teach so-called developed countries on sustainability, as well as needing support for their own development

and finite resources are used prudently and reused and recycled wherever possible. A world in which carbon emissions are reduced to levels that do not threaten catastrophic climate change. A world in which food and other basic resources are distributed and consumed fairly, instead of the present pattern of over-consumption and waste in some places coexisting with hunger and shortage in others. A world in which poverty can truly be eradicated everywhere, rather than merely shifted from one place to another.

Multiple needs

Three specific 'goals for the rich' are particularly important for sustainable development worldwide, but require developed countries to take urgent action if sustainability is to be realised. These are the goals to:

- reduce inequality within and among countries (SDG 10);
- ensure sustainable consumption and production patterns (SDG 12), and sustainable use of energy (SDG 7);
- strengthen the means of implementation and revitalise the global partnership for development (SDG 17).

Action is needed on many fronts. We need new economic and social paradigms. Growth of material consumption and GDP will no longer do as the metric of success for society. We need new concepts of both

the future that can provide the goods and services that people need in a much less resource-intensive and polluting way. We need to encourage long-life products, reuse and recycling.

We need national sustainable development strategies involving all parts of society to coordinate national progress across the whole range of the SDGs. We need extensive national conversations with the public and all stakeholders to secure widespread support and consent. And we need functional, well-resourced multi-stakeholder initiatives that can create a sum greater than the parts.

We need partnerships with businesses, consumers and stakeholders to identify and encourage the emergence of the sustainable new technologies of the future and to phase out the unsustainable practices of the past – including the phasing out of environmentally damaging subsidies.

We need tax structures that incentivise more sustainable production and consumption, discourage unsustainable practices and promote investment in sustainable sectors and away from unsustainable sectors.

We need a plan for domestic resource mobilisation to finance the sustainability transformation and the implementation of the SDGs. Sustainability needs to be at the heart of the process for setting public budgets, and of the operations of the finance and capital markets.



© Oli Scarff/Getty Images

▲ A family beg on the street in Athens, Greece. Greece has been struggling with a government-debt crisis since late 2009. Efforts to manage international debts and remain within the Eurozone have led to prolonged recession, wage cuts and intense hardship

We need institutional structures that support forward-thinking research and analysis of sustainability issues.

And we need fully funded, politically neutral public awareness and public education campaigns around the world that speak to people in their own language. We need words to explain what the SDGs are, why they are important and how we can build capacity to help achieve them.

Powerful, positive vision

Some countries in the world are already making bold moves to create the structures to support this revolution. Germany, Finland and Colombia are among the leaders. Some developing countries are also currently outpacing developed nations in terms of their innovative and comprehensive plans for SDG delivery. International cooperation needs to become more multi-directional, recognising that developing countries now have much to teach so-called developed countries on sustainability, as well as needing support for their own development.

The UK has previously been one of the leaders in the sustainability transition, developing good governance practices, pioneering new renewable technologies, shaping new concepts of corporate social responsibility, greening agricultural policies and rethinking development assistance objectives. Until recently, the UK has also been one of the leading supporters and advocates of a strong EU sustainability policy and stance in the world.

But a number of stakeholders in the UK have become concerned that the UK's position has now changed, so have come together to form a new multi-stakeholder alliance: UK Stakeholders for Sustainable Development (UKSSD). The alliance is intended to focus on domestic implementation of the SDGs through enhanced multi-stakeholder coordination and action. UKSSD held its second national conference on 1 March 2017 in London, and is developing a further programme of work and activities (see www.ukssd.co.uk for further details).

Such multi-stakeholder initiatives are vital to a universal and integrated approach to sustainable development and must be encouraged or established where no such mechanism exists.

The universal nature of the SDGs and their comprehensive scope are both a challenge and a strength. The task of full global implementation is a daunting one. But the powerful and positive vision of a more sustainable world, and the urgent need to move more rapidly towards it, should provide a strong incentive to people and stakeholders of all kinds to join forces in this endeavour.

When united in this cause, the strength to achieve the SDGs must surely follow. But regardless of full success, there is both utility and nobility in the attempt. ●



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A recipe for decent work

The key to solving the global problem of income inequality will be to improve employment opportunities and ensure fairer rates of pay. How can this be achieved?

By **Sharan Burrow**, General Secretary, International Trade Union Confederation, and **John Evans**, General Secretary, Trade Union Advisory Committee to the OECD

The global workforce is in trouble. Fear and xenophobia have become even more prevalent in recent times as working people and their families struggle to live on their wages – or, worse, are marginalised by unemployment or insecure work.

The International Trade Union Confederation's May 2016 poll on wages across a group of countries that represent 55 per cent of global GDP makes for sober reading. It tells us that 45 per cent of the world's people are living on the edge, and 52 per cent are just getting by. This is a social and economic disaster. The overwhelming majority of these people have no buffer for the future, even if they get by day by day.

Global supply chains are now the dominant source of wealth in the economy.

Yet they depend on a hidden workforce (those not in a direct employment relationship) that makes up to 94 per cent of those working along the chain – a workforce for whom multinational enterprises take little or no responsibility. Companies know that this is a model for low wages, and for insecure and often unsafe work. They also know that, increasingly, informal work and modern slavery are aspects of harvesting and production processes. This is inequality by design. People know it and resent it.

◀ Tultitlán, Mexico. Three children from Honduras travel north, hoping to cross the border to the United States to reunite with their family. Migrants seeking decent jobs are dangerously exposed to exploitation and abuse

A significant share of households in industrialised countries have experienced flat or falling real incomes for a decade or longer, with serious intergenerational effects. The gap between men's and women's average income is not shrinking – neither is the level of youth unemployment, nor the share of youth not in education, employment or training.

These factors have combined to raise the real prospect of 'secular stagnation' – a condition of negligible economic growth. They have also contributed to a popular backlash against governments, institutions and the very functioning of economic systems.

The Brexit vote, the US election results and the tenor of ongoing election campaigns in Europe reveal a major crisis of trust. These trends are reflected differently across regions, age groups and genders, and are not universally evident in all countries. They are triggered by different issues: slow growth and stagnant median wages, rising inequality and persistent unemployment. The common feature is that significant segments of populations feel that while others have gained despite an economic slowdown, they have lost out. They feel more insecure about their future. The claim that 'elites are out of touch' has struck a chord.

Inequality trend

In the industrialised economies over three decades, the proportion of national income generated by labour (as opposed to capital) declined by 10 percentage points of GDP on average. Income inequality increased within the wage share in 22 out of the 25 Organisation for Economic Co-operation and Development (OECD) countries with comparable statistics.

Between 2008 and 2011 market income inequality increased as much as it had in the previous 10 years. Latest OECD work on high-end incomes and taxation shows that across all countries it is the 'very top of the

income distribution' that have benefited the most. The trend has been most extreme in the US, where the bottom 60 per cent of the population did not see any increase in their living standards over the past 25 years. The top one per cent, on the other hand, increased its share of total income from 13 per cent in 1990 to 18 per cent in 2014.

Reform needed

In the short term, inequality is stifling recovery. In the medium term, it is fuelling public mistrust and creating the conditions for rising populism across economies. In the longer term, inequality will result in rising skills gaps, increased unemployment and fears for survival as incomes stagnate or decline. This generates an anxiety that further mitigates against a smooth transition to a digitalised, globalised economy.

But with political will, we can achieve real reform. The UN Sustainable Development Goals (SDGs) – in particular SDG 1 (on eliminating poverty), SDG 5 (on gender equality), SDG 4 (on education), SDG 8 (on employment and decent work) and SDG 10 (on social protection) – can make a difference. The G20 summit in July in Germany can lead this work by resetting the parameters for rights, the rule of law, social protection, wage mechanisms and, consequently, shared prosperity. Specifically, the G20 must commit to:

- formalise work, requiring better business registration, universal social protection and the minimum wages on which people can live with dignity;
- begin to reverse the fall in labour's share of total national income through minimum living wage mechanisms and the strengthening of collective bargaining. The increase in minimum wages needed to allow people working in supply chains to live with dignity is around \$25-\$50 a month – a few cents on a product at most;
- uphold the UN Guiding Principles on Business and Human Rights, with responsibility for due diligence, grievance and remedy;
- endorse the OECD process to establish a general guidance note on due diligence, and use this as a foundation for mandating business responsibility.

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More generally, governments must shift from the austerity that has dominated policy thinking since 2010.

Jobs must be on the agenda. Fiscal room exists to increase public investment in infrastructure and to focus on creating jobs and increasing productivity. Policymakers must also seek to reduce the gender and youth employment gaps and speed the transition to a low-carbon economy by creating green jobs.

Equally, investment in the care economy is important – care of older people, childcare, health and education – to both create more jobs and to free women to participate in other economic sectors.

The promise of the SDGs and the Paris Agreement is a zero-carbon, zero-poverty world

Implementation of the Paris Agreement on climate change affords more opportunities for green jobs with a commitment to a “just transition of the workforce”. National action, through dialogue with social partners on industrial transformation and support for the creation of a “just transition fund for workers and communities”, are vital elements to ensure progress towards a zero-carbon economy.

We also need urgent action to ensure decent jobs in the digital economy and for the next wave of digitalisation.

The recipe for decent work is simple: social protection, a minimum living wage, freedom of association and collective bargaining, and safe and secure work. This will only be realised if corporations are held to account. These policies and politics can reform market capitalism to make economies work for the advancement of both social justice and economic efficiency.

The promise of the SDGs and the Paris Agreement is a zero-carbon, zero-poverty world. Both business and workers will benefit if governments find the necessary political courage to make this promise a reality. ●

8 DECENT WORK AND ECONOMIC GROWTH



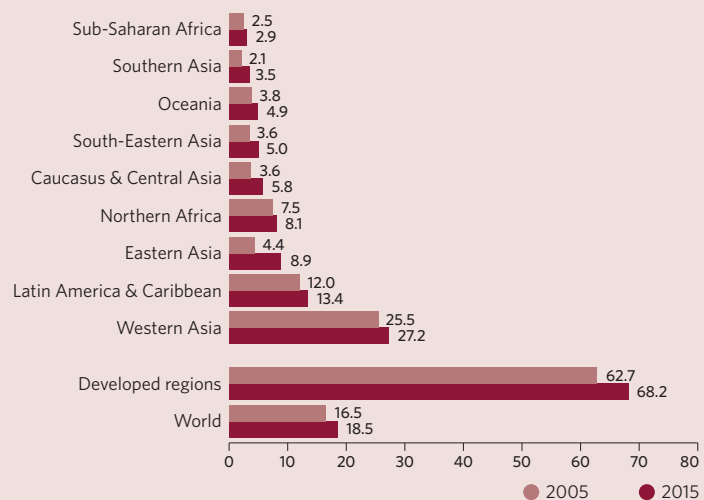
Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Average annual growth rate of real GDP per capita, 2000-2004, 2005-2009 and 2010-2014 (percentage)



The least developed countries' per capita growth has slowed to only 2.6 per cent on average during 2010-2014, less than half the target rate of at least 7 per cent a year.

Labour productivity (GDP per worker) in constant 2005 US dollars, 2005 and 2015 (thousands of US dollars)



While labour productivity increased in the developing regions from 2005 to 2015, the value for developed regions was still more than twice that of any developing region, and around 20 times greater than the values for sub-Saharan Africa and Southern Asia.

Source: *The Sustainable Development Goals Report 2016, United Nations*

The business case for change

The consumer goods industry is leading the charge towards sustainable development through positive, collective actions and cross-sectoral collaborations



■ Kevin Hyland, UK Anti-Slavery Commissioner, speaking at the CGF's 2016 Sustainable Retail Summit

It is without question that the private sector has a central role to play in achieving a more sustainable world. Although forward-thinking governments are necessary to push societies towards more sustainable practices, industry influence is equally imperative.

The collective impact companies have on the wellbeing of people and the planet is extensive, and it is therefore essential that collaboration and partnerships be built into the fabric of the private sector if we are to achieve the Sustainable Development Goals (SDGs).

The Consumer Goods Forum (CGF), as the only global industry network bringing together consumer goods retailers and manufacturers, is a strong proponent of this essential collaborative approach. More than 400 companies comprise the membership base of the CGF, including Nestlé, Unilever and Walmart. The CEO-led organisation supports its members in the implementation of public commitments to drive positive change in the industry and throughout the wider global community.

The SDGs serve as a framework for all work done at the CGF. Currently, its work directly addresses 10 out of the 17 goals – from taking action on climate change (Goal 13) through its zero-net deforestation commitment, to ensuring sustainable consumption (Goal 12) through its halving food

waste resolution, to promoting decent work for all (Goal 8.7) with the first-ever industry commitment on eradicating forced labour, to name a few.

Collaboration is key

The thread that connects all the goals together, however, is SDG 17: partnerships. Partnerships and collaboration are at the core of all CGF commitments in order to find collective solutions to the world's largest sustainability challenges.

In 2012 for example, the Tropical Forest Alliance 2020 (TFA2020) was founded via a partnership between the CGF and the US government with the mission of mobilising all actors to collaborate in reducing commodity-driven tropical deforestation. Other cross-sectoral initiatives are the Food Loss and Waste Protocol, Champions 12.3 and the Banking Environment Initiative, all of which include CGF participation.

Additionally, as part of our member-driven efforts to eradicate forced labour, the CGF has engaged with a variety of prominent stakeholders including the International Labour Organization and the UK's first Independent Anti-Slavery Commissioner. These cross-sectoral initiatives are a testament to the consumer goods industry commitment to SDG 17 while addressing other SDGs in the process.

Incremental progress has been made through these collaborations, including the establishment of the FLW Standard (the first-ever global standard to measure food loss and waste), the recent inclusion of HFCs in the Montreal Protocol and the announcement of three Priority Industry Principles to help stop forced labour in global supply chains.

The challenges ahead are numerous and complex, but these positive steps forward being taken in the private sector coupled with the strong stance taken by governments in the ratification of the Paris Agreement are clear signs we are heading in the right direction to meet the SDGs.

We, as a global community, must keep the momentum going and continue partnerships and ongoing collaboration if we truly wish to create a better world for this generation and those to come. ■

For more information: www.theconsumergoodsforum.com

Rebuilding trust between business and society

A sustainable future requires fundamental changes to the way companies operate. Yet, for responsible businesses, the SDGs also offer vast new opportunities

By **Lise Kingo**, CEO and Executive Director, UN Global Compact

The adoption of the Sustainable Development Goals (SDGs) is truly historic. It sets the long-term agenda for our world: end global poverty, protect our planet and build a life of dignity for all by 2030. The SDGs are the pillars of the 2030 Agenda.

Fulfilling these ambitions will take an unprecedented effort by all sectors in society – and business has to play an important role in the process. The SDGs open up enormous opportunity for business to be a force for good. The good news is that business is quickly tuning into the Agenda for Sustainable Development as the next frontier for responsible practices, building new markets and developing new solutions.

In short, the SDGs not only identify what we have to do before 2030 to create a sustainable world that leaves no one behind, they also outline new markets and opportunities for companies all over the world. To succeed, we must turn the Global Goals into business opportunities.

Why are companies connecting to the SDGs?

Businesses of all sizes in all regions of the world are responding to the vision of the SDGs. Companies report to us that the SDGs provide them with a new guiding star for a world in constant change, and

that the 17 goals reflect the complex, interconnected operating environments that businesses face.

The timing could not be more urgent. The world is facing a complicated web of multidimensional interconnected systemic challenges, while protectionism and the gap between rich and poor continue to rise.

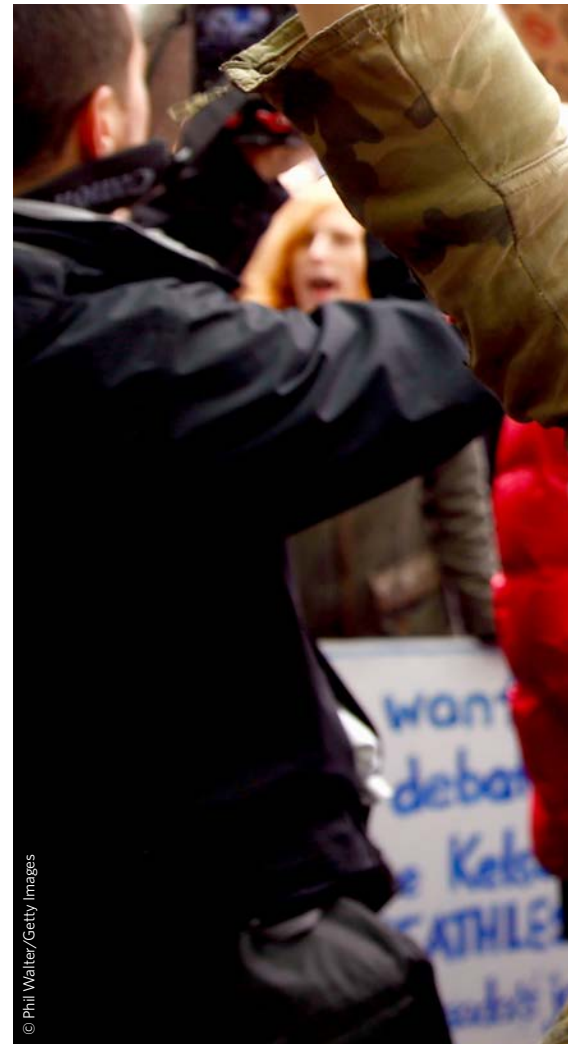
The past has clearly shown that reducing trade tariffs is crucial for advancing peace, sustainable development and human rights. From a business perspective, modern-day success is built on the pillars of global cooperation and interdependence. That is why globalisation must succeed, but to do so it must become a much more inclusive, human and respectful force.

By doing business right and taking steps to advance the SDGs, companies can help to ensure more inclusive growth and strengthen the social legitimacy of open markets. Through responsible and innovative leadership, we can help turn the threats of globalisation into opportunities, by giving a human face to the global markets.

The good news is that there is an enormous appetite by business to better understand how to take responsible action, build partnerships and measure their contribution to the SDGs.

How can companies help advance the SDGs?

Doing business with integrity is at the



© Phil Walter/Getty Images

▲ Auckland, New Zealand. Anti-Trans-Pacific Partnership Agreement protesters outside the US Embassy. The free trade deal between 12 countries in the Asia-Pacific region generated vocal opposition within the signatory countries. The agreement is now unlikely to be ratified since President Trump withdrew the US

heart of what it means to be part of a sustainable company. Responsibility is a clear expectation for any business wanting to engage on the SDGs and with the United Nations.

That is why the UN Global Compact first and foremost asks companies to do business right, by incorporating ‘Ten Principles’ on human rights, labour, environment and anti-corruption into strategies and operations. Smart companies have shown how principles provide the common ground for partners, a moral code



for employees, an accountability measure and ultimately are the foundation for building trust across the board. Principles are simply good business.

Beyond responsibility, the SDGs also help to outline new markets and opportunities for companies all over the world. To meet the goals, we will need to invent, develop and launch countless new ideas and solutions within a very short time, each one a potential business opportunity.

Now is the time for companies to figure out how their operations, products and services can better support our planet and serve markets today and in the future. So many challenges – from climate, water and food crises, to poverty, conflict and inequality – are in need of the solutions that business can deliver.

Many – if not most – of the solutions and innovations are already out there. It is now a matter of having the determination and ingenuity to bring them to life.

The transformation ahead

One thing is clear: achieving the SDGs will require innovation and collaboration beyond our imagination. Incremental change will not be good enough. We will need disruptive, out-of-the-box thinking and advancements to solve the challenges at hand. In many ways we will need to reinvent what it means to be a leader and rethink how we value business and how we do business.

Transformation will require a critical mass of companies putting values and principles into the heart of their strategies

and operations. It will require a new type of leadership where CEOs take the high road and the long-term view.

At the UN Global Compact we are doing our part to catalyse the transformation to sustainability. Our vision is to mobilise a global movement of sustainable companies and stakeholders to create the world we want. We are working to translate the SDGs into responsible and innovative business practices. And we are committed to shaping and accelerating actions and solutions that will have lasting impacts on our world.

There is no time to waste. We have reached a point in human history where our planet is in peril and our people are suffering. The moment is now. Working together, we can achieve the SDGs for all. ●



© Michael Reinhard/Getty Images

Generating private finance for social impact

Achieving the SDGs requires greater investment than governments alone can provide. How can we ensure private investors see the value in supporting programmes that offer more than just financial returns?

By **Giovanna Melandri**, President, Human Foundation and Social Impact Agenda per l'Italia, and Executive Member, Global Social Impact Investment Steering Group

Over the last 20 years, new actors and intervention models have radically changed international cooperation. First, we have seen the development of 'South–South' cooperation promoted by emerging countries, at the expense of models based on the expertise and culture of traditional donors. At the same time, the role of private foundations and

their support of economic and social activities has increased dramatically. Finally, the private sector has started to adopt a 'shared-value' perspective towards investing resources and creating business initiatives in developing countries.

All these factors are creating and encouraging hybrid models, which look at both financial sustainability and social impact – these models are gradually smoothing over the differences between the profit and non-profit sectors.

In several official situations, the international community publicly defined

▲ A wastewater treatment plant in central Java, Indonesia. There are a number of innovative investment products that tailor the financial risk on sustainable development projects to make them attractive to private investors

and shared some principles and rules. These have legitimated and encouraged new actors and models within development aid, which is now not exclusively restricted to NGOs or the publicly funded.

For instance, Millennium Development Goal 8 outlined the importance of creating a global partnership for development. It underlined the importance of the private sector as a supplier of the economic

resources and technical know-how to enable international cooperation programmes to aim for social and economic sustainability.

Recent international gatherings such as the Monterrey Conference (2002), Busan Conference (2011) and Doha Declaration (2008) have all moved in the same direction. The private sector, identified as the for-profit sector, has been presented as a relevant player for international cooperation – not just as a sponsor of economic resources, but also as a partner for building strategic relationships and innovative development models.

This perspective is creating a variety of new tools and opportunities in the fight against poverty and other social global issues. We need to strategise and coordinate all these different models, instruments and objectives to maximise their effectiveness and impact across the globe.

The Sustainable Development Goals (SDGs) represent a shared framework that identifies the resources necessary to face the challenges of global issues such as access to clean water, healthcare and wellbeing and climate change mitigation. They encourage the creation of a global partnership where governments, civil society and the private sector can actively cooperate.

The involvement of the for-profit sector implies that, on the one hand, governments would be well advised to implement policies favourable to private investments. On the other, it suggests that private companies should refocus their investments towards sustainable initiatives that take into account environmental, social and governance criteria and where the economic returns are spread over a longer timeframe.

Impact investments

In this scenario, ‘impact investments’ assume an important role in strengthening businesses’ initiatives that help to address global issues. As defined by the Social Impact Investment Taskforce, established under the UK’s presidency of the then G8 group of countries in 2013, impact investments are those made with the intention of generating positive social and/or environmental impact alongside a financial return. In recent years, impact investors around the world have

demonstrated the potential for the private sector to drive progress in areas such as affordable housing, access to financial and health services, sustainable energy and other areas that clearly align with the SDGs.

The UN’s *World Investment Report 2014* estimated that to achieve the SDGs, we need to fill a funding gap of \$2.5 trillion a year. According to the same report, the private sector has the potential to invest some \$1.8 trillion of that. However, this will be difficult without adapting a range of financial tools that can facilitate private-sector investments in the SDGs.

To achieve the SDGs, we need to fill a funding gap of \$2.5 trillion a year

Over the last few years, the social impact finance sector has developed numerous innovative investment products to mobilise both private and public investors, as well as additional resources from other actors such as NGOs and development agencies. These include:

Sustainable development bonds (SDBs): these are debt securities issued by private or public entities to finance activities or projects linked to sustainable development. SDB issuers state the interest rate that will be paid and the time at which the original investment amount must be returned.

Development impact bonds (DIBs): these bring together private investors, non-profit and private-sector service delivery organisations, governments and donors to deliver results that society values. They provide upfront funding for development programmes from private investors. The investors are remunerated by donors or host-country governments – and make a profit – if evidence shows that programmes achieve pre-agreed outcomes. If interventions fail, investors lose part or all of their investment.

Challenge funds: these are financial instruments promoted by organisations such as development agencies, private

foundations and NGOs. They are linked to a specific objective or outcome.

Debt and equity investments: these are investments that are suitable for sustaining social enterprises whose aim is to create a benefit for particular groups of people or to generate a positive impact for the environment.

These various financial instruments should also improve the effectiveness of the resources invested by promoting innovative models of intervention. Impact investing can stimulate and encourage public policies in experimental programmes and, above all, attract private investments, promote technical solutions and build new capacities.

DIBs can be an effective way to create greater accountability among parties cooperating on international interventions. The evaluation of the bond’s impact is central to this purpose, generating estimates for financial return and social impact based on the results of similar kinds of deals.

Developing synergies

Social impact measurement practices also require us to set measurable objectives and track their achievement. As stated in the Social Impact Investments Taskforce’s report, *The Invisible Heart of Markets*:

“Specifically, effective social impact measurement is needed by five key market participants: government, foundations, social sector organisations, impact-driven businesses and impact investors. They all have a broad interest in a wide range of metrics (including the gain to society resulting from a successful intervention, and the associated social rate of return on investment).”

Overall, impact investment instruments are encouraging synergies among several actors. Private investors are investing financial resources and are assuming part of the risk of the interventions. NGOs are offering their knowledge of contexts and their capacity for involving beneficiaries in the programmes. Governments and donors are cooperating on outcome-based models that define development priorities.

Together these actors can work efficiently to realise sustainable solutions and give their significant contribution to the achievement of the SDGs. ●

Tax for financing development

As developing economies grow, tax receipts should become the primary source of development finance. Why do tax receipts in Africa remain so low in relation to GDP?

By **Logan Wort**, Executive Secretary, African Tax Administration Forum

Improved domestic resource mobilisation (DRM) – investing income from domestic resources to benefit the country's society and economy – is key to achieving the Sustainable Development Goals in Africa. Although most African countries have improved their tax revenue to GDP ratios from 2000 to 2016, these are still much lower than in most other parts of the world. Indeed, much work needs to be done to improve DRM in Africa.

African countries face three major challenges in their bid to build more efficient tax regimes and improve DRM:

- weak and deficient legislation and tax treaties;
- difficulties tax administrations face in accessing information;
- tax administrations' limited technical and audit capacity.

The pace of change in the global tax agenda is exacerbating these challenges, while at the same time offering opportunities to bring in new rules to help DRM. One of the main international collaborative efforts to rewrite the rules on taxation regimes is the Organisation for Economic Co-operation and Development (OECD) and G20's base erosion and profit shifting (BEPS) project.

The project is now in its implementation phase: the OECD has launched an 'inclusive framework' to bring together over 100 countries and jurisdictions to collaborate on implementing the BEPS package. And, last November, various jurisdictions concluded negotiations on a multilateral instrument for enforcing taxation. This will allow them to transpose results from the BEPS project into more than 2,000 tax treaties worldwide.

However, the African Tax Administration Forum (ATAF) and many of its members are concerned that the gap is widening between the pace of change in global standard setting and the capacity of many African countries to address the implementation challenges.

Successful implementation of new tax standards will require political support to bring about changes to domestic legislation, revise tax treaties and improve exchange-of-information networks, both between government agencies within each country and with other tax jurisdictions.

Governments will also need to commit the necessary resources to increase the capacity of their tax administrations to address illicit financial flows through tax evasion and tax avoidance.

Addressing the challenges

ATAF is providing a wide range of technical assistance to our members that aims to address both the policy and operational challenges. We have been providing on-the-ground technical assistance to a number of our members to help them with transfer pricing and other cross-border taxation risks. This help includes:

- reviewing their domestic legislation and rules and helping them draft revised legislation aligned to international standards, but adapted to meet the specific challenges faced in Africa – such as undervalued exported commodities;
- reviewing the tax administration's risk assessment processes to ensure that resources focus on the highest risks to the tax base;
- building skills for auditing, and providing advice on audits (on an anonymised basis to protect taxpayer confidentiality);
- advising countries on the BEPS project tools: the inclusive framework and the multilateral instrument.

There is considerable global focus at the present time on international tax issues. However, ATAF is mindful that for some African countries, these may not be the most significant risk to the tax base. Instead, these countries would benefit from technical assistance on domestic tax issues.

ATAF is now embarking on a two to three-year project in Africa to reduce the fiscal losses to African governments caused by mispricing of traded items. This project will identify the key issues relating to trade mispricing in Africa, to help countries address these issues in a targeted and focused manner. The project will enable ATAF to assist its member countries technically to identify, analyse and better understand their country-specific challenges and to address them sustainably.

We are also starting a pilot programme in one of our member countries to develop a more effective fiscal regime for the extractive industries. We will then look to roll this technical assistance out to other member countries, using learning from the pilot.

We use the experience we gain from these programmes to develop products for our members. These products are underpinned by a global standard but adapted to meet the specific challenges faced by our members. Products include:

- a suggested approach to drafting transfer pricing legislation – this is based on the 'arm's length principle' but includes a number of legislative options to address specific African challenges;
- an ATAF model agreement on the avoidance of double taxation – this aligns the OECD and UN model agreements to suit the specific needs of African countries and provides new commentary for provisions not dealt with by the OECD/UN.



▲ Women near Kolwezi, DRC, wait to receive mine waste from which they make a meagre living by separating out the cobalt. On five mining deals between 2010 and 2012, the DRC government lost out on tax receipts of \$1.3 billion through mispriced assets being sold via offshore-registered companies

We have also developed other products to help member tax administrations address certain operational challenges. These include:

- a transfer pricing risk assessment tool to help members identify high-risk transfer pricing transactions – this has been piloted by the Federal Inland Revenue Service in Nigeria and is now being rolled out to other member countries;
- an ATAF agreement on mutual assistance in tax matters – this is a powerful multilateral instrument that allows for the exchange of information, joint audits and investigations, and mutual administrative assistance among African countries.

We also take learnings from these country programmes to feed back and influence the global standard-setting process in Paris, where ATAF has a seat at the OECD Committee on Fiscal Affairs (the tax decision-making body) and the OECD working parties (the technical drafting bodies).

We do this work through our cross-border taxation technical committee. This has already had a significant impact on the outcomes of the OECD/G20 project in 2015, including:

- the recommended approach to interest deductibility rules;
- revised transfer pricing guidelines relating to pricing cross-border commodity transactions;
- revised transfer pricing guidelines relating to intra-group services;
- revision to Article 5 of the OECD Model Tax Convention (this relates to the issue of ‘permanent establishments’ in tax jurisdictions).

A significant impact

The technical assistance programmes we are delivering on transfer pricing and other international tax issues are already achieving significant results:

- some countries have enacted new legislation that is aligned to international best practice but with additional provisions to meet the specific challenges faced by African countries – for example, simplified provisions to cap excessive royalty payments to related parties;
- improved risk assessment processes are ensuring that limited specialised audit resources in African tax administrations are only used on the highest-risk issues;
- increased revenue collection from transfer pricing audits – in the past 18 months this has risen by well over \$100 million across the countries in which we work.

The successes described above have not been achieved in all the countries receiving such technical assistance, however.

Often progress is limited, due to a lack of political support. For example, in one country, the tax administration drafted new transfer pricing rules in 2013, but these have still not been enacted.

There is also a need for closer working between the different government departments responsible for tax policy. With the increased pace of the global tax agenda, this need for closer working will only become greater.

We need greater advocacy work in Africa to ensure that ministers and parliaments are fully aware of the need to create more effective international taxation regimes. ATAF has built strong relationships with its member tax administrations and with some ministries of finance, but more needs to be done. We are therefore working closely with a number of partners on advocacy work. This includes the High-Level Panel on Illicit Financial Flows, where ATAF will take the lead role with regard to tax. ●



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Making trade work for everyone

Trade offers economic opportunities to consumers and producers, but also threatens to exacerbate deep inequalities. How can we ensure that trade generates wealth for all?

By **Pooja Mall**, Trade Policy Coordinator, Oxfam

Trade is a source of unprecedented wealth and arguably the biggest contributor to poverty reduction. Many poor countries have benefited from trade liberalisation. Mauritius, for example, used trade as an instrument for achieving the Millennium Development Goals (MDGs).

After implementing export-led reforms in 1996, GDP growth in the island nation

reached an average of six per cent a year. Trade policies allowed it to develop value-added services and adapt to international competition. According to DFID, in Kenya the horticulture and agri-business sectors have created jobs for four and a half million people. Coffee exports have fuelled development in Rwanda.

Although the literature concerning the impact of trade liberalisation on inequality and poverty remains mixed, there is strong evidence that many people in developing

countries have been made worse off because the rules are rigged against them.

This was highlighted during Oxfam's 'Make Trade Fair' campaign, which centred on eliminating the practice of dumping highly subsidised developed-country goods onto developing-country markets, removing developed-country tariffs that discriminated against developing-country agricultural exports, and improving access to medicines.

The UN MDG trade targets reflected the global trade agenda of the time, and

◀ **Producing silk in Vietnam.** The country managed the rare achievement of high growth and poverty reduction with limited increases in inequality

emphasised the liberalisation of market access. However, the trading landscape has changed since the MDGs began to be developed in 2000. This is reflected in the 2030 Agenda for Sustainable Development. But the dots between the targets on trade in the different Sustainable Development Goals (SDGs) still need to be connected.

Barriers to trade

Today, the main barriers to trade are in the areas of upgrading and integrating into global value chains. Tariffs have in fact been cut to such a degree that the major obstacles to commerce lie in non-tariff barriers, such as regulatory standards.

The new era of trade agreements go beyond tariffs. Both the Trans-Pacific Partnership (TPP) and the proposed Transatlantic Trade and Investment Partnership (TTIP) include language on issues such as labour rights, environmental laws and government procurement. However, they are characterised by secrecy: domination by powerful insiders, especially corporates, and a lack of public consultation.

There is evidence to suggest that TTIP could negatively impact developing countries and directly undermine some SDGs. For example, SDG target 17.11 commits governments to “significantly increase the exports of developing countries, in particular with a view to doubling the least developed countries’ share of global exports by 2020”.

Although there is no consensus about the impact of TTIP on developing countries’ trade, these nations could experience significant negative effects. It has been estimated that some sub-Saharan African countries could lose up to 7.4 per cent of per capita income.¹ Countries like Niger and Malawi could see drops in exports to the US of between 3 and 12 per cent.² The combined loss to the garment sectors of Bangladesh and Pakistan could amount to \$42.6 million.³

The greatest area of controversy in both TPP and TTIP is the investor–state dispute mechanism. Although the original intent

was to prevent host governments from expropriating foreign investments, the mechanism gives corporates immense power. Companies can challenge governments through international arbitration panels if they believe that government policies have caused a loss of profits, thereby undermining sovereignty.

The most controversial example has been the Philip Morris challenge to Australia’s plain-packaging laws for cigarettes, which was brought under a similar mechanism contained in an Australia–Hong Kong investment agreement.

Some argue that TPP was an opportunity to advance human rights. It included moves to strengthen labour standards in countries like Vietnam, where the communist government committed to change its laws to allow workers to unionise freely and strike for better wages and working conditions. Non-compliance would be penalised by the restoration of tariffs by the US.

The failure of some developing nations, notably least developed countries, to diversify production and exports has led to low growth and persistent poverty

However, Oxfam’s recent ‘Even it up’ campaign highlighted inequality issues. Far from trickling down, income and wealth are being sucked upwards at an alarming rate. Although trade has contributed to narrowing inequality between developed and developing countries, within developing countries it has contributed to an increase in the gap between rich and poor.

Sharing the benefits

Between 1981 and 2010, China pulled 680 million people out of poverty – partly by becoming the world’s manufacturing hub – but also saw a significant rise in inequality. Vietnam’s largely export-led growth in agriculture and manufacturing led to high rates of growth and poverty reduction, with limited increases in inequality.

Recently, trade deals have been associated with inequality in developed countries as well, most notably in the US, causing

political tension. Yet it is worth bearing in mind that such deals are only one contributing factor, and arguably one with less impact than developments in technology and automation.

The benefits of trade need to be equally shared: losers need to be compensated and not ignored. Countries need to develop social safety nets to minimise the negative effects. This requires investment in education, training policies and unemployment benefits. Vietnam, for instance, has invested heavily in education. Spending on education there is about 6.8 per cent of GDP, which is two percentage points more than the average for low and middle-income countries.⁴ This has created a workforce that is not only young but also skilled.

In Brazil, an extensive cash transfer programme helped to redistribute income and bring down inequality. Inequality in China remains an issue despite a series of government transfers, such as a subsidy paid

to urban dwellers and the introduction of a rural pension. The safety nets of the Trade Adjustment Assistance programme in the US and the European Globalisation Adjustment Fund are tiny and relatively ineffective.

Despite significant liberalisation efforts, the failure of some developing nations, notably least developed countries, to diversify production and exports has led to low growth and persistent poverty. Although countries need to capture opportunities arising from increased access to markets in developed countries, there are other areas of untapped potential.

Increased intra-regional trade in Africa, currently at only 18 per cent according to a World Economic Forum on Africa 2016 report, could act as a global shock absorber. However, the market remains highly fragmented with a variety of non-tariff barriers that limit the movement of goods, capital and services.

Trade deals need to leave poor countries with sufficient policy space to pursue their own development objectives. Rapid and reciprocal liberalisation can, and has, harmed poor countries by exposing their industries to competition before they are ready to take on more efficient producers.

Preferential access is still essential to enter developed-country markets. Small farmers are being pushed out of their livelihoods, unable to compete with cheap imports, leading to issues around food sovereignty. For example, chicken imports to Ghana were expected to rise to over \$198 million by the end of 2016, leading, essentially, to the collapse of the local industry. The international demand for cheap clothes has fostered sweatshops in countries like Bangladesh and Cambodia.

Trade and trade policy can also greatly affect the risk of conflict. There is strong support for a hypothesis known as the 'rapacity effect'. This shows that once valuable resources are available, people will fight over them. According to a 2016 report by the World Bank, a 10 per cent increase in the prices of exported commodities raises the risk of conflict by between 2.2 and 2.5 per cent.

Globalisation rules are now evolving to make it more difficult for nations to imitate the success of countries like Mauritius, South Korea, Taiwan, India and China. Trade policy needs to deliver more benefits to working people and should spread economic opportunity as broadly as possible, both in the developed and developing world. Above all, it must be more inclusive and should not exacerbate poverty and inequality. ●

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17 PARTNERSHIPS FOR THE GOALS



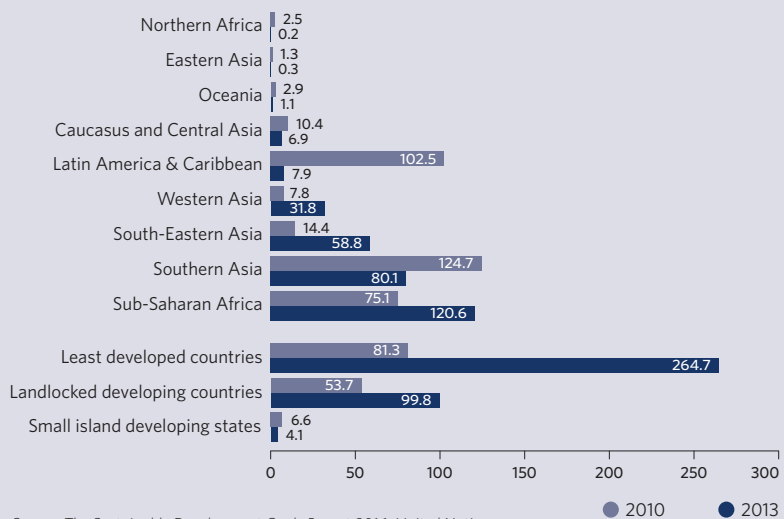
Strengthen the means of implementation and revitalise the global partnership for sustainable development

Debt service as a proportion of total exports of goods and services, 2000 and 2012 (percentage)



Debt service burdens declined substantially from 2000 to 2012. For the poorest countries, the primary factor was outright debt relief: 36 countries completed the process for the Heavily Indebted Poor Country Initiative, receiving relief of around 136 billion US dollars.

Total official development assistance dedicated to statistical capacity-building activities in developing regions, 2010 and 2013 (millions of US dollars)



Source: The Sustainable Development Goals Report 2016, United Nations

Smart partnerships enable growth for African farmers



Smallholder farmers in many African countries require a combination of business and agricultural skills to succeed in a market system. This includes agro dealers and other agricultural value-chain actors.

Few medium to large enterprises have an interest in investing in rural agro-enterprises. The agri-business sector therefore suffers from low skills and education, low productivity, low capital investments, low levels of technology, low farm mechanisation and the inability to access markets. Farmers in Zambia face the same challenges.

It was against this reality that, in 2014, the African Management Services Company (AMSCO), a pan-African development advisory group that provides integrated human capital development solutions, partnered with Seed Co Limited, the leading producer and marketer of certified crop seeds in Zambia, and Musika, a Zambian non-profit company that works to stimulate private-sector investment in the smallholder markets.

Through a pilot project, the partnership specifically focused on addressing the business skills deficit in a selected number of agro dealers with potential to grow their businesses into farmer-centric areas and increase their supply of hybrid seeds. This was intended to reduce the recycled seed in those areas, increase farm productivity and ultimately increase farmer incomes. Attaining full potential in agro-inputs distribution was a priority.

Musika, through Seed Co, provided a number of pilot containers to agro dealers in highly productive rural markets with no brick and mortar facilities for seed sales. The initiative

was aimed at reaching rural areas, where farmers struggle to travel long distances to buy seed and other agro-inputs.

AMSCO facilitated a structured business improvement training programme for 40 selected Seed Co agro dealers. AMSCO, Seed Co and Musika also co-financed a programme aimed at building the entrepreneurial acumen of the agro dealers and catalysing the development of last-mile agro dealer outlets in order to increase sales.

After a year, the participating agro dealers reported increased stocks, increased sales and opportunities for wage employment, which confirmed that rural areas are viable agro-input markets.

Impact recorded for agro dealers was as follows:

- 66% of the target stockists increased their monthly sales by over 30%;
- 30% increased their sales by between 10% and 30%;
- 38% increased their sales by between 31% and 50%;
- 29% expanded their sales by over 50%.

The volume of hybrid seeds for Seed Co's 2013/14 season grew to 84% of the forecast for one region – a sign that Seed Co's sales growth is likely to double.

If the lead firm, Seed Co, can derive immediate and long-term sustainable and quantifiable benefits from such a partnership, then the future development of such initiatives is guaranteed, as the lead firm will commercially invest in local farmers after the intervention support comes to an end.

By leveraging existing local commercial, public and civil systems for farm-to-market service delivery, food security is achievable. In this case, not only did the agro dealers form part of the engine for sustainable economic growth, they played a significant part in poverty eradication.

This contributed towards Sustainable Development Goals 1 (end poverty in all its forms), 2 (end hunger), 8 (decent work and economic growth), 9 (industry, innovation and infrastructure) and 17 (partnerships for the goals). ■

For more information, visit: www.amsco.org

AMSCO works with the private sector, governments and development agencies to assist businesses to be globally competitive and sustainable.



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Economy without waste

What are the challenges – and opportunities – of moving towards a circular economy?

By **Walter Stahel**, Founder and Director, Product-Life Institute

Sustainability is not yet a winning proposition. Since World War Two, waste volumes have been increasing in all our shared spaces: space waste has become a hazard for space exploration, life in the oceans is jeopardised by indigestible plastic particles, the CO₂ level of the atmosphere keeps rising.

These phenomena are the result of a linear and globalised ‘throughput’ economy, which ends at the point of sale with manufacturers passing ownership and

liability to the consumer.

A circular economy enables us to change this. It rests on five pillars:

- **Nature:** the need to conserve nature and the natural environment as the basis for life on Earth, considering nature’s carrying capacity.
- **Toxicity:** the need to conserve the health and safety of people and animals by not releasing toxic agents into the environment.
- **Resource productivity:** the need of industrialised countries to dematerialise their lifestyle; a quantitative issue, measurable in megatonnes, to reduce

resource consumption by 90 per cent through daring, innovative and creative business strategies.

- **Social ecology:** the need to reinforce the fabric of societal structures – including peace and human rights, dignity and democracy, employment and social integration, security and safety – based on sharing and caring.
- **Cultural ecology:** the need to embrace education and knowledge, ethics and culture, attitudes towards risk-taking, and values (of national heritage and other assets) at the individual, corporate and state level.

◀ Plastic chips are dried on the river bank in Dhaka, Bangladesh, in preparation for recycling

The circular economy is based on an intelligent, decentralised use of water, energy, materials and people – “economics as if people mattered” as Fritz Schumacher put it – and a search for holistic solutions.

Today, public policy does not guide individuals to instinctively choose the path of sustainable reuse. Nor does it incite manufacturers to change course towards strict producer liability, as imposed on the tobacco and asbestos industries in industrialised countries.

Social and cultural ecology differ regionally: the idea of a ‘zero’ target has worked to promote zero accidents and zero casualties. But zero waste is only an inspiring objective in Asian cultures. In the West, efficiency is a better incentive, “turning a tonne of resources into a tonne of product” was the motivating challenge given to DuPont managers in the 1990s to achieve zero waste.

Circularity

Circularity is the basis of all life on Earth. But we need to distinguish between different kinds of cycles:

- natural cycles are self-regulated and ignore monetary and time pressure: they include the seasons, weather, water and carbon cycles. The populations of plants, animals and humans are also subject to permanent chaotic renewal;
- agro-food cycles are monetised, governed by the shelf life of produce. Food can be produced and consumed sustainably. Waste can be cascaded or composted;
- manufactured-object cycles are monetised, ruled by the service life and use-intensity of product and material stocks. These cycles are managed following the objective of wealth preservation through sustainable production and use (as opposed to consumption).

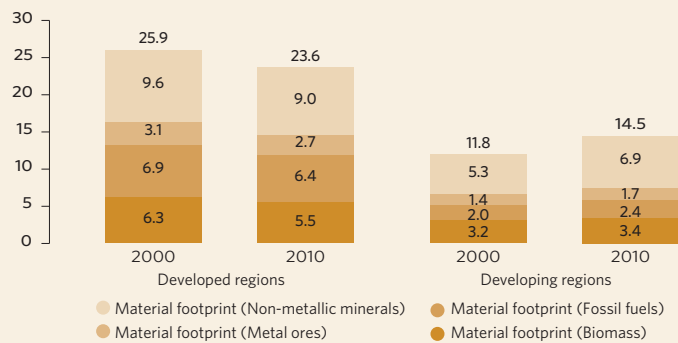
Natural cycles know no waste – all waste is human-made. The common denominator of cycles is that they focus on stocks: be that by preserving biodiversity,

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



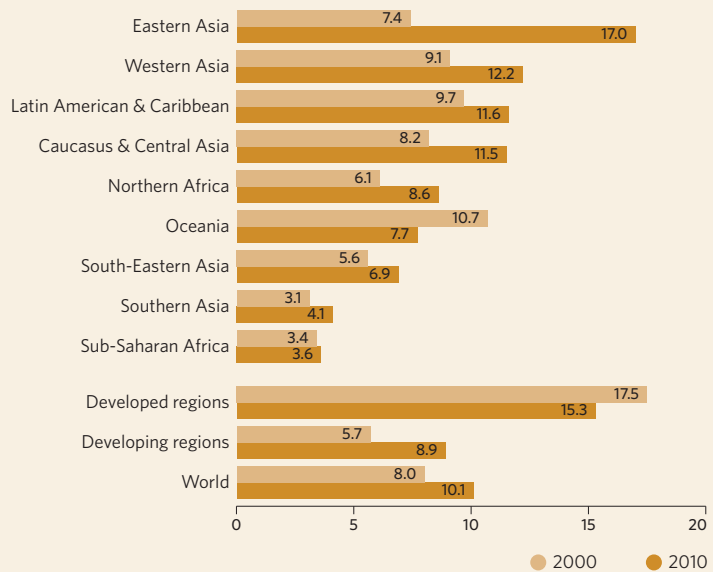
Ensure sustainable consumption and production patterns

Material footprint per GDP by type of raw material, 2000 and 2010, (kilogram per unit of GDP at constant 2005 US dollars)



The **material footprint** is an accounting of fossil fuels and other raw materials extracted globally and used in a particular country. It reflects the amount of primary materials required to meet a country's needs and can be interpreted as an indicator of the material standard of living or level of capitalisation of an economy.

Domestic material consumption per capita, 2000 and 2010 (metric tons per capita)



Domestic material consumption measures the amount of natural resources used in economic processes. Despite a slight reduction in developed regions over the period, it remained 72 per cent higher than the value for developing regions.

Source: The Sustainable Development Goals Report 2016, United Nations

educating people, giving away surplus food, managing the built environment or treating cities as urban mines. These are all forms of an intelligent, decentralised stock management. Economic growth is measured as the increase in quality and quantity of stocks, assets and capitals – not higher throughput (in other words, GDP).

Billions of second-hand banknotes and coins are bought and sold daily worldwide, as are millions of used shipping containers, which are rented or leased by logistics companies. These circular economies are omnipresent but not identified as such

The circular economy substitutes manpower for energy and material – the opposite of mechanisation

because they are familiar, local and low key. They need little publicity, packaging or mass transport. By contrast, the linear industrial economy is deafeningly loud and pervasively visible through its publicity and through the movement of goods.

Circular-economy champions are manifold: second-hand markets such as auction houses, eBay and antique dealerships. Repair champions can be found in the innumerable small and medium-sized enterprises (SMEs) maintaining equipment, vehicles, goods, garments, infrastructure and buildings, but also in non-commercial self-help groups, such as the hundreds of repair cafés in the sharing society or websites such as www.ifixit.com.

Caring and good husbandry are the guiding principles of any circular economy of stocks or capitals, be they natural, human, cultural or manufactured. In economically struggling nations, the circular economy was initially a strategy to overcome poverty and scarcity. Then, local services of reuse, repair and remanufacture of objects developed. Used goods such as steel barrels were transformed into kitchenware or small water turbines to produce local electricity.

Meanwhile, the linear industrial economy is necessary to create stocks to overcome shortages of shelter, food

and manufactured objects, until sufficient stocks exist. In markets near saturation, manufacturing no longer increases, but replaces, existing wealth, and the circular economy is more efficient in managing stocks.

The linear industrial economy is complementary to the supply of components of innovative technology when it comes to upgrading existing stock, such as reprogrammable microchips.

In microeconomic terms, the societal advantages of a circular economy of manufactured stocks are:

- ecological, because its activities are low carbon: reuse and service-life extension preserve the water, energy and material resources embodied in goods. Services also tend to be local, near their clients;
- economic, because remanufactured goods are between 40 per cent (for mass-produced goods) and 80 per cent cheaper than equivalent new goods;
- social, because these activities are labour-intensive and involve caring and stewardship.

Scientific, technical and commercial innovation in four domains drive the circular economy:

- the era of 'R': reuse, repair, remanufacturing and repurposing of goods. Doubling the service life of goods halves resource consumption in manufacturing and recycling and waste volumes;
- the era of 'D': to de-polymerise, de-alloy, de-vulcanise and de-laminate goods enables us to reuse pure materials, preserving resources and replacing material recycling;
- innovative materials and components benefit existing stocks as well as production;
- a rapid transfer of the economic and technical knowledge of the circular

economy from SMEs and fleet managers into academic curricula, vocational training and corporate boardrooms.

Economic actors need to change their business models to include the factor of time, if they are to profit from the longer service lives of goods.

The circular economy substitutes manpower for energy and material – the opposite of mechanisation. Macroeconomic studies by the Club of Rome think tank in seven EU countries found that a shift to a circular economy would reduce national greenhouse gas emissions by 70 per cent and grow the workforce by four per cent.

Taxing resources

Human capital is a resource that has a qualitative component. Governments can increase its quality through education and vocational training, but they often ignore inconvenient facts such as:

- human skills rapidly deteriorate if unused, whereas the quality of a tonne of coal does not change if it stays another 10 years in the ground;
- acquired human capital – such as knowledge, skills and wisdom, capabilities, and experience, together with science and technology – are key for any economic development.

Do governments therefore have a moral obligation to promote the use of human capital before any other resource?

Policymakers can promote the circular economy by adapting the framework conditions accordingly. Sweden is the first country to do this – the Swedish Parliament decided at the end of 2016 to make the labour expenses for repairs tax-deductible, and to reduce VAT on repairs by 50 per cent from 25 per cent to 12 per cent.

Governments should not tax renewable resources including human labour, but instead tax loss of stocks, waste and emissions. This is taxation as if human labour mattered. Policymakers should also levy value-added tax only on value-added activities. The value-preserving activities of the circular economy should be exempt.

Not taxing work (human labour) will foster, and reduce the costs of, all activities based on caring, be it looking after human, natural, cultural or manufactured capital. Many of these caring activities are the responsibility of, and paid for by, nation states. This could lower non-taxed wages – also reducing administrative burdens. Users also have a role to play in job creation – more than half of all money spent on a 30-year-old car is the cost of local labour.

The performance economy

The most sustainable business model of the circular economy is the performance economy. It retains the ownership of

goods and embodied resources, and turns consumers into users.

Economic actors in a performance economy have to internalise the liability and costs of risk and waste, but gain future resource security ('the goods of today are the resources of tomorrow at yesterday's price'). They increase their profitability by developing system-based solutions and exploiting sufficiency and efficiency, decoupling economic success from resource consumption and increasing competitiveness.

Lighthouses are a good example of system-based solutions: they have contributed more to the safety of shipping and sailors than any

technical improvement to ships. They are durable, reliable and upgradeable in response to technological progress.

The performance economy is the preferred business model of service industries, digital businesses and the internet of things. Manufacturers of durable goods and pharmaceuticals, the United Nations Industrial Development Organization for chemical leasing, and public authorities for infrastructure have started adopting it.

The performance economy is competitive because it introduces a new notion of time and quality. In the words of Aristotle: "Real wealth is based on use, not ownership". ●

FISE ASSOAMBIENTE
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Waste management in an era of economic crisis



By **Elisabetta Perrotta**,
Director, **FISE**
Assoambiente

In an economic landscape still largely defined by the global crisis of 2008, waste management is now a key element in the country's economic output. Thanks to recent advances in technology, the industry provides materials and energy from recycling and recovery activities to the manufacturing sector. This allows manufacturers to use more waste as inputs instead of raw materials.

In this way, the waste sector represents an essential component in revitalising the economy, while also creating new opportunities for environmentally

responsible consumption. However, the sector needs clear and consistent rules if it is to play its full part in this economy transformation. There needs to be a clear long-term strategy, solid legislation, and more consistent implementation and reading of the rules if the waste sector is to grow without adding to environmental pollution.

Currently, the sector suffers because of concerns related to NIMBY (not in my back yard) and NIMTOO (not in my term of office). Private waste management operators also face particular difficulties in Italy in gaining access to local public-sector markets. This is caused by various barriers to entry, such as late payments by municipalities.

FISE Assoambiente is the Italian association representing companies involved in municipal hygiene services,

waste management and soil remediation at both national and European level. Since its inception, the association has been concerned with enhancing both regulation and the technical aspects of the industry. Our aim is to develop the necessary conditions that foster fair competition in, as well as the industrialisation of, the waste sector.

The industry now offers the chance to promote both economic growth and new opportunities for qualified, professional employment. But only by treating the waste sector objectively will it be possible to allow operators to grow while also complying with the requirements of best available techniques.



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Sustainable infrastructure for Asia and the Pacific: the new normal

With a rapidly expanding population and high-risk exposure to the effects of climate change, Asia and the Pacific requires a paradigm shift in infrastructure planning if it is to pursue a path of sustainable development



© Shailesh Andrade/Reuters

By **Bambang Susantono**, Vice-President, Knowledge Management and Sustainable Development, Asian Development Bank

The dynamic landscape of Asia and the Pacific poses continued challenges to shared and balanced growth, framing a ‘new normal’ for sustainability.

Challenges include:

- rapid growth of Asian Development Bank (ADB) members to middle-income status, leading to a shift toward knowledge-based economies;
- demographic changes due to increasing lifespans and aging populations, demanding actions that are of equal importance to those required for youth employment;
- rapid urbanisation, leading to the development of megacities, requiring paradigm shifts in institutional decision-making for the improvement of livability;
- since the early 1990s, rising inequality in income and opportunities, resulting in less inclusive growth;
- a significant increase in risks from climate change and disasters triggered by natural hazards.

These challenges are aggravated by weak institutions and capacities, and the diverse needs and priorities of communities working within complex governance systems.

Investments in sustainable and resilient infrastructure – a prerequisite for economic development and sustainable growth – together with e-commerce could be a catalyst for faster and more efficient institutional solutions to help overcome these challenges. Successful investments will require a combination of policy shifts, investment design, financial and technical innovations, and skills-enhancing programmes.

Despite tremendous efforts, the quality of life across Asia and the Pacific remains constrained, due to shortfalls in infrastructure provision and sustainable growth practices. Millions of people still do not have access to basic public

infrastructure, with over 400 million lacking access to electricity, roughly 300 million to clean water, and 1.5 billion to basic sanitation. About 523 million people live in urban slums with poor access to basic services and livelihood opportunities.

In the report, *Meeting Asia’s Infrastructure Needs*, ADB estimates that developing Asia will need to invest \$26 trillion from 2016 to 2030, or \$1.7 trillion per year, if the region is to maintain its growth momentum, eradicate poverty, and respond to climate change. This accounts for 5.9 per cent of the projected gross domestic product of developing Asia. Without climate change mitigation and adaptation costs, \$22.6 trillion or \$1.5 trillion per year will be needed.

Additional investments are required to ensure that public infrastructure delivers intended benefits under the likely impacts of climate change. These impacts have already caused annual losses of \$73 billion on average to infrastructure and other assets in the region over the past 10 years.¹ Development banks will play an important role in financing this infrastructure.

A systematic approach

The Intergovernmental Panel on Climate Change’s (IPCC) *Fifth Assessment Report* and ADB’s *Economics of Climate Change* reports depict unprecedented heat extremes, increasing frequency of intense storms and concentrated rainfall, sea-level rise and destruction of coral reefs. These threaten fisheries-based livelihoods, with subsequent damage to agriculture.

Such changes adversely impact human health and wellbeing, and disproportionately affect the poor. The performance of vital public infrastructure is also endangered. Irrigation and drainage investments are forced to cope with increased rainfall variations and freshwater scarcity.

Much of the global population and many major urban areas exposed to sea-level rise are found in Asia and the Pacific. Sea-level rise and associated storm surges, coastal flooding, salinity intrusion and aquifer contamination are of particular concern. These adversely affect the development of coastal cities in the region. New studies² indicate that sea-level rise might greatly

exceed IPCC estimates – possibly rising by up to two metres by the end of the century.

Many of the region’s cities, including Shanghai, Dhaka, Calcutta, Jakarta and Hanoi, are highly exposed and vulnerable to changes of such magnitude. In these and other cities, nearly 100 million people would be directly affected due to the absence of major investments in protective infrastructure or – as an alternative – relocation.³ And these are global average figures. Sea-level rise in specific locations will also reflect, for example, land subsidence from groundwater over-pumping, as is occurring in Bangkok, Beijing and Jakarta, among others.

Building increased resilience into infrastructure upfront at the design stage is less costly than seeking to add it at a later stage. ADB, along with other multilateral development banks, now monitors and reports the level of adaptation finance in its investments. Since 2011, adaptation has represented around five per cent of ADB’s total portfolio value.⁴ As knowledge and experience are gained and lower-cost solutions are identified, the additional finance required to climate-proof investment may decrease. However, this needs to be supplemented by additional infrastructure to meet the growing demand from rapid economic development and urbanisation in the region.

ADB has discovered that rather than continuing to expand coal-fired power generation, the optimal pathway to the Paris Agreement’s overarching goal of limiting global temperature rise implies that nearly all new Asian power expansion should come from low-carbon sources such as wind, solar, biomass and gas with carbon capture and storage (CCS). This also means that energy efficiency needs to be accelerated to help reduce energy consumption by nearly 40 per cent by 2050 relative to business as usual. Over the 2016 to 2030 period, estimated infrastructure investments taking into consideration climate-related variables in the power sector are \$14.7 trillion, including annual mitigation investment requirements of \$200 billion per year.⁵

An important impetus to addressing the challenge of the ‘new normal’ and the risks of climate change is provided by recent

◀ Labourers take a break from laying underground electricity cables in Ahmedabad, India. Over 400 million in Asia and the Pacific lack electricity

transformational global developments. These include:

- the adoption of the Sustainable Development Goals (SDGs) (September 2015), which respond to the challenges of conserving natural and human capital; and
- the adoption of the Paris Agreement (December 2015) to reduce greenhouse gas emissions and limit global temperature rise to below 2°C.

Achieving these objectives requires paradigm shifts in infrastructure planning and design. Citizens' demands for infrastructure have increased exponentially, often exceeding the carrying capacities of ecosystems for urban and rural populations.

However, providing more infrastructure alone will not suffice. Prioritising the needs of people within financial and natural resource limitations is a bigger challenge. Economic and social development can be enhanced through comprehensive planning across sectors, efficient resource use and collaborative decision-making. All these need to be translated into a systematic institutional and policy approach for integrated development to improve quality of life as outlined by the SDGs.

Finally, the provision of well-planned infrastructure that balances the principles of the environment, economy and equity with consensus-based decision-making processes may affect co-benefits for communities. These would guide development toward inclusive, resilient and sustainable pathways. I hope, one day, to see these as institutional solutions to the new normal. ●

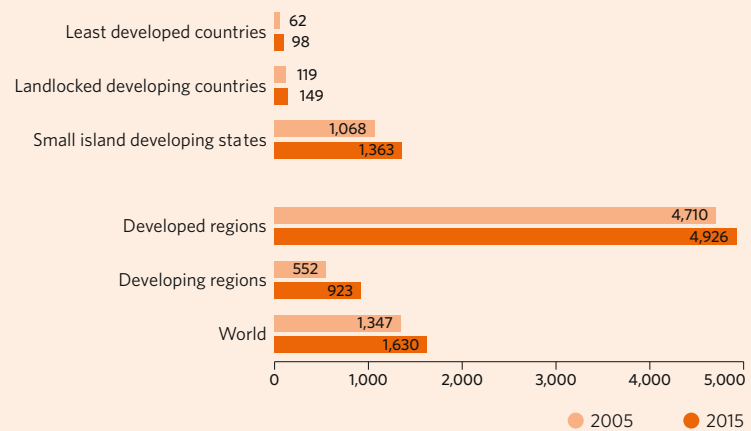
- 1 EM-DAT: The OFDA/CRED International Disaster Database, Université Catholique de Louvain, Brussels, www.emdat.be
- 2 Important studies include Hansen, J. et al., 2016, 'Ice melt, sea level rise and superstorms: evidence from paleoclimate data, climate modeling, and modern observations that 2°C global warming could be dangerous', and DeConto, R.M. and D. Pollard, 2016, 'Contribution of Antarctica to Past and Future Sea Level Rise'.
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9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



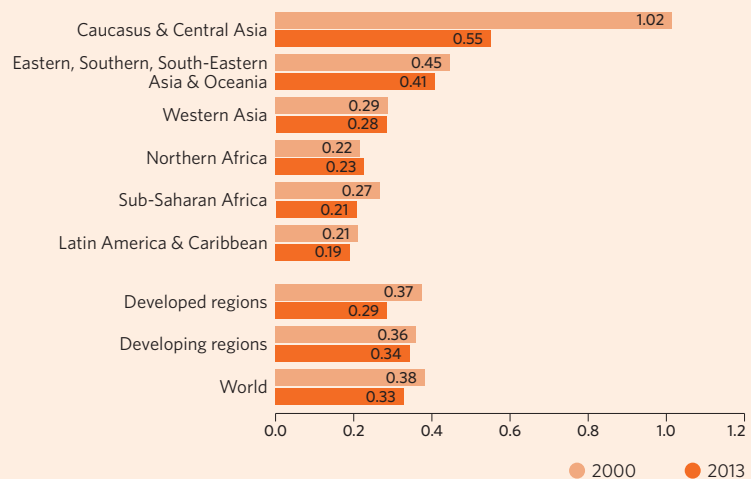
Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation

Manufacturing value added per capita, 2005 and 2015 (constant 2010 US dollars)



Inequalities in the value added in the manufacturing sector point to the steep challenges faced by the most disadvantaged countries, as well as their potential for growth.

Carbon dioxide emissions per unit of value added, 2000 and 2013 (kilograms per constant 2010 US dollars)



As countries shift to less energy intensive industries, cleaner fuels and technologies and stronger energy efficiency policies, almost all regions have shown a reduction in the carbon intensity of their GDP.

Source: The Sustainable Development Goals Report 2016, United Nations



© Mohammad Ponir Hossain/Reuters

Monitoring supply chains in the SDG era

Today's goods and services are the product of complex and sometimes opaque supply chains. How can we ensure that businesses embed the SDG principles throughout their entire operation?

By **Ruth Mhlanga**, Private Sector Policy Advisor, Oxfam

Anounced in 2015, the Sustainable Development Goals (SDGs) offer an inspiring vision of a world without poverty. They also provide an opportunity for a wide range of

stakeholders, including businesses of all forms and sizes, to contribute to achieving that vision.

The SDGs and the issues they contain are not new – they are a development of their predecessors, the Millennium Development Goals (MDGs). They also coincide with a longer-term trend, which started with a

global push for responsible business conduct, that has seen more and more businesses bring sustainability issues into the mainstream. For

▲ September 2016, a fire at a garment packaging factory outside Dhaka, Bangladesh. Despite the outrage and industry-wide response following the Rana Plaza tragedy, much more is still needed to create safe workplaces

some, the SDGs now present a higher level of ambition, which in turn will call for more action from the private sector to turn that ambition into reality.

However, the true test of company leadership on sustainability will go beyond merely matching core business activity to the SDGs. It will necessitate a willingness to improve commercial practices in supply chains to achieve a world without poverty.

A key part of the SDG footprint of global companies happens through their supply chains. This is often where the poorest, most marginalised and most voiceless individuals are affected by corporate decisions. This is why addressing issues in supply chains has been a major focus for those working on the sustainability agenda for many years.

Business leaders are seeing the value in addressing and investing in sustainability and social responsibility to build and manage their supply chains. But there are still many instances where narrow interpretations of the business case limit ambitions.

Broader impacts

It may not immediately yield benefits for businesses to invest in addressing issues such as land rights, farmer incomes, living wages, women's empowerment or greenhouse gas emissions. Too often, considerations of cost, quality and risk dominate decisions related to supply chains. Few companies incentivise procurement teams to foster sustainable and equitable supplier partnerships.

Decisions often ignore the broader impacts – the externalities – of business activity. Materiality measures apply the lens of risk and are often skewed towards short-term profits. And rarely do stakeholders such as workers, farmers and communities have a voice in the priorities set by companies for their supply-chain issues.

Oxfam's 'Behind the Brands' campaign highlighted the importance of ensuring that companies monitor a range of issues that their activities affect and consult with the affected stakeholders. The Behind the Brands scorecard focused on seven issues, while the SDGs focus on 17. The challenges facing companies – and the world – are not getting fewer.

The UN Guiding Principles on Business and Human Rights (UNGPs) have been the springboard for many initiatives. However, as awareness of this responsibility has increased, so too has a recognition of the limitations of the conventional approach to tackling these issues – social compliance auditing. As highlighted in a 2013 report by Shift:

“Despite the hundreds of thousands of social compliance audits conducted each year to ensure minimum workplace conditions in companies' supply chains, there is little evidence that they alone have led to sustained improvements in many social performance issues, such as working hours, overtime, wage levels and freedom of association.”

There are a number of reasons for the inadequacy of audits. Two issues highlighted in both the Shift report and a 2016 Oxfam

workers trapped in poverty, as well as auditing their suppliers. Embracing in full the broad range of issues covered by the SDGs can help companies understand both the wider system and their own impact.

Sector-wide collaboration, with the right legal framework and enforcement, could ensure that beating the competition by undermining labour rights is not an option. This levels the playing field for the most progressive companies, since laggards would have to catch up and this dynamic would contribute to systemic change.

Unfortunately, much still depends on the type of industry and thus how exposed companies feel they are and the associated risk, especially of reputational damage. Some companies are fairly advanced in their approach; many others have fallen behind as they don't see the urgency to act. At times,

A key part of the SDG footprint of global companies happens through their supply chains. This is often where the poorest, most marginalised and most voiceless individuals are affected by corporate decisions

report are that: a) conventional methods of corporate responsibility in supply chains cannot overcome wider systemic issues and b) sustainability approaches suffer from biases in a company's structure, governance and priorities.

Wider systemic issues played a part in the Rana Plaza tragedy in Bangladesh in 2013, which sparked global outrage and caused deep concern for many global brands and retailers. The disaster highlighted systemic challenges with workplace health and safety, substandard wages and excessive working hours. For sectors that are hypersensitive to cost, two things are clear.

First, the driving forces behind these issues are beyond the ability of one company to fix. Second, even where a company can do more, unilateral action can create competitive disadvantage. For good labour standards to become universal operating conditions, companies need to spend more time analysing the wider system that keeps

small and medium-sized enterprises fail to engage on the issue as they do not see it as relevant, given their size.

In many cases there will be no substitute for government regulation to protect the rights and interests of workers, farmers, communities and the environment. Regulation creates an even playing field for business, where more progressive companies are not disadvantaged.

Governments have a crucial role in establishing baseline standards. Examples include the USA, where the 2009 Dodd-Frank Act requires companies to publicly report on due diligence in their mineral supply chains.

More recently, the California Transparency in Supply Chains Act and the UK's Modern Slavery Act are helping reframe this discussion. France has adopted draft legislation that requires companies to implement due diligence plans to identify risks to human rights and the environment



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▲ People carry bags of tin ore, manganese and coltan, which is used in mobile phones and computers, down from the Mudere mine in the Democratic Republic of the Congo. For many years mining proceeds fuelled the region's wars

(including of their subsidiaries and suppliers). Concrete regulations that are enforceable at least at national levels are a step in the right direction. Voluntary measures like the UNGPs, standards such as Rainforest Alliance Certified, Fairtrade and UTZ Certified, and companies' own schemes all have limitations. Many only cover first-tier suppliers, leaving scope for problems further down the supply chain.

Transparency and scrutiny

Biases in company structure and priorities undermining sustainability can be seen in the issue of the competing concepts of the legal minimum wage and the living wage. While statutory minimum wages are established in 90 per cent of countries, in many cases wages paid to workers are not compliant.

Where there is compliance, minimum wages may not meet the basic needs of workers and their families. Where

companies treat wages as a cost to be minimised, rather than as an investment in the communities where they operate, wages risk being pushed lower. Individual company structures and incentives would impact wage cost less, if labour rights were pre-competitive.

Businesses have relied on external certification schemes, but some now realise that these are not enough and that they have their own problems. Companies must increase direct contact with their suppliers to actually be able to ensure provenance. It is not only by rigorous controls that we will see enduring change for the better. Controls are no substitute for engagement and a long-term relationship with suppliers, workers and communities to develop durable and fairer solutions.

Fortunately, there is now more transparency and scrutiny from the media, NGOs and the public on companies' claims.

But this can never be exhaustive and cover all products and supply chains – the pressure to change also has to come from within businesses themselves. Companies that have pledged to change can demonstrate their credentials by calling for national commitments that would ensure all companies meet minimum standards.

The ambition of the SDGs means that monitoring supply chains will require more than a few tweaks. Companies must consider going much further and fundamentally re-write the business models and practices of their supply chains. This will ensure that more power and more of the value generated by companies' products reaches the producers and workers. ●

Child labour in the cocoa sector

Multi-stakeholder collaboration is key to tackling child labour in West Africa's cocoa sector



By Nick Weatherill,
Executive Director,
International
Cocoa Initiative

■ Cocoa is a cash crop on which 14 million people worldwide depend for their livelihoods. The majority of cocoa growers live in West Africa, the region responsible for 70% of global cocoa production. Around four million tonnes of cocoa are produced each year to meet the demand driven by the appetite of a billion consumers. With a massive global appetite for chocolate, the potential of cocoa to support and transform the lives of those who grow it has never been greater.

However, most small-scale farmers in Ghana and Côte d'Ivoire (the two top producers of cocoa) live below the poverty line on less than one dollar a day. They work hard at the bottom of a fragmented and complex supply chain implicating buyers, traders, shipping and processing companies, manufacturers, retailers and consumers. Cocoa-growing communities, like most rural communities in the region, also have limited access to basic social services like education, clean water, health, sanitation and road infrastructure.

As a result, many farmers have little alternative to taking their children to help out on the family farm, often in hazardous conditions or to the detriment of their schooling, a harsh reality that is both unacceptable from a children's rights perspective, and increasingly distasteful to those that manufacture and consume chocolate.

"The cocoa industry is poised at an interesting moment in the relatively short history of social responsibility"

The International Cocoa Initiative (ICI) is a non-profit foundation created to tackle the complex issue of child labour in the cocoa supply chain. We unite the cocoa industry, the governments of Ghana and Côte d'Ivoire, civil society organisations, unions, academics and farming communities.

We harness their diverse skills and influences to define and promote holistic responses that tackle all the multiple root-causes of child labour simultaneously, through responsible supply-chain management and child-centred community development. Our operational experience on-the-ground in more than 600 cocoa communities and almost 100 farmers' cooperatives (with more than 60,000 member farmers) has helped us isolate a combination of interventions that bring results and promise.

Across many of the communities where we work, we've seen the number of children enrolled in school increase by more than 20%, and we believe that our community child protection model can deliver a 20-40% reduction in child labour. In the supply-chain, our innovative child labour

monitoring and remediation approach (CLMRS) is identifying approximately 70% of suspected child labour cases, allowing those children to be assisted with an estimated 60% success rate in taking them out of child labour over a three-year period. This is encouraging.

However, child labour in cocoa and, more broadly, in African smallholder agriculture is both prevalent and widespread – an estimated 2.1 million children, or one in three children living in cocoa-growing areas – work in unacceptable conditions in the cocoa sectors of Côte d'Ivoire and Ghana. With approximately 20,000 cocoa-growing communities and two million cocoa-farming households at risk, the scale at which our models have been applied, to date, is still modest, and is eclipsed by the much greater size of the problem.

Step-change needed

The aspiration of all ICI's stakeholders to contribute meaningfully and purposefully to the highly ambitious SDG 8.7 (to eliminate all forms of child labour by 2025) clearly requires a step-change in the scale and coverage of our efforts.

It is our conviction that multi-stakeholder collaboration – between companies, governments of cocoa producing and consuming countries, civil society, development actors and the farming communities themselves – is the key to delivering sector-wide change. Based on principles of transparency and shared learning, non-competitive collaboration between companies allows them not only to combine skillsets, pool resources and expand their collective coverage, but also to share risk.

The cocoa industry is poised at an interesting moment in the relatively short history of social responsibility. New legally binding requirements (e.g. the 2015 UK Modern Slavery Act) and voluntary guidelines (e.g. the 2012 UN Guiding Principles on Business and Human Rights) are all encouraging companies to change the way they conduct their business operations, look deeper into their supply-chains, and seek out negative human rights and child rights impacts.

They increasingly accept an obligation to address any such impacts that they cause (e.g. child labourers in factories owned or contracted by the company), but also, importantly, to contribute to solutions for issues that their businesses are in some way linked to, even if they don't directly cause them (e.g. child labourers on family farms in communities where there is no school).

The ostrich's days of burying its head in the sand are numbered. But this refined definition of due diligence, combined with increasing calls for transparency and public reporting, brings significant risks for companies when, elsewhere, expectations for "full-compliance" or "absolute purity" still abound. Thus, an irony emerges whereby the companies that most embrace responsible and transparent



due diligence in their supply-chains, are still more exposed to legal or reputational consequence than those that hide and do nothing. Our collaborative model helps break through this dilemma, giving solidarity and a strength in numbers in the face of what must be a genuine strategic dilemma for company managers.

Collective learning

The collective learning that our model inspires allows the experience of, say, one pioneering company that has tested a specific innovation to be observed by others, for its impact to be appreciated, for any negative fallout to be evaluated, and for a collective definition of sound practice to emerge. This is all the more powerful and credible when, as happens in ICI, those engaged in the collective learning process include non-corporate stakeholders and experts from civil society and the development community.

Our experience with CLMRS exemplifies this. In 2012, one company engaged ICI to jointly develop a methodology to better identify child labour in its cocoa supply chain, and contribute to solutions through remediation activities. In that year, it was piloted in Côte d'Ivoire with 1,000 farmers. Since then the company has publicly reported on progress and has permitted a full disclosure of results achieved, and challenges encountered in the ICI forum. Its experience has over time fed a collective realisation that change is possible, and that any risks incurred are outweighed by social impacts and positive reputational returns.

CLMRS emerged as a collectively defined good practice that was then adopted by nine chocolate and cocoa companies in their aligned 2015 CocoaAction Strategy, with a commitment to extend CLMRS coverage to 300,000 farmers by 2020. In 2017, ICI expects to support seven of its member companies to pilot and embed CLMRS within their supply-

chains in both Côte d'Ivoire and Ghana, reaching almost 100,000 farmers. Other ICI members are implementing other variations of CLMRS, allowing the innovation to evolve while still feeding their results into an ongoing, collective learning process.

This inspiring five-year journey from one company with 1,000 farmers, to seven companies with almost 100,000 farmers, has collaboration at its core. So it is all the more encouraging that, nestled among the many purposeful SDGs that call for urgent outcomes and results, SDG 17 recognises the centrality of partnerships to achieving those results, with SDG targets 17.16 and 17.17 explicitly calling for the strengthening of public-private and multi-stakeholder collaborations.

Corralling the interests and experiences of diverse actors into an aligned, effective and efficient strategy is not necessarily an easy job, but ICI shows that it works. ■

ABOUT US

The International Cocoa Initiative, ICI, was founded in 2002 to fight child labour and improve the lives of children in cocoa-growing areas.

An extraordinary partnership between cocoa communities, governments of cocoa-producing countries, farmers' unions, civil society organisations, and the cocoa and chocolate industry, ICI has worked in more than 600 cocoa-growing communities, reaching more than one million people, 682,500 of whom are children.

As a result of ICI's assistance, more than 66,000 of these children now have improved access to quality education. We aim to improve protection for one million children by 2020.



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Why is peacebuilding so difficult to achieve?

According to the World Bank, 90 per cent of civil wars over the last decade took place in countries that had already experienced conflict. What are the key ingredients that trigger a return to war, and how can we try to ensure that peacebuilding succeeds and lasts?

By **Sara Pantuliano**, Managing Director,
Overseas Development Institute

The world is celebrating the recent peace agreement in Colombia, but the real peacebuilding starts now. Signing a peace accord may mark the end of a conflict on paper, but the impact on the ground is often minimal.

Looking at civil wars in Europe throughout the 20th century, it took decades for the divisions to heal, as deep-seated tensions do not disappear overnight. Nor is peacebuilding as simple as putting together a shopping list from the four elements of the ‘peacebuilding palette’ – picking from security, the political framework, socio-economic foundations, and reconciliation and justice.

Transitioning from war to peace is not a technical exercise but a highly political process where different principles, priorities and approaches need to come together. There is no one-size-fits-all template or solution: what works in one place may not work in another because every person, community or society deals with the aftermath of conflict differently.

◀ **Women waiting to vote on the constitutional referendum in Hargeisa, Somaliland. The region, which declared independence from Somalia in 1991, has been hailed as having had a relatively successful internal reconciliation process in the 1990s**

What can we learn from past conflicts?

While there is no peacebuilding blueprint, three broad lessons can be drawn from past conflicts:

1. A rigorous, continuous analysis of the context is essential. With new government and civilian structures in place post-conflict, international actors often rush ahead with the peacebuilding process without fully knowing the context of the crisis.

Obtaining a more nuanced understanding means diving into the long-standing and complex political, economic and socio-cultural features of the country. This includes analysing the history of the conflict and relationships of power and competition, identifying local champions for peace and highlighting obvious triggers of conflict.

No amount of scenario planning or policymaking will bring success if those involved in the peacebuilding process cannot untangle the complexity of the crisis. Taking a conflict-sensitive approach is an essential prerequisite to implementing peacebuilding programmes.

2. Peacebuilding must be locally owned and led. External actors are not the real drivers of change – local actors are. To be transformative, peacebuilding programmes must be shaped and led by local actors' views and examine issues of inequality, identity and societal fractures. Imagine the peace agreement as bricks in a wall. The work of local actors – including those who have been involved in the conflict alongside those who have worked hard for peace – constitutes the cement that holds those bricks in place. Without that cement, the wall will collapse.

Too often, when international actors take a technical institution-building approach to peacebuilding and engage only with a few state officials or former belligerents, they fail to capture the full tensions and effects of deep trauma within a country. Peacebuilding must involve all levels and sectors of society, from government officials to grassroots and religious networks. The ordinary citizens

of the country – women, the young, elders, and faith, ethnic and community leaders – will have been most affected by the crisis, and will in turn be most affected by the reconstruction process. Without their full involvement, the peacebuilding process will only exacerbate pre-existing social division.

3. There needs to be a more cohesive collective effort when it comes to supporting peacebuilding in post-conflict contexts. This must start with the UN, which is generally a key player in such processes. The essential purpose of the UN is to protect civilians and sustain peace, but the current architecture is making it difficult for the UN to fulfil that mandate.

On the one hand, its staff often lack the knowledge of the context and the technical capacity to implement peacebuilding programmes. On the other, planning capacity is not well coordinated between UN missions, country teams and donors. From the outset of a war, whether it is deciding on planning and assessment tools or on sharing information and analysis, there is invariably little communication between different players. If peacebuilding programming is to have any chance of success, there has to be a greater level of genuine cooperation between all involved.

The case of Somalia

Somalia is a prime example of the complexity of peacebuilding. By the late 1990s, south-central Somalia had deteriorated into lawlessness, conflict and chaos. International actors engaged in intensive diplomacy, with close to 10 back-to-back peace conferences between 1991 and 2004. All of them failed. Conversely, the north stayed relatively peaceful, with internal reconciliation processes led by Somalis in Somaliland and Puntland.

In Somaliland, traditional leaders, politicians, business people and women's organisations put together a series of inter-clan reconciliation conferences in the early 1990s with limited external support (there was some funding and logistical assistance from international non-governmental organisations).

While contextual factors and timing may have contributed to this success, the Somalia

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case re-emphasises the critical importance of supporting local reconciliation and peacebuilding before rushing to central state-building. This is an important lesson to inform current efforts in Somalia. Despite the signing of the New Deal Somali Compact in 2013, where the international community pledged €1.8 billion to support the state, international backers have so far been unable to address pre-existing structural violence, widespread poverty and the clan politics that has fractured Somali society.

The problems are two-fold:

1. Peace conferences cannot be led from outside. Somalis are used to finding their own ways of resolving conflicts. When the 2013 Somali Compact was established, the task force comprised government representatives, donors and just one representative from parliament and civil society. There was no opportunity for Somali citizens to participate, which meant that their priorities were not included in the broader peacebuilding programme. This top-down approach resulted in rushed decisions and ineffective engagement, often made to meet donors' timelines.

2. Healing trauma and social divisions after a long conflict is incredibly difficult. There is still deep distrust and friction between Somali groups, particularly with minority clans in south-central Somalia. Reconciling deep-rooted differences will take time. More opportunities for dialogue need to be created to mediate local relationships and promote community-level peacebuilding. Local-level peacebuilding efforts take decades of sustained effort – whether it involves healing wounds from the conflict or mediating resource, clan or land disputes – with external actors following their lead and providing appropriate support.

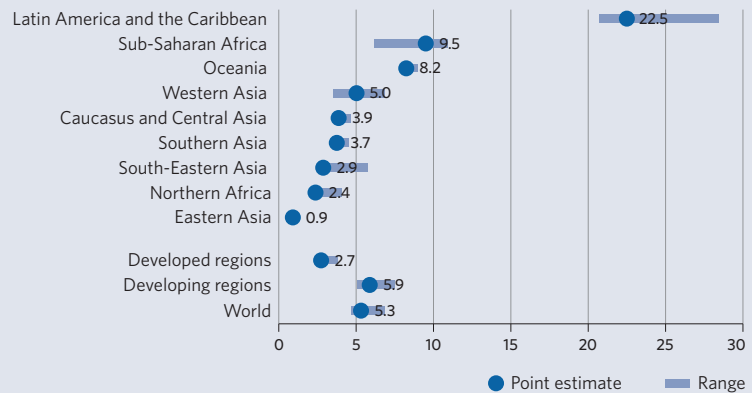
Peacebuilding is a complex process for which there is no blueprint or linear trajectory. But it is worth remembering the three key things that can help it succeed: understanding the context, ensuring that national and local actors genuinely lead and meaningfully coordinating external support. While external support can be crucial, without carefully addressing existing tensions and securing local buy-in, long-term success cannot be achieved. ●

16 PEACE, JUSTICE AND STRONG INSTITUTIONS



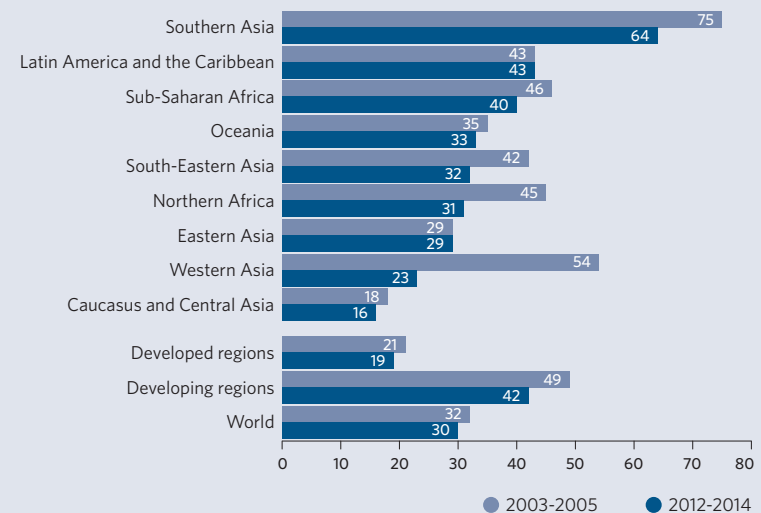
Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Number of victims of intentional homicide per 100,000 population, 2014 or latest year



The intentional homicide rate in developing regions was twice that of developed regions, and in Latin America and the Caribbean it was four times the world average.

Unsented prisoners as a percentage of total prisoners, 2003-2005 and 2012-2014



Thirty per cent of prisoners worldwide, two thirds of them in developing countries, are being held without being sentenced. The proportion has decreased only slightly over the last decade.

Source: The Sustainable Development Goals Report 2016, United Nations

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Can BRICS lead the way to sustainable development?

UN member states accepted sustainable development as a policy vision 25 years ago, but its implementation has been troublesome. Will rising powers provide a new impetus to help realise this vision?

By **Mihaela Papa**, Lecturer in Sustainable Development and Global Governance, The Fletcher School of Law and Diplomacy, Tufts University, USA

Ever since the birth of the global sustainable development agenda at the 1992 Earth Summit, two questions have become pervasive: how to make sustainable development work in practice and who will lead this effort?

The contemporary UN Agenda for Sustainable Development is in many ways a reflection of the 1992 ideal: an attempt to balance the economic, environmental and social aspects of development through a set of targeted actions. Today's leadership questions, however, require a new mindset.

Leadership for sustainable development has often been framed in terms of a contest between developed and developing countries. However, the political rise of a new coalition outside of these categories challenges this traditional setup. The BRICS (Brazil, Russia, India, China and South Africa) countries have already emerged as a powerful force for reforming global governance.

Not only do these countries represent more than 40 per cent of the world's population and nearly a quarter of the world's GDP, they are also, more importantly, donors seeking to rethink global development. The geopolitical weight of the group suggests that it can mobilise a critical mass of actors, while its small number of constituent countries makes consensus-building easier.

Doubts as to whether the BRICS countries can work together and overcome their policy differences are now consigned to the past. Since the first BRIC summit in 2009 and the joining of South Africa in 2010, the group has made rapid progress. Now it is a platform to coordinate the policies of five countries in over 30 areas.

It has established several joint institutions, such as the New Development Bank (NDB), with authorised capital of \$100 billion for infrastructure and sustainable development projects. The BRICS group also established a \$100 billion contingent reserve arrangement in 2014 and a credit rating agency two years later.

Moving forward

While sceptics argue that BRICS' economic credentials are waning and its environmental ambitions are limited, the group's political leverage is on the rise. The BRICS group has established strategic and sustained political dialogue and conducts joint projects through its institutions.

As Chinese scholar Liu Zongyi notes, the group is turning into an influential "global core", which interconnects countries in Asia, Europe, Africa and Latin America. A majority of the members are from the Global South and in line with the aspirations of South-South cooperation, it brings southern ideas to the forefront of the UN agenda. At the same time, it increases the volume of South-South trade and investment and sharing of solutions and experts.

A less positive take on BRICS, as articulated by the South African 'BRICS

from below' movement, is that it is a group promoting 'maldevelopment': development based on elite-centric, consumerist, eco-destructive and corporate-friendly policies.

While the BRICS group has treated sustainable development as one of its cooperation priorities since its creation, it did not speak with one voice during the Open Working Group debates on SDGs, and it has only very recently started work on coordination of environmental policies. However, the BRICS countries have shared the common goal of defining the SDGs for all – rather than only developing – countries.

While domestic priorities have some commonalities given the countries' large poor populations, inequality concerns and environmental challenges, BRICS countries differ in terms of their domestic national development plans. A 2016 report by the UN Sustainable Development Solutions Network and Bertelsmann Stiftung found that BRICS countries' progress towards the SDGs left a lot to be desired. On the index of 149 countries, Russia was ranked 47th, Brazil 52nd, China 76th, South Africa 99th and India 110th.

BRICS meetings can be used to review the mainstream agenda and explore innovative solutions. The BRICS group most directly advances SDG 7 (on energy) and SDG 9 (on infrastructure) through the NDB's rollout of renewable energy infrastructure projects. Similarly, BRICS meetings have the potential to advance SDG 6 (on the sustainable use of water resources). The BRICS countries have been



© Abdelhak Senna/AFP/Getty Images

▲ A Chinese clinic in Bata, Equatorial Guinea. China is the oil-rich nation's main trading partner

cautious about treating water at the global level, emphasising sovereignty over water resources, and all of them except South Africa stayed out of the UN Watercourses Convention. Their newly developed interest in water cooperation can help reform water governance.

As the BRICS countries move forward with the SDGs, several initiatives can facilitate their progress:

Using the whole BRICS mechanism to support the SDGs: the BRICS group provides a cooperation mechanism for the federal governments of the five countries, but also for their cities, businesses and civil society. Effective implementation of the SDGs depends on mobilising a wide range of stakeholders and the BRICS mechanism is well suited for this. The imperative is to use the mechanism as a management tool for transformations and enable it to track progress and ensure accountability.

Increasing BRICS–UN cooperation to build the knowledge base and enhance implementation: the BRICS group has been reaching out to the UN to strengthen cooperation with its various agencies. For example, in 2014 the United Nations Educational, Scientific and Cultural Organization (UNESCO) and BRICS ministers of education agreed on a basis for enhanced cooperation.

The World Health Organization (WHO) has adjusted its cooperation in and with BRICS to accommodate the countries' specific needs, priorities and capacities. The United Nations Industrial Development Organization (UNIDO) has been developing new ways of engaging with BRICS as a group. As BRICS countries invest in comparing and coordinating their policies through academic and think-tank cooperation, their greater interaction with the UN can provide new insights and enhance their impact. The UN needs to envision how to use the BRICS group as a platform

more strategically to facilitate SDG implementation – both technically (through cooperation on metrics and data) and in policy terms (through joint problem-solving).

Using BRICS summits to reflect on the SDG agenda with other countries: every BRICS summit takes place in one of the five BRICS countries, with the host country inviting other regional leaders. Such events can be used for a regional rallying behind SDG implementation. The BRICS group can review and realign ongoing activities with respect to the SDGs, investigating where the group's contribution would be pivotal.

The BRICS group has an opportunity to rise up to the challenge of sustainable development leadership and make its mark. As the US administration becomes more domestically oriented, and the EU and the UK deal with Brexit, the BRICS group is well positioned to reform development governance, to move beyond ideologies and produce policy innovation. ●



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Soft power for peace and development

Winning over hearts and minds to the importance of leaving no one behind will be critical to achieving the 2030 Agenda

By **Irina Bokova**, Director-General, United Nations Educational, Scientific and Cultural Organization (UNESCO)

UNESCO is today based in Paris, but the organisation was born in London. UNESCO's constituent conference in November 1945 was presided by Ellen Wilkinson, then UK Minister of Education. The idea of creating such an organisation had emerged as early as 1942, when London hosted regular conferences of allied ministers of education. These conferences brought together governments in exile from countries under occupation. The war was far from over, but the UK was putting forward education as a force for peace.

This vision of 'soft power' is written into the DNA of UNESCO, expressed in the

opening lines of its constitution: "Since wars begin in the minds of men, it is in the minds of men that the defences of peace must be constructed."

Today, I believe this vision has never rung so true. In a world featuring as much opportunity as challenge, we need soft power more than ever to strengthen the foundations of peace and craft new paths to inclusive, sustainable development. The year 2015 was one of great international agreements: the 2030 Agenda for Sustainable Development and the Paris Agreement on climate change. Soft power is essential to taking these forward.

The 2030 Agenda, with its 17 Sustainable Development Goals (SDGs), charts a new vision for cooperation over the next 15 years. This is to ensure prosperity and

wellbeing for all societies, while protecting the planet and strengthening peace. Inclusivity, integration and universality – these are three hallmarks of the new agenda. The SDGs represent the most ambitious and comprehensive agenda ever seen: to leave no one behind.

This new agenda is a paradigm shift at many levels. It connects all 17 SDGs and calls for cooperation in a universal manner, transcending the classic international development model and setting out a far-reaching vision of peace, and just and effective governance. As a universal agenda, it holds to account developed and developing countries alike.

'Business as usual' will not be enough to take the 2030 Agenda forward. We need a break in how we work, how we cooperate and how we partner. This concerns governments as well as civil society and the private sector. We need 'all-government' and 'all-society' action, along with integrated analysis and planning, to look at development holistically. This means relying more on domestic resources, together with innovative financing and new mobilisation of aid and its stronger alignment, complemented by stronger South-South cooperation.

All of this underlines the importance of UNESCO's universal mandate to contribute

◀ September 2016: members of the Revolutionary Armed Forces of Colombia (FARC) at their encampment in Llanos del Yari, Colombia, celebrate the prospect of peace after 52 years of armed conflict with the Colombian government

to the “building of peace, the eradication of poverty, sustainable development and intercultural dialogue through education, the sciences, culture, communication and information”.

New approaches

Human rights and dignity are the starting point for the organisation’s action – and the criteria for assessing its results. Its focus is on the most disadvantaged and excluded groups, with priority given to countries and segments of societies furthest behind in achieving the SDGs.

UNESCO gives global priority to promoting gender equality in all its policies and programmes, to realise the full potential of both halves of humanity. UNESCO also emphasises action with those countries in conflict and crisis, or affected by disasters, seeking to build their resilience.

UNESCO is bringing all its weight to support countries through new, innovative and integrated approaches. These range from supporting quality education for all, freedom of expression and social inclusion to promoting integrated water resources management and ocean sustainability; bolstering science, technology and innovation to mitigate and adapt to climate change; and protecting cultural and natural heritage through its UNESCO designated sites (World Heritage sites, biosphere reserves and Global Geoparks). The organisation is also working to prevent violent extremism and ‘cultural cleansing’, as threats to peace and obstacles to sustainable development.

In addition, UNESCO is collecting and disseminating data on the global and thematic indicators needed for the review and follow-up of many of these goals. While focusing on the nine SDGs that have direct relevance to UNESCO’s mandate, the organisation’s actions will contribute to all of the SDGs.

To support countries in embedding the SDGs into national plans and budgets

4 QUALITY EDUCATION



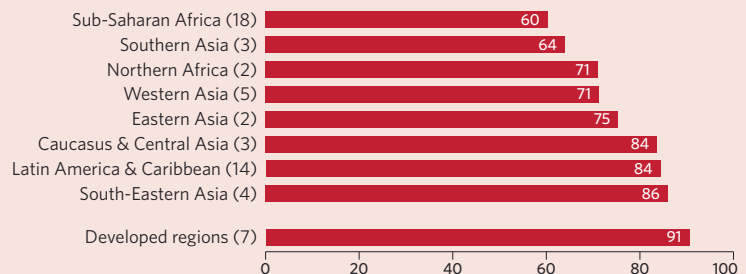
Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

757 million adults were unable to read and write in 2013



Two thirds were women

Proportion of children aged 36-59 months who are developmentally on track in at least three of the following domains: literacy-numeracy, physical development, social-emotional development and learning, 2009-2015 (percentage)



In 54 of 58 countries with available data for the period 2009-2015, at least half of children aged three and four were developmentally on track in at least three of the following domains: literacy-numeracy, physical development, social-emotional development and learning.

Source: *The Sustainable Development Goals Report 2016, United Nations*

(and support their follow-up and review), UNESCO is providing demand-driven, evidence-based normative and policy advice in its areas of competence. The organisation is also delivering capacity-building, including on data collection and analysis.

To facilitate this, I am determined to forge new multi-stakeholder partnerships, and support South–South and North–South–South cooperation. I have created a dedicated task force to ensure sharp, effective and coordinated support to countries as they take forward, implement and review the 2030 Agenda.

UNESCO also works to leverage new funding to support SDG implementation through mechanisms like the Education Cannot Wait fund, launched at the

World Humanitarian Summit to help deliver education in emergencies and protracted crises.

It also works with the International Commission on Financing Global Education Opportunity, which will put forward clear and convincing recommendations to raise additional resources for education.

Accelerating momentum is a human rights imperative, a development imperative, and a peace imperative. It is about delivering on the collective promise we made – as the United Nations, as governments, as the wider public – to build a better future for all.

It is our responsibility to meet expectations and to do everything to translate promises into reality. This is UNESCO’s pledge – now, and in the years to come. ●



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Tackling internal displacement through the SDGs

Conflicts, disasters and uneven development force millions of the world's most vulnerable people from their homes every year. If the 2030 Agenda seeks to leave no one behind, how can it help to solve the complex problem of internal displacement?

By **Nadine Walicki**, Senior Strategic Advisor, Internal Displacement Monitoring Centre

We are living in what has been called the biggest investment boom in human history. In a quest for global growth, the G20 group of countries, the private sector and international finance institutions are embarking on multi-trillion-dollar investments in infrastructure around the world.

On top of this, the international community has recently adopted numerous global policy commitments relating to sustainable development. These include the provisions of the Paris Agreement, Sendai Framework, New Urban Agenda and the 2030 Agenda for Sustainable Development, among others.

This infrastructure boom and the development work being carried out to realise these global policy agendas offer a significant opportunity to solve some of the world's problems. One such problem is internal displacement, which comes about and is prolonged largely because of uneven and limited development.

However, many of the global policy agendas regrettably lack specific goals and indicators on internal displacement. How, then, can we tackle internal displacement through these agendas?

The global scale of internal displacement

Internal displacement caused by conflict and violence has been on an upward trend since 2003.

During 2015, 8.6 million people were newly displaced and by the end of the year a total of 40.8 million people were living in internal displacement. Disasters triggered by natural hazards displaced around 19.2 million people across 113 countries in 2015.

Over the past eight years, an average of 25.4 million displacements caused by disasters have been recorded every year. The extent of protracted disaster displacement is unknown.

On top of these figures, an estimated 15 million people are displaced every year by development projects and an unknown number are displaced by other causes such as criminal violence and slow-onset disasters. The number of internally displaced people (IDPs) will at a minimum stagnate, if not continue on this upward trend, unless more is done to comprehensively address the causes of displacement and sustainably integrate IDPs. Failing to do so may undermine development gains.

Uneven development is a driver of displacement

Internal displacement is the result of a multitude of overlapping social, economic and political drivers. One driver is poverty. Those who are already among the poor and marginalised are disproportionately impacted by displacement.

They also prolong the process of finding solutions for people who become displaced from or within informal settlements, or who are displaced to them for lack of better options. The situation of approximately 46,000 people who remain internally displaced in Haiti's capital Port-au-Prince since the 2010 earthquake disaster is a case in point.

The current crisis in north-east Nigeria and the wider Lake Chad Basin is also a clear example of how uneven development can eventually lead to, and then render protracted, internal displacement. The original genesis of the militant group Boko Haram, whose insurgency has been reported as a main cause of flight for 97 per cent of the 1.7 million IDPs in Nigeria, has been traced in large part to the frustration of disenfranchised youth denied livelihood opportunities and education.

The number of internally displaced people will at a minimum stagnate, if not continue on this upward trend, unless more is done to comprehensively address the causes

In Bangladesh, for example, poor delta communities are repeatedly displaced by recurrent storms and tidal floods. Their livelihoods are eroded as agricultural land becomes infertile due to gradual saltwater intrusion. Further impoverishment is the result. Those who are unable to afford the high cost of relocation and resettlement elsewhere continue to be exposed, while those who are able to move join the urban poor in sprawling informal settlements. Approximately 26 million people are forced into poverty by disasters each year.

Poorly planned and rapid urbanisation is also a driver of displacement risk. It is characterised by the expansion of informal settlements or slums, which are home to a third of the urban population of developing countries. Crowded and unhealthy living conditions, poor housing standards, insecure tenure status, precarious livelihoods and exposure to hazards concentrate disaster risk.

This marginalisation was exacerbated by increasingly limited access to water and grazing pastures as Lake Chad shrunk by 90 per cent over the last 45 years. The interaction of under-development with these other economic, social, political and environmental drivers have, over time, paved the way for the conflict and violence today forcing millions of people to leave their homes.

Displacement risk is particularly striking in so-called fragile situations, where the development deficit is most stark. In 2015, new displacement by conflict and disasters was reported in 14 of the 33 fragile situations listed as such by the World Bank. Some 2.4 million new conflict-related internal displacements were recorded in 19 of these situations for that year, while 2.1 million displacements were triggered by sudden-onset natural hazards in 22 of these situations. Table 1 shows the countries where the highest number of displacements

◀ **October 2016, a newly displaced woman with her children arrives at a check point south of Mosul, Iraq**

Table 1. World Bank-defined fragile situations with highest number of new conflict and/or disaster displacements during 2015

Fragile situation	Conflict-induced	Disaster-induced	Total new displacements*	Human development ranking
Syria	6,600,000	No data	6,600,000	134 - Medium
Iraq	3,290,000	23,000	3,313,000	121 - Medium
Sudan	3,182,000	8,300	3,190,300	167 - Low
Yemen	2,509,000	83,000	2,592,000	160 - Low
Myanmar	644,000	1,618,000	2,262,000	148 - Low

*May include some multiple displacements of the same people

Source: Internal Displacement Monitoring Centre

were recorded, an indication of high levels of insecurity and instability.

Conflict and disasters are not the only immediate causes of displacement, however. In Myanmar, for example, displacement is also caused by land dispossession. The current land rush is largely driven by crony companies operating through loopholes in a complex legislative framework that favours the state, the military and their allies.

In stark contrast, dispossessed rural communities face a significant power imbalance and little protection from the state. Despite having the potential to lift the country out of poverty and displacement, the agribusiness and extractive sectors are driving rather than resolving displacement.

How will we know if the SDGs are resolving internal displacement?

The 2030 Agenda promises that work on the Sustainable Development Goals (SDGs) will leave no one behind, and reach people who are the furthest behind first, including IDPs. However, many states do not have the baseline data to show which IDPs are furthest behind, and if they do it is not always up to date.

The Internal Displacement Monitoring Centre (IDMC) was able to obtain updated information in 2015 for nearly 31.7 million of the 40.8 million people who we estimated were living in displacement at the end of the year as a result of conflict and violence.

The age of the most recent data for the remaining 9.1 million IDPs varies widely. IDMC's *Global Report on Internal*

Displacement in 2016 showed that outdated or decaying data is a problem in 12 of the 53 conflict or violence-affected countries that IDMC reports on, or for 20 per cent of conflict IDPs worldwide.

As a first step, it is important for states to ensure regular collection and analysis of national data on IDPs to identify the most disadvantaged among them, ensure their needs are included in development plans, peacebuilding and risk reduction, and monitor their situation over time.

Monitoring IDPs' situation across all SDGs will show whether they are overcoming displacement-related vulnerabilities and discrimination. Otherwise, in 2030 there will be no evidence to show that progress has been made towards reaching the needs of the most vulnerable.

Political will, partnerships, capacity-strengthening and funding will be key to ensure consistent and regular IDP data collection and analysis. IDP data collection guidelines are being developed within the Inter-Agency Standing Committee's Working Group on Information Management to guide states and others on what data to collect on IDPs and how. Local organisations and NGOs with experience and expertise on this could be enlisted to help governments in their data collection efforts.

Policy coherence

It is crucial during this implementation phase to pay special attention to the

coherence of the 2030 Agenda. Special attention is needed to ensure that interventions that support one SDG do not impede progress on another. For example, reforestation projects that aim to mitigate climate change and contribute to realisation of SDG 13 (on climate action) may require displacement of people from their homes and livelihoods.


If the risks of impoverishment and marginalisation are not sufficiently reduced or avoided, this displacement and the resulting poverty and inequality may undermine achievement of SDG 1 (on poverty) and SDG 10 (on inequality).

As states move forward on implementing commitments and measuring progress towards the SDGs, addressing internal displacement can allow progress across many goals in the 2030 Agenda.

Development and poverty reduction efforts that enable people to settle in safer places, build the resilience of their assets and livelihoods, and increase their ability to cope with shocks, help to avoid displacement and the worst of its impacts, including situations where it becomes protracted and chronic in nature.

Other global policy frameworks with similar or related goals, particularly the Sendai Framework, the Paris Agreement and the New Urban Agenda, should reinforce and contribute to realisation of related SDGs in the 2030 Agenda.

This rare opportunity to align global work on sustainable development needs to be seized. ●



“Our small, dense, interconnected world continues to stand thanks to the lessons learned by the women and men who survived the Second World War; and if we neglect or dismantle the dykes that they built against such disaster, we will place ourselves and our children in terrible danger”

ZEID RA'AD AL HUSSEIN

*UN High Commissioner for Human Rights
UNA-UK's keynote speaker, 70th anniversary celebrations
Guildhall, London*

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Fragile states

What do the SDGs mean in a country that is falling apart? Whose responsibility do they become if a state is unwilling or unable to live up to that responsibility?

By **Fred Carver**, Head of Policy,
United Nations Association – UK

Instability is, by its very nature, unsustainable and so the questions above may seem strange ones to ask. One might consider that restoring a state to a level of stability should be a priority, and that the Sustainable Development Goals (SDGs) represent an agenda which can only be implemented once a crisis has passed.

But with the World Bank indicating that two billion people live in countries where development outcomes are affected by fragility, conflict and violence – and that by 2030, the share of global poor living in fragile and conflict-affected situations is projected to reach 46 per cent – it is simply not a question we can wait to answer. If the sustainable development agenda cannot be implemented in areas of fragility, then – in this increasingly fragile century – it simply will not be implemented.

Of course, this is reflected in the SDGs. Goal 16 specifically talks about promoting peace and justice. SDG 10 recognises the importance of inequality in driving instability. SDG 9 recognises that without infrastructure, development will falter. But the links to conflict and stability do not stop there. It should be self-evident that war drives poverty, that education is made more difficult when schools are destroyed, and, indeed, that state fragility has an impact on every single goal.

It is clear that implementing the SDGs in fragile contexts is an integral part of the push to meet our global targets. But if we look at the most fragile states we see that they are frequently those left behind by the global development agenda.

Last year Gary Milante, Director of the Stockholm Institute's Security and

Development Programme, argued persuasively in these pages that the term 'fragile state' may have outlived its usefulness, but that the concept of fragility had not (see www.sustainablegoals.org.uk).

The Fund for Peace/Foreign Policy Fragile States Index measures state fragility using 12 factors including demographic pressures, migration and displacement, group grievance, uneven economic development, state legitimacy, human rights and factionalism.

This list ably demonstrates the circular nature of the relationship between fragility and the goals. Not only does fragility hamper development, but insufficient or uneven development increases fragility. It is somewhat moot to consider which is cause and which effect. More important is the vicious feedback loop that is thus created.

Fragility is on a spectrum, and it may not be a useful exercise to divide states neatly into categories of fragile and not fragile. But looking at the countries that are universally recognised as the most fragile, we see that they are almost universally among the least developed countries. And this is without considering the clearly fragile and underdeveloped regions, such as Western Sahara, that are under the de facto control of authorities that don't have international recognition. Furthermore, as we have seen in West Asia, fragility spreads. This is a challenge the goals must meet.

Implementation in a time of fragility

The implementation strategy for the goals envisages a partnership between the state, the UN, civil society and the private sector. State fragility causes problems for all four partners and for the relationships between them. Many of these are self-evident. The

current situation in Syria has shed light on others, such as the difficulty the UN faces in delivering aid when doing so requires interacting with a number of different partners with varying degrees of legitimacy and territorial control. Another difficulty is the tension caused between the need to maintain good relations with state and non-state actors (and thus access for humanitarian supplies) and the need to apply political pressure on those actors to push them towards a lasting and stable solution.

This is a conundrum the UN has long struggled with. It was discussed at length in the report by the Internal Review Panel, headed by Charles Petrie, on UN actions in Sri Lanka. In response, the then Secretary-General Ban Ki-moon launched the 'Human Rights up Front' initiative, which seeks to ensure that human rights will never again be sidelined for humanitarian reasons. But the broader questions Petrie raised around the tensions between access and pressure remained largely unanswered, and are perhaps unanswerable except on a case-by-case basis.

The approach of the UN, and most donors, in such circumstances has been to implement what development it can, when it can. As a result, development in these areas frequently displays a lack of strategy, and is rarely linked to the advancement of the SDGs.

This is understandable in times of crisis. But when crises show no signs of abating, this approach cannot be maintained indefinitely. In Syria, it took both the UN and civil society too long to move out of crisis management mode and develop long-term thinking. It took nearly five years to establish a forum for coordinating humanitarian responses (the Whole of Syria Inter-Sector/Cluster Coordination Group established in January 2015).



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▲ Somali refugees after their temporary shelters were destroyed by government soldiers at the Sarkusta refugee camp in southern Mogadishu. Somalia has been in a state of civil war since the dictator Mohamed Siad Barre was ousted in 1991

A stronger emphasis on development within fragile contexts will inevitably bring increased risk to delivery agencies, and further legitimise actors whose legitimacy is questionable. But, despite the risks, such an approach is required if fragile states are not to remain indefinitely left behind.

For these reasons, the approach must include a clear understanding of the wider political implications of development. The political agencies of the UN Secretariat need to be able to give a clear steer in this regard to the UN development agencies and funds, and to other implementing partners.

Rebuilding institutions and footing the bill

The key to reducing fragility in the long term is to develop lasting institutions. However, some would argue that when it is the institutions themselves that are spearheading the oppression of the people,

their destruction is a precondition for development. This was an important, if ancillary, line of reasoning behind several recent ‘humanitarian’ interventions. However, institutions are far easier to destroy than they are to rebuild. In last year’s issue of this publication, Andrew Rathmell and Arthur Mellors explained why that was.

Developed nations are therefore placed in a particular position of responsibility when they dismantle the institutions of a fragile state. A case can be made that in such circumstances these nations should bear responsibility for the expensive and prolonged process of institutional restoration, and for mitigating the consequences of the absence of those institutions in the meantime. This should be developed as a political norm, but at the current moment it is impossible to demand states live up to this responsibility.

Were institutions to be destroyed as part of an aggressive war, it may soon be possible for victims to reclaim some of the costs, but only for some states and in some circumstances. As the Kampala definition

of the crime of aggression is incorporated into the Rome Statute of the International Criminal Court (ICC), it may in future be possible to utilise the ICC’s Trust Fund for Victims as an enforcement mechanism. However, this would only be the case for ICC signatories or those the UN Security Council refers. Developed nations have thus far largely escaped the attention of the ICC, a state of affairs that is unlikely to change any time soon.

This makes prevention of damage to institutions all the more important. In their 2011 position paper ‘Responsibility while Protecting’, Brazil made it clear that humanitarian intervention can only be justified if the damage it causes is proportionate to the damage it prevents. As the global norms around humanitarian intervention develop, it is important that this be emphasised, and that further doctrines are established requiring belligerents to play their part in rebuilding fragile states. This is a task best undertaken under the supervision and coordination of the UN. ●

Renewed hope in Lebanon

With peace and stability a prerequisite for sustainable development, nowhere will the SDGs have the potential for greater impact than in countries ravaged by conflict

By **Luca Renda**, United Nations Development Programme Country Director – Lebanon

The ramifications of the Syrian crisis are far reaching in all its neighbouring countries, but are especially felt in Lebanon, a country still recovering from the scars of its own civil war.

The crisis has affected Lebanon in many ways: slowing down economic growth, amplifying social divisions along confessional lines and spawning political paralysis. The most dramatic impact is the influx of over a million Syrian refugees, who now constitute around a quarter of the population. Lebanon now has the highest per-capita concentration of refugees in the world.

Such combined shocks have greatly reduced Lebanon's chances of meeting its development targets. Even before the outset of the Syrian crisis, Lebanon had a mixed performance on the Millennium Development Goals, registering good progress in nutrition, health and education, but lagging behind in key goals such as poverty reduction and environmental sustainability.

The crisis has further exacerbated these gaps – particularly as almost 90 per cent of Lebanon's Syrian refugees live within the poorest Lebanese communities.

The exceptional magnitude of the crisis has prompted the UN to mount one of the largest and most complex response operations in the world. This is to meet the needs of both the Syrian refugees and – just as importantly – the Lebanese hosting communities. The United Nations Development Programme (UNDP) has partnered with the government and international donors to provide assistance to the poorest Lebanese municipalities to promote resilience and peaceful coexistence.

Ideal framework

Despite these efforts, however, the protracted nature of the crisis carries risks of instability, with implications extending far beyond the Lebanese borders. For this reason, the UN has placed peace and stability at the heart of its new assistance framework to Lebanon, calling on the international community to complement humanitarian assistance with increased development support.

The new Sustainable Development Goals (SDGs) agenda, with its explicit recognition of the intimate link between peace and development, offers an ideal framework to underpin our efforts.

Renewed hope

Recent political events offer renewed hope. After a two-and-a-half-year deadlock, Lebanon finally elected a president last October. A new cabinet of national unity was formed in December. Prime Minister Saad Hariri has committed to place stability and inclusive development at the top of his government's agenda. In a meeting with

UN agencies, he has stressed his conviction that the best defence against intolerance and extremism is to provide equal opportunities for people. He has requested UN support to produce a national development strategy aligned with the SDGs.

At the same time, the government and the UN have renewed their appeal to the international community to address the impact of the Syrian crisis, requesting \$2.8 billion for 2017. If this seems like a lot, let us remember: one out of five people in Lebanon is a refugee. No other country in the world faces a similar situation.

Six years into the Syrian conflict, Lebanon remains at the forefront of one of the worst humanitarian crises of our time. The Lebanese people have shown exceptional commitment and solidarity to the refugees fleeing the horrors of war. It is our collective duty to provide exceptional support to them. ●

▼ Syrian refugees at a camp in Baalbek, Lebanon, close to the Syrian border. Lebanon is now home to the largest number of Syrian refugees: one out of five people in the country is a refugee



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Engaging Generation 2030

Young people will be critical to the success of the SDGs. But is the international community doing enough to enable them to genuinely influence post-2015 development?

By **Alex Kent**, International Director of Strategy, Restless Development

The inception and launch of the Sustainable Development Goals (SDGs) have coincided with the era of ‘peak youth’. We now have the largest global youth population in history, with 1.8 billion people between 10 and 24 years old, but this is set to decline later on this century.

The peak youth generation present the crucial yet untapped potential we have for achieving the SDGs by 2030 – a generation that is more active, more connected and more able to lead change than ever before.

The youth population is growing where progress is most needed: nine out of ten of these young people live in developing countries. Of the six remaining countries where the average age of the population is still getting younger, five of them are in Africa. The African Union has recognised

this opportunity, declaring the theme for 2017 as ‘Harnessing the Demographic Dividend through Investments in Youth’.

The peak youth generation will be the most affected by extreme poverty, rising inequality and catastrophic climate change. Today, young people make up 41 per cent of the world’s unemployed and are the only age group in which AIDS-related deaths are still increasing.

However, young people are not simply a dividend to cash in on. They are transitioning: neither dependent children nor fully independent adults. Young people are a vital group facing huge personal challenges – challenges on which society collectively succeeds or fails. The transition from childhood to adulthood is a transition full of potential; one that generates a global collective of young advocates and agents of change.

At Restless Development we recognise young women’s and men’s potential. Our

vision for 2030 is that young people lead and champion the success of the SDGs, demanding and delivering a just and sustainable world.

Young people and the SDGs

Unlike the Millennium Development Goals, young people played a major part in demanding and shaping an ambitious agenda for the SDGs.

Young people led global initiatives, including ‘deep-dive’ brainstorming in developing countries and global consultations, such as the MYWorld survey and offline consultations run by young people and facilitated by youth-focused NGOs. Young people presented directly to the High-Level Panel on the Post-2015

▲ Students at the University of Cape Town, South Africa protest at planned increases to tuition fees. Achieving the SDGs will require young people to be engaged in the fulfilment just as they were involved in their formulation

Development Agenda, and took part in negotiations through the UN Major Group for Children and Youth. This global-level and UN HQ-focused action was met and supported by thematic and national-level campaigning, petitioning and lobbying. Groups like the Youth Governance and Accountability Task Team were established in key negotiating member states to ensure young people's priorities around voice and participation were pushed at the national level.

Meanwhile, the UK's Department for International Development included young representatives in its delegation to the UN General Assembly in 2015 and 2016. Young people's perspectives were continually championed by the UN Secretary-General and his Envoy on Youth.

remains a global challenge. The lack of trust between youth and government institutions, and the perception that young people lack the experience and capacity to meaningfully engage with decision-making processes, have held back progress time and again.

Recognising that meaningful youth engagement is two-way, and essential to improving quality development practice, Restless Development has developed a youth engagement 'bullseye' to support practitioners.

Young people must be at the heart of achieving the 2030 Agenda

Young people were at the heart of developing the SDGs. Now they must be central to championing, delivering and monitoring, as well as holding their leaders to account.

collecting data, evidence and progress on the SDGs, young people will be the key to success. They are effective and impactful 'infomediaries' who have already created new and innovative monitoring approaches for the goals. They are collecting real-time data, filling the data gaps and translating and communicating this information to global citizens, leading to greater accountability.

Young people have been mapping and tracking progress on a host of issues, such as teacher attendance in schools in Uganda and collecting data on child marriage, sanitation and health through UNICEF's U-Report social messaging tool.

And third, the potential of young people to influence change at local, national and global levels must be recognised and supported. Examples include influencing cultural norms, policies and systems that affect people's lives – such as working to end child marriage in India or school-age pregnancy in South Africa, or campaigning for missing medicines.

One example of youth influence is 15-year-old Eva. Eva lives in a village in rural Tanzania. Through the Mabinti ('Girls, Let's be Leaders') programme, she was informed about the SDGs. She wrote to, and was heard by, former US President Obama during the launch of the SDGs at the UN, and has gone on to start a campaign asking for clean water to be available in her village, Mlowa. Since then, 150,000 people signed her petition globally and she's made progress through meetings with her local and national leaders.

Giving global weight and attention to local campaigns like #StandWithEva is just one way in which young people can support each other and amplify change. Through a global youth collective, we are enabling young people to connect and achieve the scale necessary for youth-led development to have maximum impact. By delivering, informing and influencing the SDGs in this way, Generation 2030 can make sure these promises become a reality. ●

Young people were at the heart of developing the SDGs. Now they must be central to championing, delivering and monitoring, as well as holding their leaders to account

Outside the ivory towers of the UN, young people took to the streets and the media, raising public attention and demanding ambitious global commitments on International Youth Day through the action/2015 campaign.

Having a young person in the room is not youth engagement

Although youth-led development has seen huge gains in recent years, it often remains too tokenistic, too little and too late.¹

Young people still lack access to decision-making structures. While under-35s make up 70 per cent of the global population, they make up only six per cent of parliamentarians. In Nigeria you can't run for the office of president until you are 40 years old. Campaigns such as #NotTooYoungToRun may be making headway, but it is perhaps no surprise that the average age of parliamentarians in Nigeria is 53.

Meaningful youth engagement – beyond including a token young person in the room or handing them a scripted speech –

After 30 years of learning how best to enable youth-led change, Restless Development believes that if the SDGs are truly to leave no one behind, young people must lead transformative change. Young people are embedded in all communities and represent some of the world's most marginalised. In order to achieve transformative change, we recognise that young people need to do three things: deliver, inform and influence.

First, young people must be empowered, enabled and supported to deliver the SDGs – whether through long-term HIV prevention work in schools, or responding to global crises. When Ebola hit Sierra Leone, some of the strongest mobilisation and prevention initiatives were delivered by young people. Restless Development mobilised and trained 2,000 young people to lead and deliver Ebola prevention work in some 10,000 communities, reaching almost 1.9 million people across the country.

Second, young people should inform every aspect of development. When it comes to

1 See *We Are Restless*, 23 November 2016, Meaningful youth engagement made simple: just hit the bullseye, <http://wearerestless.org/2016/11/23/meaningful-youth-engagement-made-simple-just-hit-the-bullseye/>



From principles to action

A year on from the birth of the SDGs, governments have reaffirmed their commitment to them in various national plans and international agreements. But achieving the Global Goals will also require a fundamental shift in all our behaviours if we are to truly create a world where no one is left behind

By **David Nabarro**, Special Adviser on 2030 Agenda for Sustainable Development, UN

Universality, interconnectedness and inclusivity. Grounded in these principles, world leaders adopted in September 2015 a far-reaching and people-centred blueprint for action towards human development: the 2030 Agenda for Sustainable Development.

The agenda – containing the 17 Sustainable Development Goals (SDGs) and 169 targets that relate to them – was formulated through one of the most open, transparent and inclusive consultative processes in history.

It is a political manifesto for the world over the next 15 years. Alongside the Paris Agreement for climate change, the Sendai Framework for Disaster Risk Reduction and the Addis Ababa Action Agenda on financing for development, it represents a major turning point in the global effort to tackle development challenges and respond to climate change. Together, these agendas constitute a truly transformative plan for people, planet, prosperity, partnership and peace.

The SDGs cut across all three pillars of the UN's work – peace and security, development and human rights – integrating and underlining the need to equally balance

▲ Malala Yousafzai signs her book for a student during a visit to Denver South High School, USA. Advocacy will be critical to success, guiding individuals and organisations to align their activities with the 2030 Agenda

the social, economic and environmental dimensions of sustainable development.

Since its adoption, the 2030 Agenda has served as a new incentive for national and international action. The world now has the tools to ensure that people and the planet thrive. By ending poverty and hunger: reaching the most vulnerable first. By prioritising human rights: addressing injustice in all its forms and empowering women and youth. And by building

resilience and tackling the impacts of adverse climate events. Actors from all spheres of society have been engaged in the promotion and implementation of the SDGs, including governments and parliaments, civil society, businesses, trade unions, citizens and the academic and scientific communities. Rapid progress on many fronts has already been reported.

Heads of state and government have displayed strong political leadership to drive national implementation of the 2030 Agenda. While it took three years for countries to start acting on the Millennium Development Goals (MDGs), within the first year of the adoption of the SDGs, approximately 50 heads of state have created inter-ministerial committees dedicated to the monitoring and implementation of the 2030 Agenda and adopted national frameworks aligned with the 17 goals.

their own strategies and operations, many financial actors and institutions are now starting to develop solutions to help attract private capital.

The international community's commitment to the 2030 Agenda has also been strengthened throughout the last year, as the pivotal role of the SDGs has been highlighted in tackling today's biggest challenges such as climate change, humanitarian crises, refugees and migration.

A year on since its adoption, the Paris Agreement has been signed by 194 governments, making them Parties to the UN Framework Convention on Climate Change, and ratified by 116 Parties, accounting for nearly 80 per cent of global greenhouse gas emissions. In May 2016, the G7 discussed the implementation of the 2030 Agenda and the need for a global partnership involving a range

society, citizens, the UN system and others – can come together in a meaningful way.

World leaders have committed to shifting from managing crises to proactively reducing risks and vulnerabilities. That is not easy, as it means placing prevention at the heart of all efforts. We need to emphasise the synergies between policies, programmes and institutions, and align actions – including between the SDGs, the Paris Agreement, the Sendai Framework and the Addis Ababa Action Agenda.

We need major efforts to engage local governments and ensure greater local action and capability, breaking horizontal and vertical silos. We must also make extra efforts to attract, leverage and mobilise investments of all kinds – public and private, national and global – in alignment with the 2030 Agenda. Financing collective outcomes, based on timelines measured in years, should become the norm, rather than funding individual projects with short-term effects.

Most importantly, advocacy campaigns must reach more people. Information and understanding of sustainable development will allow individuals and organisations to align their activities with the 2030 Agenda.

To support countries and communities, the UN is reaffirming itself as a beacon of hope in a world shaken by uncertainty. New mechanisms must be set up to ensure greater accountability and effective evaluation processes. Embracing complexity and recognising the interlinkages between today's major challenges will be key to realising the 2030 Agenda.

At a time when many people have low levels of trust in their institutions, are worried about social unrest, and fear growing instability and violence, the SDGs and the Paris Agreement have opened a new pathway for peace and prosperity, guided by a single principle: to leave no one behind.

Whether government official or civil-society activist, business or community leader, entrepreneur, innovator, scientist, researcher, UN staff or faith community member, we must all get involved and take responsibility. Transforming our world will depend on how each of us will respond to this call to action, and move from agreement to implementation. ●

Transforming our world will depend on how each of us will respond to this call to action

Twenty-two UN Member States sent a powerful message when, not even a year after the adoption of the 2030 Agenda, they presented their national voluntary reviews at the 2016 High-Level Political Forum. These set out how they intended to integrate the SDGs into their national strategies and budget processes.

A broad range of national and international actors, including UN organisations, have contributed to unprecedented outreach efforts through traditional and social media, and various international, national and regional events, initiatives, partnerships and alliances. These awareness and advocacy campaigns have brought the general public's knowledge of the SDGs to a much higher level than the MDGs after just one year.

Our early perceptions are that the private sector, including leading international businesses, have already turned the SDGs into action and innovation globally, and used the 2030 Agenda as a platform to drive investments and growth. While more companies, investors and financial markets need to integrate the SDGs into

of stakeholders, including the private sector and civil society, while the World Humanitarian Summit was unequivocal in confirming the SDGs and a desire to ensure that no one is left behind.

The New York Declaration – signed by 193 UN Member States at the UN Summit for Refugees and Migrants in September 2016 – connects development efforts to humanitarian action, human rights and the advancement of peace. It is critical for the success of the 2030 Agenda, as there can be no sustainable development without peace, and no peace without sustainable development.

Changing the way we think

Yet, the road to 2030 and a world free of poverty and hunger will be long and arduous. The SDGs require that we all change the way we think about development. We must place innovation at the centre of our work. Innovative thinking, innovative models as well as innovative mechanisms and partnerships must emerge, where all stakeholders – government, business, civil

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About us

The United Nations Association - UK (UNA-UK) is the only UK charity devoted to building support for an effective UN, and a vibrant grassroots movement campaigning for a safer, fairer and more sustainable world

In 1945, the creation of the UN reflected the hope for a better future. Since then, UNA-UK has enabled ordinary people to engage with that promise, by connecting people from all walks of life to the UN and influencing decision makers to support its goals.

Today, the need for the UN has never been greater. Thanks to the organisation, millions of people now live longer, safer and healthier lives. But many have been left behind. Far too many people still die each year from violence, disasters and deprivation. Human rights violations persist in all corners of the globe, and humanitarian emergencies are set to increase. War and persecution have forced more people to flee their homes than at any other time since records began.

These problems are not confined to one country. Nor can they be tackled in isolation. The UN is the only organisation with the reach, remit and legitimacy to address the challenges we face.

Over the last two years, the UN has demonstrated its ability to forge global solutions through two landmark agreements on sustainable development and climate change. Making these commitments count – for the world's most vulnerable people and for the future of our planet – will require global cooperation and public buy-in on a scale that transcends the buzzwords of 'partnerships' and 'engagement'.

UNA-UK serves as a bridge between governments, the UN and the public. We lobby for joined-up thinking on peace, development and human rights, and for strong action on climate change. We work with experts and practitioners to find new ways to tackle the challenges we face. Through education and training, we equip young people to play a role in international affairs. And by demonstrating why the UN matters, we encourage people to act on their responsibilities as global citizens. Our members and supporters multiply these efforts at the local level, and our sister UNAs around the world do so internationally. Together, we form a critical mass of support for a strong, credible and effective United Nations. ●

To find out more and to join our growing movement, visit www.una.org.uk. If you are interested in working with us, please contact us on: +44 (0)20 7766 3454 or info@una.org.uk



Front cover: Syrian children play at a refugee camp near Izmir, Turkey. Following the EU-Turkey deal, many refugees are looking to make Turkey their permanent home but they are faced with limited access to education, healthcare and adequate housing. © Chris McGrath/Getty Images.



WHERE YOU SEE PAPER WE SEE THE FUTURE OF THE PLANET AND PEOPLE.

Maybe you haven't heard of us, but in the world of paper, when you hear about sustainable growth, our name will immediately sound familiar. We are Sofidel, and we have always been mindful of building a sustainable future for the planet and people. For many years we have been committed to fighting climate change, increasing the use of renewable energy, the responsible procurement of raw materials, and the promotion of health and responsible consumption. In line with the **UN goals for Sustainable Development**, we have now renewed our commitment, establishing an important and significant partnership with **WaterAid**, an international non-profit organisation whose mission is to transform the lives of the poorest and most marginalised people, improving their access to drinking water and sanitation services. The careful attention to water resources, as a fundamental vehicle for health and well-being, added to the work we have taken forward in our production processes, has led us to the point where our water usage now is well below the industry benchmark. www.sofidel.com

