With 193 governments coming together to agree a common framework to tackle 17 major world issues by 2030, business engagement is seen as critical to help achieve the Global Goals. So how do you understand the implications of the SDGs and prioritise them? How do you quantify and minimise the potential risks, and explore the opportunities?

Navigating the SDGs: a business guide to engaging with the UN Global Goals

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Foreword

How CEO's think about their business' impact

(Source: PwC 19th Annual Global CEO Survey)

"…businesses in the future – in order to be properly measured – should take into account all the impact they have on society, not just the financial ones."

Fernando Gonzalez Olivieri
CEO, CEMEX, Mexico

"A highly-profitable modern company has to invest in its employees, the global environment, and a better life for others."

Herman Gref
CEO and Chairman of the Executive Board, Sberbank, Russia

"If a leader's only responsibility is an old-world definition of capitalism, he or she had better expand that definition or they'll lose confidence from the governments they interface with and from their customers."

John Chambers
Executive Chairman of the Board, Cisco Systems, Inc., US

A thriving society in a thriving environment. This is a topic close to my heart. I think it's what every individual hopes for, wherever in the world they live Clean air and water, safe streets and housing, human rights respected, enough food, a properly paid job, peace etc. Each sounds like a simple achievement, but for many they are still far from a reality. When they do happen, it's not by accident.

Two key institutions drive it – government and business make and implement decisions that can have a real and lasting impact on society and the environment, for the better or the worse, and across the short and long term. Government defines and drives policy and regulation; and business defines and drives its own strategy. Business, alongside government, has a very key role in driving the ability for a society to thrive… or not.[1]

The Sustainable Development Goals are a blueprint for this model. Driven by government to improve society and the environment and 'leave no one behind', the SDGs are a reason for government to make additional demands on the business community. The ask won't be of the begging bowl, philanthropic variety (although I am sure ad-hoc projects and investments will all be welcome), but for business to get 'back to basics' and to innovate. Governments will expect business to find out how their operations help (or hinder) governments to achieve the Global Goals and to take action to reduce and eradicate the negative impacts, and improve the positive. It will be about business methodically understanding what their impact is, both positive and negative, and reviewing process, product, packaging, distribution, procurement etc. In fact, all the building blocks of an operation that impact on its positive contribution towards the SDGs will be under scrutiny – just as they are already, to monitor and manage performance against budget and target.

In addition, governments will hope to see business develop new solutions as well, applying their skills and specialist knowledge to innovate, to create new materials, products and processes. Utilising new thinking in the energy space, climate smart agriculture, use of smart data, new materials and the like will go some way to achieving the goals.

With the Global Goals estimated to need $5-7 trillion a year to achieve[2], a significant chunk of which will need to come from private sector sources, business has a vested interest to make sure objectives are achieved. I am sure business will want to capture any opportunities that this level of investment must surely create.[3] Actively engaging with the dialogue on the SDGs can help business achieve its own aims in tandem with those of government. Ultimately, it will improve its own operating environment at the same time as society takes positive steps forward.

Critics may believe this self-interest is not to be encouraged, but when you think about it, business profits from solving social problems. When it makes profit while benefitting society and its own bottom line at the same time, it has the potential to create solutions that are scalable.[4] Certainly, consumers are happy for business to increase profits at the same time as generating economic and social benefits (80% are in agreement, up from 74% in 2015)[5] and as we have seen from PwC's 19th Annual Global CEO Survey, 90% of CEOs say their customers have a very high impact on their strategy.

In my mind, the roll out of the SDGs reads like a blue print for shifting the needle, a step change for everyone to experience the basics in life … reaching that end goal of a thriving society in a thriving environment. It's an environment that business will prosper in too.

2030 will be here before we know it, so it's important to act now. Governments need to establish their priorities, the initiatives they'll put in place, what they'll measure, and how they'll monitor progress. Business needs to understand what the individual SDGs are actually about, the overlaps between them, how its own activity contributes towards the achievement of each one (both positively and negatively), and the action and investment required if it is to have an informed dialogue with Government and stay competitive. Data will be crucial – determining what to measure and how, actually measuring, monitoring and reporting it, will all be significant challenges in themselves. The demands for a more granular understanding of business impact could drive a data revolution in itself.

Our 'Navigating the SDGs: a business guide to engaging with the UN Global Goals', gives business leaders the salient information needed to start the process of engaging with the SDGs in an effective way. It cuts through the growing documentation available on the SDGs, to focus in on the pivotal points for business. We've also been thinking about what tools business needs to help them. As a starting point, we've developed the PwC Global Goals Business Navigator which explores which SDGs are more relevant to a business and its potential value at risk if they're not achieved. It's a first step to inform internal conversations.

Pressure won't just come from government either. Business leaders should also anticipate a groundswell of interest and pressure from a range of stakeholders, such as employees, customers and investors. There is growing interest for business to understand and manage the consequences of its activities against a backdrop of its impact on society and the environment.

I believe if business uses its scale and reach to make a positive contribution and to address any negative impacts then there is a good chance the SDGs can be achieved. In our experience working with clients, once the CEO and senior leadership are on board, momentum builds quickly in tandem with the opportunity to drive real change. Engaging the board therefore becomes a crucial milestone on the journey to delivering a thriving society in a thriving environment.

Malcolm Preston
PwC Global Sustainability & Climate Change Leader

"Our planet and its people are suffering too much. This year has to be the moment for turning global promises into reality. Governments must take the lead with decisive steps. At the same time, businesses can provide essential solutions and resources that put our world on a more sustainable path"

United Nations Secretary-General Ban Ki-moon, speaking at Global Economic Forum in Davos, Switzerland January 2016

Introduction

What's the purpose of this guide?

Our SDG guide is designed to act as a practical introduction to the SDGs and their implications for business. We expect business will need to engage with the SDGs at a fundamental level. It's unlikely that a philanthropic or a project based approach will be sufficient to achieve them – for many, changes to business as usual will be demanded to stop business practices with negative impacts and to start new ones with positive impacts. This new reality may be a difficult transition for some, but embedding sustainability principles over the long term is already shown to improve bottom-line results and be valued by investors.

Explaining each of the SDGs in turn and why they matter to business, our aim is to help companies understand the challenges that each goal is seeking to address; the ways in which each goal is relevant to business; and how business leaders can take action to mitigate the risks and grasp the opportunities that each goal presents. We bring this to life with practical examples and also explore how to identify and prioritise the SDGs that are important to your business. We recognise trying to tackle all 17 goals will be impossible for most businesses, but agreeing where to start can be the hardest decision of all!

What are the Sustainable Development Goals?

The SDGs apply to all countries and set the priorities for governments. Demographic and social change, shifts in global economic power, urbanisation, climate change, resource scarcity, inequality and technological breakthroughs all demand a collective, international response. The SDGs set the agenda for all nations to tackle these challenges with an emphasis on good growth: good growth that delivers social and environmental value, as well as optimal economic benefit (as opposed to growth that is short term to the benefit of the few).

Initially seen as the successors to the Millennium Development Goals (MDGs), the ambition and scope of the SDGs are much broader. Where the MDGs focused on issues particularly affecting developing countries, such as the eradication of extreme poverty and hunger or the reduction of child mortality, the SDG framework is equally applicable to the developed world. The framework includes goals addressing industry, innovation and infrastructure, responsible consumption and production, and climate action, as well as refreshed goals targeting poverty and hunger, and health and well-being. All countries have some way to go to achieve all of them.

The SDGs are the product of three years of intensive multi-stakeholder negotiations involving players from all sectors - negotiations in which business has played a large and essential part.

SDG Snapshot

Sustainable Development Goals (SDGs) replace the Millennium Development Goals (MDGs) which ran from 2000 to 2015.

The SDGs are 17 goals tackling major world issues agreed by 193 UN member states to be achieved by 2030.

169 targets underpin the 17 goals.

Why do the SDGs matter for business?

Governments are already starting to use the SDGs as their roadmap for shaping and implementing national policy and regulation. As a top three influencer of business strategy (in the 19th Annual Global CEO Survey, 69% of CEOs said that governments and regulators have a high or very high impact on business strategy), governments embracing the SDGs will have an impact on business as usual. For example, the Governments of Canada and Australia have both published reports assessing the opportunities and challenges that arise from the SDGs from their national perspective; the Government of Finland has established a multi-stakeholder SDG Commission led by the Prime Minister, with a mission to embed sustainable development into Finnish policies, measures, budgets and action; and the German Government has established a Council for Sustainable Development, an advisory body mandated by and reporting back to the German Federal Government. Similarly, governments such as India, Colombia and Botswana have all made public their strategic planning and commitments to the agenda. Smart companies know that understanding the SDGs will give them insight into how the policy and regulatory environment in which they operate will evolve, helping them to develop more resilient business models.

Going further and analysing their alignment with the Global Goals, will give companies a view on how their business activities help or hinder governments from achieving their goals, or even take them in the wrong direction. Actively aligning business strategies with the SDGs, will enable companies to maintain or strengthen their licence to operate. We believe they'll also have a distinct competitive advantage over those companies that neither understand their contribution nor revise their strategies accordingly.

The 17 SDGs, and the 169 targets that underpin them, provide a blueprint for good growth at the national level, but also provide insights for companies on how they can create economic, social and environmental value for their investors and other stakeholders. Aligning with the SDGs, will allow business to understand and better respond to the risks and opportunities they face in a world, characterised as it is by rapid change and disruption across social, environmental and economic dimensions. Forward thinking companies are already going further and developing business strategies that embrace the growth potential of responsible environmental and societal policies, and drive sustainable business practices through their value chains. This is a big shift from the time when business saw sustainability issues as side issues, only useful for reducing energy or waste disposal costs or supporting worthy community causes.

What's the business case for helping to achieve the SDGs?

There are a number of compelling reasons for business to focus on sustainable business practices, which make it a simple, logical choice.

Increased future government focus on sustainable business: by committing to SDG target 12.6, national governments have agreed "to encourage companies, especially large and transnational companies, to adopt sustainable practices and integrate sustainability information into their reporting cycle". Thus, companies should anticipate policies and regulations that seek to deliver on that commitment.

Sustainable business practices improve performance: evidence shows that companies with higher ratings for environmental, social and governance factors, i.e. strong sustainable business practices, have: **(1) lower costs of debt and equity** – the market recognises they are lower risk and rewards them accordingly; and (2) that they generally **outperform the market** in the medium (three to five years) and long term (five to ten years).[6]

Here's supporting evidence: the MSCI have recently added a Sustainable Impact Index[7] to their All Company World Index (ACWI) – which is designed to identify listed companies whose core business addresses at least one of the world's social and environmental challenges, as defined by the SDGs. Over the first four months of its operation (from 30 November 2015 to 31 March 2016) the MSCI ACWI Sustainable Impact Index outperformed the MSCI ACWI Index, in terms of net returns, by 14.8%. And a recent study undertaken by Deutsche Asset & Wealth Management of more than 2,000 empirical studies, published by the Journal of Sustainable Finance and Investment in December 2015, found a positive correlation between environmental, social and governance (ESG) criteria and corporate financial performance. So, the numbers are backing up the moral imperative to act.

Broad range of wider business benefits: companies report that sustainability strategies deliver value through reduced operational, reputational and regulatory risk; decreased operating and supply chain costs; enhanced product value propositions attracting greater market share or price premiums; and/or growth via new markets or product innovation.[8]

Increasing focus of CEOs: For sustainability strategies, like any other business strategy, to be successful, companies need to set goals and establish accountabilities, supported by business metrics. 72% of CEOs state that their companies are reporting non-financial information, according to PwC's 19th Annual Global CEO Survey. CEOs are recognising that short term, profit centric models are reducing in relevance and they are changing their approach accordingly: 84% of CEOs said that they are expected to address wider stakeholder needs, 86% of CEOs say they are changing how they measure success and what they hold themselves accountable for, and 76% of CEOs say business success is about more than just financial profit. This new perspective will drive new business behaviours.

Which SDGs should my company focus on?

With 17 goals to consider it's easy to see how individual businesses will struggle to focus on addressing them all. In our SDG Engagement research,[9] only 1% of companies said they would even be assessing their impact across all 17, let alone tackling them all, with many planning to prioritise those they view as most material. Agreeing the firm's engagement with the SDGs is therefore a board level discussion as well-informed debate is required in order to hone in on the right set of priorities to drive the strategy.

Many of the goals interconnect with others – and some generate more value than others (see page 31 for more details), so defining a strategy is challenging.

We recognise a structured approach to these conversations is required if they're to be productive and so have thought through not only the key things to consider (see page 23), but also developed a tool to show where your business has value at risk if the SDGs fail (see page 51 for more on the Global Goals Business Navigator). Both are useful to use when defining business impact and shaping conversations.

Next steps?

We hope that you find our guide interesting and useful. We believe the SDGs will have wide ranging implications for business as governments introduce new regulation and policy to meet their goals, but that they also represent many opportunities to embrace. This guide is a first step in helping the business community get to grips with the SDGs and start to define their approach. For more, we have a wealth of additional information on our website: www.pwc.com/globalgoals or if you have questions, please do get in touch (details are on page 94).

No poverty

What is it? *End poverty in all its forms everywhere*

What's the global challenge?

- The world succeeded in cutting the 1990 poverty rate in half by 2010, achieving the first Millennium Development Goal target five years ahead of schedule. Nevertheless, the number of **people living in poverty** remains unacceptably high: in 2012, 896 million people lived on less than $1.90 a day.[10]
- Poverty rates have declined in all regions, but the **rate of decline** has been **uneven**. East Asia achieved a dramatic fall in extreme poverty from 80% in 1981 to 7.2% in 2012 and South Asia saw a fall from 58% to 18.7% over the same period; but poverty in **Sub-Saharan** Africa still stood at 42.6% in 2012.[11]
- Poverty is not only an issue for the developing world and the principle of the SDGs, of leaving no-one behind, also applies to rich countries. Across the **OECD countries**, the average poverty rate (which is equal to the percentage of people whose income falls below the poverty line – defined as half the median household income) is 11.5%. This gives a measure of how widespread poverty is, defined by the respective national standard. The **US ranks 30th** out of the 34 OECD countries, with a **poverty rate of 17.4%**.[12]
- The poor are particularly **vulnerable** to **natural disasters, armed conflict, epidemics, economic shocks, food insecurity** and **climate change**. Such stresses often push those who have managed to get themselves out, back into poverty.
- The number of **people affected globally by disasters** has been increasing by an estimated 50,000 to 60,000 per decade since the early 1970s, with **250 million** affected per year over the last decade. Over **99% of deaths** already attributable to **climate-related changes** occur in **developing countries**, with children making up over 80% of those deaths.[13]

Why does it matter for business? And what can business do?

Poverty is both a risk and an opportunity for business

- Businesses that pay their staff wages that are below a living wage are at risk of **reputational damage**. Often it is staff employed indirectly via **contractors** who get the lowest pay. Increasingly, consumers expect companies to meet basic, minimum standards on pay, including for staff hired through contractors, and some are prepared to **vote with their feet** if they become aware of companies that do not. The pervasiveness of **social media** makes the exposure of issues more likely and the ensuing reputation damage potentially more devastating. On the upside, there is also evidence that higher wages can lead to **increased productivity**.[14]

? *Do you pay all your staff a **fair or living wage** in all countries of operation? Do you require the same of **contractors?** Have you identified and addressed any potential **risks** relating to low pay in your operations? Do you track pay rates against productivity?*

- Businesses are increasingly also considering fair pay in the context of their **supply chains**, both to manage potential reputational risk and as a **positive lever** for lifting people out of poverty.

? *Do you include a living wage approach to **fair compensation** in your **supply chain policy?** Does this apply across the whole of your supply base? Have you assessed the reputational risk of not having such an approach?*

- In recent years, an increasing number of companies are exploring **inclusive business** opportunities that bring benefits to their businesses as well as to the poor. 'Inclusive business models' are **commercially viable** and benefit businesses through **new markets, higher revenue, innovation** and **strengthened supply and distribution chains**. And they serve the poor by providing them with **access to products and services** as consumers, or by including them in the value chain as employees, suppliers or distributors, and empowering them through **skills development and earnings**.[15] Often these business models incorporate an element of **microfinance or microcredit** as a key enabler for the poor to participate.

? *What approaches are you using to support the poor to **access your products or services?** Would an **inclusive business model** help your company **access new markets** in developing countries? Have you considered how to include people from poorer communities in your **supply chain** or **distribution channels** and what business and social benefit this could deliver? What **partnerships** might help you do this?*

You could also think about:

? *Using **community investment** to help meet the needs of the poor, shaping your programmes so that they can be sustained when your support comes to an end and measuring the **social return on investment** to help you target your efforts for maximum impact.*

? ***Impact investment**[16], i.e. investing corporate funds into projects that align with your company's **strategic objectives**, deliver **benefits to the poor**, and generate a **financial return** or, as a minimum, a return of capital.*

Key links to other SDGs:

Goal 2 – Zero hunger: even though we are experiencing tighter world food markets, there is still enough food available. Many people are just too poor to afford it. Broad-based income growth is essential to reduce global hunger in a sustainable way.[17]

Goal 3 – Good health and well-being: poverty increases the chances of suffering from poor health by limiting, for example, the ability to access health services or treatments. Poor health can also stop people and their carers accessing work or education, trapping them in poverty.

Goal 5 – Gender equality: women with equal rights are better educated, healthier, and have greater access to land, jobs and financial resources. Their increased earning power in turn raises household incomes. And evidence shows that where women have greater involvement in household decision-making, children go on to have better prospects and higher well-being, reducing poverty in future generations.[18]

Goal 8 – Decent work and economic growth: job creation and improving employment for all helps address one of the key causes of global poverty – the lack of work. For many companies, their biggest impact on poverty will be through creating decent work and economic growth.[19]

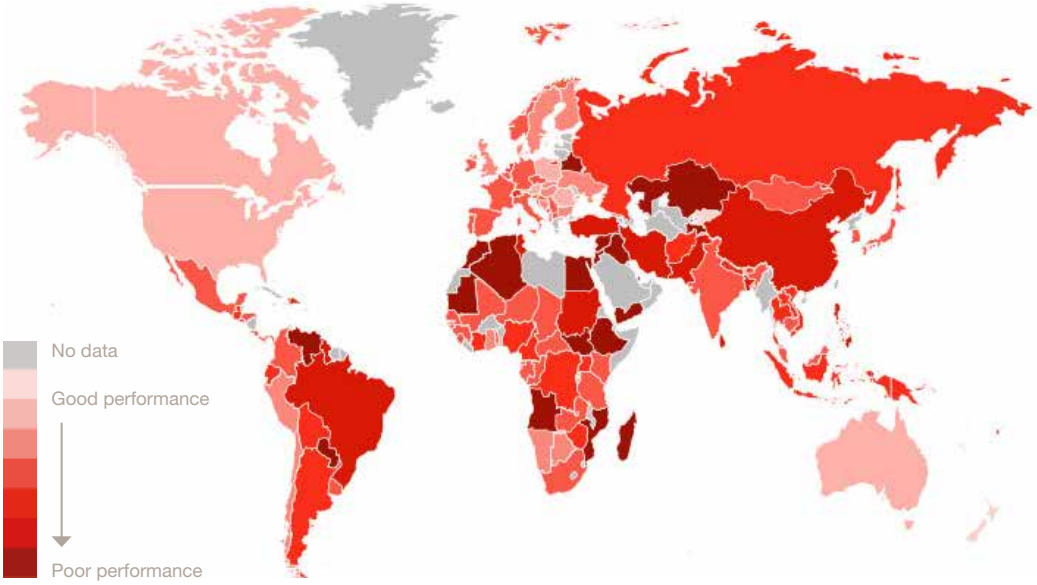
Goal 13 – Climate action: the poor are particularly vulnerable to climate change – building the resilience of communities to climate related hazards and natural disasters contributes to the achievement of target SDG 13.1 which is focused on resilience and adaptation at the country level.

Targets *in focus*

This SDG has seven targets, the first of which is "By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than $1.25 a day". Target 1.4 is shown in the heat map. By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance. For details on the remaining targets, please see 'Global Goals and targets' on page 76.

The lie of the land – exploring the distance to cover to achieve

Target 1.4: By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance



Case Study

Company: Danone

Sector: Food Production

Region/country of impact: Bangladesh

Aligns to: SDG 1 and SDG 17

Innovative partnership to address malnutrition and poverty

Global Challenge: Bangladesh is one of the world's poorest countries, 80% of its population live on two dollars a day and have no access to basic goods or services. One in two children suffer from malnutrition.

Business Response: Danone's mission, since it began has been "bringing health through food to as many people as possible". This vision was truly tested when Franck Riboud, CEO of Groupe Danone, met Muhammad Yunus, founder of Grameen Bank in 2005. This meeting led to the creation of Grameen Danone Foods Ltd (GDFL), the aim of which was to set up a small yoghurt plant in Bogra, Bangladesh, to promote local development and bring health to the community. GDFL was set up as a partnership and both parties contributed initial capital investment. GDFL developed a yoghurt which is enriched with zinc, iron, iodine, vitamin A, and accounts for 30% of a child's recommended daily nutrients; its brand name is "Shokti Doi" which means "strength yoghurt" in Bengali; and it is being sold at an affordable price to the local community. The milk for the production comes from local micro-farmers; and the yoghurts are distributed by a network of Rural Sales Women, commonly known as Jita. The business has a status of "social business enterprise", where any potential profits are spent on welfare of the local people and community development.

Benefits: The most important benefit is that the new yoghurts became a good supplement to children's diet and that it improved their overall health. Other benefits to the local people have included: employment for women distributing yoghurts; employment opportunities with fair wages and development of new skills for the plant workers; and for farmers – having a market for their milk.

This project offered Danone an opportunity to learn how to develop a low-cost nutritious product and how to sell to the poor, which they can now replicate in other parts of the world. They have also learned a new way of food fortification, which the company is now applying in their other brands e.g. Densia and Activia (which are also sold in Europe). In terms of new market entry strategy, starting up with a smaller scale operation in a new territory, proved to be easier and also less risky.

Source: Danone Communities
http://www.danonecommunities.com/en/node/567
http://www.fastcompany.com/1734931/corporate-social-responsibility-how-you-can-profit-and-kick-poverty-out
http://content.time.com/time/magazine/article/0,9171,2010077,00.html
http://www.danonecommunities.com/en/project/jita

2 ZERO HUNGER

Zero hunger

***What is it?** End hunger, achieve food security and improved nutrition and promote sustainable agriculture*

What's the global challenge?

- **World population** is expected to exceed 9 billion by 2050. That's 2.3 billion more mouths to feed than we had in 2009. Feeding this population will require raising overall **food production** by 70 percent from the 2005/7 level.[20]
- **Food demand** is not just increasing in response to population growth, **rising incomes** and a **dietary shift towards higher meat intake** are also significant. Meat production is particularly demanding in terms of land use, energy, cereal and water. Livestock is the world's largest user of land resources, with pasture and land dedicated to the production of feed representing almost 80% of the total agricultural land.[21] And today, nearly half of the world's cereals are being used to feed animals not humans.[22] Livestock is the world's largest user of land resources, with pasture and land dedicated to the production of feed representing almost 80% of the total agricultural land.
- While the number of undernourished people in the world has declined sharply, there are still estimated to be almost **870 million people**, or one in eight, suffering from **chronic malnutrition**, mostly in developing countries – increasing incomes are not equally distributed across all nations.[23]
- Between a half and two-thirds of the world's poor live in rural areas, where agriculture is the dominant sector and most of the farming is done by **smallholders**.[24] Increasing **productivity** among smallholders, and **integrating** them into **value chains** by removing barriers such as low education, missing infrastructure, lack of credit and insurance markets, and insecure property rights, will be important for achieving **food security**.[25]
- **Climate change** is projected to have significant negative impacts on **agricultural growing conditions, food supply**, and **food security**. Agriculture and land-use change is itself **responsible for an estimated one third of climate change**, via, for example, deforestation, the use of fossil fuel-based fertilisers, the burning of biomass and methane release from cows – methane is a greenhouse gas far more potent than carbon dioxide.[26]
- **Healthy soil** is essential for the production of crops to feed both humans and livestock. Excessive tillage, overgrazing, soil exposure, removal of organic matter and compression from machinery amongst many other factors combine to damage soil, **reducing its fertility**. Half of the topsoil on the planet has been lost in the last 150 years.[27] **Climate change** has the potential to **accelerate soil erosion rates**, further impairing our ability to grow the food we need.[28]

Why does it matter for business? And what can business do?

Achieving 'zero hunger' is primarily relevant for companies in the food and drink production, transport, processing or retail business.

- Large food and drink companies typically simplify and standardise their supply base to achieve **greater efficiency** and **reduced cost**. This often **reduces opportunities for smallholders**. But smallholder farms can provide competitive opportunities to increase production while contributing to rural development.[29]

? *Have you **mapped** your **supply chains** to Tier 4 (primary production of agricultural products) and identified where you source from **smallholder producers?** Do your supply chain policies and procedures support or inhibit supply from smallholders?*

? *Are you working with smallholders to help them improve their **productivity?** Are you working with partners to support the **removal of any barriers** that might prevent smallholders from supplying you?*

- **Climate change** is already affecting crop production, through **spread of disease, changing weather patterns** and **extreme weather events**. Ultimately, whole regions will cease to be able to produce the crops they grow now. The knock on effects of increased food prices and lower profits will be felt right up the value chain to the retailers.

? *Have you looked at your company's **exposure to climate** and/or **resource scarcity risks** relating to agricultural production, including in your supply chain?*

? *How can you collaborate with others to improve your supply chain resilience and the resilience and adaptive capacity of the agricultural communities you source from?*

- **Innovation** in the development of crops is creating new varieties of staple crops that are higher yielding, disease resistant, stress resistant and more nutritious, and at the same time **mobile technology** is allowing farmers to access data such as farm-gate prices, research optimal soil or fertilisers or predict variations in weather patterns.

? *Are you supporting the development of **new crop varieties** with enhanced nutritional and other functional benefits? Have you thought about how you could support the development of **digital platforms** to allow farmers to share information with each other?*

- Food supply chains are also at risk from reductions in soil quality, which may be caused by climate change impacts and/or unsustainable agricultural practices.

? *Are the farming practices your suppliers use sustainable, given **predicted changes in climate and water availability?** What impact are their practices having on their **long-term productivity?** Are there long-term threats to your **continuity of supply?** Could you support suppliers to adopt **sustainable agricultural practices** that produce good quality food and **improve soil quality**, save water, and reduce dependence on synthetic fertilisers, herbicides and pesticides?*

You could also think about:

? *Whether your business has an impact on **food security** in the countries in which you operate. Impacts might arise, for example, from activities that inflate the price of food staples in sourcing countries.*

? *Helping the **communities** where you operate or source from to address any **nutrition, food security or agricultural productivity** issues they are experiencing.*

9bn

World population is expected to exceed 9 billion by 2050. That's 2.3 billion more mouths to feed than we had in 2009. Feeding this population will require raising overall food production by 70 percent from the 2005/7 level. What can business do to drive change?

Key links to other SDGs:

A closely linked issue: food waste (SDG target 12.3)

How are the challenges connected? The world is producing more than enough food to meet the hunger challenge. Recovering **just half** of what is **lost or wasted** would be enough to feed the world.

See SDG 12 in the Guide, for ideas on how business can help address this issue.

Goal 1 – No poverty: even though we are experiencing tighter world food markets, there is still enough food available. Many people are just too poor to afford it. Broad-based income growth is essential to reduce global hunger in a sustainable way.[30]

Goal 3 – Good health and well-being: malnutrition is one of the main contributors to high child and maternal mortality rates in developing countries.

Goal 6 – Clean water and sanitation: agriculture is the single largest user of freshwater resources, using a global average of 70% of all surface water supplies. But, agriculture both causes water pollution through, for example, discharge of pollutants and sediment to surface and/or groundwater; and is a victim through use of wastewater and polluted surface and groundwater which contaminate crops and transmit disease to consumers and farm workers.[31]

Goal 10 – Reduced inequalities: improving the productivity and incomes of small-scale producers, typically poorer members of society, will help reduce inequalities within and among countries.

Goal 13 – Climate action: the livestock sector accounts for 15 per cent of global emissions, equivalent to exhaust emissions from all the vehicles in the world. Shifting to a pattern of eating less meat could help us combat climate change, as well as enable us to produce more food overall.[32]

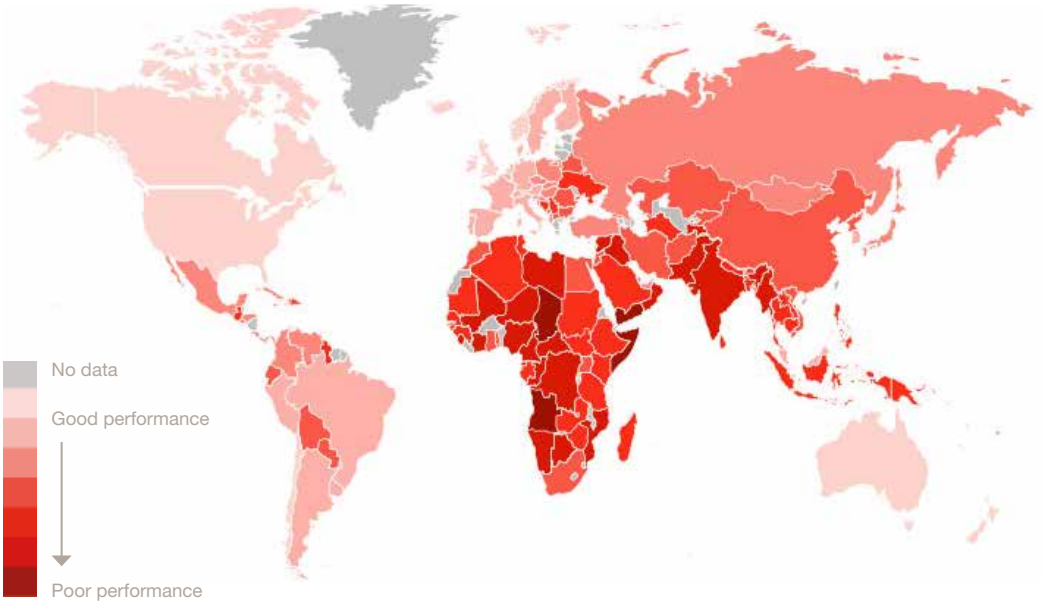
Goal 15 – Life on land: restoring soil quality and promoting the sustainable use of ecosystems, are key to feeding our growing world population.

Targets *in focus*

SDG2 has eight targets. Target 2.1 in the heat map is "By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round". For details on the remaining targets, please see 'Global Goals and targets' on page 76.

The lie of the land – exploring the distance to cover to achieve

Target 2.1: By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round



Case Study

Company: Woolworths

Sector: Food retailer

Region/country of impact: South Africa

Aligns to: SDG 2

Woolworths created 'Farming for the Future' to address the agricultural challenges that face South Africa

Global Challenge: The world population is increasing and in turn, so is demand for food. An estimated one third of all food produced is wasted each year and climate change has had severe negative impacts on the agricultural sector. This pairing means adaptation and a shift toward sustainable practices within farming is needed to take a step toward eliminating hunger in an ever more challenging environment.

Business Response: In 2009, Woolworths realised that the farming methods being used in their supply chain in South Africa were not sustainable. This triggered the company to create a method of farming that produced high quality food whilst preserving natural resources and providing a livelihood for the agricultural community. 'Farming for the Future' is a holistic farming approach that starts with building and maintaining the soil.

Benefits: Healthy soil, full of minerals and nutrients, is essential because it is better able to retain water and so yields healthier crops. Higher water retention reduces the need for irrigation, and soil erosion is reduced, lowering the overall cost to farmers. Healthy soil requires fewer chemicals which, combined with the use of fewer pesticides, contributes to maintaining and encouraging biodiversity on farms and is safer for farmers' health. This process makes the start of the farming supply chain more sustainable. Today, 98% of Woolworths' primary local suppliers have adopted the 'Farming for the Future' approach.

Source: ifama
http://www.ifama.org/files/IFAMR/Vol%2017/Special%20Issue%20B/Woolworths_19.pdf
http://www.woolworths.co.za/store/fragments/corporate/corporate-index.jsp?content=../article/article&contentId=cmp206000

Good health and well-being

What is it? *Ensure healthy lives and promote well-being for all at all ages*

What's the global challenge?

- Developed and developing countries alike are seeing a huge growth in the numbers of people suffering from chronic **non-communicable diseases (NCDs)** such as cardiovascular disease, cancer, diabetes and respiratory disease – these are now the leading causes of death and illness worldwide.[33] In 2011, it was estimated that over the next 20 years, NCDs would cost more than US$ 30 trillion, representing 48% of global GDP in 2010, and push millions of people below the poverty line.
- **Mental health disorders** such as depression are among the 20 leading causes of disability worldwide. Depression affects around 300 million people worldwide and this number is projected to increase. Fewer than half of those people affected have access to adequate treatment and health care.[34]
- **Infectious diseases** remain a challenge in many regions. Sub-Saharan Africa is the hardest hit, accounting for 90% of malaria deaths, more than 70% of all people living with HIV and nearly one-third of all TB cases.[35]
- Nearly 3500 people die from **road traffic crashes** every day. Road traffic injuries are projected to rise as vehicle ownership increases due to economic growth in developing countries.[36]

Why does it matter for business? And what can business do?

A healthy business depends on healthy, productive workers and thriving consumers.

- The growing number of people living long-term with, or dying from **NCDs**, represents a huge cost to economies and businesses in terms **of decreased workforce productivity, talent lost to disability, and avoidable health costs**.

? *Have you thought about how these **costs** could be **affecting your business?***

- NCDs are **preventable** since they are largely caused by lifestyle health risk factors such as physical inactivity, unhealthy diets and smoking. Healthy behaviours not only prevent and control NCDs, but they also support **good mental health**. But it's not easy for any of us to change our behaviour.

? *Have you thought about how you can **make it easier** for your employees to **adopt and sustain healthy behaviours?** Can you work with your catering providers to offer healthier menus in staff restaurants? Can you increase levels of regular physical activity by incentivising staff to walk or cycle to work, signposting the stairs or encouraging walking meetings?*

- **Mental health** issues are estimated to cost developed countries between **3% and 4% of GNP** in lost productivity at work, benefit payments and health care expenditure.[37]

? *What programmes do you have in place to support mental resilience in your workforce? Do you equip line managers to spot the signs of mental health issues and respond appropriately? Do you provide free, confidential help lines that employees can access at all times or signpost them to such services provided by others?*

- **Infectious diseases like** HIV and TB often affect people in their most productive years. Businesses are losing their workers, either in their **direct operations or in their supply chains**. Company prevention and treatment programmes can make all the difference to workers and their families.

? *Do you know whether infectious diseases are an issue in your **supply chain** or in the **communities** you source from or operate in? If so, what is your company doing to address this?*

- A significant proportion of **road traffic accidents** take place while people are working.

? *Is your company working with **suppliers and distributors** to address road traffic safety? Have you extended your company's road safety work to include safety for your **employees commuting to work?***

You could also think about:

? ***Extending** your health and safety programmes or health services to your **employees' families** and/or **local communities**.*

? *Performing a **cost benefit analysis** of potential programmes to address the underlying issues of most relevance to your business and your local communities.*

? *Whether you could develop **products or services** that could help address **health issues** and deliver a **new revenue stream**. Products and services could, for example, help facilitate health treatments, promote access to health services or support people to adopt and sustain healthy behaviours.*

Key links to other SDGs:

Goal 2 – Zero hunger: there are 795 million undernourished people in the world today. That means one in nine people do not get enough food to be healthy and lead an active life.[38]

Goal 6 – Clean water and sanitation: safe and sufficient drinking water, along with adequate sanitation and hygiene reduce child mortality, improve maternal health and combat infectious diseases.

Goal 8 – Decent work and economic growth: there is strong evidence showing that work is good for physical and mental health and well-being; while worklessness is associated with poorer physical and mental health and well-being.[39]

Goal 10 – Reduced inequalities: increasing evidence indicates that poor health outcomes on indicators ranging from life expectancy to infant mortality and obesity, can all be linked to economic inequality.[40]

Goal 11 – Sustainable cities and communities: in wealthy and poor cities alike, unsustainable and unplanned development of urban housing, transport and food systems can lead to air pollution, poor diet and physical inactivity – all drivers in the epidemic of NCDs.[41]

Goal 13 – Climate action: climate change affects the social and environmental determinants of health – clean air, safe drinking water, sufficient food and secure shelter.[42]

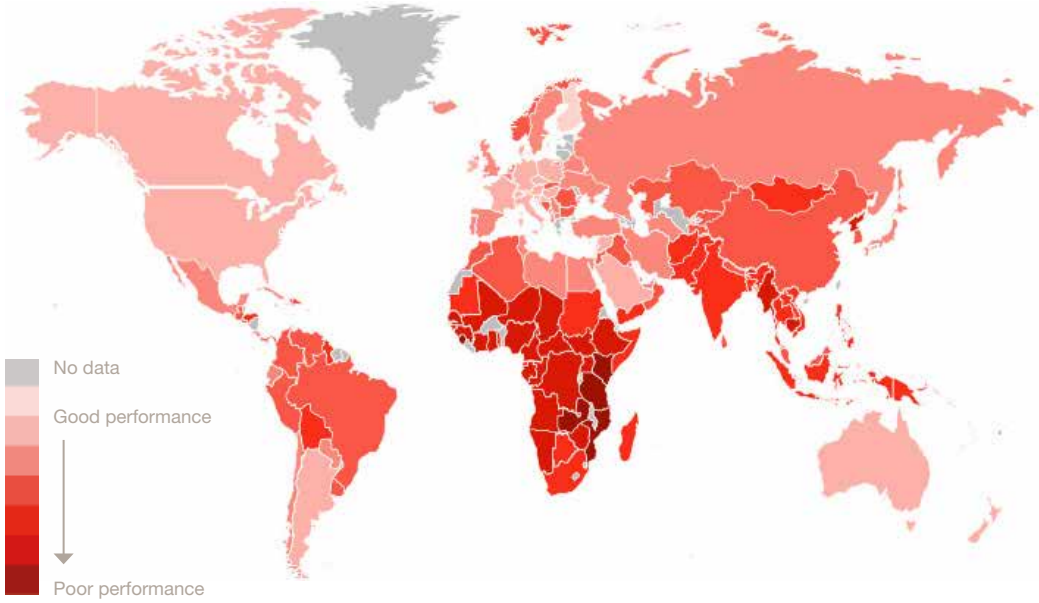
Goal 15 – Life on land: biodiversity underpins the ecosystems which we depend on for food and fresh water; aids in regulating climate, floods and disease; and provides recreational benefits and aesthetic and spiritual enrichment, all supporting good mental wellbeing.[43]

Targets *in focus*

There are thirteen targets for this SDG. Target 3.1 is "By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births". We've illustrated target 3.3 in the heat map - it is "By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases". For details on the remaining targets, please see 'Global Goals and targets' on page 77.

The lie of the land – exploring the distance to cover to achieve

Target 3.3: By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases



Case Study

Company: Anglo American Plc

Sector: Mining

Region/country of impact: South Africa

Aligns to: SDG 3

Anglo striving to "get to zero" vision

Global Challenge: Over the last thirty years, HIV/Aids has taken the lives of 34 million people around the world. In 2014 alone, AIDS killed 1.2 million people, 790,000 of whom were living in sub-Saharan Africa. Though life-saving antiretroviral treatment is available, millions of people still cannot access it: just over 40% of people who are HIV-positive are currently on treatment.

Business Response: Anglo American, employs around 73,000 in "high HIV-burden countries"; it is estimated that the "HIV prevalence rate" among its employees is about 16%. Anglo's main mining operations are based in South Africa, a country with the highest number of HIV infections in the world and a prevalence rate of 17%. The implications of this pandemic are high for the people, the society and for the businesses which are operating there. In order to try to manage the impacts of this disease on its workforce the company has set up an extensive health programme. Anglo American runs the world's largest private sector voluntary counselling, testing and treatment programme for HIV/Aids (and TB) for employees and their families, which is now also extended to its contract employees.

Anglo American's guiding vision, "Getting to Zero", reflects the UNAIDS Three Zeros strategy i.e. zero new infections; zero employees falling sick or dying from AIDS; zero babies born HIV positive in employees' families. These targets must be achieved within a framework that allows zero tolerance of discrimination, stigmatisation or any breach of human rights.

Benefits: Anglo American's response to the AIDS epidemic is a significant contribution to the sustainability of their business. The number of employees falling sick or dying of AIDS has fallen and absenteeism among HIV-positive employees has declined sharply. The retention of skilled employees and improved morale are further positive outcomes of the programme.

Anglo's health programme is also extended to the families of their employees, this provides additional medical benefits to the broader community. Furthermore, employees receiving the antiretroviral therapy are more likely to continue to work which means they can carry on financially supporting their children and families.

Source:

http://www.angloamerican.com/~/media/Files/A/Anglo-American-PLC-V2/documents/approach-and-policies/safety-and-health/HIV-Aids-Policy-June-2015.pdf

http://journals.lww.com/aidsonline/fulltext/2007/06003/business_and_hiv_aids__the_case_of_anglo_american.11.aspx

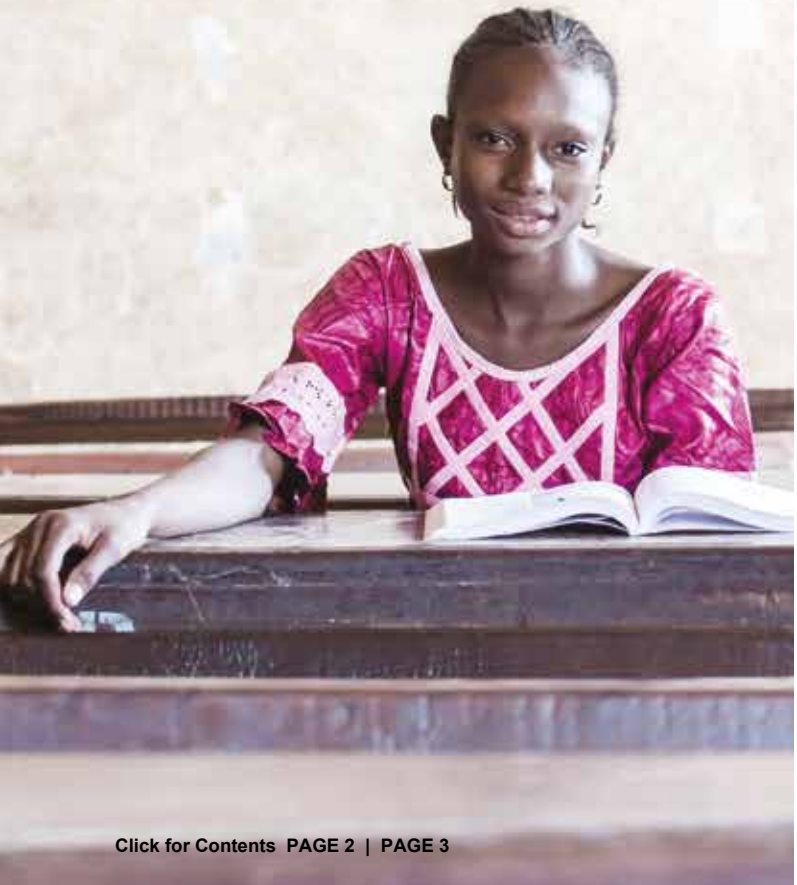
https://www.one.org/international/issues/infectious-diseases/hiv-aids/

https://sharedvalue.org/groups/anglo-american-improves-lives-south-african-employees-through-hiv-prevention-and-treatment

http://www.angloamerican.com/~/media/Files/A/Anglo-American-Plc v2/media/publication/optima/Optima_HIV_AIDS.pdf

Quality education

***What is it?** Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all*



What's the global challenge?

- The global number of **out-of-school children** of primary school age rose by 2.4 million between 2010 and 2013 to reach more than **59 million**, of which 30 million lived in sub-Saharan Africa and 10 million in South and West Africa. Efforts to reduce the gender gap have also faltered recently – and of those children of primary school age, 1 in 10 girls and 1 in 12 boys are not in school.
- Around **250 million children** are not learning **basic skills**, even though half of them have spent at least four years in school. The annual cost of this failure is estimated to be US$129 billion.[44]
- **Illiteracy** will cost the global economy $1.2tn in 2015. More than 796 million people are either completely illiterate, meaning they can't read or write, or functionally illiterate, meaning they can't perform basic tasks such as reading a medicine label. People in both rich and poor countries can become trapped in a cycle of poverty with **limited opportunities for employment** or **income generation**.[45]
- **Increased educational attainment** accounts for about **50 per cent of the economic growth** in OECD countries over the past 50 years, over half of which is due to **girls experiencing greater access to education**. But still, for the majority of women, significant gains in education have not translated into better labour market outcomes.[46]
- Technological breakthroughs and knowledge-based economies call for **new types and levels of skills and competencies**. Insufficient opportunities to access appropriate learning and development are resulting in a **knowledge divide** among and within countries, with major economic and employment consequences.[47]

Why does it matter for business? And what can business do?

Education is fundamental to the development of future workforces. It supports higher levels of productivity, adaptability and innovation. Education also fosters more stable and prosperous societies, i.e. larger and more sustainable markets for products and services.

- In 2012 the **global skills gap** comprised: nearly 40 million too few college educated workers in the global labour market; a 45 million shortfall of workers with secondary and vocational education in developing countries; and up to 95 million workers that lack the skills needed for employment in advanced economies.[48] It's no wonder therefore, that **72% of CEOs are concerned** about the availability of key skills.[49]
- Many companies are already responding: education is the issue most commonly addressed by company actions taken to advance UN goals, demonstrating that the business community views education as a top global development priority.[50]

? *Have you thought about how the global skills gaps could be **affecting your value chain now** and in **5-10 years' time?** What are the **risks** or **unrealised opportunities?***

? *What are you doing to develop your **talent pipeline?** Could **increased** or **refocused investment** in your workforce's training and development support your company's sustained growth?*

? *How will **technological change** impact your business and what are the implications for your workforce's training and development needs?*

? *Do you need to **invest more widely in education** to develop people with the skills you will need in the future, e.g. through apprenticeships or through the provision of community-based education programmes?*

? *Are there **risks in your supply chain**, such as poor health and safety standards or low productivity, which education or skills development would help address, benefiting your business as well as your suppliers and their employees? Could you support your suppliers to deliver this?*

- Increasingly businesses with a strong commitment to changing education, **work with partners** to maximise the impact of their investments. Many programmes are focused broadly on promoting **economic development** and **driving market growth** in low-income countries, by bringing previously **marginalised groups**, such as the poor or women, into the formal economy through education and employment.[51]

? *Are there opportunities for you to partner with others to deliver education programmes into developing countries where you already operate or want to invest? Could this help you create **future employees or customers** for your business?*

- Some companies are using education and **behaviour-change programmes** to address societal needs, such as health, nutrition or sanitation, at the same time as building a **new market** for their products.

? *Could you use education and skills development to **meet a social or environmental need** and create a **new customer base** for your products or services?*

You could also think about:

? *Whether you can support more **women and girls,** in the communities in which you operate or source from, to **access education** and **training opportunities.***

? *Focusing more investment on developing skills in your workforce[52] such as **adaptability, problem solving** and **systems thinking** that will help your business flourish in our constantly changing world, driven by megatrends including demographic and social change, rapid urbanisation and climate change and resource scarcity.*

? *Whether you could support more **sustainable lifestyles** by **educating your consumers** on using, recycling or disposing of your products or accessing and making best use of your services.*

Key links to other SDGs:

Goal 3 – Good health and well-being: behaviour-change based education programmes are effective in addressing the risks associated with both infectious and non-communicable diseases. Education and training of medical professionals is essential for building effective health systems.

Goal 5 – Gender equality: accessing education helps women access employment and incomes, helping them achieve greater economic equality. Education also empowers women to take a more active role in society.

Goal 8 – Decent work and economic growth: education and skills development equip people for productive and sustained employment and entrepreneurship. Employment and entrepreneurship are, in turn, core drivers of economic growth.

Goal 12 – Responsible consumption and production: education has an important role to play in making people aware of how to live more sustainable lifestyles, including reducing the waste they produce.

Goal 13 – Climate action: education, awareness-raising and capacity-building is needed on a human and institutional level to help us mitigate and adapt to climate change.

Goal 16 – Peace and justice; strong institutions: education is a strong driver of social development in post-conflict settings.[53]

$1.2tr

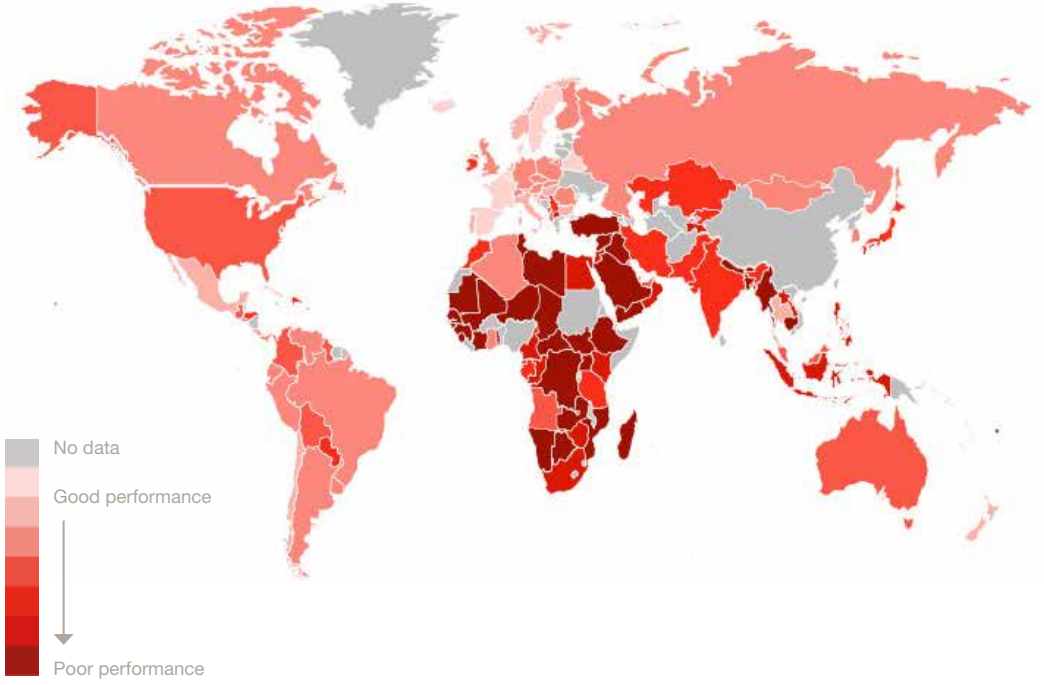
Illiteracy will cost the global economy $1.2tr in 2015. What can business do to drive change?

Targets *in focus*

This SDG has ten targets, the first of which is "By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes". The target shown in the heat map is 4.2; "By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education". For details on the remaining targets, please see 'Global Goals and targets' on page 78.

The lie of the land – exploring the distance to cover to achieve

Target 4.2: By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education



Prioritising the Global Goals – where to start

With 17 goals to consider, establishing a starting point can be difficult, especially when there are numerous ways business could assess their impact, let alone prioritise the goals. Highlighted here are areas for discussion:

Mapping your business activities to the Global Goals, do you…

a. review them all?

b. review all the relevant ones?

c. review some of the relevant ones?

Determining which Global Goals to look into, do you…

a. consider them all?

b. consider the obvious ones for your industry?

c. consider the easiest ones where you can make the strongest improvements?

d. consider the ones that will give you the best media story?

Assessing the impact of your business, do you…

a. include the whole of your business and value chain?

b. include just your direct business?

c. include your key operations?

d. include parts of the business that drive impact on some SDGs?

e. include only specific projects?

Reviewing which countries to include, do you…

a. consider them all?

b. consider only the ones in your new markets?

c. consider only the ones in developing countries?

d. consider only the ones in countries you need to make the greatest positive impression or impact?

Taking a step back, there will be a number of key questions that all business leaders need to consider before even attempting to prioritise the goals they'll address:

- Do you understand the SDG priorities of the governments in your key markets and countries of operation?
- Has your company identified the tools that will help it to assess its impact against the SDGs?
- Can you report to governments and other key stakeholders on how your company is contributing to SDGs?
- Who will lead your SDG strategy and who will drive its delivery across your business?

There is much to consider at a business level too (see Figure 1: Consider the business experience), so ensuring the right team is in place with a strong mandate to drive the delivery of your SDG strategy across your business is crucial.

Figure 1: Consider the business experience

Leadership	***Employee engagement***	***SDG focus***
Is it from the top? Does it see value in long term investment?	Create awareness and encourage bottom up initiatives	Where is your impact? Consider materiality (by geography, by product, by sector)
Understand relevance	***Prioritise interventions***	***Incorporate this learning***
The key issues for the countries you operate in	Which work best to reduce negative and increase positive impacts (in line with government targets)?	Embed into future business planning and strategy
Measurement and reporting	***Stakeholder engagement***	***Consider collaboration and align vested interests***
Evidence your contribution and impact on the SDGs	Create awareness and understanding	Suppliers, consumers, business partners, cross sector, government and NGOs

Navigating the Global Goals

We recognise that engagement will be slow without the basic tools in place to start this process, so PwC has developed the Global Goals Business Navigator to help businesses identify which of the Global Goals are most relevant, given the countries and sectors they operate in (see page 51 for more detail on how it works).

It identifies how each country is currently performing against its SDG goals and targets and uses input-output modelling techniques to highlight relevance across both direct operations and the wider supply chain. It also draws on economic research to identify where value could be at risk from countries failing to achieve their SDG commitments and the potential opportunities (i.e. where business activities could help significantly more), on a country by country basis. It thereby helps business map out and visualise their strategic priorities in a more informed way. It's another way to think about your business impact and the SDGs to feed into your conversations.

5 GENDER EQUALITY

Gender equality

What is it? Achieve gender equality and empower all women and girls

$1.6tr

There is a global labour force participation gap, estimated to cost the global economy US$1.6 trillion. What can business do to drive change?

What's the global challenge?

- While 143 of 195 countries have constitutionalised gender equality, every country still suffers some form of direct and indirect discrimination against women. This can be through **laws and policies**, gender-based **stereotypes**, and **social norms** and practices.[54]
- **Women's empowerment is a precondition** to solving poverty, inequality and violence against women.[55]
- There is a global **labour force participation gap**, estimated to cost the global economy US$1.6 trillion.[56] The employment gap is often due to women being assumed to be primary child carers, and discriminatory or unsupportive maternity policies.
- It has been estimated that it will take 118 years to eliminate the **global pay gap** between men and women doing the same work.[57] Discrimination may mean that women are not able to fully pursue their ambitions, hence the economy loses out on talent and lost productivity.

53%

Firms with greater board level diversity perform better … top out-performs bottom quartile by 53% for return on equity and 66% for return on invested capital. What can business do to drive change?

$9tr

Women in developing countries could be an estimated $9 trillion better off if their pay and access to paid work were equal to that of men. What can business do to drive change?

Why does it matter for business? And what can business do?

Promoting gender diversity and equality is key to retaining skilled talent. Board-level diversity at the most senior levels is good for business, with a wider range of experience being drawn on for better decision-making.

- Women often leave the workforce because **maternity** and career development seem incompatible. Many return after a career break to a lower paid or less skilled job. Many employers do not offer 'well-paid' maternity leave, defined as 66% or more of salary.[58]

? *Do you measure your rate of retention of women and related costs and benefits? What could you do to support women **returning to work?** Do you offer flexible working?*

- **Firms with greater board-level diversity perform better**, e.g. Fortune 500 companies with the highest percentage of woman board directors (top quartile – about 130 companies) outperformed those with the least (bottom quartile) by 53% for return on equity and 66% for return on invested capital.[59]

? Women are vastly **underrepresented** in the boardroom. A survey of over 550 firms from 24 non-EU countries found an average 11.6% of board positions are held by women, vs 20.3% of board positions held by women for EU companies.[60]

? *How could you ensure your board is diverse and that female talent is retained throughout the internal pipeline? Are quotas or targets an option? How do you manage **unconscious bias** in your company, including around promotion processes?*

Women in developing countries could be an estimated $9 trillion better off if their pay and access to paid work were equal to that of men.[61] The additional output generated by decreasing the gap in employment between men and women could drive the wider economy. Indeed a recent report found that $12 trillion could be added to global GDP by 2025 by advancing women's equality and an amazing $28 trillion would be added by that date if women were to play an identical role to men in the labour markets.[62]

- Access to finance, land and other economic necessities is difficult for women, with a study of 143 countries finding that 90% have laws which restrict women's economic opportunity.[63]

? *What can you do to **economically empower** women in your value chain and through your products, services and community investment, including those in informal and vulnerable jobs?*

Women are more likely than men to work in the informal sector,[64] including domestic household work and small scale trade. These jobs are not regulated by the law and so they may be subject to low wages, poor conditions and dismissal without notice.

- Women need more than just education and training to be able to achieve economic empowerment, they also need to be safe from human rights violations.[65]

  Sexual violence and exploitation, including trafficking and the unequal division of unpaid care and domestic work, remain systematic barriers to economic gender equality globally.

? *How can you increase opportunities and mitigate the broader risks relating to gender inequality in your **supply chain** and **workforce?** Can you ensure that equal opportunities for women are explicitly part of your supply chain policies?*

You could also think about:

? *How do your **paternity** as well as maternity policies promote greater gender equality for both men and women in your firm, and the partners of your employees? Can you support men to take on more of the unpaid care and domestic work in their families? Could you consider providing childcare support?*

? *How you can foster a corporate culture that reduces **direct and indirect discrimination**, such as sexist microaggressions* and unconscious bias** in the workplace?*

*microaggressions are everyday, subtle comments or interactions which communicate derogatory or hostile messages and are discriminatory, whether intended or not

** unconscious bias = thought patterns, assumptions and interpretations built up over time and based on beliefs and values gained from family, culture and a lifetime of experience that heavily influence how we view and evaluate others and ourselves and which cause us to make decisions that are not objective.

Key links to other SDGs:

Goal 1 – No poverty: women comprise 60% of the working poor globally.

Goal 3 – Good health and well-being: more women and girls die younger in developing countries than boys and men. Gendered impacts include maternal health. Evidence shows that economic empowerment of women has significant positive impacts on family health.

Goal 4 – Quality education: unequal access, especially once girls reach puberty.

Goal 6 – Clean water and sanitation: inadequate sanitation contributes to women's health issues and violence against women and girls. Women and girls bear a disproportionate burden of fetching water where there is no pumped water.

Goal 10 – Reduced inequalities: gender inequalities are pervasive in every country in the world.

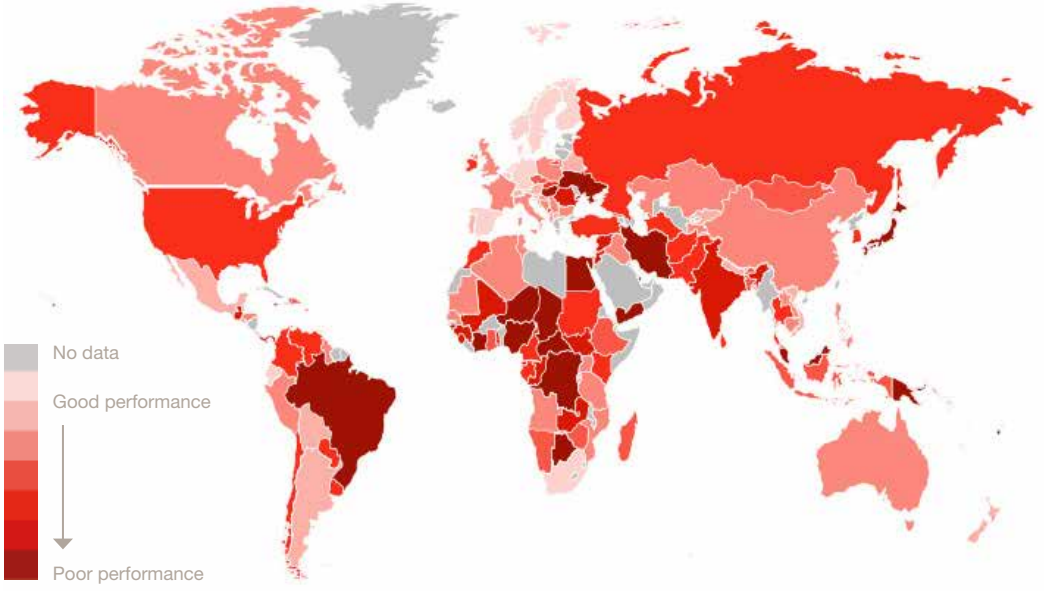
Goal 16 – Good and inclusive governance: inclusive governance should take into account the needs of women and include women as decision makers.

Targets *in focus*

SDG 5 has nine targets. The first is to "End all forms of discrimination against all women and girls everywhere". Target 5.5 in the heat map is "Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life". For details on the remaining targets, please see 'Global Goals and targets' on page 78.

The lie of the land – exploring the distance to cover to achieve

Target 5.5: Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life



Case Study

Company: Gap Inc

Sector: Retail

Region/country of impact: Global

Aligns to: SDG 5

Gap Inc. is the first and only Fortune 500 Company to disclose and validate its pay equality practices

Global Challenge: Gender equality is a global issue that needs to be resolved as it is a precondition to the elimination of poverty and inequality. Businesses need to recognise the opportunity of better performance and higher returns by having more diversity in their workforce; Fortune 500 companies with a higher percentage of women board directors outperform those with a lower percentage.

Business Response: Women make up 73% of the Gap Inc. workforce, including store managers and the CEO's leadership team. In 2014 Gap Inc. displayed unprecedented transparency by releasing data confirming that women and men in their workforce are paid equally for their work across the globe. They have reconfirmed this data for the third consecutive year in 2016. To raise awareness of the global need for equal pay for equal work, Gap Inc. has created a digital campaign to illustrate the 21% missing from U.S. women's pay slips by drawing an analogy to if 21% of a woman's outfit was missing; people would notice the latter, so should certainly notice the former. Gap Inc.'s dedication to end discrimination against women is represented at the very highest levels with actions such as CEO, Art Peck, signing the U.N. Women's Empowerment Principles.

Benefits: As a result of their efforts in addressing and reducing gender inequality, Gap Inc. received the 2016 Catalyst Award. This award recognises organisations whose innovative approaches result in proven, measurable results that advance the recruitment, development, and advancement of women in the workplace. Gap Inc. is the first retail industry company to be recognised for this award. The benefit to Gap Inc. is the reputational boost it has achieved by standing out in its industry to fight for women's pay rights.

Source: Business for 2030, Gap Inc.
http://www.businessfor2030.org/goal-5-achieve-gender-equality
http://www.gapinc.com/content/gapinc/html/media/pressrelease/2016/med_pr_epd_41116.html
http://www.gapinc.com/content/gapinc/html/media/pressrelease/2016/med_pr_gapinc_catalyst_2016.html
http://finance.yahoo.com/news/gap-inc-commitment-equality-recognized-160000225.html
http://www.catalyst.org/system/files/The_Bottom_Line_Corporate_Performance_and_Womens_Representation_on_Boards.pdf
http://www.gapincsustainability.com/measuring-our-progress

6 CLEAN WATER AND SANITATION

Clean water and sanitation

What is it? *Ensure availability and sustainable management of water and sanitation for all*

What's the global challenge?

- Clean water and sanitation is one of the most fundamental goals, since water is the foundation resource for **healthy ecosystems, thriving communities** and thus, **stable economic development**.[66]
- The World Economic Forum (WEF)'s 2015 Global Risk Report ranked **'water crises'** as the **highest impact risk** out of 28.[67] It continues to rank as the third highest risk in terms of impact in the 2016 report.[68]
- While 2.6 billion people gained access to 'improved drinking water' (compared to a 1990 baseline) during the period corresponding to the Millennium Development Goals, which ran from 2000 to 2015, **663 million people are still reliant on sources like unprotected wells and springs**.
- **Sanitation** is also a key development priority, with inadequate sanitation affecting individual health and dignity, as well as national **economic productivity**. Globally, **2.5 billion people** lack access to improved sanitation; while 1 billion people practice open defecation, nine out of ten in rural areas.
- **One in three people** already live in a country with moderate to high **water stress**, and by **2030** nearly half the global population could be facing **water scarcity**, with **demand outstripping supply by 40 per cent**.[69] Water availability and quality is threatened by pollution, the impacts of climate change, population growth and increasing consumption.
- Freshwater resource management is a complex area, with **watershed-wide approaches** evolving to take account of the **shared nature** of water resources. **Water conflict** can emerge where access or use of water resources is, or is perceived to be, unfair. For example, the high prices currently commanded by almonds have led to increased planting of this particularly water-intensive crop in California, despite a drought and water consumption restrictions being imposed on urban water agencies.[70]

#1

The World Economic Forum (WEF)'s 2015 Global Risk Report ranked 'water crises' as the highest impact risk out of 28. (It ranks as the third highest risk in terms of impact in the 2016 report, behind 'failure of climate change mitigation and adaptation' and 'weapons of mass destruction'.)

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Why does it matter for business? And what can business do?

Water is a key resource for business, with many sectors facing risks connected to quality, availability and access. Addressing gaps in clean water access or sanitation also provides opportunity for some businesses.

- Worldwide, agriculture accounts for 70% of all **water consumption**, compared to 20% for industry and 10% for domestic use. In industrialised nations, however, industries consume **more than half** of the water available for human use. Belgium, for example, uses 80% of the water available for industry.[71] Companies in the food, beverage and manufacturing sectors have therefore, a particularly important role to play in managing its use, often referred to as **water stewardship**.

- At the extreme, as the impacts of climate change or over-extraction are felt, some companies will be at risk of having **'stranded assets'**. If the water resources needed to keep assets, such as water intensive crops or nearby processing facilities, operational are no longer available, their value to the business and its shareholders is lost.[72]

- In planning and implementing their approach to water stewardship, business needs to consider the whole of the **industrial water cycle**, from extraction right through to **wastewater treatment** and **reuse**, and its impact on the natural water cycle.

? *Have you measured your **water footprint** of both your direct operations and your supply chain activities? Are you or your key suppliers sourcing water from any particularly **water stressed locations?** What will the picture look like in ten years' time? How do water issues affect key **stakeholders** in areas where you have operations?*

- Businesses are major users of freshwater, for example, it takes around 150 litres of water to make one litre of beer, and 7,000 litres to grow the cotton to make one pair of blue jeans. However, **leakages** and **missed efficiency gains** are a hidden operational cost, as well as increasing the local environmental footprint.

? *Have you assessed opportunities for improving water efficiencies in your direct operations? Do you need to improve your **data quality** to build a better picture of this? What about water use elsewhere in your value chain, including water use by customers using your products? Can you influence this through changes to product design?*

? *Can you improve employee engagement in order to deliver on water efficiency goals? This could include awareness programmes on reduction, recycling and safe reuse of water.*

- The shared resource nature of water lends itself to a **systems-based approach** via **multi-stakeholder partnerships**. The 2030 Water Resources Group is an example of a public-private-civil society collaboration that aims to drive action on water resources reform in water stressed developing countries. Target sectors for this initiative are: energy, extractives, agriculture, financial services and utilities.[73]

? *Could you have greater impact on water management through participation in multi-stakeholder partnership initiatives? Would this help you address your business' water scarcity risks more effectively? Could it help you build stakeholder trust?*

- Helping to address **gaps in access** to clean water and good sanitation is an opportunity for some sectors to create shareholder value and play a part in solving a major global problem; and many businesses will benefit from the **healthier employees** that will result. **Lost working days** resulting from poor sanitation costs the global economy approximately $4 billion annually.[74]

? *Do you know if access to clean water or sanitation is an issue in your supply chain? Do your supply chain policies require suppliers to provide potable water and clean toilet facilities? Do you monitor suppliers for compliance with these policies? What action do you take if non-compliances are identified?*

- Some businesses have identified an opportunity to influence customers, communities or the employees' families, encouraging more **hygienic behaviours**, such as regular hand-washing, or reducing customs such as open defecation. Hygiene is often grouped together with water and sanitation and referred to as WASH.

? *Could you leverage particular expertise or products in order to focus WASH in your community investment programmes? For example, could any of your products or services encourage increased usage of toilets or handwashing? What would be the associated business benefits: increased products sales, reputation gains?*

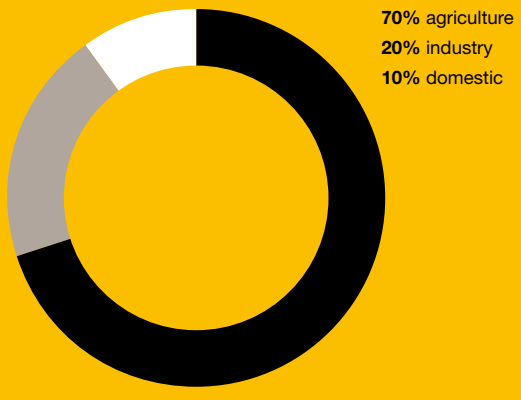
You could also think about:

? *How you could **incentivise water efficiency** in your operations. Could performance against targets be part of your firm's appraisal process?*

? *Including water and WASH as part of your **integrated reporting** or **sustainability reporting?***

? *Whether you could transition your company policies from **water management** towards **water stewardship**. Consider how you might be able to contribute to improving water catchment basins as a whole to have a positive impact, in both your direct operations and in your supply chain, rather than simply avoiding negative impacts.*

Where's water going?

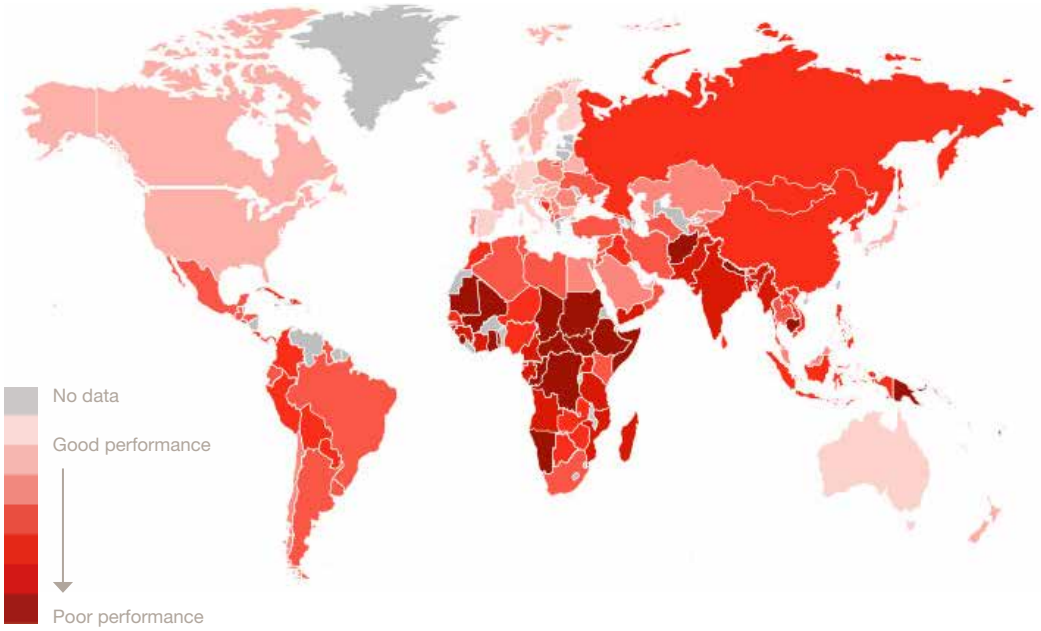


Targets *in focus*

There are eight targets for this SDG. The first is "By 2030, achieve universal and equitable access to safe and affordable drinking water for all". Target 6.3 illustrated in the heat map is "By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally". For details on the remaining targets, please see 'Global Goals and targets' on page 79.

The lie of the land – exploring the distance to cover to achieve

Target 6.3: By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally



$4bn

Lost working days resulting from poor sanitation costs the global economy approximately $4 billion annually.

Key links to other SDGs:

Goal 3 – Good health and well-being: water and sanitation are closely linked to health, given waterborne diseases, and the critical role of WASH in reducing maternal and child mortality.

Goal 4 – Quality education: many schools do not have drinking water or secure, private, single sex toilets. The latter means that many girls are kept at home by their parents or drop out once they reach puberty. Where households are not within close proximity of a water source, children (particularly girls) are often required to fetch water for many hours each day rather than attending school.

Goal 5 – Gender equality: inadequate sanitation contributes to women's health issues and violence against women and girls. Women and girls bear a disproportionate burden of fetching water where there is no pumped water.

Goal 11 – Sustainable cities and communities: access to WASH facilities is a great challenge in informal settlements in many rapidly growing cities globally. Cities do not necessarily provide better access to adequate facilities than more remote areas.

Interconnected: how the SDGs overlap

The SDGs are not mutually exclusive. In many cases, creating a positive impact in one will have a benefit across others amplifying the impact for the effort made. It's also true to say a positive impact in one may have unintended negative consequences in another, so understanding the outcomes and impacts of activity will be crucial.

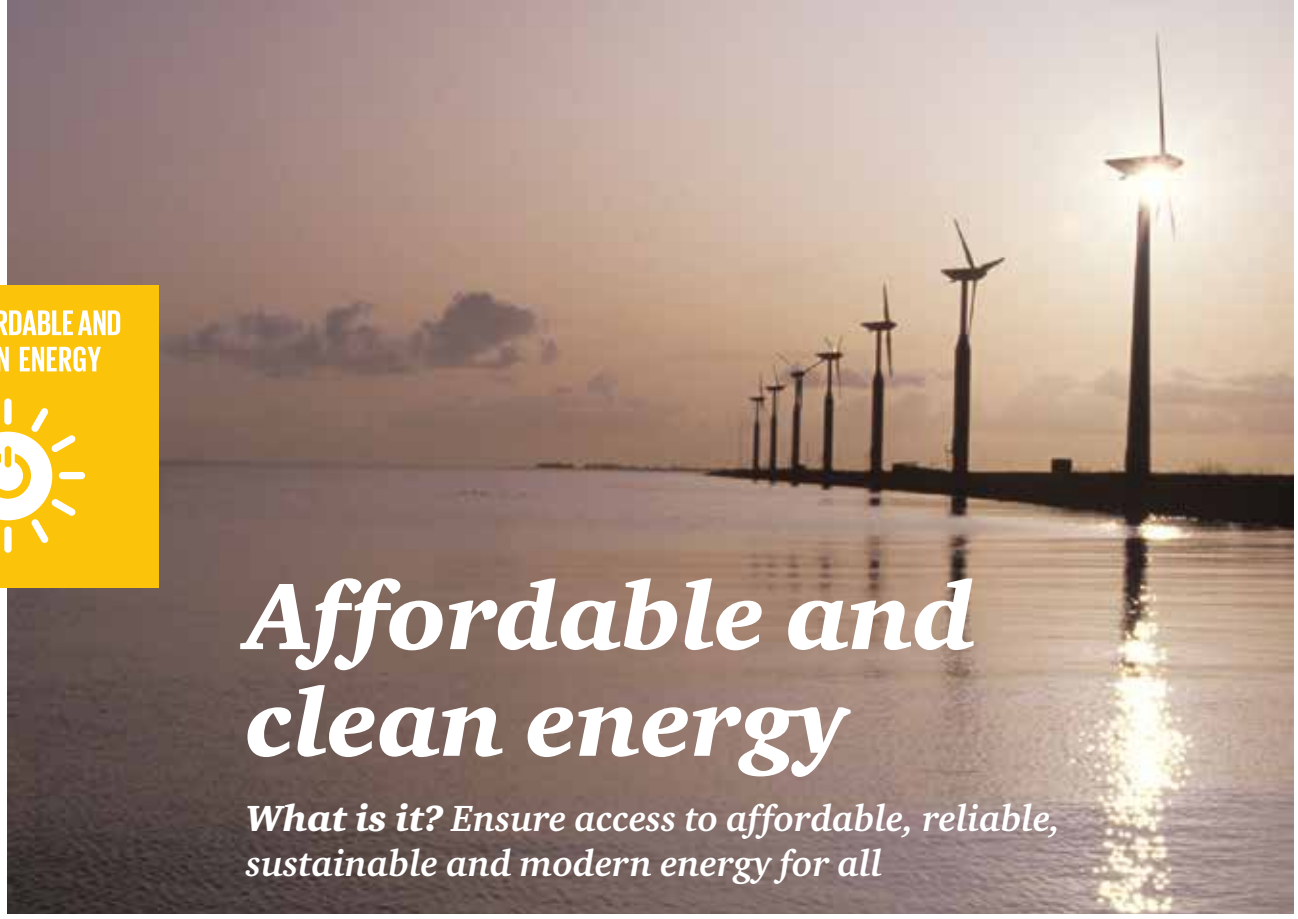
Here's examples of research and analysis exploring the interlinkages of the SDGs:

One for all and all for one?

How linked are the goals? David Le Blanc, UN DESA, has shown that two of the proposed goals, SDG 12 (Responsible consumption and production) and SDG 10 (Reduced inequalities), provide critical connections among other goals and make the SDGs more tightly linked as a network. He's ranked the goals according to the number of other goals they're linked to. SDG 12 (Responsible consumption and production), SDG 10 (Reduced inequalities), SDG 1 (No poverty) and SDG 8 (Decent work and economic growth) top the list and all have links with 10 other goals or more. At the bottom of the list are SDG 7 (Affordable and clean energy) with 3 links, SDG 9 (Industry, innovation and infrastructure) with 3 links, and SDG 14 (Life below water) with 2 links.[75]

All SDGs are equal but some are more equal than others – where to put the smart money

In terms of social good, some SDGs provide better returns than others. Made up of 169 targets, if the world were to spend money equally across all of them, it would do about $7 of social good for each dollar spent. But according to the Copenhagen Consensus, a much shorter list of just 19 targets will do the most good for the world. Every dollar spent on these targets will likely produce $15 of social good. Being smart about development spending could be better than quadrupling the global aid budget.[76]



7 AFFORDABLE AND CLEAN ENERGY

Affordable and clean energy

***What is it?** Ensure access to affordable, reliable, sustainable and modern energy for all*

35%

By 2030 global demand for energy is expected to rise by 20–35%. Already, global electricity consumption per person has more than doubled since 1970s.

What's the global challenge?

- The UN sees transitioning to **clean, sustainable energy** as fundamental to continued **human prosperity** over the coming century.[77] And yet, **1 in 5 people lack access to modern electricity**, while 3 billion people still use kerosene, wood, coal, or even dung for cooking and heating.[78] The **poorest in the world** are the least likely to have access to a source of power, and are **much more likely to remain poor** as long as they are not connected.[79]

- It's not simply a question of access, it's about ensuring the **quality, reliability, safety** and **affordability** of the energy services that power homes and essential community services, such as schools and clinics, as well as economic activity.[80] The productive use of renewable energy in rural areas can often **reduce the absolute costs** for energy consumed,[81] and help to **raise incomes and improve health**, providing power to pump water for irrigation, to process crops and power cottage industries, whilst at the same time **reduce deforestation** from logging for firewood.

- People across the world are impacted by the effects of **climate change**, and it's the production and use of energy that makes up **two-thirds of all GHG emissions**. Furthermore, by **2030 global demand** for energy is expected to rise by **20–35%.*** [82] Already, global **electricity consumption** per person has more than **doubled** since 1970s.[83]

- To address energy-related emissions, we must invest in **low carbon technologies** and **energy efficiency**. Ultimately, to fully implement 180 plus national action plans submitted to the UN in 2015[84], a cumulative **investment of $13.5 trillion** in low carbon technologies and energy efficiency until 2030[85] is needed. The challenge is huge: to **decarbonise the global electricity supply**, at least **65%** must be generated from **renewables by 2050**[86]. Investment is also needed to improve the **rate of energy efficiency gains**.

- As the world heads down a path of decarbonisation, research predicts that on average the **cost of electricity generation** will rise by **30% to 50%** by 2050. To meet a **2 degree** limit to global warming (see SDG 13), we could see the cost of electricity rise at a much faster rate. To limit this cost increase we must invest in technology innovation which will **lower the cost of generation** and **improve energy efficiency**[87], which could in turn reduce demand in countries with high energy consumption.

* Growth in Energy Demand: This range is based on a New Climate Economy staff review of recent projections, including: International Energy Agency (IEA), 2013. Energy Technology Perspectives 2012. US Energy Information Administration (EIA), 2013. International Energy Outlook 2013, Global Energy Assessment, 2012.

Why does it matter for business? And what can business do?

Access to energy is both a risk and an opportunity for business. Increasingly businesses are engaging more actively in managing their own energy supplies, by adopting smarter energy management approaches in order to make them more resilient to price fluctuations and intermittency. Understanding this transition, along with achieving energy efficiency gains can help to future-proof a business.

- **Poor access to energy** in developing countries **slows the growth of GDP**. Research has shown that, for example, the under-performance of Africa's power infrastructure has restricted economic growth, reducing per capita GDP growth by 0.11 per cent per year for the continent as a whole, and by as much as 0.2 per cent in Southern Africa[88]. This is a **barrier to growth for businesses** in these markets as well.

- A number of companies are taking part in public-private projects to **improve energy access**, one example being **"Power Africa"**, where the governments of Ghana, Tanzania, Kenya, Nigeria, Ethiopia and Liberia and a group of private sector firms are taking part in an initiative to improve access to clean, reliable power in Africa, and ultimately deliver electricity to more than 20 million new households and companies by 2018[89]. South Africa occupies a central position in the global debate regarding the most **effective policy instruments** to accelerate and sustain private investment in renewable energy. In 2009, the government began exploring **feed-in tariffs** (FITs) for renewable energy, but these were later rejected in favour of **competitive tenders**. The resulting program, now known as the Renewable Energy Independent Power Producer Procurement Program (REIPPPP), has successfully channelled substantial private sector expertise and investment into grid-connected renewable energy in South Africa at competitive prices[90].

? *Have you considered investing corporate funds in energy projects in any of your countries of operation to help meet local need, as well as delivering a return on investment?*

- In addition to the predicted **rising cost of electricity** generation, we are likely to see the imposition of a **price of carbon** become more widespread around the world.[91,92] Indeed, 74 countries and over 1,000 companies expressed support for carbon pricing at the 2014 UN Climate Summit. Businesses should consider how to respond to these changes, for example by increasing the proportion of energy demand which is met by **renewable sources**, both to manage carbon costs and to take advantage as they become more **cost-competitive**, even, in some cases, in the absence of subsidies[93].

- Business can also benefit from a win-win by implementing **energy efficiency measures**.

? *What share of your energy demand is currently met by renewable energy? Do you have a policy and/or targets in place which relate to the procurement or generation of more renewable energy on an annual basis?*

? *Do you have a policy in place to improve your energy efficiency? How successful have you been in reducing your energy consumption per unit of output?*

You could also think about:

? *Aiming to **source 100 percent of your energy from renewables**. This is a major challenge for any business, but it is precisely what some of the world's largest companies have committed to doing. The Climate Group in partnership with the Carbon Disclosure Project (CDP) are leading the charge, with **their RE100 campaign**.[94,95] Google, Johnson & Johnson, NIKE, Inc., Procter & Gamble, Starbucks, IKEA Group, BT Group, H&M, Nestlé, Philips, Unilever, and Walmart have already signed up to RE100, pledging to source **100% of their electricity from renewable energy**. The latest report finds that on average, companies are already halfway towards meeting their goals[96].*

? ***Investing in various financial products aimed at driving clean energy action**. You could do this by, for example, investing in the developing **Green Bond** market; using Development Finance Institutions' **de-risking instruments** to mobilise **private capital**; or exploring **insurance products** that focus on removing specific risks. This is important because **significant investment is needed** to mount an effective global response to our energy challenges. To help guide investors, the UN's initiative **'Sustainable Energy for All' (SE4All)** has published a report[97] setting out the broad investment themes named above, amongst others, in greater detail.*

$13.5tr

To fully implement 180 plus national action plans submitted to the UN in 201578, a cumulative investment of $13.5 trillion in low carbon technologies and energy efficiency until 203079 is needed.

65%

To decarbonise the global electricity supply, at least 65% must be generated from renewables by 2050.

Key links to other SDGs:

Goal 1 – No poverty: energy poverty means that poor people are the least likely to have access to a source of power, while it is more likely that they will remain poor as long as they are not connected.[98] This issue is especially pertinent to Sub-Saharan Africa, which is home to the largest population of people living without electricity access (ca. 621 million people).[99]

Goal 10 – Reduced inequalities: energy access is not uniform around the world, nor is it uniform within nations. This goal aims to empower and promote the social, economic and political inclusion of all by 2030, which includes addressing lack of access to energy by the poorest.

Goal 12 – Responsible consumption and production: the need for energy consumption to become more efficient links to the broader need for resource efficiency in consumption and production and to decouple economic growth from environmental degradation.

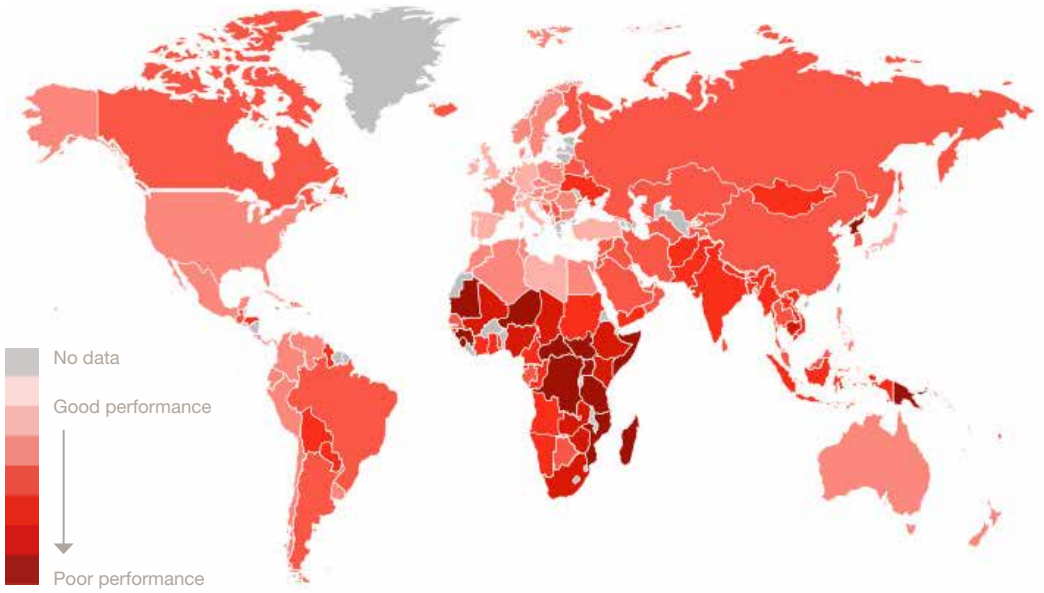
Goal 13 – Climate action: the challenges of climate and energy are inexorably connected: to address the increase in global temperature, we must de-link energy use from emissions by decarbonising our power sources, i.e. reducing emissions from energy.

Targets *in focus*

This SDG has five targets, the first target is shown in the heat map; "By 2030, ensure universal access to affordable, reliable and modern energy services". For details on the remaining targets, please see 'Global Goals and targets' on page 79.

The lie of the land – exploring the distance to cover to achieve

Target 7.1: By 2030, ensure universal access to affordable, reliable and modern energy services



Case Study

Company: M-KOPA

Sector: Renewable Energy

Region/country of impact: East Africa

Aligns to: SDG 7

M-KOPA addresses the tremendous demand for affordable off-grid energy by providing pay-as-you-go solar power and telecommunication technologies.

Global Challenge: Access to energy is essential to address the major challenges we face. The largest population of those without access to energy lies in the African continent. More affordable low carbon technologies need to be used to combat climate change and achieve energy efficiency.

Business Response: In Kenya, over 6 million off-grid households spend over $1billion on kerosene. The founders of M-KOPA realised the detrimental health and climate impacts of the energy system in Kenya, and found that a home solar system worth US$200 would be a significantly better alternative, but the upfront cost was too high for homes to purchase. M-KOPA tackled this affordability problem by having customers pay a $30 deposit upfront to take home the solar system from a sales location. The customer can then make daily top-ups of around 40 cents for credits, which enable the solar energy system to discharge power for 24 hours. After the customer has paid for 365 credits, the system automatically switches to free use. The customer then owns the system and does not need to spend any more for home power for the life of the system.

Benefits: So far, M-KOPA has connected over 340,000 homes in Kenya, Tanzania and Uganda to affordable power. 99% of households have said they have saved money on kerosene and phone charging by using M-KOPA's solar system. This suggests that the average consumer savings over the lifetime of the product from using solar over kerosene could be over US$700. Although it was the most affordable energy source for households, kerosene could soak up as much as 20% of a household's disposable income. Kerosene is a poor quality and flammable fuel that produces harmful emissions. It has been calculated that M-KOPA has reduced CO2 emissions significantly. M-KOPA enables off-grid communities to leap from using unreliable non-renewable energy to affordable and sustainable practices, without the process of excessive polluting in between.

Source: M-Kopa
http://www.m-kopa.com/news/lessons-from-m-kopas-first-three-years-of-innovative-energy-service-3/#
http://www.un.org/sustainabledevelopment/energy/
http://solar.m-kopa.com/about/our-impact/

8 DECENT WORK AND ECONOMIC GROWTH

Decent work and economic growth

What is it? Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

What's the global challenge?

- **Jobs** are the cornerstone of **economic and social development**. Jobs give people better standards of living and increased spending power, driving demand for products and services.
- By 2019, more than **212 million people** will be out of work, up from the current 201 million. More than **61 million jobs have been lost** since the start of the global crisis in 2008. Two regions, **South Asia and Sub-Saharan Africa**, account for three quarters of the world's **vulnerable employment**.[100]
- **Young workers** aged 15-24 are particularly hit by the crisis, with a global youth unemployment rate of almost 13 per cent in 2014 and a further increase expected in coming years.[101]
- Although the number of children in **child labour** has declined by one third worldwide since 2000, there are still 168 million children affected. More than half, 85 million, are in **hazardous** work.[102] Evidence shows that child labour combined with limited education can lead to increased vulnerability and poorer job prospects.[103]
- Globally, between 785 and 975 million people of working age have **disabilities**. Everywhere, people with disabilities are less likely to be employed and more likely to be in low paid jobs with poor working conditions and promotional prospects.[104]
- Globally, recent figures show an annual figure of 2.3 million **deaths attributable to work**. Work-related diseases accounted for 2 million, whilst the remainder were due to occupational injuries. The **economic cost** per country of work-related injury and illness varies between 1.8 – 6% of GDP, averaged at 4%.[105]
- **Small and medium-sized enterprises** (SMEs) play a key role in job creation, providing two thirds of all formal jobs in developing countries and up to 80 per cent in low income countries.[106] While in most OECD countries, SMEs make up over 95 per cent of enterprises and account for 60 to 70 per cent of jobs.[107]

Why does it matter for business? And what can business do?

Creating decent jobs is one of the fundamental ways in which business supports economic growth and sustainable development.

- A company's **licence to operate** or ability to **win large public sector contracts** in developed and developing countries alike, is increasingly influenced by its ability to demonstrate the **economic value** it generates for the local and/or national economy to governments.

? *What value would you gain from being able to measure and communicate the **economic value** generated by the jobs your company creates in its direct operations and indirectly via its supply chain? Do you consider the **impact on employment**, direct and indirect, in your investment decisions?*

- Protecting **human rights** in your direct operations and supply chain are essential for maintaining a good **reputation**. Factors that increase the risk of reputation loss due to a human rights violation scandal include: **international operations**; operating in **difficult markets**, such as those that are politically unstable or undemocratic; and **complex supply chains** or other business relationships.[108]

? *Does your company have policies in place to respect human rights? Do these policies address **forced labour, modern slavery, human trafficking and child labour?** Have you identified and assessed your human rights risks in relation to your own employees and your supply chain? What about human rights risks to local communities in the regions in which you operate? Could you be at risk of **reputation damage?***

? *Do you have programmes in place to address the risks identified? Have you integrated human rights considerations into your **supplier and third party due diligence** practices?*

- A persuasive business case for **employing people with disabilities** is emerging. Business benefits include access to untapped skills and talent, higher retention rates and better insight into the multi-million dollar market represented by disabled people and their families.[109]

? *What policies and programmes do you have in place to support the **recruitment and retention** of people with disability? What costs could you avoid and benefits realise by strengthening your company's disability diversity?*

- **Workplace injuries** and **work-related disease** can cost your business in terms of **lost productivity, talent and reputation**, whether in your direct operations or your supply base.

? *What policies and programmes do you have in place to reduce **workplace accidents?** Are they working? Do you also have policies and programmes to reduce the incidence of **work-related disease**, i.e. disease contracted primarily as a result of an exposure to risk factors arising from work activity such as working with hazardous chemicals?*

? *Do you monitor your suppliers' workplace health and safety performance? How do you support your suppliers to improve their performance in this area?*

- **SMEs** can be an important source of new ideas, **innovation** and support for larger organisations. While supporting **ethnic or women-owned SMEs** in the supply chain can be an important way to build goodwill with target customers drawn from the same groups who have increasing purchasing power.

? *Have you considered the benefits to your business of promoting **supplier diversity?** What is the demographic mix of your target customers? Do you expect this to change in the next 5–10 years?*

You could also think about:

? *There are now an estimated 150 million **migrant workers**[110] in the global workforce. Can you support the upholding of human rights for migrant workers in your operations or supply chain?*

? *Whether you can put in place programmes to support the **employment and training of young people** in your business.*

? *How you could support **capacity building** and **job creation for local people** in new markets, particularly where unemployment is high and skills low such as in sub-Saharan Africa or South Asia.*

SDG 8 Target 4

Improve progressively, through 2030, global **resource efficiency in consumption and production** and endeavour to **decouple economic growth from environmental degradation**, in accordance with the 10-year framework of programmes on sustainable consumption and production, with developed countries taking the lead.

This target is very closely related to SDG 12, Responsible consumption and production, and is covered by that section of this guide.

Key links to other SDGs:

Goal 1 – No poverty: decent, fairly paid, secure employment lifts people out of poverty. For many companies, their biggest impact on poverty will be through creating decent work and economic growth.

Goal 2 – Zero hunger: supporting the productivity of small scale food producers will be a significant contributor to maintaining employment and incomes in many developing countries.

Goal 4 – Quality education: education and skills development equip people for productive and sustained employment and entrepreneurship.

Goal 10 - Reduced inequalities: by supporting equal opportunities in employment, in terms of recruitment, pay and promotion, business has a strong contribution to make to reducing inequality.

Goal 14 – Life below water: the sustainable use of marine resources for fisheries, aquaculture and tourism will be an important driver of job creation for small island developing states and least developed countries.

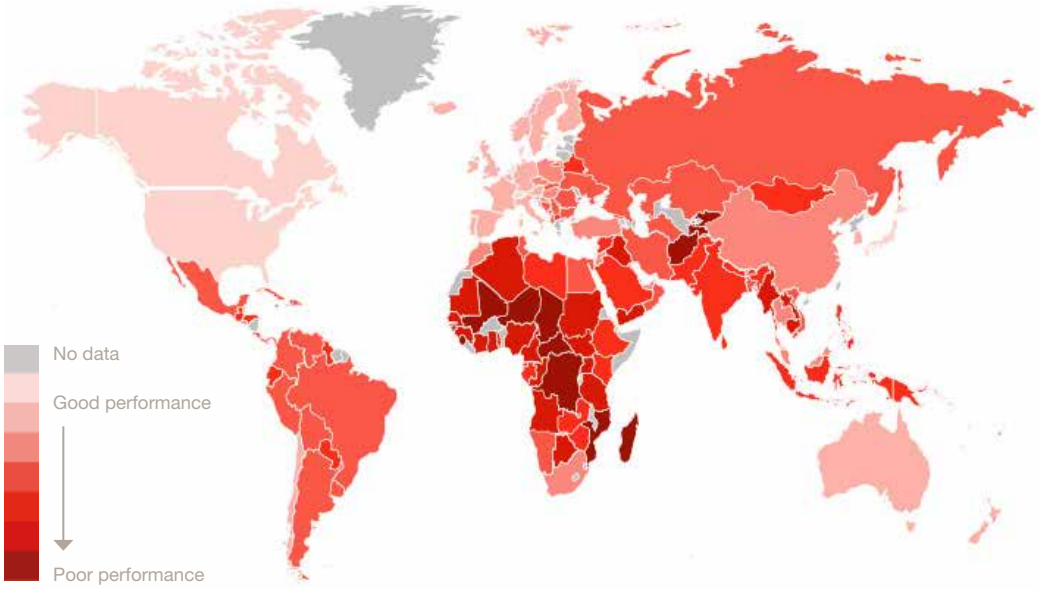
Goal 16 – Peace and justice; strong institutions: unemployment, in particular youth unemployment, is strongly associated with political instability. In post-conflict situations, employment and income generation are vital to short-term stability, reintegration, socio-economic growth and sustainable peace.[111]

280 million

jobs needed to be created to close the global employment gap by 2019 caused by the financial crisis.[100]

The lie of the land – exploring the distance to cover to achieve

Target 8.1: Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 per cent gross domestic product growth per annum in the least developed countries



Targets *in focus*

SDG 8 has twelve targets. The heat map illustrates target 8.1 which is to "Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 percent gross domestic product growth per annum in the least developed countries". For details on the remaining targets, please see 'Global Goals and targets' on page 80.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Industry, innovation and infrastructure

What is it? Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation

$1 tr

The global shortfall on necessary basic infrastructure investments needs is $1 trillion.[110]

What's the global challenge?

- Physical infrastructure has far-reaching and long-lasting effects on the economy, environment and quality of life. Investments in **public services** such as energy, transport, ICT infrastructure, waste and water are also among the **largest and longest-term capital investments** that society makes. This means, in order to build a sustainable and resilient future, it is crucial to get infrastructure right from the outset.
- Many infrastructure systems are **aged and in need of replacing** or updating, in order to prevent the inefficiencies and problems of reliability which can mount up. **Early and smart investment** can save maintenance, inefficiency costs and natural resources and ensure a better system in which business can thrive.
- **Climate change** often creates additional capacity needs for and/or poses risks to critical physical infrastructure, making the **need for resilient systems** more urgent than ever. Risks include increasingly frequent and more severe events such as **floods, tsunamis and heat waves**. Designing for climate resilience from the outset can reduce the future costs of climate-proofing.
- It is estimated that the **global shortfall on necessary basic infrastructure investments needs is $1 trillion**.[112] Globally, about 2.6 billion people cannot access a reliable electricity source, with another 2.6 billion without basic sanitation access. 1.5 million do not have access to reliable phone services, and over 4 billion are without the internet.[113,114]
- **Innovation is a key driver of business growth**, with gains from innovation not only profitable but also likely to create significant social value. Research and development (R&D) investment, when integrated into business models, can produce significant growth. This may be through updating existing technologies, or through breakthroughs which open up new markets.[115]
- **Disruptive technologies**, which grow fast and reduce in cost, such as solar photovoltaics, electric cars, smart phones and wireless communications can be drivers of rapid shifts in the markets, and lay the foundations for more sustainable societies.

Why does it matter for business? And what can business do?

Adequate and resilient infrastructure underpins future economic growth, and is the means by which people access the resources they need for a high quality of life. While infrastructure has often been seen as the responsibility of governments, intensifying pressures such as population growth and climate impacts mean there are growing opportunities for business to apply its resources and expertise in this space.

- Effective and accessible **public transport and roadways** are important operational factors driving efficiency in supply chains and distribution networks. **Public private partnerships** are becoming increasingly important, with private companies in the infrastructure and finance sectors supporting government to deliver improved transport systems that enhance the environment for communities and business.
- Businesses are beneficiaries of **reliable and sustainable local municipal services**, such as waste collection and water services. Conversely, where services are inefficient this can be a cost to business and wider economic growth.

? *Do you have a programme in place to **upgrade** your own transport and/or building infrastructure, or built in to your supply chain (due to your commissioning of work) to ensure it is resource efficient, resilient and sustainable?*

? *If you **operate or source from a developing nation**, could you invest in transport improvements that would deliver direct business benefits to you, as well as supporting the broader economic development of your host community?*

? *If appropriate for your sector, can your business contribute to improving local municipal services? This may be through **strategic** or **in-kind support**, or via **financial investments**. Or are there opportunities for you to get involved in infrastructure public private partnerships, and have you explored the potential grants, tax breaks or other **incentives** that might be available?*

- **Disruptive technologies** pose risks and opportunities for business. Agile, innovative companies that successfully harness disruptive technologies can reap huge rewards: some have successfully transformed whole sectors – think of Skype and long distance calls or Uber and taxis.[116]
- **ICT** is an area of infrastructure in which businesses may be underperforming. Infrequent systems updates are often a source of inefficiency, and may reduce competitiveness in an increasingly digital marketplace.

? *Do you know how disruptive technologies and innovative business models are impacting your market? Do you consider your vulnerability to your assets becoming **"stranded assets"** as part of your **risk analysis** and **strategy reviews?** Stranded assets are assets that lose their economic value well ahead of their expected useful life, typically as a result of changes in legislation, regulation, market drivers, societal norms or major environmental risks.*

? *Are you making the most of the potential for **digital** to transform both what you do, and how you do it? Do you need to invest more in this area to sustain and grow your business?*

- **Technological innovation** and **research and development** (R&D) are high-value economic activities. Growing these areas in developing countries can help boost the economy and build the capacity of higher skilled and more educated workforce.

? *If you operate in developing nations, are you actively seeking to build your in-country technological and R&D capacity? Could this give you better insight into meeting your customers' needs in those markets?*

? *Could you add value by fostering innovation in your supply chain, perhaps by sourcing from developing countries in order to promote R&D?*

- **Small scale industrial and other enterprises** are a fundamental part of the economic fabric in developing countries, and they play a crucial role in furthering growth, innovation and prosperity. Yet, they are strongly restricted in **accessing the capital** they need to grow and expand, with nearly half of SMEs in developing countries rating access to finance as a major constraint.[117]

? *Are your developing country suppliers constrained by lack of access to capital? Are there creative ways you could help them access credit or other financial services?*

You could also think about:

? *Ways that you could help improve **access to ICT** and the **internet** in developing countries, either via your business activities or through community engagement.*

? *Whether your business has a **Chief Information Officer** at Board level. This is someone responsible for ICT and critical information resources. They have a key role in innovation and the long term quality, reliability and resilience of your business: their voice needs to be heard at the highest level.*

? ***Infrastructure investment** – which can make a reliable return in the long-term, with stable and predictable cash flows, at the same time as helping drive economic growth in developing nations. Are there ways that your business may be able to take advantage of investing in infrastructure, perhaps with regard to staff pensions?*

Key links to other SDGs:

Goal 6 – Clean water and sanitation: physical infrastructure is a necessary precursor to effective water and sanitation. The challenge which infrastructure has to meet is more pronounced in remote, water-pressured or very densely populated areas.

Goal 7 – Affordable and clean energy: access to energy is as much an issue of infrastructure as it is production; grids and other infrastructure facilitate the distribution of produced energy.

Goal 11 – Sustainable cities and communities: well-designed and efficient infrastructure is integral to the functioning of cities and urban areas.

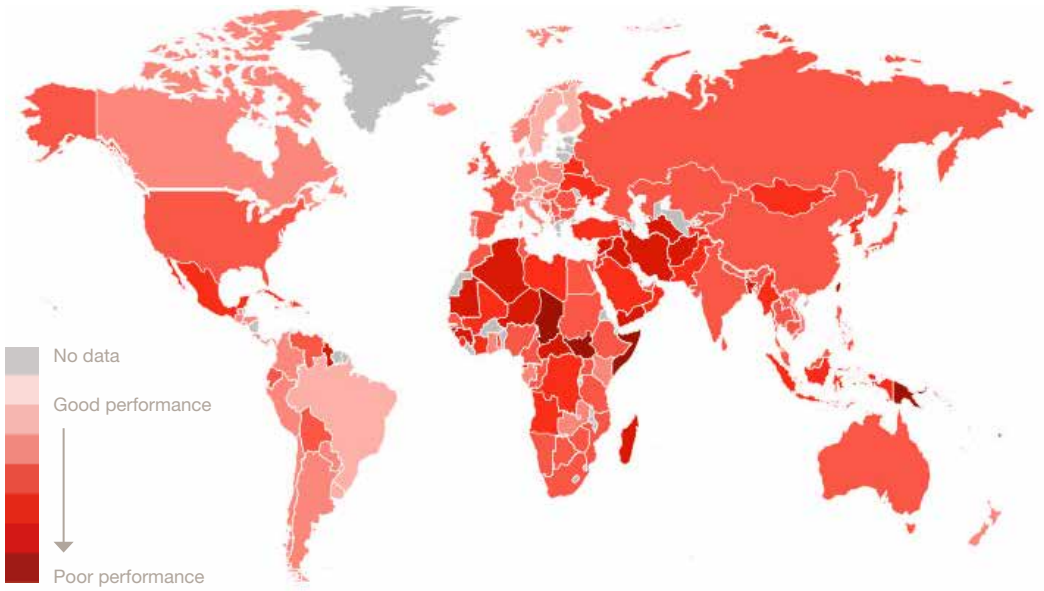
Goal 13 – Climate action: climate impacts (such as extreme weather events) place physical infrastructure at risk of damage and destruction, and mean that some infrastructure may no longer be fit for purpose (e.g. hospitals not equipped to maintain a suitable room temperature during heat waves). Planning and building of infrastructure should therefore include climate resilience as a priority.

Targets *in focus*

There are eight targets for this SDG. The first is to "Develop quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all". We've illustrated target 9.4 in the heat map – "By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities". For details on the remaining targets, please see 'Global Goals and targets' on page 80.

The lie of the land – exploring the distance to cover to achieve

Target 9.4: By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities



Case Study

Company: Ford Motor Company

Sector: Automotive

Region/country of impact: USA

Aligns to: SDG 9

The 10-acre "living roof" planted over ten years ago is thriving and paying-off

Global Challenge: Building new sustainable industrial plants is hard enough. However, what it is even harder is to redevelop an existing old industrial facility and make it more efficient and sustainable.

Business Response: Ford's River Rouge Plant was built in 1917, after 83 years, in the year 2000, it underwent a major redevelopment. In addition to modernising the production line with innovative solutions, making the plant more "employee friendly" and increasing the natural light throughout the plant, Ford invested in a "living roof". 90% of the truck plant final assembly building was covered with plants, mainly drought resistant species of sedum. Ford's leadership regarded this investment as a business decision and not as corporate sustainability project. This was just the beginning of the company's journey of embedding sustainability throughout their operations and products. The company has set out a number of quantified targets aiming e.g. to reduce their water use, reduce carbon emissions and improve fuel efficiency of their vehicles.

Benefits: The green roof was created as a part of an innovative water management plan; the landscape-based infrastructure is less costly as it needs minimum use of pipes; it acts as a natural filter of rainwater which means chemical-based treatment isn't needed; it helps to manage excess storm water as its vegetation can hold up to an inch of water; the green roof acts as a natural temperature controller, it keeps the building an (estimated) 10 degrees cooler in the summer and 10 degrees warmer in the winter, which reduces energy cost by about 5%; the green roof requires much less maintenance than a standard roof; and it produces oxygen which helps to offset Ford's CO2 emissions. In addition, the roof provides a thriving habitat for nesting birds, butterflies and insects, which helps to maintain the biodiversity in the area.

Source:

https://www.thehenryford.org/visit/ford-rouge-factory-tour/highlights/living-roof/

http://www.greenroofs.com/projects/pview.php?id=12

https://www.youtube.com/watch?v=H_jAjI3kVV0

general info: http://www.treehugger.com/sustainable-product-design/fords-giant-green-roof-started-ten-years-ago-how-things-have-changed.html

Reduced inequalities

What is it? *Reduce inequality within and among countries*

What's the global challenge?

- Economic inequality, or the gap between rich and poor is widening, both globally and within countries. **The richest 1% globally currently have more wealth than the other 99% of the world**, while 70% of people live in countries that have worse inequality than 30 years ago.[118]
- In developed and developing countries alike, the **poorest half** of the population often **controls less than 10% of its wealth**.[119]
- Across **OECD** countries, the gap between the richest 10% and the poorest 10% is at a record level. In 23 OECD countries, however, the top 10 percent earn more than the bottom 40 percent combined, with the Palma ratio in the United States (1.74), Turkey (1.99), Mexico (2.93), and Chile (3.26) showing the most severe levels of income inequality.[120]
- **Inequality threatens long-term social and economic development**. While some degree of income inequality may incentivise hard work, skills development and entrepreneurship, high levels of inequality harm economic growth and make poverty reduction more difficult.[121]
- **Unequal societies suffer from** increased levels of **unemployment, social instability** (including households in financial distress and higher divorce rates) and **crime**. High inequality is directly correlated with a reduction in social mobility from generation to generation – for example the UK and US have the highest levels of wealth inequality and the lowest levels of social mobility out of the developed countries.[122]
- **Developing countries lost $991.2 billion in illicit financial outflows** in 2012 alone, and the rate of increase of such losses is almost twice as fast as global GDP.[123] Such outflows include illegal activities such as crime and corruption, but **tax evasion** is also a major component. The impact on global development is severe, such figures dwarf the combined total of foreign direct investment and official development assistance received, therefore directly holding back economic growth in developing countries.
- Safe and regular migration and mobility of workers is a key aspect of reducing inequality, with many of the **global poor dependent on remittances** (i.e. money sent home to families by migrant workers). Total remittances globally are over double the level of global official development assistance, and remittances form 20% of GDP in some of the poorest countries (such as Gambia, Lesotho, Liberia and Comoros). However, the transactional costs of sending remittances are extremely high, globally averaging over 7%.[124]

Why does it matter for business? And what can business do?

High levels of inequality are correlated with lower economic performance and social problems such as crime, both of which provide a less stable business environment. A prosperous and secure middle class generates demand for companies' goods and services and widens the market for profits.

- There is evidence that **excessive executive remuneration** is negatively related to company performance – the higher-paid the CEO relative to their peers, the worse the stock returns.[125] **High pay differentials** can result in lower staff morale, however the pay differential between the top and bottom earning direct employees can be very high: it averages 262:1 in the FTSE 100, for example.[126,127] Some companies provide **stock options** to lower grade employees, which both acts as a long-term performance incentive, but also benefits a wider range of staff financially. **Compensation transparency** within a company can promote more equality within employee groups.[128]

? *What is the ratio of your highest paid executive's earnings to the lowest paid worker in your organisation? What policies could you put in place to increase transparency of employee pay – for example allowing employees the right to disclose their salary voluntarily? Do your employees have stock options as part of their compensation?*

- Business can help improve **social mobility** and thereby contribute to higher levels of equality, including in developed countries such as the UK and US.

? *Could you consider initiatives such as **apprenticeship schemes** which aim to widen access and diversity among your applicants? Do you ensure that all **interns** are paid a **living wage** so that family income is not a barrier to gaining work experience?*

- **Migration remittances** are a key component of GDP for developing countries, in particular the Least Developed Countries, as well as for the poorest households in those countries.

? *Do you have **equal opportunity policies** for foreign workers? Are you aware of whether workers in your company or supply chain are providers of remittances? Are there creative ways you could support such employees to **lower the transaction** costs associated with their remittances?*

- Corporate **tax transparency** is an increasingly topical subject. As businesses become increasingly global, the tax contributions they make in their different countries of operation are coming under greater and greater scrutiny. Bodies such as the OECD are promoting the need for international agreement and cooperation to address the issues of tax **base erosion and profit shifting** (BEPS),[129] issues which deprive some countries (and not infrequently developing countries) of much needed revenue. Progress on this could help achieve a fairer global distribution of tax revenues and **reduce inequality among countries**.

? *What is your company policy on tax transparency? Could you contribute to the policy debate around improving global financial markets and tax systems?*

You could also think about:

? *Setting a **cap on the ratio of top-to-bottom pay** between your CEO and lowest paid direct employees. Or pegging the rise in executive pay to company performance.*

? *Your **tax impact** both in your domestic operations and in your overseas supply chain. What could be done to increase the positive impact your company leaves in the local economy?*

Key links to other SDGs:

Goal 1 – No poverty: inequality is directly related to poverty, with the gap between rich and poor in society affecting the relative level of poverty of the poorest. Inequality reduces social mobility, so dampens poverty reduction efforts.[130]

Goal 4 – Quality education: access to education is closely linked to equality of opportunity. Educational performance and therefore tertiary education access is linked closely to household income – so economic inequalities are perpetuated through generations as education and therefore earning potential is affected.

Goal 5 – Gender equality: gender discrimination underpins pervasive economic inequality between men and women. Women earn 24% less than men globally on average.[131]

Goal 8 – Decent work and economic growth: inequality is closely related to reduced workers' rights and increased focus on large corporations. Countries with the strongest labour union policies also have the least income inequality, as collective bargaining power tends to lead to fairer and higher wages.[132]

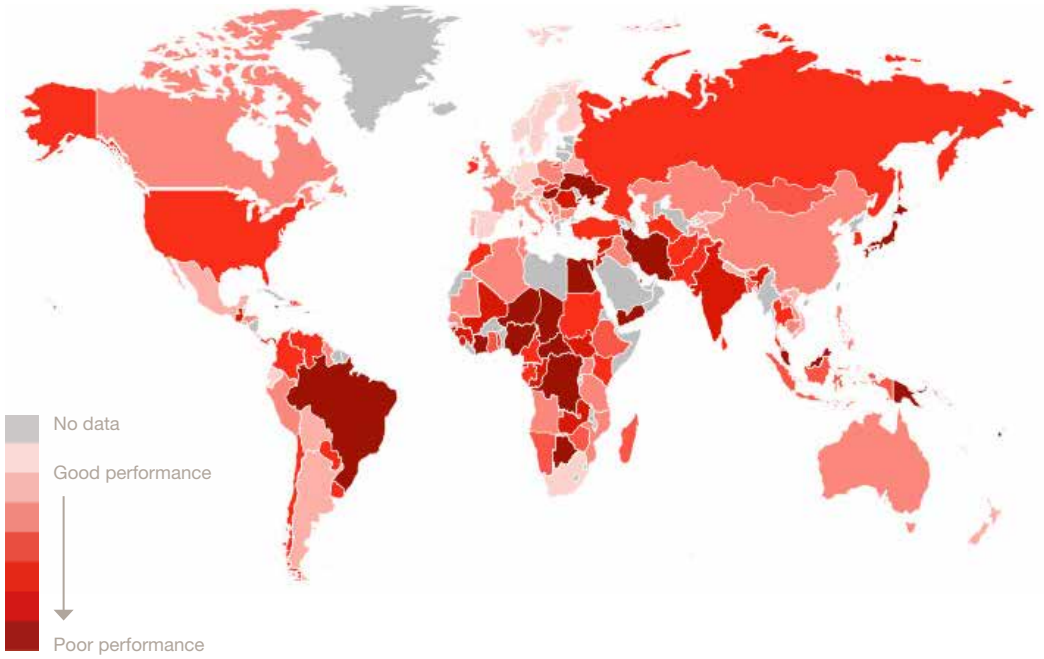
Goal 17 – Partnerships for the goals: increasing the tax revenues of developing countries is a key enabler for implementing the SDGs. Companies can help by organising their business affairs to pay more taxes to host countries.

Targets *in focus*

This SDG has ten targets, the first of which is "By 2030, progressively achieve and sustain income growth of the bottom 40 percent of the population at a rate higher than the national average". Target 10.3 shown in the heat map is "Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard". For details on the remaining targets, please see 'Global Goals and targets' on page 81.

The lie of the land – exploring the distance to cover to achieve

Target 10.3: Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard



Case Study

Company: Westpac Group

Sector: Financial Services

Region/country of impact: Pacific region

Aligns to: SDG 5 and SDG 10

Australian bank tackles financial exclusion within the Pacific region

Global Challenge: Vast numbers of people across the world are still regarded as "unbankable". This could be due to their gender, social status, physical ability or poor infrastructure where they live. In order to improve the financial and economic status of those currently excluded from the system, there is a need for more financial institutions to recognise this as an issue and also to recognise the opportunity.

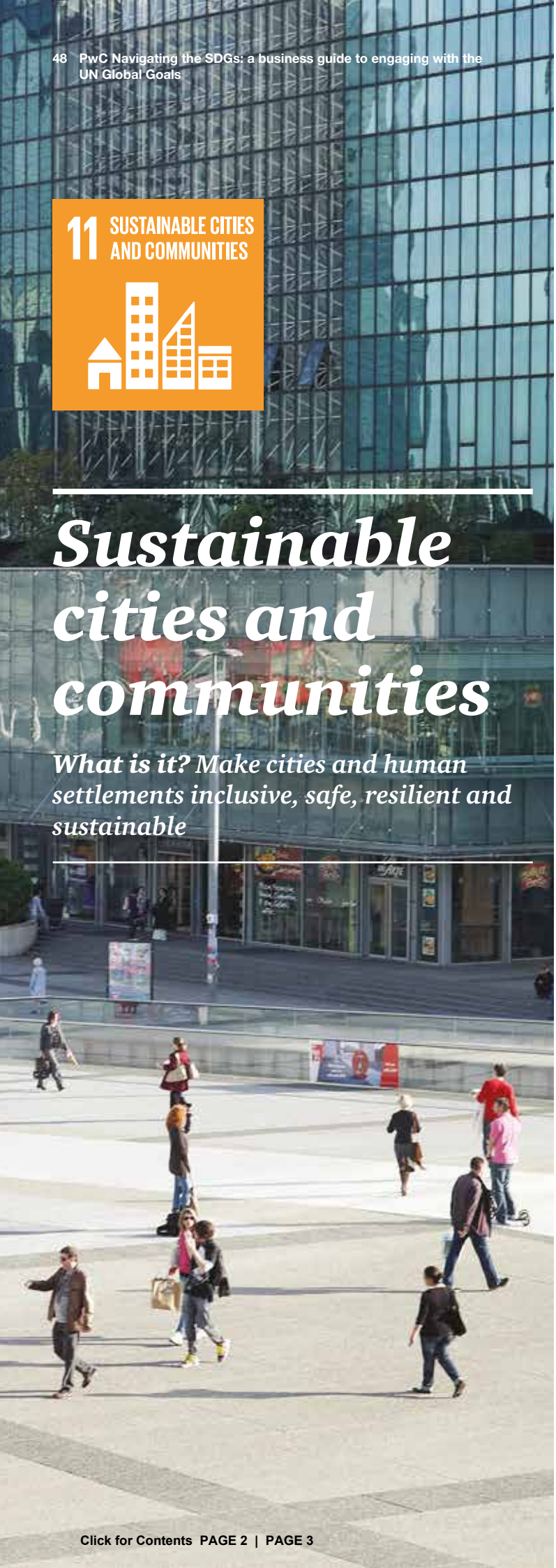
Business Response: Westpac has focused on issues which are material to them as a financial institution and where they can use their skills and resources to make a meaningful impact. One of their sustainability objectives is to "increase access to financial services in the Pacific". The region's geography and limited infrastructure as well as the subsistence livelihoods of many Pacific Islanders all contribute to poor financial inclusion. Within their 2013-2017 sustainability strategy, Westpac set out a target to provide access to basic and affordable banking to an additional 300,000 Pacific Islanders, with the aspiration that 50% of these will be women; their approach includes a combination of 'in-store' banking, the choice of a basic account, and a financial literacy programme.

Benefits: For many, having a bank account is a fundamental step for improving their money management as well as having a safe place to store their income or savings. Financial literacy support will help new customers to make better financial decisions. This is especially crucial in the case of women who often don't hold the social status but are responsible for running households and managing their family finances; their improved financial knowledge might empower them and increase their status within their household and community.

Over time this strategy will increase Westpac's customer base and revenue. An additional benefit to the company is that by diversifying and looking for new customers, Westpac is also planning ahead for the demographic trend of an aging population in Australia.

Improved access to financial services within Pacific Islands will make it easier to receive remittances; encourage the creation of small businesses and in turn, contribute to the economic development of the region.

Source: Westpac



Sustainable cities and communities

What is it? *Make cities and human settlements inclusive, safe, resilient and sustainable*

What's the global challenge?

- Urbanisation is one of the most important megatrends this century – already **over half of the world's population live in urban areas**, this will rise to two thirds by 2050.[133]
- Cities are economic powerhouses, generating **more than 80% of global GDP**.[134] However, **social problems** are concentrated in urban spaces, including extreme poverty, housing shortages and slum settlements – they are also centres of **environmental degradation**.
- **Air pollution** and waste are increasing problems in cities worldwide. 78% of urban areas (in a study looking at 851 cities in 72 countries) have levels of particulate matter air pollution exceeding the WHO Air Quality Guidelines.[135] This poses stark health risks and represents an often overlooked global health crisis.
- Urban areas also have a crucial role to play in **tackling climate change**, as almost 70% of global greenhouse gas emissions come from cities.[136] Sources overlap and include air pollution from transport, densely concentrated industrial and domestic energy use, and municipal uses such as street lighting.
- Many cities are particularly **vulnerable to disasters** and the projected impacts of climate change – including coastal sea level rise, urban heat waves, and other extreme weather events.
- Considered and **smart urban planning** is key to ensuring safe, resilient and sustainable cities, as lock-in of physical infrastructure and land use can last for decades.

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Why does it matter for business? And what can business do?

Cities are important as centres of business activity, providing companies with concentrated populations of potential customers and employees. Poorly designed cities put barriers in the way of doing business effectively; but a well-planned urban environment, with effective transport and reliable municipal services, reduces the costs of doing business and improves productivity.

Companies in the real estate, infrastructure and finance/investment sectors can have the greatest impact, but the choices all companies make about their city-based operations can make a difference.

- When making business decisions on locating buildings or activities in urban locations, companies need to carry out **social and environmental impact assessments** and **engage community stakeholders**. Impact assessments help businesses to stay on the front foot, proactively identifying and responding to risks and opportunities. But without community engagement companies still run the risk of pushback against certain activities. Much better to consult and get **buy-in** early. Impact assessment and community engagement are particularly important in countries where **planning control processes are weak**.

? *Do you have a **community engagement strategy** which is used whenever new urban locations are considered? Do you routinely carry out **social and environmental impact** assessments? How are the findings incorporated into **business decision-making?** What **governance processes** do you have in place to make sure your community engagement and impact assessment policies are followed?*

- Achieving a **green buildings certification** for a business premises can reduce **building running costs** and the **environmental footprint** of their operations. These certifications, which include BREEAM, LEED, GCBA and CASBE, are widely recognised green hallmarks and, as such, can also significantly enhance **corporate reputation** and **customer engagement**.

? *Have you considered the potential **business benefits** of certifying your business premises against green buildings standards? Do you know if this is something your **customers would give credit for** when selecting their suppliers?*

- As well as being a major source of **urban air pollution** and the fastest growing source of global CO2 emissions,[137] **transport** accounts for a significant proportion of many businesses' environmental impact.

? *Do you factor the **environmental costs** of transport emissions and pollution into strategic procurement and logistics decisions? Do you have targets to reduce your environmental impact in this area?*

- **Public transport systems** such as light rail, tram and metro transit systems are alternatives to carbon-intensive urban individual transport. **Active travel**, such as cycling and walking, is not only emission free, but also promotes good health through physical activity.

- **Home working** can reduce environmental impact, relieve the increasing pressure on many urban public transport systems, as well as support employees' work-life balance.

? *Could your staff make more use of public transport when carrying out their work? Do you know how your staff commute to work? Can you incentivise them to use public transport to travel to work, e.g. by providing travel card loans or cutting car park space? Can you encourage active commuting, e.g. through loans to buy bicycles and provision of showering facilities?*

? *Do your ICT systems and HR policies allow remote working, which would relieve pressure on transport routes and improve employee flexibility?*

- **Urban resilience to climate impacts and disasters** is an increasingly important risk factor for the private sector. All cities are vulnerable to damage to some extent, given their dense populations and high concentrations of buildings and valuable infrastructure. However some are in particularly high-risk locations, such as **coastal areas**. **Climate change** will increase the frequency and severity of extreme events such as flooding, heat waves and storm surges.

? *Have you planned how your business will respond to disasters? How could you increase the **resilience** of your business in its urban locations? This may include employee education and training, resilient building design, or risk assessment across your supply chain to identify and address vulnerable points.*

? *In the **event of a disaster**, what could your business do to help others? Supermarkets could, for example, provide food and logistics; telecommunications companies could supply free communications and text updates, etc.*

You could also think about:

? *Can your staff access **affordable housing**, or afford to live close to work? If not, are there ways you can improve the situation, perhaps by providing transport solutions or promoting flexible working? This is likely to increase employee wellbeing and productivity, as long commutes are draining and travel costs can be a large proportion of employee household expenditure.*

? *Could your **urban community engagement** activities aim to increase the resilience of your local communities to climate impacts and disasters? This might include education and awareness raising, or physically improving community buildings such as schools.*

? *How well your **employee profile** reflects the diversity of the urban populations where your business is located. What more could you do to create employment opportunities for people from a range of backgrounds/socio-demographic groups?*

Key links to other SDGs:

Goal 1 – No poverty: many cities have rapidly growing informal settlements, with high concentrations of extreme urban poverty. The poorest communities are also the most vulnerable to climate risks and disasters, which can push the precarious poor back into extreme poverty – hence resilient cities are a key part of ensuring that progress on poverty is maintained.

Goal 3 – Good health and well-being: reducing air pollution in cities will significantly improve human health: it is a significant causal factor in stroke, heart disease, lung cancer, and both chronic and acute respiratory diseases, including asthma.

Goal 6 – Clean water and sanitation: water and sanitation systems are a key municipal challenge in all cities, with growing populations, pollution, water availability and informal settlements all posing challenges to adequate provision of both services.

Goal 9 – Industry, innovation and infrastructure: physical infrastructure underpins effective municipal services, and effective design of buildings and infrastructure is a key part of urban resilience.

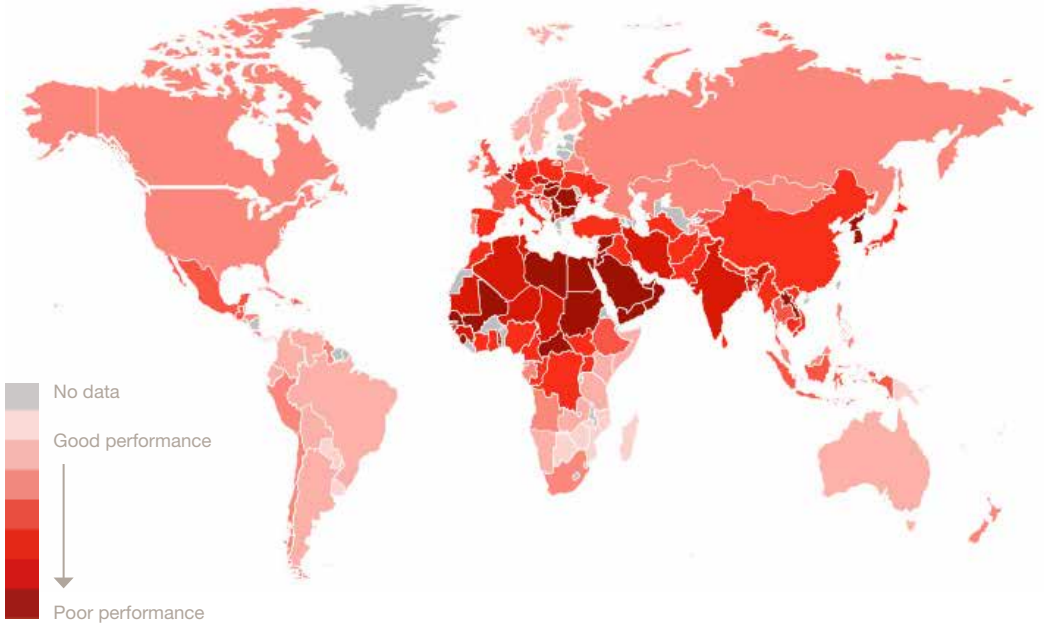
Goal 12 – Responsible consumption and production: as areas of concentrated economic activity and high population density, cities are major consumers of resources and major producers of emissions, pollution and waste. The issue of sustainable consumption and production is therefore key to ensuring sustainable cities.

Targets *in focus*

SDG 11 has ten targets. One of them is "By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums". Target 11.6 is illustrated in the heat map and states that "By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management". For details on the remaining targets, please see 'Global Goals and targets' on page 82.

The lie of the land – exploring the distance to cover to achieve

Target 11.6: By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management



Tools to help you steer your course

Over the next 15 years trillions of dollars in public and private funds will be directed towards achieving the SDGs, and there will be huge opportunities for those businesses that can help deliver solutions. There will also be big risks for those companies that are seen to be hindering progress on the goals.

How do you know where to start?

Our research showed that only a small proportion of companies had identified the tools that would help them to assess their impact against the SDGs that are more relevant to their business[138], and so we developed a diagnostic tool to help companies to take that critical first step.

Our Global Goals Business Navigator tool is designed to focus on establishing early priorities and to create insight for businesses – giving them a quick, replicable and low cost way to map their activities against the SDGs.

We have built many months of research into a systems driven database mapping tool that can quickly deliver a summary of how an organisation's activities align with the SDGs, with analysis delivered in a matter of days, rather than the months of research it might to do this otherwise. We hope that by removing this "first step" barrier, we will significantly increase the engagement of corporates with the SDG agenda.

PwC's Global Goals Business Navigator

We recognise that engagement will be slow without the basic tools in place to start this process, so PwC has developed the Global Goals Business Navigator to help businesses identify which of the Global Goals are most relevant, given the countries and sectors they operate in. It identifies how each country is currently performing against its SDG goals and targets and uses input output modelling techniques to highlight relevance across both direct operations and the wider supply chain. It also draws on economic research to identify where value could be at risk from countries failing to achieve their SDG commitments and the potential opportunities (i.e. where business activities could help significantly more), on a country by country basis. It thereby helps business map out and visualise their strategic priorities in a more informed way.

Step 1: The Global Goals Business Navigator identifies how a country is performing on each SDG relative to other countries

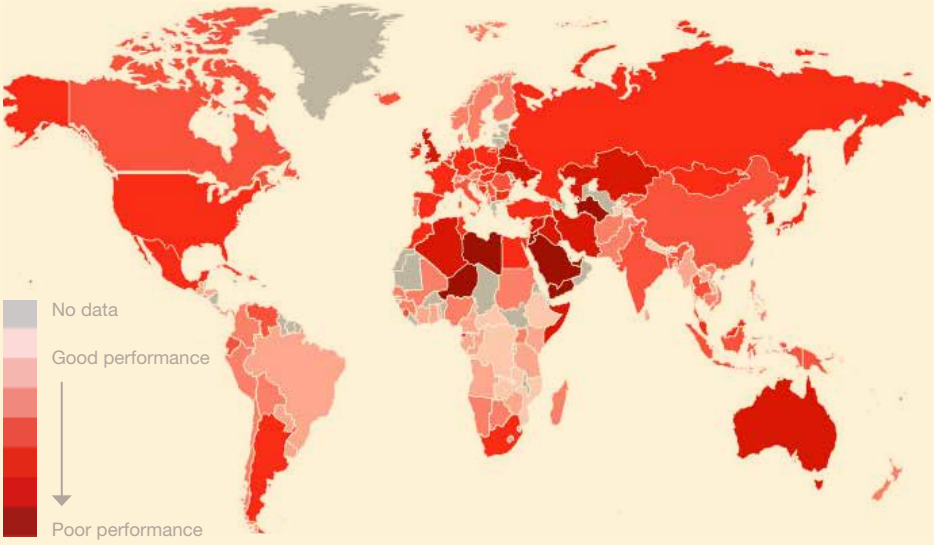
For business this gives a picture of which are most relevant for them to focus on, given the countries and sectors of their operations.

We have mapped the performance of all of the countries of the world against their SDG goals, with help from experts in both our Sustainability and our International Development practices. We mapped multiple indicator information for each and every SDG target for every country in the world (around 400 data points for each of 249 countries and regions), using the extensive 195 indicators and monitoring framework created by the UN's Sustainable Development Solutions Network and Inter-Agency Expert Group, combined with our knowledge of other data sources.

This gives the first output from the Global Goals Business Navigator – world heat maps – which can be created for each goal and target. We've included one heat map for each goal in this SDG guide and an example is shown in Figure 2: Global Goals Business Navigator Heat Map below.

Figure 2: Global Goals Business Navigator heat map SDG 12: Responsible consumption and production

Target 12.2: By 2030, achieve the sustainable management and efficient use of natural resources



Step 2: Analysis shows the relative direct and supply chain importance of each SDG based on geography and sector

Using economic, social and environmental impact theories, combined with detailed understanding of the targets and indicators that underpin the SDGs, we have built models to show the relative impact of the different SDG goals. Using multiple lenses, we can explore impacts on both the direct operations of a business and its supply chain. Our model includes cost benefit analysis that uses think tank research drawing on the work of 60 teams of internationally renowned economists and 100+ research papers; and public perception using lenses such as twitter conversations (based around 17 topics from 193 countries); and the UN Global SDG Conversation (which has gathered more than 8 million citizen votes from 193 countries).

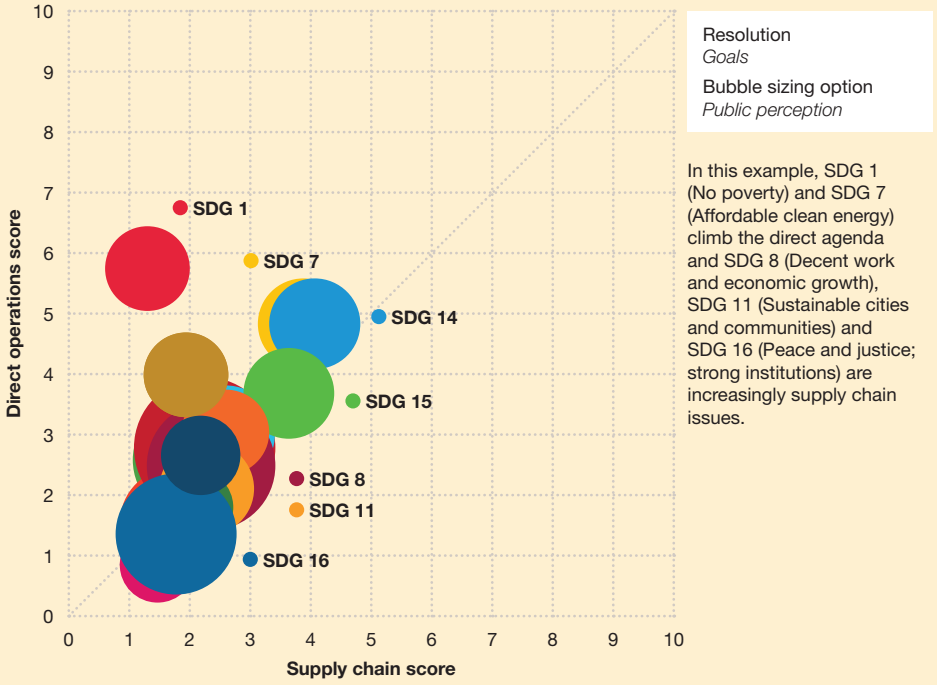
In Figure 3: Relative impact of SDGS, the higher up the vertical axis a bubble is placed indicates increasing relevance to the direct operations, and the further along the horizontal axis represents increasing relevance to the supply chain.

Step 3: Understanding how a business' existing policies and practices impact on the goals

Many businesses have adopted working practices or have initiatives in place that improve their impact on one or more of the SDGs. This activity needs to be factored in to the analysis to create a more representative picture of a company's impact. Our Global Goals Business Navigator questionnaire has been developed by our Sustainability and Climate Change experts with the aim of identifying the current level of awareness of the key issues underlying each SDG, the impact of the practices currently in place, and the extent to which there is a management commitment to respond to and address the risk or opportunity that each SDG poses. The scoring of the questionnaire is then taken into account in step 4, the calculation of the value at risk.

Figure 3: Relative impact of SDGs – Results

Direct-indirect SDG positioning matrix



In this example, SDG 1 (No poverty) and SDG 7 (Affordable clean energy) climb the direct agenda and SDG 8 (Decent work and economic growth), SDG 11 (Sustainable cities and communities) and SDG 16 (Peace and justice; strong institutions) are increasingly supply chain issues.

Step 4: Demonstrating a company's value at risk if the SDGs are not achieved

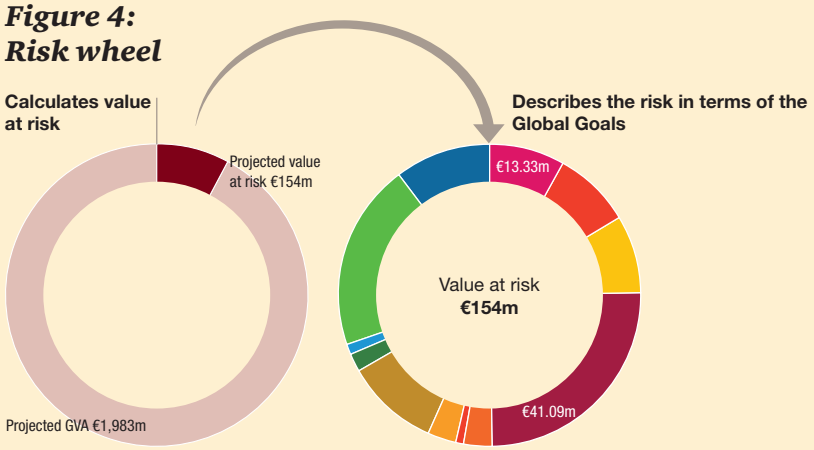
The scores from step 2 and step 3 are translated into risk in terms of lost gross value added, in the event that a host country should not achieve its 2030 SDG targets. This 'projected value at risk' is then allocated across the SDGs (see Figure 4: Risk wheel).

In this way, we aim to help business understand the relevance of the SDGs given their countries and sectors of operation, and so define their priorities and set goals.

The tool will allow a business to:

- Evaluate which SDGs they can best contribute to;
- Identify the significant risks (i.e. where business activities hinder governments more than help) in relation to both core products and activities and more broadly across the supply chain, on a country by country basis; and
- Identify the potential opportunities (i.e. where business activities could help significantly more) in relation to core products and activities and the wider supply chain, on a country by country basis.

Figure 4: Risk wheel



Case Study

Company: Asda

Sector: Food Retailer

Region/country of impact: Global

Aligns to: SDG 2 and SDG 12

Asda undertook a ground-breaking study to better understand the impacts of climate change on its supply chain

Global Challenge: our food supply chains are more global, more complex and more interlinked than ever before. Food retailers are already finding it challenging to offer undisrupted continuity all year round of the vast variety of fresh produce that consumers demand.

Business Response: Asda decided to examine the drivers that underpin their supply chain. All factors that affect the price, quality and availability of the products were examined, as well as how future changes in climate might impact upon them. The study showed that: 95% of their whole fresh produce range was at risk from climate change; the impacts were already being felt; and without action these would get progressively worse. The study led to Asda reviewing their strategy, developing their Climate Resilience Framework and taking practical actions in their supply chain.

Benefits: The study not only helped the company to better understand the impacts of climate change but also enabled them to quantify the risks, identify opportunities and build resilience. Some of the benefits have included improvement in water efficiency, for example, Asda launched a water-trickle scheme for celery growers in Spain, and worked with a citrus supplier in Morocco to convert existing sprinkler practices to drip irrigation, which resulted in an initial 60% drop in water usage. This not only reduced costs but also benefited the local community as less of their water was used. By making the results of the study public, Asda has taken a lead and is highlighting these challenges and informing others within the sector about the risks as well as the opportunities.

Source: Asda,
[http://your.asda.com/system/dragonfly/production/2014/06/17/15_38_19_612_4234_Climate_Resilience_Campaign_a5_Brochure_v10.pdf]

Responsible consumption and production

What is it? *Ensure responsible consumption and production patterns*

1.3bn tonnes

Roughly one third of all the food produced in the world for human consumption every year – approximately 1.3 billion tonnes – gets lost or wasted. Where we waste food, we also waste the fertilisers, pesticides and water which went into its production and the fuel used for its harvesting, processing and transportation.[141]

41.8m tonnes

It's estimated that 41.8m tonnes of e-waste (from discarded electronic goods) was generated in 2014, a figure predicted to rise to 50m tonnes by 2018.[142]

What's the global challenge?

- Producing materials from mining and agriculture creates significant environmental impacts. Greater **resource efficiency** will help us address the issue of irreversible **environmental degradation**, which could reach a point where potentially renewable resources such as soil and water can no longer self-regulate, further threatening the **availability of natural resources** for our use.
- A rising population, urbanisation and, overwhelmingly, **economic growth**, are driving an **ever increasing demand for natural resources**: energy, soil, water and minerals. If current consumption trends continue, natural resources could be **rapidly depleted**. The EU has defined 20 "critical raw materials", which are of particular concern given their growing economic importance and their high risk of supply shortage. Included in this classification are elements such as: beryllium, chromium, indium, magnesium and the platinum group metals. Being faced with rapidly depleting resources demands that we improve **resource efficiency** in **consumption and production**.
- Improving resource efficiency also means less **waste**. Waste covers a very wide spectrum of discarded materials from **municipal, electrical and electronic**, to **industrial** and **agricultural** waste.[139] The amount of just one waste category, **municipal waste**, is projected to rise from 3.5 million tonnes per day in 2010 to more than 6 million tonnes per day by 2025, tripling to 11 million tonnes per day by 2100. This means **rising costs of disposal** and increasing **environmental and health impacts**. Waste incineration raises concerns about air pollution, while landfill sites leak methane – a potent greenhouse gas which exacerbates climate change.[140]
- Of all the **food** produced in the world for human consumption every year, roughly **one third** – approximately 1.3 billion tonnes – gets **lost or wasted**. Where we waste food, we also waste the chemicals, such as fertilisers and pesticides, which went into its production and the **fuel** used for its transportation. While rotting food creates yet more harmful methane, a potent **greenhouse gas**.[141]
- The ultimate goal is to create a **circular economy**, which is producing no waste and no pollution, by design or intention – not just by re-using and recycling things – but also by repairing them, designing them to last longer and finding more **sustainable business models**. Extending product life, reusing, re-manufacturing and recycling products both reduces the need for new resources and reduces the impacts from waste disposal. Recycled aluminium emits 20 times less greenhouse gases than virgin material. The deployment of these options is an example of the creation of a more circular economy, which is producing more economic activity whilst reducing the impacts from resource use.
- In 2015 the UN identified **e-waste** as "one of the fastest-growing waste streams" on the planet, leaving a **toxic legacy** of heavy metals and chemicals in countries such as India and China where recycling factories recover e-waste materials. Globally, an estimated 41.8m tonnes of e-waste was discarded in 2014, a figure predicted to rise to 50m tonnes by 2018.[142]
- Globally an estimated **193,460 people died** in 2012 as a result of **unintentional poisonings**, causing the loss of over **10.7 million years** of healthy life.[143] 84% of these deaths occurred in low and middle income countries, where such poisonings can be strongly associated with excessive exposure to, and inappropriate use of, **toxic chemicals**.

Why does it matter for business? And what can business do?

The impact of rising resource scarcity will require businesses to transform. Resource efficiency and waste reduction can reduce costs and underpin stability.

- **43% of CEOs** ranked **resource scarcity** and climate change in their **top three megatrends** that will transform their business.[144]
- Increasing **resource efficiency** can help a company **reduce its cost base** and reduce risks associated with **security of supply** and **price volatility**, supporting **sustainable growth** in the medium to longer term.
- Leading companies are setting specific stretch targets to **decouple** their **growth** from environmental impacts. They typically find that setting such targets drives **strong innovation** and builds **brand value**, as well as helps them to achieve cost and risk reductions.

? *Do you have **targets** to reduce the **energy** and **resource intensity** of the production and use of your products? Has your company considered setting a target to grow the business while reducing operational energy and resource use?*

- **Municipal waste disposal** is putting enormous **pressure on local governments**, particularly in developing countries, squeezing the funds available for spending on other services, with knock on **negative effects for residents, businesses and local economies**.[145]
- Companies also face **rising costs of disposal** for the waste they generate themselves, strengthening the business case for moving towards **circular economy business models**, focusing innovation and research and development efforts on finding ways to reuse resources, regenerate natural capital and decouple resource use from growth.

? *Has your company assessed the cost of its **waste disposal** now and projected what it might cost in five to ten years' time? Have you considered the opportunities that circular economy business models might offer for **reducing costs**, both your own and those borne by local government, and for achieving a more stable supply chain or strengthening customer relationships?*

- **Consumers** are becoming increasingly **frustrated** by constant upgrades to electronic equipment that mean they have to shell out for new kit and not just because of the cost. A recent petition, signed by nearly 300,000 people, called for a smartphone provider to retain its existing headphone jack size, and stated that changing the specification would "singlehandedly create mountains of electronic waste – that likely won't get recycled".

? *If you produce electronic goods, to what extent are you factoring e-waste reduction into your strategic decision-making? If you purchase or hire laptops or smartphones for the use of your staff, are you requiring suppliers to improve their performance on reducing e-waste through product design?*

- In **developing countries,** food waste and losses occur mainly at the **early stages of the food value chain**. In **medium and high income countries**, losses occur mainly at **later stages**.[146]

? *If your company is in food manufacture or retail, can you work with **agricultural suppliers** to address the financial, managerial and technical constraints in harvesting, storage and cooling facilities that are key causal factors? Can you **invest profitably** to support improvements in infrastructure and transportation that will help reduce waste and losses?*

? *Can you find **beneficial uses** for manufacturing or retail food waste? Or support consumers to reduce household food waste, by raising their **awareness** of the issues or adjusting your marketing practices?*

- **Poor management of hazardous chemicals** at any stage in their **life cycle** and through the value chain from sourcing to product use and disposal, risks **reputational damage** and **costly lawsuits**.

? *Do you have management systems in place to address environmental and health risks relating to hazardous chemicals and air, water, and soil pollution and contamination in and around your **directly owned facilities?** Do you consider these risks in relation to the **use and/or disposal** of your products?*

? *Does your company understand the sustainability risks it faces? Has it explored the potential value creation opportunities that pursuing sustainability may offer? Are these risks and opportunities reflected in your corporate strategy?*

? *Have you set clear, measurable goals with a strong accountability and governance structure? Have you integrated sustainability information into your reporting practices?*

You could also think about:

? *Ways that your company could engage with employees, customers, the local community and/or the general public to **raise awareness of sustainable development** and **promote lifestyles in harmony with nature.***

? *Whether you could take this further and support your employees and/or customers to **adopt and maintain behaviours** that will reduce environmental impacts through greater resource efficiency and waste reduction.*

A target to link all goals

Target 12.6 asks national governments "to encourage companies, especially large and transnational companies, to **adopt sustainable practices and integrate sustainability information into their reporting cycle"**. It links across to all the Global Goals.

Evidence shows that companies with higher rating for environmental, social and governance factors, i.e. strong sustainable business practices, have: (1) **lower costs of debt and equity** – the market recognises they are lower risk and rewards them accordingly; and (2) that they generally **outperform the market** in the medium (three to five years) and long term (five to ten years).[147]

Companies report that **sustainability strategies deliver value** through reduced operational, reputational and regulatory risk; decreased operating and supply chain costs; enhanced product value propositions attracting greater market share or price premiums; and/or growth via new markets or product innovation.[148]

For sustainability strategies, like any other business strategy, to be successful, companies need to **set goals** and **establish accountabilities**, supported by business metrics. Increasingly companies' internal **management information** and **public reporting** address a broad range of sustainability areas. **72% of CEOs** state their companies are **reporting non-financial information**, according to PwC's 19th Annual CEO Global Survey.[149]

Key links to other SDGs:

Goal 2 – Zero hunger: recovering just half of the food that is lost or wasted would be enough to feed the world.

Goal 3 – Good health and well-being: the sound management and disposal of chemicals and all wastes will minimise adverse impacts on human health.

Goal 6 – Clean water and sanitation: water efficiency will help meet water needs.

Goal 7 – Affordable and clean energy: energy efficiency is a key contributor to achieving universal access to affordable energy services.

Goal 8 – Decent work and economic growth: target 8.4 is to improve resource efficiency in consumption and production and decouple economic growth from environmental degradation.

Goal 11 – Sustainable cities and communities: effective reduction and management of municipal and other waste is critical to reducing the adverse per capita environmental impact of cities.

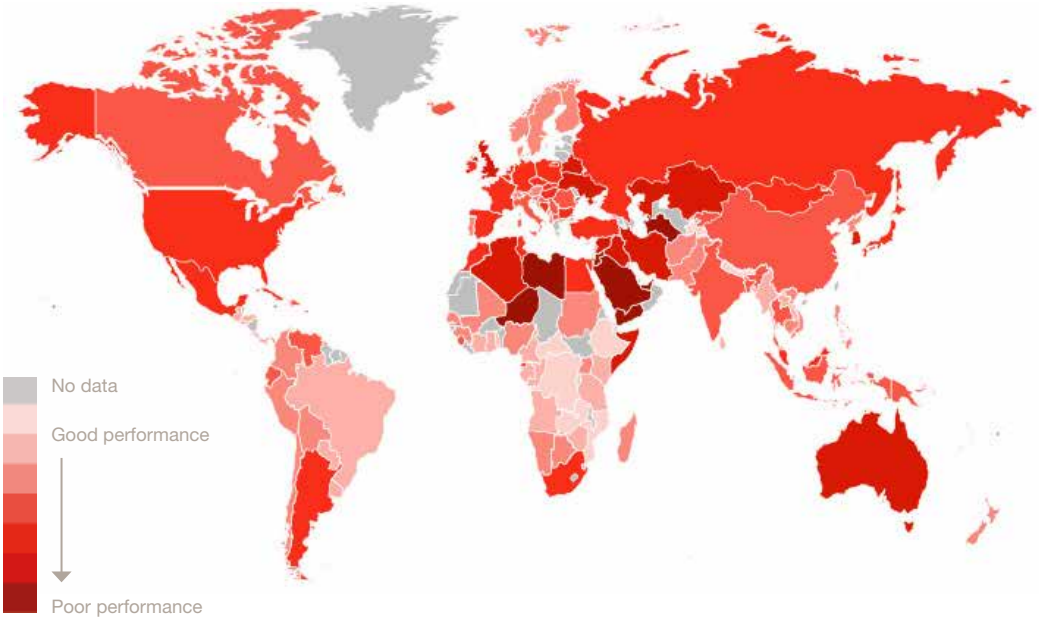
Goal 13 – Climate action: the integration of climate change measures into national policies, strategies and planning will impact on businesses, requiring them to be more energy efficient.

Targets *in focus*

There are eleven targets for SDG 12. The first target is to "Implement the 10-year framework of programmes on sustainable consumption and production, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries". Target 12.2 in the heat map is "By 2030, achieve the sustainable management and efficient use of natural resources". For details on the remaining targets, please see 'Global Goals and targets' on page 82.

The lie of the land – exploring the distance to cover to achieve

Target 12.2: By 2030, achieve the sustainable management and efficient use of natural resources



Climate action

What is it? Take urgent action to combat climate change and its impacts

What's the global challenge?

- Climate change and weather extremes already affect millions of people around the world. Studies predict more frequent and severe events **(drought, heat waves, wildfires, sea level rise and floods)** causing damage to coastlines and crops, jeopardising **global food and water resources** and threatening **power supplies**. The costs of extreme weather events can be huge: Super Storm Sandy was estimated to have cost the US economy $65 billion in damages.[150,151] Further issues identified by the most comprehensive review on the science of climate change (by the Intergovernmental Panel on Climate Change - IPCC) include threats to unique systems such as coral reefs, and large-scale singular events like the disintegration of the western Antarctic ice sheet which would raise sea level by 5 metres.[152]

- The IPCC's review predicted that everyone on the **planet is going to be affected in some way** by the impacts of climate change[153], and that further warming will cause long-lasting changes, increasing the likelihood of severe, pervasive and irreversible impacts for people and ecosystems.[154]

- 195 nations adopted the **Paris Agreement** in December 2015: an international treaty aimed at stabilising atmospheric CO2 concentrations to limit warming to well below **2 degrees Celsius** and pursue efforts towards a 1.5 degree limit. The Paris Agreement also makes substantial financial provisions for **adapting** and **building resilience** to climate change, and for providing the **means of implementation** necessary for developing nations.[155]

- Warming of around **1.5 degrees Celsius is already locked in** from past and predicted emissions.[156] **2015 was the warmest year on record**, seeing average temperatures around the world reaching 1 degree Celsius above pre-industrial levels.[157] But if, instead of unchecked warming, the 2 degree warming limit is achieved, the **impacts** of climate change will be **lessened**: global sea-level rise may, for example, be limited to about 70 cm by the end of the century.[158]

- PwC's Low Carbon Economy Index estimates that to limit warming to 2 degrees Celsius, the world **economy** needs to **decarbonise** at a rate of 6.3 % every year,[159] a rate which has never yet been achieved. The need to **act swiftly** and effectively cannot be understated.

Why does it matter for business? And what can business do?

Climate change is already impacting more than a third of businesses,[160] and if unmitigated, climate impacts will continue to increase the cost of doing business.

- The increased probability and frequency of extreme events such as flood and drought can have a big impact on the private sector, **disrupting operations, logistics, supply and distribution**. Events may directly **damage facilities**, or indirectly affect business via damage to the systems it relies upon such as **transportation, telecommunications** and **power supplies**.
- **Delays in production** might be caused by power outages or a shortage in supplies; while sometimes **facilities** may have to be **shut down** altogether. Such **interruptions** or **intermittent closures can** be catastrophic for business.
- To address these challenges, one of the most fundamental actions is for companies to **build climate change awareness** into their businesses. That means engaging employees at all levels; talking to them about their views and increasing their ability to build resilience into the business and manage risks in the longer term.

? *How climate aware are your managers and employees? Are you confident of their capacity to address the impacts climate change will have on your business?*

- It is critical for **climate risk** to be **incorporated** into **risk assessment**, and **business continuity** and **risk management** procedures. Companies need to plan not only for the likely increase in frequency of extreme events but also the size of impact – this enables them to make better decisions about how and where to **build climate resilience** into their operations and across their value chain. **Risk assessments** need to be **reviewed regularly** to ensure risk profiles, addressing both probability and impact, remain consistent with the latest climate science and scenarios.

? *Do you have risk assessment and risk management processes in place for potential future climate change impacts? Do they address your supply chain and your customers and markets? Do you consider how climate might impact the needs of your customers? How regularly are you reviewing your risk assessments?*

? *Does your company have **operations based plans and measures** in place to **prepare for and manage disasters** and **build resilience** to climatic shocks and disasters? Do you have similar plans and measures in place to prepare for and manage disasters affecting your **supply chain**, and to build **supply chain resilience** to shocks and disasters?*

You could also think about:

? *How you could **support development of public policy** in the transition to a low carbon climate resilient economy.*

For example:

Each signatory country to the treaty **UN Paris Agreement** will be developing **implementation plans** for their submitted plans of action ('Intended Nationally Determined Contributions' (INDCs) in UN parlance). You could seek to **engage with governments** in the countries in which you operate to support them in this process, helping to shape a swift and effective course of action.

There are a number of **business membership organisations, such as WBCSD or IETA**, to which you can sign up and contribute to the overall industry conversation on the role of business in climate action. Most recently, for example, a campaign called 'We mean Business', has brought together a **coalition of organisations** working with thousands of the world's most influential businesses and investors. Their purpose is to "accelerate [the transition to a low carbon economy by forming] a common platform to **amplify the business voice**, catalyse bold climate action by all, and promote smart policy frameworks."[161]

You could also consider looking into clean finance – building on actions and pledges made in 2015, some financial institutions are now considering whether the Paris Agreement presents **new investment opportunities in low carbon infrastructure** (for more examples please see **Goal 7 – Affordable and clean energy**). Others are **looking at their energy portfolios and revising their investment policies** – particularly with respect to coal mining and power generation.[162]

$1.9tr

By 2100, four global warming impacts alone – hurricane damage, real estate losses, energy costs, and water costs – will come with a price tag of almost $1.9 trillion annually (in today's dollars) or 1.8% of US GDP.

(Source: The cost of climate change, 2008)

Sources:

World Business Council for Sustainable Development (WBCSD) – Energy and Climate Work Stream[163]

UN Framework Convention on Climate Change (UNFCCC) – Adaptation Private Sector Initiative[164]

UN Global Compact (UNGC) – Caring for Climate Initiative[165]

Key links to other SDGs:

As the impacts of climate change are global and wide ranging, connections can be drawn with many other goals. Here are the key links of which to be aware:

Goal 2 – Zero hunger: reduced crop yields and losses in livestock and fishery productivity will drive food insecurity, especially in vulnerable regions. Studies suggest that warming (1.2°C - 1.9°C by 2050) in sub-Saharan Africa could increase the proportion of the undernourished population by 25-90% compared to the present[166].

Goal 3 – Good health and well-being: climate change will likely lead to greater spread of vector- and water-borne diseases, such as malaria and cholera. This will be driven by changes in the climate, extending the areas which meet the conditions for disease to spread. Warming (2°C by 2040) is projected to increase the relative risk of malaria by 5% in 2050.

Goal 6 – Clean water and sanitation: global water availability is already under pressure from population growth, and uneven distribution. With projected temperature increases, the pressure on water resources is likely to grow. Declines of 20% in water availability are projected for many regions in the event of a 2°C warming and of 50% for some regions in the event of a 4°C warming[167].

Goal 7 – Affordable and clean energy: energy is the source of 40% of man-made emissions[168]. Therein lies a risk and an opportunity for business. The risk is that without managing a transition to low-carbon, renewable energy technologies, our ability to limit global temperature increase to a safe level will be restricted. The opportunity is for companies to switch to newer, cleaner technologies, ultimately helping to future-proof as well as differentiate their business.

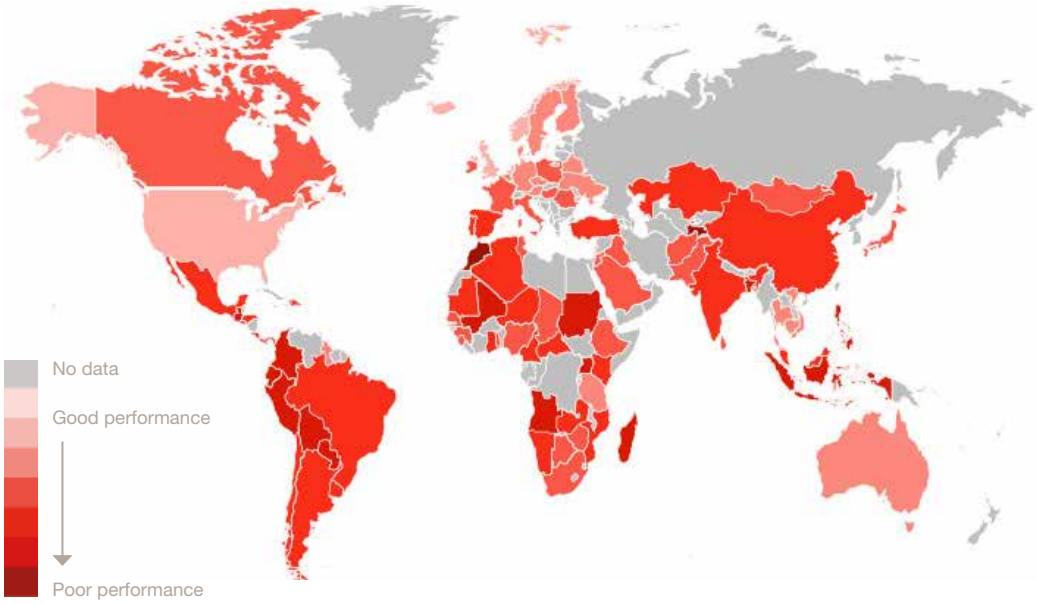
Goal 14 – Life below water: temperature increase and acidification of the oceans from climate change are expected to extensively damage coral reefs systems around the world, leading to drops in fishery production. In addition, damage to marine ecosystems from acidification could lead to disruption of food webs, loss of tourism and other human activities connected to the seas and would also have serious impacts on food security.

Targets *in focus*

This SDG has five targets, the first of which is "Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries". The target shown in the heat map is "Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning". For details on the remaining targets, please see 'Global Goals and targets' on page 83.

The lie of the land – exploring the distance to cover to achieve

Target 13.3: Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning



Case Study

Company: Adnams

Sector: Brewery

Region/country of impact: UK/Global

Aligns to: SDG 12 and SDG 13

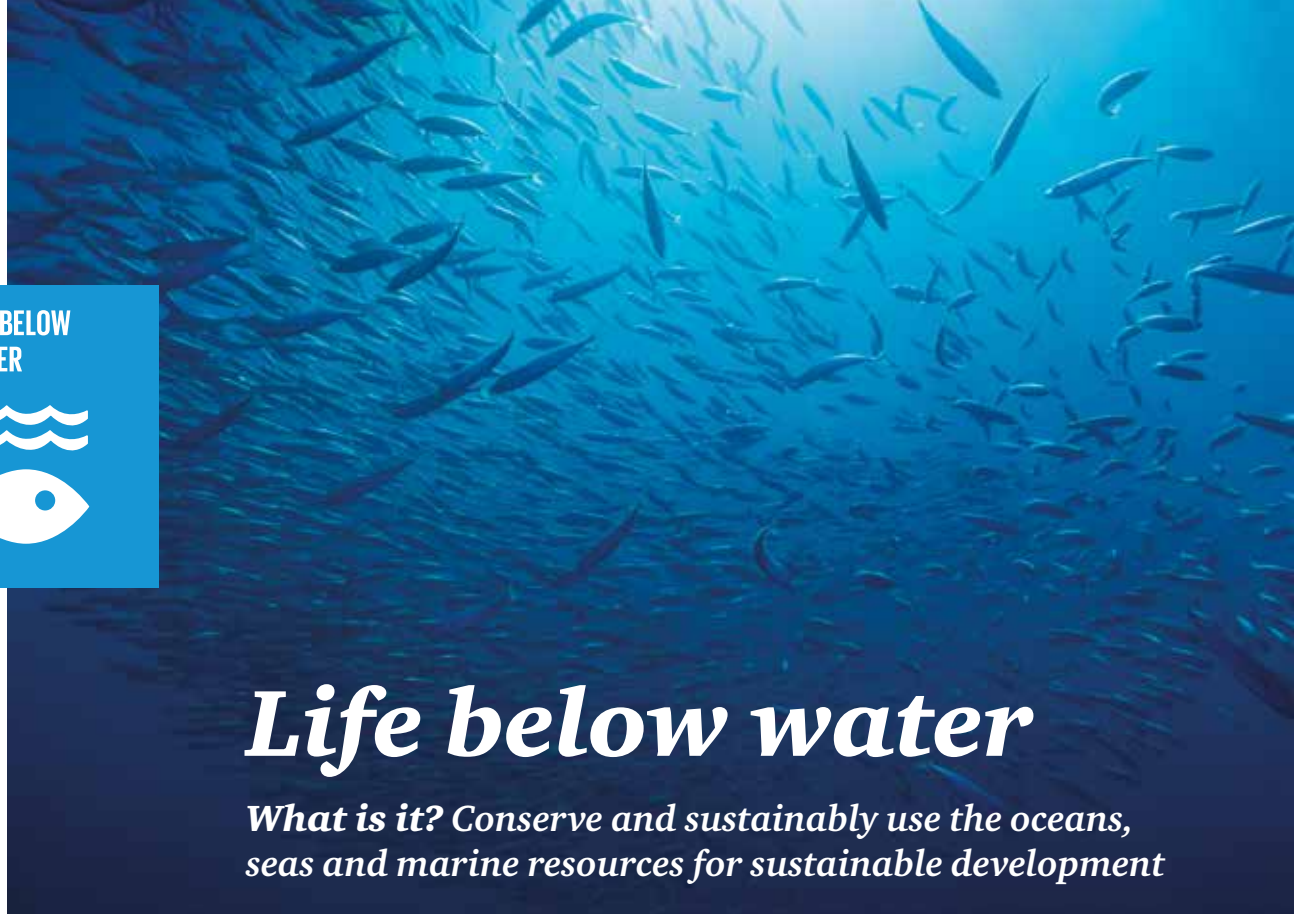
Adnams produced the first carbon neutral beer, East Green

Global Challenge: Millions of people around the world are affected every year by climate change and weather extremes. To mitigate the impact of climate change, all countries and industries need to make a transition into becoming low-carbon economies. This means that businesses need to take active steps towards developing sustainable production practices that result in sustainable consumption.

Business Response: Adnams, the brewery based in Suffolk, decided to assess the carbon footprint of the production and distribution of their products. They looked at their product lifecycle from farm to delivery and were able to target the key parts of the process where emissions could be cut. From this, they developed their carbon neutral beer, East Green. It is brewed in a brewery with an Energy Recovery System which recycles 100% of the steam created, to be used to heat 90% of the following brew. The barley used is grown locally in Suffolk and the Boadicea hops used are naturally aphid-resistant.

Benefits: East Green was created as part of a sustainable production plan and a reduction in carbon-emissions plan. The most important benefit to Adnams is that East Green is sustainable and hopefully similar production methods can be implemented both by Adnams and by other breweries to create more carbon neutral beers with a good taste. The study of their carbon lifecycle enabled Adnams to quantify the risks to their supply chain, and identify opportunities to take on more sustainable practices and build resilience to a changing climate. By sourcing the barley locally, they are helping to fund local employment as well as reducing CO2 emissions released during transportation and its transportation costs. The aphid-resistant hops reduces the use of pesticides which is better for biodiversity and importantly, bees.

Source: Adnams
http://adnams.co.uk/about/news/beer-news/adnams-launches-carbon-neutral-beer-on-draught/
http://adnams.co.uk/about/news/beer-news/east-green-%E2%80%93-the-first-carbon-neutral-beer-from-the-coast/



14 LIFE BELOW WATER

Life below water

***What is it?** Conserve and sustainably use the oceans, seas and marine resources for sustainable development*

40%

of the oceans are suffering ill effects from human activities, including pollution, depleted fisheries, and loss of coastal habitats.[169]

What's the global challenge?

- The **market value of marine and coastal resources and industries** is estimated at $3 trillion per year or about 5 per cent of global GDP. Yet, as much as 40 per cent of the oceans are suffering ill effects from human activities, including **pollution, depleted fisheries**, and **loss of coastal habitats**.[169]
- Currently, 80-90% of **marine pollution** comes from **land-based activities**: everything from fertiliser and pesticide runoff from farms and lawns, to untreated sewage and improperly disposed of garbage.[170]
- Excess nutrients caused by runoff and sewage can spawn massive blooms of algae that rob the water of oxygen, creating **dead zones** where little or no marine life can exist.[171]
- Because of its durability, low cost and increased use, **plastic** makes up the majority of marine debris. Plastic is particularly problematic because it is **not biodegradeable** but instead gradually breaks up into smaller and smaller pieces and is then mistaken by birds, fish and other marine life for food, with potentially **fatal consequences**.[172] If current trends continue, by 2025 our ocean will hold about one kilogram of plastic for every three kilograms of fish,[173] and by 2050 the oceans will hold more plastics than fish.[174]
- Oceans serve as the **world's largest source of protein**, with more than 3 billion people depending on the oceans as a key source of protein. Yet, the proportion of stocks **fished at unsustainable levels** was 28.8 percent in 2011: a slight decline from the peak of 32.5 percent in 2008, but still a major cause for concern.[175]
- Most areas of the world's oceans are experiencing **habitat loss**. But **coastal areas**, with their closeness to human population centres, have suffered disproportionately.[176] **Runoff, habitat removal** for development (including for buildings, roads, marinas, aquaculture and reclamation for agriculture), **logging and vegetation removal, sediments from soil erosion and dredging** all contribute to habitat destruction.
- Because so much of the ocean is hard to access, marine biodiversity is hard to quantify and track, yet evidence suggests fishing and bycatch, toxic chemicals and nutrient pollution and habitat destruction are among the major causes of the biological impoverishment and **loss of marine biodiversity**.[177] Global climate change is also predicted to have a major impact on marine biodiversity in the future.[178]
- **Ocean acidification** is caused principally by rising emissions of carbon dioxide. This gas dissolves readily in seawater to become a marine pollutant of global proportions.[179] There is growing concern ocean acidification could have significant consequences on marine organisms including **disruption of marine food webs and ecosystems**, potentially **damaging fishing, tourism and other human activities** connected to the seas and having serious impacts on **food security**.[180]
- The warmer temperatures associated with **climate change** are also melting ice caps and glaciers, raising sea levels and **causing flooding**.

Why does it matter for business? And what can business do?

Sectors such as food, fisheries and aquaculture and tourism are particularly dependent on healthy oceans and coastal areas and have a pivotal role to play in addressing threats to the health of our oceans and coastal areas; but all sectors may suffer if natural coastal flood protection is lost or food security threatened, and all can contribute to reducing marine pollution or supporting sustainable fisheries.

- World **plastic production** has increased from 15 million tonnes in the sixties to 311 million tonnes in 2014 and is expected to triple by 2050, when it would account for 20% of global annual oil consumption. 'The New Plastics Economy', a report launched at Davos in January 2016, explores how **collaboration along the extended global plastic packaging production and after-use value chain**, as well as with governments and NGOs, can **achieve systemic change** and overcome stalemates in today's plastics economy to move to a more circular model.[181]

? *How much **plastic packaging** does your business use in its product distribution and/or supply chain? What opportunities are there to reduce packaging size, saving costs as well as using less plastic?*

? *How far could your company go in transitioning to a **circular plastics economy?** Are there opportunities to **re-use or recycle** packaging? If you manufacture plastic packaging or make products with plastic components, could you harvest materials and use remanufacturing strategies? Who do you need to **collaborate** with to make this happen?*

- There is currently not enough sustainable seafood to meet demand.[182] **Large scale business growth of fish farms and operations that use sustainable practices**, depends on **investment, innovation and connectivity** throughout the seafood value chain.[183]

? *What role can your business play in the seafood value chain? Do you require your catering suppliers to source sustainable seafood and are you prepared to **pay a premium** that will help the sector meet growth in demand?*

? *Could you **innovate** to help fish farmers or fishermen obtain more accurate data about the health of fish stocks or the impact of different fishing practices? Could you **invest** in supporting fishing communities to develop better governance and more sustainable practices; or in innovative, sustainable approaches to aquaculture? Can you **raise awareness of the issues** amongst consumers and do more to promote purchase of sustainable seafood products?*

You could also think about:

? *Actively managing any **other impacts on the marine environment and coastal ecosystems** associated with your own operations. Impacts might arise from, for example, shipping, electricity and telecoms transmission, or oil and gas exploration and extraction.*

? ***Supporting much needed research** into the impacts of pollution, including ocean acidification, on marine biodiversity, fishing, tourism and/or food security through **investment, data analytics, technological innovation** and/or **partnership.***

? *Understanding the implications of the **increasing protected area coverage of marine and coastal environments** for your business. How will you secure or maintain your licence to operate? Will you need to tighten your internal controls for environmental management?*

80–90%

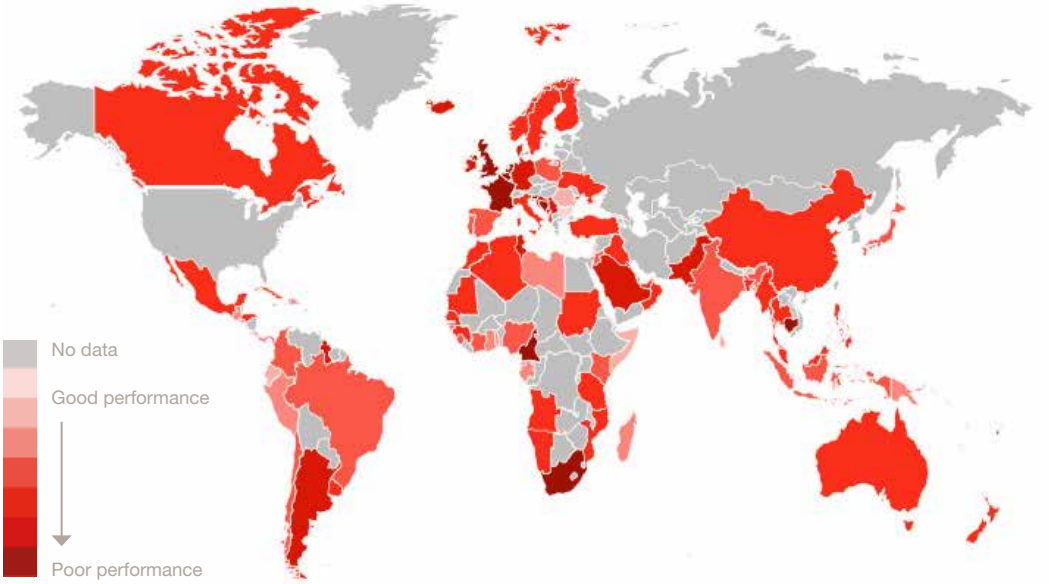
of marine pollution comes from land-based activities: everything from fertiliser and pesticide runoff from farms and lawns, to untreated sewage and improperly disposed of garbage.[163]

Targets *in focus*

SDG 14 has ten targets. One of them is "By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution". The target in the heat map is 14.4, "By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics". For details on the remaining targets, please see 'Global Goals and targets' on page 83.

The lie of the land – exploring the distance to cover to achieve

Target 14.4: By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible



Key links to other SDGs:

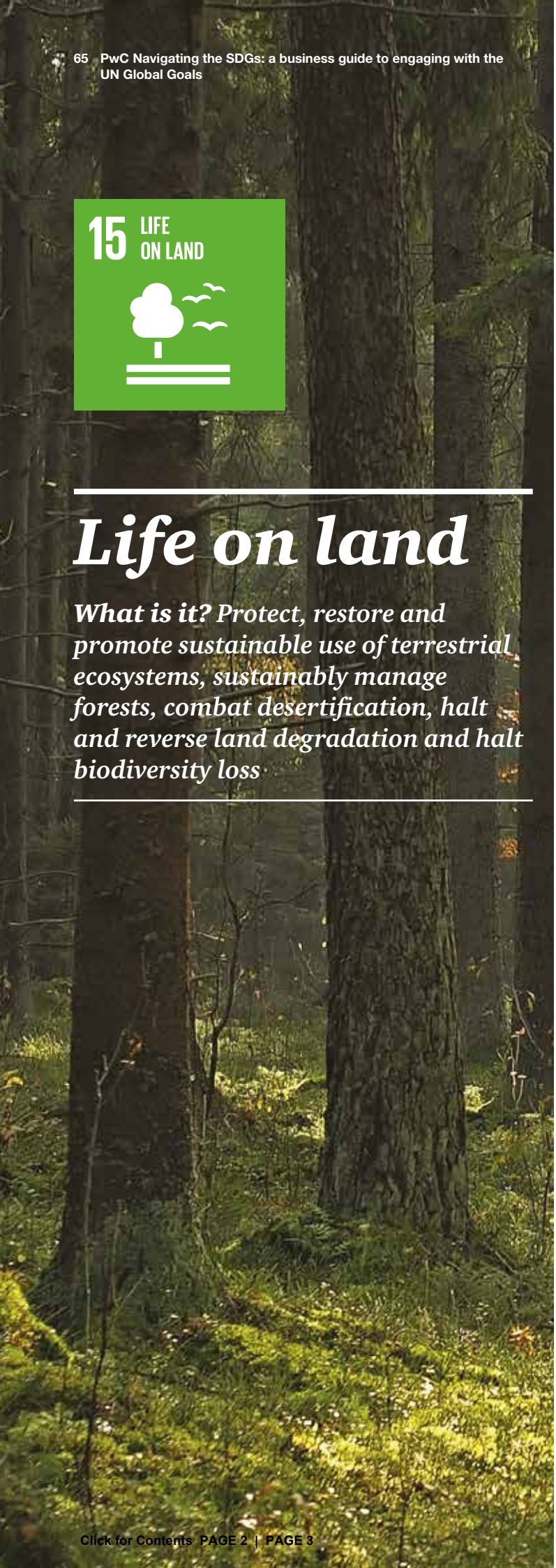
Goal 2 – Zero hunger: since fish, including shellfish, contribute 20% of animal protein for three billion people worldwide, damage to marine food resources could threaten food security.

Goal 3 – Good health and well-being: fish is an extremely nutritious source of protein and essential nutrients, especially for many poorer communities.

Goal 8 – Decent work and economic growth: employment in the fisheries and aquaculture sector has grown faster than the world's population, providing jobs to tens of millions and supporting the livelihoods of hundreds of millions.

Goal 12 – Responsible consumption and production: reducing waste, particularly plastics, and managing its disposal effectively will help reduce marine pollution.

Goal 13 – Climate action: action to reduce CO2 emissions will decrease ocean acidification and help combat rising sea levels caused by melting ice.



Life on land

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

What's the global challenge?

- **Terrestrial ecosystems are critical to all aspects of human life**, with plants providing 80% of our diet,[184] and land habitats providing a range of crucial functions known as ecosystem services. However, human-influenced drivers such as pollution, climate change, invasive species, overexploitation and land use change are causing unprecedented shifts, and in many cases degradation, of terrestrial ecosystems.
- **Ecosystem services** are the range of benefits (both visible and less visible) which ecosystems provide to people. In addition to food and natural fibres, terrestrial ecosystems like forests, grasslands and wetlands also clean our air and water, regulate our climate, manage pests and diseases, provide pollinators for our crops, control flooding, and fix and circulate nutrients to maintain fertile soils. People also derive significant cultural, aesthetic, leisure and wellbeing value from natural habitats.
- **Biodiversity** (the number, variety and variability of living organisms in an ecosystem)[185] has **intrinsic, scientific and economic value**. However, both natural biodiversity and genetic diversity of crops and livestock are in sharp decline, with up to 30% of mammal, bird and amphibian species at **risk of extinction** due to human drivers.[186] While many new medicines are now produced synthetically, the pharmaceutical industry still partially relies on wild **genetic resources**: 26% of all new approved drugs over the 30 years to 2010 were either natural products or were derived from a natural product.[187] **Genetic diversity in agriculture** is key to resilience against risks such as disease and droughts, as wild varieties of staple crops such as rice and maize may provide genetic strains which are more hardy, or alternatives in cases of crop failure.
- The various aspects of SDG 15 are **closely linked**. Deforestation causes loss in biodiversity and contributes to reducing soil fertility. Forest loss also impacts climate change (and is the cause of up to 15% of global net emissions from human activity). Climate change exacerbates land degradation, which can lead to desertification, affecting 1.5 billion people, especially the poor, globally.[188]
- **Forests are biodiverse ecosystems**, which comprise vital habitats for over four-fifths of all terrestrial species, as well as being sources of clean air and water. An estimated 1.6 billion people depend on forests for their livelihood,[189] yet deforestation profits often miss out **local communities**. The most significant driver of deforestation is agriculture, in particular: land and feed-crops for cattle, and commodity crops (in particular soy, maize, palm oil, rice and sugar cane, including for biofuels).[190] Illegal logging has environmental consequences, with forest fires common and diminution of rare species both through loss of habitat and through poaching.
- **Desertification** and **land degradation** affects over half of the land used for agriculture globally, with loss of arable land totaling 12 million hectares annually. Land degradation disproportionately affects the global poor (74% of the poor are directly impacted globally).[191]

Why does it matter for business? And what can business do?

Human drivers impact severely on biodiversity, deforestation and land degradation. Business therefore can play a large part in the solution, while many sectors will face risks from the loss of valuable ecosystem services.

- Ecosystem services such as plant products for **food, timber and pharmaceuticals**, atmospheric regulation, soil stability and **leisure** and aesthetic value are crucial for many businesses. Different types of habitat will be most important for different industries, for example some sectors depend on products or drugs sourced from forests, or on tourism in particular landscapes such as mountains or wetlands. The financial services sector should consider impacts which are material to the companies they invest in.

? *What ecosystems or habitats are material to you? Do you have policies to manage the impacts of your business and supply chain on sensitive ecosystems and threatened or endangered species? How do you ensure that these are implemented? Have you considered whether environmental degradation and/or biodiversity loss could affect your continuity of supply? Decreasing soil fertility could, for example, lead to crop failure.*

30%

of mammal, bird and amphibian species at risk of extinction due to human drivers.[186]

- Many business sectors have an **impact**, through their core operations, on **deforestation**. Key supply chain products impacting on forests are soy, timber and palm oil, with most businesses further indirectly involved in forestry (via paper and other office products).

? *What is the impact of your supply chain on forests and deforestation? Do you have specific policies in place to manage these impacts, and how do you monitor these to ensure implementation? Have you considered certification of sustainably sourced soy, palm oil and timber/paper? Could you work to eliminate paper waste by reducing, reusing and recycling, and only buying from certified sustainable forest sources?*

- Biodiversity, including protection of endangered plant and animal species, is strictly regulated – and poses a legal risk to the private sector. Businesses should ensure that their practices do not **over-exploit endangered species**, or encourage practices such as **poaching or illegal logging**. There are often complex social and economic drivers for illegal activity, so deep community engagement is often necessary to find a mutual and long-term solution.

? *Have you considered how biodiversity loss could impact your business? What policies do you have in place to combat poaching and illegal logging, including in your supply chain? How do you engage local communities in order to find solutions? Are genetic resources, for example plant-derived ingredients for drugs, material in your supply chain? Do you follow good practice guidance on access and benefit sharing with communities where you source genetic materials?*

26%

of all new approved drugs over the 30 years to 2010 were either natural products or were derived from a natural product.[187]

You could also think about:

? *Taking advantage of the opportunities that now exist for businesses who are minded to **invest** in more sustainable agricultural commodity plantations, sustainable forest management and land restoration to receive **co-financing** on potentially very attractive terms. For example, the Green Climate Fund (GCF) is offering very **concessional low interest debt and financial risk sharing** via guarantees. These could help make some companies' land investments less risky and sustainable management regimes more commercially viable.*

? *Whether you could shift from a forest management policy to a **'no deforestation'** policy.*

12mn

Desertification and land degradation affects over half of the land used for agriculture globally, with loss of arable land totaling 12 million hectares annually.

? *How vigilant your company is with regard to detecting any **hidden laundering** of endangered species, including illegal timber, through your supply chain.*

? *Taking a more strategic approach to evaluating environmental risks and quantifying the impacts they may have on your business, using **natural capital accounting**. This could also help you to understand your impacts on ecosystem services and other forms of natural capital.*

Key links to other SDGs:

Goal 2 – Zero hunger: agriculture is a major driver of deforestation, causing up to 80% of deforestation in some regions, while pollution from fertilisers causes an excess of nutrients in habitats such as rivers, unbalancing the ecosystems there. Desertification is causing unprecedented loss of arable land (52% of land for agriculture is degraded), which disproportionately affects the poorest. Good biodiversity increases crop yield, and many species are pollinators.

Goal 3 – Good health and well-being: biodiversity is also vital to human health. Half our prescription drugs originate from plants. More than two-thirds of people living in Sub-Saharan Africa use traditional herbal and plant medicines for primary health care. Terrestrial ecosystems also regulate the atmosphere, reducing the effects of pollution, which has a positive impact on public health. In addition, evidence shows that spending time in natural spaces significantly supports mental wellbeing.

Goal 6 – Clean water and sanitation: wetland and forest ecosystems are a key source of fresh water, with nearly a third of the largest cities globally reliant on protected habitats for clean water.

Goal 12 – Responsible consumption and production: resource efficiency and waste avoidance in materials like timber and wood pulp for paper will be key in reducing the need for virgin wood, and tackling deforestation and associated issues such as land degradation.

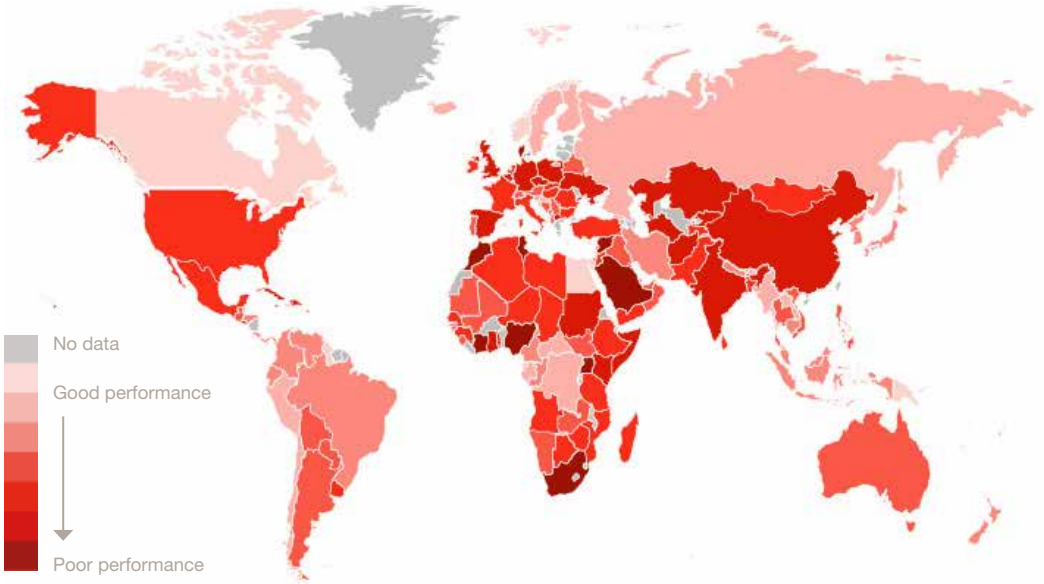
Goal 13 – Climate action: land use change and deforestation is a major source of global emissions, as forests and some other lands such as peatlands are crucial carbon sinks. Meanwhile climate change is projected to impact severely on biodiversity; particularly vulnerable to climate impacts are polar and mountain species, and amphibians. A loss in diversity of food species increases the vulnerability of our food systems to climate change. Terrestrial habitats, if conserved carefully, can mitigate against extreme weather events (projected to worsen and be more frequent with climate change).

Targets *in focus*

There are twelve targets for this SDG. Target 15.1 is illustrated in the heat map and states that "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". For details on the remaining targets, please see 'Global Goals and targets' on page 84.

The lie of the land – exploring the distance to cover to achieve

Target 15.1: 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



16 PEACE AND JUSTICE STRONG INSTITUTIONS

Peace and justice; strong institutions

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

1.2bn

Worldwide, more than 1.2 billion people live in areas affected by conflict and fragility.[192]

$1.6tr

Corruption, bribery, theft and tax evasion cost developing countries around US$1.26 trillion per year.

What's the global challenge?

- Worldwide, more than **1.2 billion people** live in areas affected by **conflict and fragility**.[192] 'Fragility' as defined by the OECD, covers five dimensions: violence, justice, institutions (including effective governments and regulatory bodies), economic foundations and resilience[193] – the first three all relate to targets under SDG 16, the other two are drawn from the wider SDG framework.
- The current rate of institution building and conflict reduction is so slow that if it continues at this pace **nearly half a billion people** could remain below the **US $1.25/day poverty line** by **2030**.[194]
- **Corruption, bribery, theft and tax evasion** (all illicit financial flows or IFFs) **cost** developing countries around **US $1.26 trillion per year**; this amount of money could be used to lift those who are living on less than $1.25 a day above that threshold for at least six years.[195] Globally, IFFs are rising faster than economic growth.[196]
- Corruption **undermines trust in political and judicial systems** and, when bribes are paid to avoid compliance with environmental laws and regulations, it is also associated with **environmental degradation**.
- **No country** in the world **is corruption free** and two thirds of countries score below 50, on a scale from 0 (highly corrupt) to 100 (corruption free). According to Transparency International, more than **6 billion people** live in countries with a **serious corruption problem**.[197]
- In 2010, the UNDP highlighted the following **values and principles** as essential to enable progress towards achieving the MDGs: **participation**; equity, non-discrimination and **inclusiveness**; gender equality; **rules-based; transparency; accountability and responsiveness**.[198] Whilst the MDGs defined desired results, they did not stipulate the national processes for their achievement, so SDG 16 is in part an attempt to address that by enshrining these fundamental principles for democratic governance within the SDG framework.

Why does it matter for business? And what can business do?

Just, peaceful and inclusive societies provide a firm foundation for business to thrive.

- People want to start, operate and grow their businesses with a **level playing field**, free from the distorting, anti-competitive effects of bribery and other forms of corruption. Yet more than 1 in 4 business people worldwide believe they have **lost business** because a competitor paid a bribe. All companies need to play a part in creating a **fair environment** for business by complying with **laws and regulations**, improving **transparency**, protecting **whistle-blowers** and setting the **highest standards of integrity** amongst their workforces.[199]

? *How robust is your compliance with local laws governing **tax and trade practices** in all your countries of operation? How do you know that you are complying with all relevant **environmental legislation?** How do you **keep pace with changes** in laws and regulations?*

? *Do you have a corporate company **code of ethics** or **conduct?** Do you provide **training** on your code for all staff and contractors? How often is this refreshed? How often is your **whistle-blower process** used? What does that tell you about its efficacy?*

- More and more companies are seeking to develop a more **transparent** and **holistic** approach to their **public reporting**, and are aiming to demonstrate how they use their resources to create not just financial but also broader **economic, social and environmental value**. Organisations such as the International Integrated Reporting Council (IIRC), a global coalition of regulators, investors, companies, standard setters, the accounting profession and NGOs, are helping drive this agenda forward. Emerging research shows how **integrated reporting** can benefit companies by, for example, building **stronger relationships** with providers of financial capital or helping firms **focus on their material drivers of long-term value**.[200]

? *To what extent do you promote **transparency** regarding your governance, business model, strategy and resource allocation and other aspects of your **corporate decision-making?** Do you understand the potential costs and benefits of going beyond legal compliance in your **public reporting and disclosures?***

- Pressure from civil society and campaign groups to increase **corporate tax transparency** is continuing to rise in the wake of **high-profile scandals** involving companies paying a low rate of tax in some of the countries where they do business. Meanwhile **new regulations** are emerging. The EU has introduced **country by country reporting** on payments to governments for businesses in the extractive, logging and banking sectors. The Commission is now assessing whether this type of reporting should be **extended to all sectors**.[201] The OECD is also requiring large multinational enterprises to make **country by country** disclosures to **tax authorities**.[202]

? *How aware are you of **emerging trends** in tax transparency? How might requirements for more detailed tax disclosures affect your business? Would there be advantages in **staying ahead** of this trend?*

? *Would your **stakeholders be happy** with your tax policies and practices? Have you got a **stakeholder communication plan** regarding your tax approach?*

- The annual global cost of **cybercrime**, or electronic fraud, is estimated to be more than $400 billion – more than the national income of most countries.[203] One in four respondents to the PwC Global Economic Crime Survey 2014 reported experiencing a cybercrime – and over 11% of these suffered **financial losses** of more than US$1 million.[204]

? *Have you assessed the **risks** to your business from cybercrime? Do you know what **critical data** you make available to management, employees, vendors and clients? Are you making data available on **high risk platforms** such as mobile devices and the cloud? How robust is your cybercrime prevention strategy?*

- Active dialogue with stakeholders through engagement programmes helps companies **anticipate and respond proactively to issues**. It can also lead to new strategic partnerships to solve problems and meet needs. Effectively, **stakeholder engagement** contributes to building the principles of inclusiveness, transparency, accountability and responsiveness into the heart of the way a company does business. Poor stakeholder engagement risks **reputation loss, threats to the licence to operate, consumer boycotts and litigation**.

? *Does your company have a clear **policy on stakeholder engagement?** How effective are your engagement processes at helping you to **manage risk and identify opportunities?** Could you use an engagement approach to help you **amplify your contribution** to meeting one or more of the SDGs?*

You could also think about:

? *Whether the products you make or source could contain **conflict minerals** (tin, tantalum, tungsten and gold sourced from Democratic Republic of Congo and its environs), and taking steps to make sure they don't. These metals can be used in surprising places, like the zips in clothing and footwear.[205]*

? *If you are a bank or insurance company, whether any of the projects you finance or financial transfers you facilitate could be contributing to **funding conflict or terrorism**. How can you maintain much needed financial flows to countries with high political risk, and ensure that these funds contribute to **sustainable development and peace-building?**[206]*

? *If you employ **security personnel** either directly or via contractors, do you require them to comply with a **code of conduct** addressing issues such as the use of force, prohibition of torture, and cruel and degrading treatment or punishment?*

Key links to other SDGs:

Goal 1 – No poverty: reducing poverty will require addressing fragility. The countries and economies on the OECD 2015 fragile states list are home to 43% of the world's population living in absolute poverty. By 2030, poverty could become increasingly concentrated in fragile states: even under the best-case scenario, 62% of the global poor will be located in fragile states.[207]

Goal 5 – Gender equality: gender equality is a foundational enabler for just, peaceful and inclusive societies. During wars or conflict, women often have fewer resources to protect themselves and, with children, frequently make up the majority of displaced and refugee populations. War tactics such as sexual violence specifically target them.[208]

Goal 8 – Decent work and economic growth: securing decent and productive employment for men and women, in conditions of freedom, equity, security and human dignity, is a potent antidote to tensions, social divisions and unrest, instability and conflicts.[209]

Goal 11 – Sustainable cities and communities: many cities are classified as fragile. The pace of urbanisation, income and social inequality, youth unemployment, homicidal and criminal violence, poor access to key services, and exposure to climate threats are all serious risks that make cities vulnerable.[210]

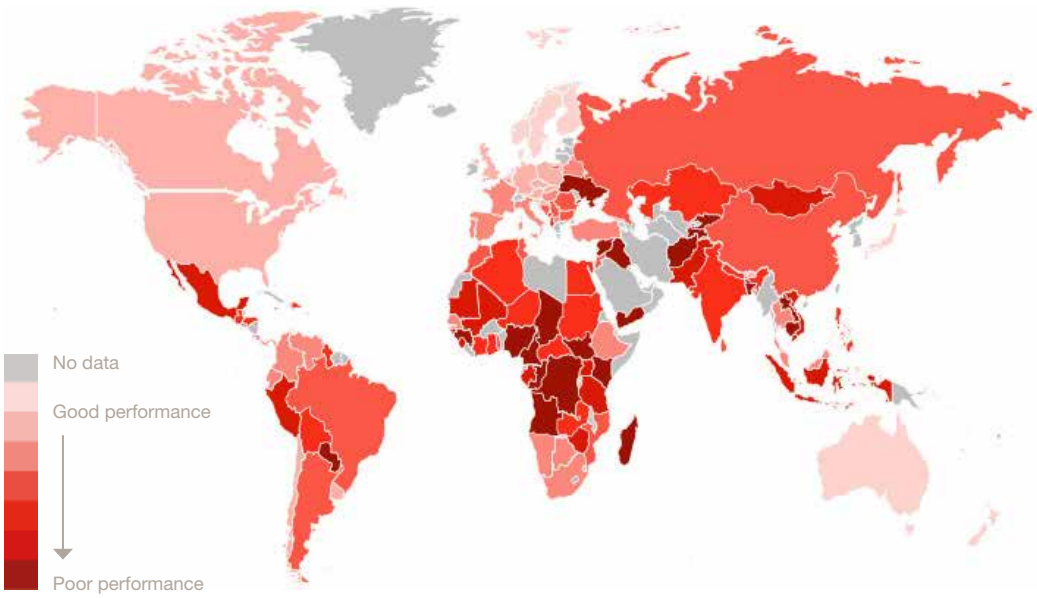
Goal 15 – Life on land: the lack of, or non-enforcement of, environmental regulations and legislation means that precious natural resources are exploited, and entire ecological systems are degraded. Conflict destroys natural capital.

Targets *in focus*

This SDG has twelve targets, the first target is to "Significantly reduce all forms of violence and related death rates everywhere". The target shown in the heat map is 16.5: "Substantially reduce corruption and bribery in all their forms". For details on the remaining targets, please see 'Global Goals and targets' on page 85.

The lie of the land – exploring the distance to cover to achieve

Target 16.5: Substantially reduce corruption and bribery in all their forms



Partnerships for the goals

What is it? *Strengthen the means of implementation and revitalise Global Partnership for Sustainable Development*

What's the global challenge?

- Implementing the ambitious Sustainable Development Goals (SDGs) will require **huge global investment** in infrastructure; climate change mitigation and adaptation; health and education; peace and security, and other SDG related sectors. **Estimates for financing** this global investment range between **$5 trillion and $7 trillion per year**.[211] This is financing on an unprecedented scale and will require a **step-change** in both **public and private investment**.
- **Taxation** is one of the most important ways in which developing countries can mobilise resources for implementing the SDGs, yet they struggle to do so. **Gaps persist** between the **capacity** of developed and developing countries to raise **public financial resources**.[212] Currently, developing countries collect only 10-20% of their GDPs in tax revenue compared to OECD countries which collect 30-40%.[213]
- In any case **public revenue**, even when topped up by development assistance, remains **insufficient** to meet SDG needs. The **funding shortfall** for combined public and private investment in SDG-related sectors in developing countries alone, is estimated to be **$2.5 trillion per year**, and the UN is looking to the private sector to help bridge the gap. However, today **private sector investment** is currently **relatively low**. Only a fraction of the worldwide invested assets of banks, pension funds, insurers, foundations and endowments, as well as transnational corporations, are in SDG sectors, and even less in developing countries, particularly the poorest ones: the Least Developed Countries (LDCs). LDCs need a **doubling of the growth rate** of private investment.[214]
- By fostering economic growth and job creation, **international trade** makes a major contribution to poverty reduction and sustainable development.[215] Today **global value chains** (GVCs) drive trade: 75% of global trade now comprises intermediate inputs and capital goods and services. But not all countries are equally successful at integrating into GVCs: **low-income developing countries** (LIDCs) are still **hugely under-represented** contributing only about 11% of the total world gross exports in 2011 (up from 6% in 1995).[216]

Why does it matter for business? And what can business do?

Partnerships provide opportunities for business to achieve more than they can alone. Capacity building helps build stronger economies in developing countries, enhancing the commercial environment.

The **private sector** is the engine that powers global trade, and with the increasing importance of GVCs, companies have a profound interest in **building trade capacity** in developing countries. **Access to trade-related infrastructure**, an **educated workforce** and **quality standards for inputs** to their goods are all critical to the success of corporate GVCs. A growing number of companies are also looking to the developing world for **new markets** – another key driver for **capacity building**.[217]

? *Have you **mapped the value chains** of your key products and services? What are the **limitations** impinging on your existing supply or distribution capacity or the **barriers to participation** in your value chain affecting other potential suppliers or distributors? Are there opportunities for you to help suppliers **build their capacity** to participate in your value chain or deliver a better product or service to you if they are already involved? Capacity building might involve, for example, facilitating trade credit, skills building or technology transfer.*

? *Are there **new markets** that you would potentially like to invest in, but are deterred from by the poor quality of the business environment? Could you beneficially partner with government or overseas development agencies, international non-governmental organisations (INGOs) or local NGOs, to invest in developing business infrastructure, such as improved transport or telecommunications via a **public-private partnership?** Or could you work with an industry group to improve, for example, road safety or implement more efficient customs processes, through **trade facilitation programmes?***

? *Could you build manufacturing facilities in-country, rather than importing products, or could you source raw materials locally, adding more **economic value**, including via **taxes**, to your host country? Would this usefully bolster your licence to operate?*

The complex challenges represented by the SDGs require integrated responses. **Multi-sector partnerships**, which pool the resources and know-how of different stakeholders, are well placed to drive action. One example is Champions 12.3, a new coalition of leaders from governments, businesses, international organizations, research institutions and civil society dedicated to inspiring ambition, mobilizing action, and accelerating progress toward achieving SDG Target 12.3: reducing food loss and waste globally.[218]

? *Could you play a role in shaping a **system wide approach** to addressing one of the SDG targets? Can you contribute to an existing multi-sector partnership or collaborate to form a new one?*

Another way for companies to contribute to SDG delivery is through **impact investment**, i.e. investing corporate funds into projects that align with your company's **strategic objectives**, deliver **benefits to the poor** and generate a **financial return** or, as a minimum, a return of capital. This is a growing market with more and more investors recognising the benefits: globally, at the end of 2015, the 156 respondents to the Global Impact Investing Network (GIIN) annual survey of investors, managed a total of $77bn in impact investing assets. During 2015, a total of more than $15bn was committed to impact investments, with respondents planning to commit 16% more capital in 2016.[219]

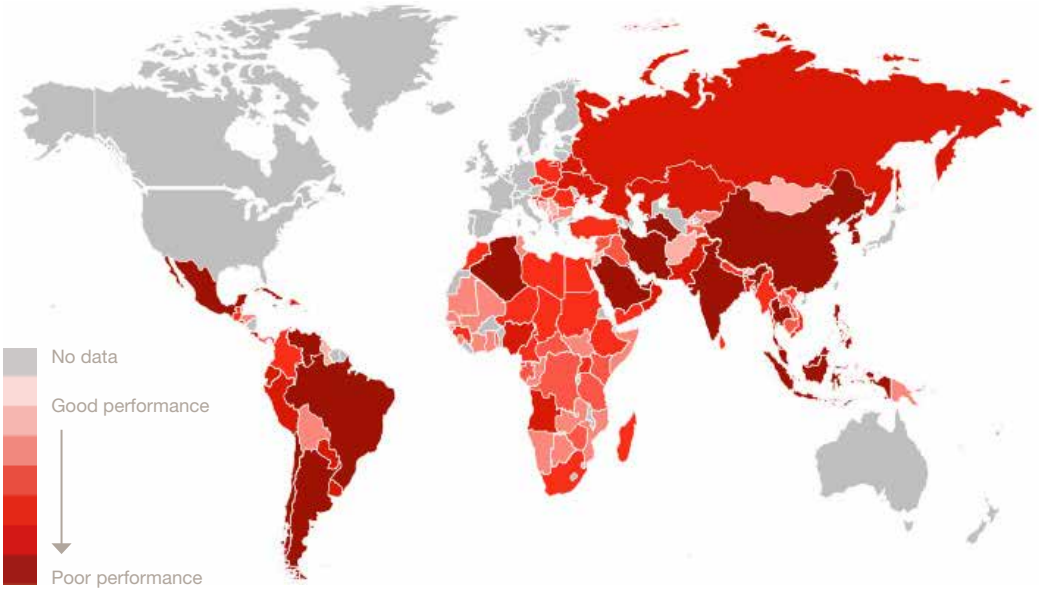
? *Do you have an understanding of the growing **impact investment market?** Have you researched impact investment opportunities that could deliver strategic returns for your company?*

Targets *in focus*

The final SDG has nineteen targets separated into subcategories. The first comes under 'Finance' and the target is to "Strengthen domestic resource mobilization, including through international support to developing countries, to improve domestic capacity for tax and other revenue collection". Target 17.7 in the heat map is "Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships". For details on the remaining targets, please see 'Global Goals and targets' on page 86.

The lie of the land – exploring the distance to cover to achieve

Target 17.7: Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships



Case Study

Company: Low Carbon Technology Partnerships initiative (LCTPi) led by the World Business Council for Sustainable Development

Sector: Multiple

Region/country of impact: Global

Aligns to: SDG 17

150 companies working together to collaborate on low carbon technology solutions

Global Challenge: The Sustainable Development Goals require a large amount of investment and collaboration. Partnerships need to be formed to share knowledge and create information pools for both countries and businesses to help them work towards achieving the SDGs. The goal of the Low Carbon Technology Partnerships initiative (LCTPi) is to enable private sector action to help limit the rise in global temperatures to below 2°C.

Business Response: Business-led LCTPi action plans were launched at COP21 in Paris in December 2015. These demonstrated that emission reduction across sectors can be rapidly scaled up by working together. Companies are engaged in LCTPi across 9 focus areas: Renewables, Carbon Capture and Storage, Chemicals, Cement, Energy Efficiency in Buildings, Low Carbon Transport Fuels, Low Carbon Freight Transport, Climate Smart Agriculture and Forests and Forest Products as Carbon Sinks. LCTPi has enabled businesses to develop strategies to unlock low-carbon development in each focus area. These areas are led and driven by businesses, but ask for appropriate policy support from governments. Each strategy includes a statement of ambition for the sector, challenges, an action plan and policy requests.

Benefits: Through this collaboration, the LCTPi could get society 65% of the way to a 2°C ceiling for temperature rises. It could help channel $5-10 trillion of investment toward low carbon sectors of the economy and support 5-10 million jobs per year around the world. Most importantly, the LCTPi provides a platform for all businesses to play a leading role in helping to achieve the UN Sustainable Development Goals whilst implementing sustainable technology practices.

Find out more: This initiative is led by the World Business Council for Sustainable Development (WBCSD) and you can find more at www.lctpi.wbcsd.org

Source: LCTPi
http://lctpi.wbcsd.org/wp-content/uploads/2015/11/LCTPi-PWC-Impact-Analysis.pdf
http://lctpi.wbcsd.org/thechallenge/

Next steps

With the SDGs, there's a lot to digest. Their implications are far reaching – relationships right across the stakeholder spectrum are impacted and need to be considered, alongside strategy, operations, marketing, R&D, finance, process, supply chain, human capital and purchasing. Making the right decisions on the SDGs will provide the foundations for the right dialogue with governments and communities, and help business identify the opportunities for growth as well as for risk reduction.

It's vital that business is clear on how to approach the SDGs with expediency and efficiency. Engaging the board will be key. To support a productive internal discussion, you may find 'prioritising the goals' useful to set the agenda (see page 23) and the Global Goals Business Navigator (see page 51) a good starting point to understand your business impact regarding the SDGs for the countries you operate it. PwC's stated purpose is to 'build trust in society and solve important problems' so we have a real determination to see the SDGs achieved and recognise that business will be the key differentiator that sees them delivered.

Developments since the ratification of the SDGs have been fast-paced, and we are cognisant that a number of organisations have also created tools and approaches to help support business square up to the SDG challenge (and we've supported the development of many of them). Here, we've highlighted three:

SDG Compass brings together the GRI, the UN Global Compact and the World Business Council for Sustainable Development (WBCSD). They've developed a five step process which explores: (1) Understanding the SDGs (2) Defining priorities (3) Setting goals (4) Integrating (5) Reporting and communicating. It's a good starting point, providing strong guidance on how to engage with and embed the SDGs. There is great content on the SDGs themselves too as well as an overview of useful tools available that align to an SDG. Their inventory of indicators is useful as well, allowing filtering by indicator so you can see clearly how attention on one indicator will impact several SDGs. You'll find more at www.sdgcompass.org

World Business Council for Sustainable Development (WBCSD) has created an SDG Hub that includes a useful collation of current tools. It is strongly engaged in translating the SDGs' ambitions and words into business action underpinned by business solutions. It defines solutions as business-led ventures that are impactful, scalable, measurable, replicable, and going beyond business as usual. It expects these solutions to enable companies to better manage their risks, anticipate consumers' demand, build positions in growth markets, secure access to needed resources, and strengthen their supply chains. You'll find more at www.wbcsd.org

Global Reporting Initiative (GRI) has focused its energy on SDG Target 12.6 which 'encourages companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle'. It's created the SDG 12.6 Live Tracker which governments can use to understand the status of sustainability reporting in their countries and track progress toward SDG target 12.6. It's hoped it will make sustainability reporting data available in a manner that is easier for decision makers to use. You'll find more at www.globalreporting.org/sdgs

We can help you navigate the Global Goals and engage your board to understand the challenge, demands and opportunity that the SDGs represent. We are in the privileged position of talking to many companies and are happy to share experience and the best practice we see developing. Please do contact us – see page 94 for your local representative.

Global Goals and targets

Please note 'Targets' are referenced as n.1 n.2 n.3 etc. 'The means of implementing the targets' are referenced as n.a n.b n.c etc.

Goal 1. End poverty in all its forms everywhere

1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than $1.25 a day

1.2 By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions

1.3 Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable

1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance

1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters

1.a Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least developed countries, to implement programmes and policies to end poverty in all its dimensions

1.b Create sound policy frameworks at the national, regional and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions

Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture

2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round

2.2 By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons

2.3 By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment

2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality

2.5 By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and ensure access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed

2.a Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular least developed countries

2.b Correct and prevent trade restrictions and distortions in world agricultural markets, including through the parallel elimination of all forms of agricultural export subsidies and all export measures with equivalent effect, in accordance with the mandate of the Doha Development Round

2.c Adopt measures to ensure the proper functioning of food commodity markets and their derivatives and facilitate timely access to market information, including on food reserves, in order to help limit extreme food price volatility

Goal 3. Ensure healthy lives and promote well-being for all at all ages

3.1 By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births

3.2 By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births

3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases

3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being

3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol

3.6 By 2020, halve the number of global deaths and injuries from road traffic accidents

3.7 By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes

3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all

3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination

3.a Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate

3.b 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

3.c Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States

3.d Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks

Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes

4.2 By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education

4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university

4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship

4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations

4.6 By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy

4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development

4.a Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all

4.b By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries

4.c By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States

Goal 5. Achieve gender equality and empower all women and girls

5.1 End all forms of discrimination against all women and girls everywhere

5.2 Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation

5.3 Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation

5.4 Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate

5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life

5.6 Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the Programme of Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of their review conferences

5.a Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws

5.b Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women

5.c Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels

Goal 6. Ensure availability and sustainable management of water and sanitation for all

6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all

6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations

6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally

6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity

6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate

6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes

6.a By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies

6.b Support and strengthen the participation of local communities in improving water and sanitation management

Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all

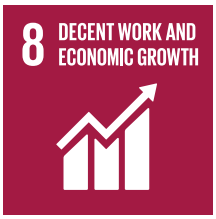
7.1 By 2030, ensure universal access to affordable, reliable and modern energy services

7.2 By 2030, increase substantially the share of renewable energy in the global energy mix

7.3 By 2030, double the global rate of improvement in energy efficiency

7.a By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology

7.b By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, and small island developing States



Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

8.1 Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 per cent gross domestic product growth per annum in the least developed countries

8.2 Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors

8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services

8.4 Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programmes on sustainable consumption and production, with developed countries taking the lead

8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value

8.6 By 2020, substantially reduce the proportion of youth not in employment, education or training

8.7 Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms

8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment

8.9 By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products

8.10 Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all

8.a Increase Aid for Trade support for developing countries, in particular least developed countries, including through the Enhanced Integrated Framework for Trade-Related Technical Assistance to Least Developed Countries

8.b By 2020, develop and operationalize a global strategy for youth employment and implement the Global Jobs Pact of the International Labour Organization

Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all

9.2 Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries

9.3 Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets

9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities

9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending

9.a Facilitate sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, least developed countries, landlocked developing countries and small island developing States

9.b Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities

9.c Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020

Goal 10. Reduce inequality within and among countries

10.1 By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average

10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status

10.3 Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard

10.4 Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality

10.5 Improve the regulation and monitoring of global financial markets and institutions and strengthen the implementation of such regulations

10.6 Ensure enhanced representation and voice for developing countries in decision-making in global international economic and financial institutions in order to deliver more effective, credible, accountable and legitimate institutions

10.7 Facilitate orderly, safe, regular and responsible migration and mobility of people, including through the implementation of planned and well-managed migration policies

10.a Implement the principle of special and differential treatment for developing countries, in particular least developed countries, in accordance with World Trade Organization agreements

10.b Encourage official development assistance and financial flows, including foreign direct investment, to States where the need is greatest, in particular least developed countries, African countries, small island developing States and landlocked developing countries, in accordance with their national plans and programmes

10.c By 2030, reduce to less than 3 per cent the transaction costs of migrant remittances and eliminate remittance corridors with costs higher than 5 per cent

Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable

11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums

11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons

11.3 By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries

11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage

11.5 By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations

11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management

11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities

11.a Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning

11.b By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels

11.c Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials

Goal 12. Ensure sustainable consumption and production patterns

12.1 Implement the 10-year framework of programmes on sustainable consumption and production, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries

12.2 By 2030, achieve the sustainable management and efficient use of natural resources

12.3 By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses

12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment

12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle

12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities

12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature

12.a Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production

12.b Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products

12.c Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities

*Goal 13. Take urgent action to combat climate change and its impacts**

13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries

13.2 Integrate climate change measures into national policies, strategies and planning

13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

13.a Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly $100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible

13.b Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries, including focusing on women, youth and local and marginalized communities

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

Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development

14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution

14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans

14.3 Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels

14.4 By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics

14.5 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

14.6 By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation. *(Taking into account ongoing World Trade Organization negotiations, the Doha Development Agenda and the Hong Kong ministerial mandate)*.

14.7 By 2030, increase the economic benefits to Small Island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism

14.a Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular small island developing States and least developed countries

14.b Provide access for small-scale artisanal fishers to marine resources and markets

14.c Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in UNCLOS, which provides the legal framework for the conservation and sustainable use of oceans and their resources, as recalled in paragraph 158 of The Future We Want

Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

15.1 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

15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally

15.3 By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world

15.4 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

15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species

15.6 Ensure fair and equitable sharing of the benefits arising from the utilization of genetic resources and promote appropriate access to such resources

15.7 Take urgent action to end poaching and trafficking of protected species of flora and fauna and address both demand and supply of illegal wildlife products

15.8 By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species

15.9 By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts

15.a Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems

15.b Mobilize significant resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to developing countries to advance such management, including for conservation and reforestation

15.c Enhance global support for efforts to combat poaching and trafficking of protected species, including by increasing the capacity of local communities to pursue sustainable livelihood opportunities

Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

16.1 Significantly reduce all forms of violence and related death rates everywhere

16.2 End abuse, exploitation, trafficking and all forms of violence against and torture of children

16.3 Promote the rule of law at the national and international levels and ensure equal access to justice for all

16.4 By 2030, significantly reduce illicit financial and arms flows, strengthen the recovery and return of stolen assets and combat all forms of organized crime

16.5 Substantially reduce corruption and bribery in all their forms

16.6 Develop effective, accountable and transparent institutions at all levels

16.7 Ensure responsive, inclusive, participatory and representative decision-making at all levels

16.8 Broaden and strengthen the participation of developing countries in the institutions of global governance

16.9 By 2030, provide legal identity for all, including birth registration

16.10 Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements

16.a Strengthen relevant national institutions, including through international cooperation, for building capacity at all levels, in particular in developing countries, to prevent violence and combat terrorism and crime

16.b Promote and enforce non-discriminatory laws and policies for sustainable development

Goal 17. Strengthen the means of implementation and revitalise the Global Partnership for Sustainable Development

Finance

17.1 Strengthen domestic resource mobilization, including through international support to developing countries, to improve domestic capacity for tax and other revenue collection

17.2 Developed countries to implement fully their official development assistance commitments, including the commitment by many developed countries to achieve the target of 0.7 per cent of ODA/GNI to developing countries and 0.15 to 0.20 per cent of ODA/GNI to least developed countries; ODA providers are encouraged to consider setting a target to provide at least 0.20 per cent of ODA/GNI to least developed countries

17.3 Mobilize additional financial resources for developing countries from multiple sources

17.4 Assist developing countries in attaining long-term debt sustainability through coordinated policies aimed at fostering debt financing, debt relief and debt restructuring, as appropriate, and address the external debt of highly indebted poor countries to reduce debt distress

17.5 Adopt and implement investment promotion regimes for least developed countries

Technology

17.6 Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism

17.7 Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed

17.8 Fully operationalize the technology bank and science, technology and innovation capacity-building mechanism for least developed countries by 2017 and enhance the use of enabling technology, in particular information and communications technology

Capacity-building

17.9 Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the Sustainable Development Goals, including through North-South, South-South and triangular cooperation

Trade

17.10 Promote a universal, rules-based, open, non-discriminatory and equitable multilateral trading system under the World Trade Organization, including through the conclusion of negotiations under its Doha Development Agenda

17.11 Significantly increase the exports of developing countries, in particular with a view to doubling the least developed countries' share of global exports by 2020

17.12 Realize timely implementation of duty-free and quota-free market access on a lasting basis for all least developed countries, consistent with World Trade Organization decisions, including by ensuring that preferential rules of origin applicable to imports from least developed countries are transparent and simple, and contribute to facilitating market access

Systemic issues

Policy and institutional coherence

17.13 Enhance global macroeconomic stability, including through policy coordination and policy coherence

17.14 Enhance policy coherence for sustainable development

17.15 Respect each country's policy space and leadership to establish and implement policies for poverty eradication and sustainable development

Multi-stakeholder partnerships

17.16 Enhance the Global Partnership for Sustainable Development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the Sustainable Development Goals in all countries, in particular developing countries

17.17 Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships

Data, monitoring and accountability

17.18 By 2020, enhance capacity-building support to developing countries, including for least developed countries and small island developing States, to increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts

17.19 By 2030, build on existing initiatives to develop measurements of progress on sustainable development that complement gross domestic product, and support statistical capacity-building in developing countries

Abbreviations

BEPS – Base erosion and profit shifting refers to tax planning strategies that exploit gaps and mismatches in international tax rules to artificially shift profits to low or no-tax locations where there is little or no economic activity, resulting in little or no overall corporate tax being paid. BEPS is of major significance for developing countries due to their heavy reliance on corporate income tax, particularly from multinational enterprises (MNEs).

BREEAM – Building Research Establishment Environmental Assessment Method; this is a sustainability assessment method for projects, infrastructure and buildings

CASBE – Council Alliance for a Sustainable Built Environment; a collection of councils committed to the creation of a sustainable environment.

CDP – The Carbon Disclosure Project encourage companies and cities to disclose their carbon emissions and environmental impacts in order to promote transparency and give decision makers accurate data to inform their behaviour.

FITs – Feed-in tariffs are payments to ordinary energy users for the renewable energy they generate. They were introduced to incentivise a greater use of renewable energy.

GCBA – Global Cities Business Alliance; a forum for business and city leaders to come together to improve the economic development of cities.

GCF – The Green Climate Fund is a fund within the framework of the UNFCCC founded as a mechanism to assist developing countries in adaptation and mitigation practices to counter climate change.

GDP – Gross Domestic Product is the monetary value of all the goods and services produced in a country in a specified time period.

GHG emissions – Greenhouse Gases are those that trap heat in the atmosphere, causing the planet to heat up. GHGs are emitted from various sources and activities such as electricity production, transportation, agriculture and livestock, industry and many more.

GNP – Gross National Product is the value of all goods and services produced in a country in a specified time period plus the income earned from foreign sources (e.g. overseas investments), minus the expenditure paid to foreign sources (e.g. paying foreign residents).

GVC – A Global Value Chain is where different stages of the production process are located in different countries.

IETA – The International Emissions Trading Organisation is a non-profit business organisation that seeks to help members develop a regime that results in sizeable greenhouse gas emission reductions.

IFF – Illicit financial flow describes the illegal movement of money or capital from one country to another.

IIRC – The International Integrated Reporting Council has an aim to make integrated reporting between financial stability and sustainable practices the norm for businesses in the public and private sectors.

INDC – Intended Nationally Determined Contributions is a term used under the United Nations Framework Convention on Climate Change (UNFCCC) for reductions in greenhouse gas emissions that all countries that signed the UNFCCC were asked to publish in the lead up to the 2015 United Nations Climate Change Conference.

INGO – International Non-governmental Organisation is the same as an NGO but international in nature.

IPCC – The Intergovernmental Panel on Climate Change is the international body responsible for assessing the science behind climate change.

LDCs – Least Developed Countries are a group of countries classified as LDCs by the UN in terms of their low gross national income, weak assets and high degree of economic vulnerability.

LEED – Leadership in Energy and Environmental Design; a certification program that ensures buildings are environmentally compatible, provide a healthy environment and remain profitable.

LIDCs – Low Income Developing Countries are all countries whose per capital income falls below US$2,500.

MDGs – Millennium Development Goals were the eight international development goals established following the UN Millenium Summit in 2000, which ranged from halving extreme poverty rates to halting the spread of HIV/AIDS and providing universal primary education, all by the target date of 2015.

NCDs – A non-communicable disease is a medical condition or disease that is non-infectious and non-transmissible.

NGO – A non-governmental organisation is any non-profit organisation.

OECD countries – The Organisation for Economic Cooperation and Development is an international organisation made up of 34 countries, founded in 1961 with an aim of fighting poverty through economic growth and financial stability.

REIPPPP – Renewable Energy Independent Power Producer Procurement Program was created to encourage private sector investment in renewable energy.

RE100 Campaign – The Climate Group and the Carbon Disclosure Project created the RE100 campaign, an initiative to help companies get on board with using 100% renewable energy. 58 companies have joined the initiative since it was launched in 2014.

SE4All – Sustainable Energy for All is the UN's initiative to promote cleaner and more accessible energy.

SME – Small and medium sized enterprises.

WASH – Water, Sanitation and Hygiene – critical to reducing mortality rates in many developing countries.

WBCSD – The World Business Council for Sustainable Development is an organisation of companies that are working toward a sustainable future for businesses and the environment.

WEF – The World Economic Forum is committed to improving the state of the world by creating a platform for leaders from all stakeholder groups to engage and come together.

WHO – World Health Organisation, whose primary role is international health within the UN's system.

UNDP – United Nations Development Programme All 17 Sustainable Development Goals are connected to UNDP's Strategic Plan focus areas: sustainable development, democratic governance and peace-building, and climate and disaster resilience. SDG 1 (No poverty), SDG 10 (Reduced inequalities) and SDG 16 (Peace and justice; strong institutions) are particularly central to UNDP's current work and long-term plans.

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