

THOUGHT LEADERSHIP

Sustainability

The Race of the Asia-Pacific Region to the Top?

By Yvo de Boerⁱ

Disclaimer: The views expressed in this paper do not necessarily reflect the views of the United Nations or its officials or member States. The designations employed and the presentation of the material on any map in this paper do not imply the expression of any opinion whatsoever on the part of the United Nations concerning the legal status of any country, territory, city or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries. This paper follows the author’s practice in references to country names and maps. The designation of or reference to a particular territory or geographic area, or the use of the term “country” in this paper do not imply the expression of any opinion whatsoever on the part of the United Nations concerning the legal status of any country, territory, city or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries. Links contained in the present paper are provided for the convenience of the reader and are correct at the time of issue. The United Nations takes no responsibility for the continued accuracy of that information or for the content of any external website.

For further information on this paper, please address your enquiries to:

Office of the Executive Secretary

Economic and Social Commission for Asia and the Pacific (ESCAP)

Email: oes.unescap@un.org

May 2022

Table of Contents

Contents

Table of Contents.....	3
Abbreviations.....	4
I. Introduction.....	5
II. Is the climate action glass half.....	6
III. Climate change: far from the only sustainability issue on our minds	9
IV. What defines success?.....	12
V. Plotting a sensible course requires and understanding of risks and opportunities	14
VI. What now?.....	16
1. Assess potential impact of climate change and related sustainability trends and develop response strategies, including the National Adaptation Programmes of Action (NAPA).....	16
2. Understand the potential consequences for the country of economic measures taken by other countries in the context of climate change action	16
3. Assess the impact on the economy of sustainability related measures being taken by foreign corporate partners and in international markets.....	17
4. Define the potential to reduce emissions/achieve carbon neutrality and identify related benefits in terms of cost reduction.....	17
5. Create national partnerships to assess barriers to investment in climate and sustainability solutions.....	19
6. Task the finance ministry, working with financial sector partners, to define and implement risk reduction solutions (both financial and non-financial).....	19
7. Task the ministry of strategy or national planning agency to fully integrate the Sustainable Development Goals into the multi-year planning process	20
8. Instruct all ministries to develop strategies to achieve the Sustainable Development Goals relevant to their domain.....	21
9. Integrate a Sustainable Development Goals assessment into all public procurement programmes and into investment decision-making.....	21
References	23

Abbreviations

ADB	Asian Development Bank
AIIB	Asian Infrastructure Investment Bank
AIT	Asian Institute of Technology
BSDC	Business and Sustainable Development Commission
CDM	Clean Development Mechanism
EBITDA	earnings before interest, taxes, depreciation, and amortization
EVs	electric vehicles
FAO	Food and Agriculture Organization of the United Nations
GDP	gross domestic product
GtCO ₂ E	global annual carbon dioxide emissions
INDC	Intended Nationally Determine Contributions
IPCC	Intergovernmental Panel on Climate Change
NAPA	National Adaptation Programmes of Action
NDCs	Nationally Determined Contributions
SDGs	Sustainable Development Goals
UNDRR	United Nations Office for Disaster Risk Reduction
UNFCCC	United Nations Framework Convention on Climate Change

I. Introduction

Concern over climate change, deforestation, biodiversity loss and the challenges that come with these issues is pretty much universal. So then, why are we doing so poorly when it comes to addressing global sustainability challenges? The reasons are multiple. Key is probably that most countries believe they must follow the only proven pathway to prosperity: growth through industrialization. Second, in a world where we only really value economic activity in financial terms, the key ingredients that actually allow our economies to function is factored out. Third, while we may understand the problems better, we don't yet fully understand the solutions and we struggle with the cost of making them work, especially as most of the problems they solve don't have a recognized price tag. These are just a few of the challenges we face to achieve sustainability.

The challenges become even the more daunting if we address them with the “wrong” mindset. The notion that we address sustainability to save the planet, that it comes at a price voters are not willing to pay. Yet, we all know that difficult choices will have to be made, sooner or later. And we also all know that new opportunities are emerging for those who remember that the Rio Principles were about people, planet and **prosperity**, not people, planet and **profit**.

Although the climate challenge seems to be dangerously close to being out of control, we are still at a point where we can determine our own destiny, rather than it being determined for us, in multiple ways. This means we still have the luxury of being able to decide if alternative and more sustainable pathways can actually bring greater **prosperity**. This means that addressing sustainability is not about doing what is best for the planet, at the expense of your country's interests. It means exploring pathways to prosperity for your own sake and to the benefit of the planetary boundaries we value.

This essay explores some of the major challenges we face and touches on some of the solutions that have been found, in the Asia-Pacific region and beyond. It ends with some suggestions. The topic is so broad that this overview cannot be exhaustive. At best, it can spark ideas and launch debate. Most of us know what needs to be done and why we need to do it. The “how” is still a struggle. Understanding the how has prevented many well-intentioned people from finding better ways forward. Through 40 years of working on the sustainability challenge, I have become increasingly convinced that the saying should not be: “where there is a will, there is a way”, but rather: “where there is a way, there is a will”.

I thank the UN Undersecretary-General and Executive Secretary of the Economic and Social Commission for Asia and the Pacific (ESCAP), Ms. Armida Salsiah Alisjahbana, and her team for offering me the opportunity to write this piece. My special thanks are extended to Hannah Muthoni Ryder who gave me crucial support and input.

II. Is the climate action glass half full, or half empty?

For many world leaders, and 40,000 delegates traveling to Glasgow in November 2021 for the annual climate conference (CoP), the writing on the wall could not have been clearer. We are in big trouble. The scientific community, through the Intergovernmental Panel on Climate Change (IPCC) has sent a not to be misunderstood message: climate change is real, it is being caused by humanity, the consequences will probably be more extreme than previously predicted and the impacts are already being felt increasingly around the world, especially in the form of extreme weather events. Forests, which we have long hoped will slow the rate of climate change because of their capacity to absorb carbon, are probably emitting more CO₂ than they absorb, mainly because of the many forest fires, partially induced by climate change, now taking place. Meanwhile, emissions are higher than they have ever been before and they continue to rise. There was a dip in emissions because of the COVID-19 pandemic, but they rebounded in early 2021. An ESCAP study released just before the Glasgow CoP indicated that while momentum was building in the Asia-Pacific region with more than 34 carbon neutrality pledges made and counting, the actual commitments in Asia-Pacific Nationally Determined Contributions (NDCs) for 2030 would not deliver on those pledges.ⁱⁱ This says something about the promised intent to “build back better”. In fact, many rich countries have invested huge amounts to prop-up their old economies and will want to see a return on that investment. It is clear that the Glasgow CoP outcomes do not ensure that the world is on track to achieve the goal of limiting global temperature increase to below 1.5 degrees centigrade, instead the increase is more like 2.4 degrees according to the Climate Action Trackerⁱⁱⁱ. The realities of all of this are already being experienced by communities around the world, in rich and poor countries, in the shape of extreme weather events, droughts, floods, forest fires and the like. All of this 30 years after the Climate Change Convention was agreed by world leaders in Rio de Janeiro. The number 26 after “CoP” tells us how many years leaders have met – and failed – to keep the promise.

The Glasgow CoP was intended as a clarion call to leaders. It was meant to result in stronger pledges to reduce emissions, or limit their growth, to agree clear interim targets (for 2030) and to provide real commitments on finance for adaptation and mitigation. In addition, many countries have not developed robust plans to deliver on their commitments, and many countries have not written NDCs or carbon neutrality pledges into national law, making such commitments more vulnerable to a change in political wind, accompanied by a change in commitment to act. We have already seen real evidence of this in many countries, including the thought to be “binding” Kyoto Protocol commitments, made in 1997.^{iv} So, although we can say that commitment to avoid dangerous climate change is now near universal, willingness to act is a more complicated story. No country on the planet has ever achieved prosperity without going through a process of industrialization. And many rich countries are cautious in abandoning the goose that laid their golden eggs or to direct their citizens to change their behaviour towards low-carbon choices, especially those with fairly stable, low economic growth rates – many are concerned about being perceived to be cutting standards of living or acting in draconian ways. Meanwhile, poor nations are reluctant to pursue an unproven (green growth) pathway to prosperity, especially when the promised financial support still leans so heavily on the promise, instead of the real results. Also, setting goals for 2100 or relying on leaps in technological innovation, such as carbon capture and storage, does not help. It makes procrastination a tantalizing prospect and gives very little by way of meaningful signals to the private sector and its investors. So, the Glasgow CoP was not the ideal moment to ask leaders to step-up to the mark, and asking them to commit to stronger goals every year (that is what they will be asked to do again at CoP27) may cause some goal fatigue.

So much for the bad news, at least for now. One can also look at the Glasgow CoP through a much more positive lens and actually draw a great deal of hope from that gathering. Something the United Kingdom can look back on with real pride. In spite of all the COVID-19 complications and a one-year delay, the conference was held, live, with 120 heads of State and government in attendance, as well as many leaders of international organizations, banks, corporates and civil society leaders among the 40,000 delegates. Not to mention the hundreds of media representatives. The conference captured real-world attention. It sparked support demonstrations around the globe and displayed a very real public concern around climate change and our collective failure to prevent the severe consequences associated with it. The Glasgow CoP brought the climate crisis back to the centre of attention. Not just during the event itself, but significantly also during its many precursors: the General Assembly, G7 and G20 events, and a number of other gatherings.

The conference also led to promises of stronger action by a number of countries. Some have argued that CoP26 has kept the 1.5 degree goal “within reach”. Significant here is the shifting nature of promises being made. As referred to earlier, when the Kyoto Protocol was signed in 1997, it “imposed” legally binding targets on a small group of industrialized countries. In 2015, the Paris Agreement gave us NDCs, which are not “imposed”, nor are they legally binding, but they are relevant to all countries in the world. In Glasgow, those NDCs were very significantly bolstered by a number of impressive commitments made by a variety of actors. Several governments made new carbon neutrality commitments, others formed alliances that promised to dramatically reduce methane emissions, phase down the use of coal and halt deforestation by 2050, to mention just a few. At least as impressive is the growing list of corporates that are mirroring the promise made by many countries to be “net zero”, or “net positive” (which sounds much better than “net zero”) by 2050 or the decades thereafter, or to set “science-based targets”. Interesting is that many of these corporates set such goals not just in relation to their own emissions, but also in terms of the energy they use, and the supply chains that feed their businesses. This puts some important writing on the wall. If these kinds of promises are being made in a global economy, their impact will also be global. One small example, when the United States based company Walmart decided to “go sustainable”, the decision affected more than 200,000 suppliers, in literally every corner of the world. Accordingly, whether to take climate action will not always be your own decision.

In Glasgow, investors, which collectively holding portfolios said to be worth some \$130 trillion, promised that these portfolios will be climate neutral by 2050. This means that “cash for carbon” is going to become increasingly difficult to come by, as well as increasingly expensive. These investors are responding to a number of emerging realities. First and foremost, of course, is the desire to do the right thing by not supporting activities that run counter to climate goals and because they themselves are under pressure from multiple directions. Financial regulators are defining an investment taxonomy that constrains unsustainable investments. Governments are strengthening sustainability reporting rules. Taxation systems are being used to penalize, based on carbon content. Some European Union rules on border tax adjustments are also moving in that direction. This is in midst of a host of rules and regulations being used by governments – some would argue in the absence of political will or ability to take a clear stand – to constrain the carbon-intensive economy in favour of a (yet to be defined) green alternative.

So, on balance, the climate action glass is closer to half full, rather than half empty. Apart from the factors outlined above, action is being fuelled by some other important and positive developments. First, we have made very significant advances towards a carbon neutral energy sector, thanks to very significant reductions in the cost of wind and solar energy technology, and some improvements in energy storage technology. Second, more and more corporates are motivated in their actions, not only by the desire to avoid the risks associated with a carbon intensive business model, but also by the opportunities for growth they see in going green. The commitment of Volvo Car Corporation to only sell electric vehicles (EVs) by

2030 is a reflection of this, and complements the growth already seen by EV-only brands, such as Xpeng, NIO and Tesla. Conglomerates, such as Unilever have committed to being net positive because they see climate action – and more broadly the Sustainable Development Goals (SDGs) – as a business opportunity

Worrying from the perspective of the global South is that “he who holds the baton, sets the tune”. While there seems to be some increasing focus on fixing the old economy – albeit not enough, there is even less focus on setting emerging economies on the “right” path through finance, technology and capacity-building. Anyone who looks at demographics and projections for economic growth realizes that the future lies in the emerging economies of Asia and Africa. While some countries in the Asia-Pacific region, such as China and Singapore, are committed to taking domestic action – including carbon pricing – independently of international support, many others are not being supported to take the low-emission choices towards a greener economic future. As a consequence, they are more likely to lock themselves into the conventional pathways that have worked so well for the West, thus increasing the risk that their place in the supply chain of conglomerates in the North, will penalize them for the choices for a carbon-intensive pathway they could not afford to avoid.

III. Climate change:

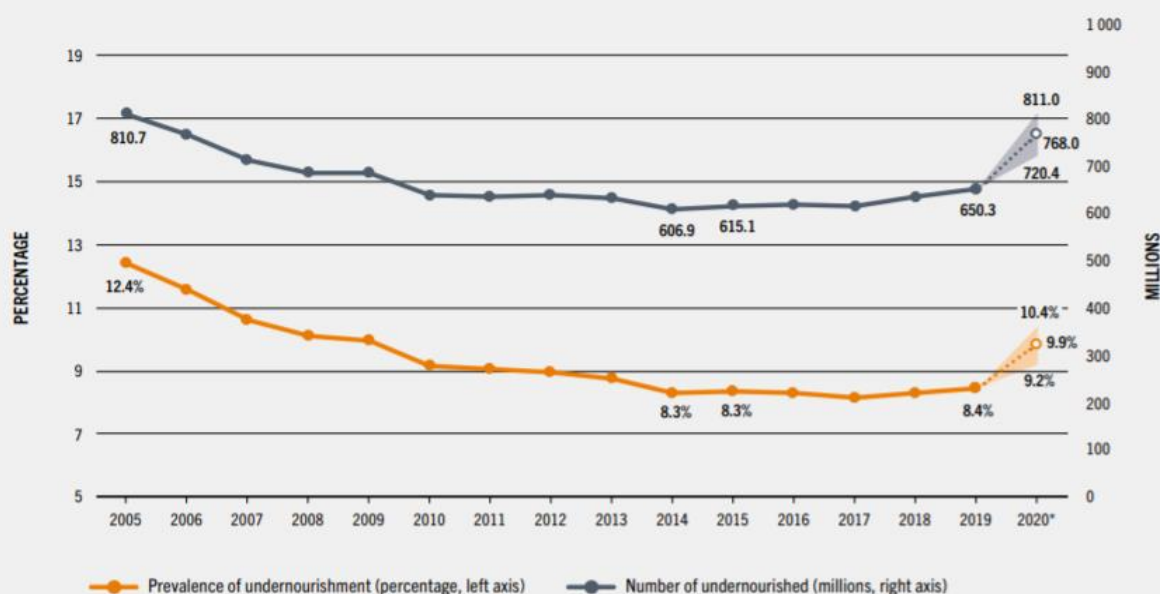
far from the only sustainability issue on our minds

If the (sustainability) challenge we face is all about bringing prosperity to a growing global population, without depleting our natural resources and while respecting the needs of future generations, then climate change is definitely not our only concern. As we become richer, more populous, consume more, age (in many parts of the world) and urbanize, multiple pressures increase and re-enforce each other.

We see today the evidence that climate change is part of a nexus of interacting challenges related to energy prices and security, food security and water scarcity. The need to feed more people from a shrinking area of arable land that is increasingly depleted, is a challenge in and of itself. Even if we were to stop throwing away (close to) half our food in rich countries and not lose almost half the food in developing countries between the fields and consumers, food security would still be a huge challenge. So, while demand continues to increase, supply is under pressure.

According to the Food and Agriculture Organization of the United Nations (GDger in 2020) approximately 660 million will face hunger in 2030.^v

Figure 1: Number of undernourished people in the world, 2005–2020



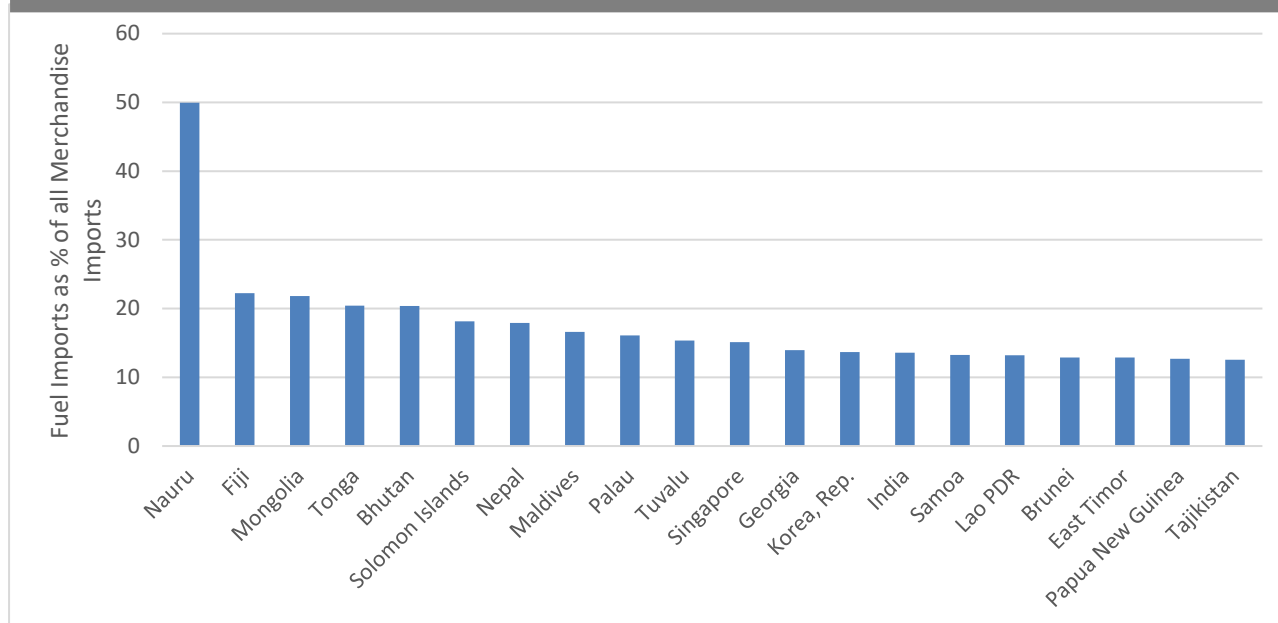
Source: “The state of food security and nutrition in the world 2021: the world is at a critical juncture”. Available at <https://www.fao.org/state-of-food-security-nutrition>.

Note: Projections for 2020 are marked by a dotted line.

Here the issue is not just the availability of adequate land. Water also plays into the mix. In many parts of the world, arable land is being lost to droughts and water shortages, while in other part, harvests are increasingly lost due to extreme weather events. As a consequence of this, we are already seeing large groups of people on the move, unable to sustain themselves. At the same time, a growing number of countries are laying claim to farming land and food production in other countries, either simply because of growing demand at home, or because their geography prevents home-grown food as an option. The potential for resulting conflict is evident, as is the potential threat to business continuity.

Energy prices and security are also pressing issues. Fossil fuel markets are volatile and unpredictable. Energy demand continues to soar as economies grow. For many countries, the cost of importing fossil fuels is significant and increasing. For instance, 34 of the 49 countries in the Asia-Pacific region are net importers of fuel. The Asia-Pacific region spent \$564 billion in 2019 on fuel imports –24 per cent of all fuel imports globally. This accounts for 11 per cent of Asia-Pacific merchandise trade, which, although lower than the world average, at 12.5 per cent, the highest shares are often held by smaller, vulnerable countries, as shown in figure 2.

Figure 2: Top 20 countries most dependent on fuel imports in the Asia-Pacific region



Source: United Nations (2019). UN Comtrade Database. Available at <https://comtrade.un.org/2019>.

Meanwhile, supply and production uncertainties are increasing, and so are prices. Energy demand is also affected by climate policy and the desire to reduce emissions, while the response to climate change is creating new demand. As noted earlier, automobile manufacturers are already scaling up electric car production, while countries in the region, such as Australia, China, Japan, Malaysia, the Republic of Korea and Thailand, are also investing in hydrogen production, to various degrees.^{vi} Beyond the climate, energy, food and water nexus, other pressures are driven by our growing populations and wealth. As developing countries industrialize rapidly, global demand for material resources will continue to increase dramatically. In 2030, it is predicted that some 83 billion tons of minerals, metals and biomass will be extracted from the earth: 55 per cent more than in 2010.^{vii} Even if seabed mining (which offers challenges of its own) becomes a real and sizable option in the near future, demand for material resources is set to increase, while supplies become more and more constrained. How will this impact access and will countries begin to protect domestic interests?

Another issue brought to the fore with force again at the climate CoP in Glasgow, is the worrying increase in deforestation. Since 1990, it is estimated that 420 million hectares of forest have been lost through conversion to other land use, although the rate of deforestation has decreased over the past three decades. Between 2015 and 2020, the rate of deforestation was estimated at 10 million hectares per year, down from 16 million hectares per year in the 1990s. The area of primary forest worldwide has decreased by more than 80 million hectares since 1990. The conversion of forests for commercial agriculture purposes (primarily cattle ranching and cultivation of soya bean and oil palm) accounted for 60 per cent of tropical deforestation between 2013 and 2019 – of which 69 per cent of it was for domestic consumption and 31

per cent was for exports, while 69 per cent of all commercial conversion was actually illegal under existing national laws and regulations.^{viii}

The decline in biodiversity and ecosystems is making natural resources scarcer and more expensive^{ix}. Obviously, these trends are worrying enough from an environmental perspective, but they also have serious consequences for business continuity and all that flows from this.

Although climate change is the issue that is grabbing the headlines, and provoking the strongest public concern, it is important to recognize the broader spectrum of global trends: how they interact and how they are likely to affect our societies and economies, if ignored or inadequately addressed. At the same time, we must be cognisant of the fact that taking corrective measures will have both positive and negative consequences for those same societies and economies. If – for example – we increase the cost of fossil fuels, that will help to reduce emissions, but it will also push up the cost to companies and consumers. On the other hand, energy price increases can lead to the emergence of a host of new business models around energy services, renewable energy, energy efficiency, equipment leasing and the like. One “man’s” loss is another “man’s” gain, as the saying goes.

IV. What defines success?

Most of the parameters and indicators we use today to measure success focus on economic and financial performance, whether it relates to a country or a company. Yardsticks, such as gross domestic product (GDP) per capita, gross national income, cash return to shareholders, or earnings before interest, taxes, depreciation, and amortization (EBITDA) tell us a lot about how much wealth is being created, but little about how we are doing in terms of promoting prosperity. Similarly, categorizing a country as higher-middle income or the like, actually says very little about the prosperity of the country, very little about, for instance, their performance when it comes to dealing with “grey rhino” challenges, such as COVID-19 or climate change^x and little or nothing about the sustainability (financially, socially and environmentally) of a country’s journey.

The parameters we currently use to measure success, basically put a great deal of value creation outside the box. What if we were to replace “higher-middle Income” by “progress towards SDG attainment”? What could that do to determine concessional finance eligibility in a different way? What if investors were to look at “societal value created” instead of “cash return to shareholders”? What would that do for capital investment eligibility? If there is any truth in the saying that “business cannot succeed in a society that fails”^{xi} then surely, we should be looking at value creation more broadly and factoring this into financial reporting rules, how we allocate finance and how we measure success.

The Forum for the Future argues that we should look beyond financial capital as the sole yardstick for success and instead, focus on five capitals: manufactured; social; human; natural; and financial capital as a basic concept for understanding sustainability in terms of the economic concept of wealth creation or “capital”. It poses that “any organization will use five types of capital to deliver its products or services. A sustainable organization will maintain and where possible enhance these stocks of capital assets, rather than deplete or degrade them”^{xii}.

Many have sought to express value creation more holistically and to provide reporting standards that reflect this. Interesting work has been done by the International Integrated Reporting Coalition, a global coalition of regulators, investors, companies, standard setters, the accounting profession, academia and non-governmental organizations. Together, this coalition shares the view that communication about value creation, preservation or erosion is the next step in the evolution of corporate reporting.^{xiii} The same could be argued for countries. The downside of all of these initiatives to define and report value creation more broadly is that they have resulted in a plethora of reporting standards and requirements in the context of international organizations, such as the Organisation for Economic Co-operation and Development, multilateral treaties, market mechanisms, such as emissions trading, the Dow Jones Sustainability Index, and national and regional reporting requirements, which are confusing to many and practically useful to few.

Where can we find a framework that broadly allows us to take stock of development in an integrated manner and as a basis not only to track progress, but more importantly, to define which investments will bring the most benefits towards holistic sustainable development? Why not the SDGs? They were defined exactly for that purpose. They define desired outcomes broadly, signify impact from multiple perspectives, can “easily” be superimposed on the logical governance frameworks of most countries and enjoy universal support. The 2030 Agenda for Sustainable Development^{xiv}, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the 17 SDGs, an urgent call for action by all countries - developed and developing

- in a global partnership. They are based on the view that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality and spur economic growth – all while tackling climate change and working to preserve our oceans and forests.^{xv}

V. Plotting a sensible course requires an understanding of risks and opportunities

Obviously, climate change and the other global challenges mentioned earlier are a concern to us all. Although economic growth and poverty eradication remain the top priority for most in the Asia-Pacific region, severe impacts of climate change will affect all countries and the effects could well reverse hard-won gains in terms of food security, water security, health and the like, while at the same time, economies are vulnerable to the consequences of unsustainable growth. Clearly, there is a pressing need to understand the challenges we face. Which of the global trends are most relevant to your country, how likely are they to occur, what could be the effects (impact) of the response to them (both positive and negative) and when are potential threats likely to become relevant?

As an example, we have a fairly good general understanding of the possible impacts of severe climate change on our countries. Less comprehensive is our understanding of how wide ranging the associated risks and impacts could be. Taken at face value, based on the KPMG 2021 “CEO Outlook Pulse Survey”^{xvi}, one could be tempted to think that environmental/climate risk is only one of many worries CEO’s (and country leaders) have. In fact, environment and climate (or more broadly sustainability) are embedded in almost every risk CEO’s worry about. Policies to address unsustainable business practices affect tax risk. The desire to monitor climate action creates regulatory risk. The impacts of climate change are causing supply chain risk. The same holds true for operational risk. The list goes on. The point here is that a comprehensive understanding of risk and the response to risks by you, your companies, competitors, clients and suppliers is critical. These are the realities that come with a global economy in which almost everything is linked.

So, is addressing sustainability all about risk? Do we just need to understand risk and take corrective measures? Probably, the only positive effect of the COVID-19 pandemic is that it has shown us that a disruptive crisis can lead to new prospects and innovations. Sectors have suffered, such as tourism, but others have gained, such as digital services. New products and services have made their way into markets. The same holds true for the response to climate change and the desire to become more sustainable. Suppliers that meet the sustainability criteria of their customers conquer markets. Customers who invest in the future of their suppliers are building relationships that last. Countries in the region are already riding the wave of growing markets for wind, solar and energy storage technology.

In 2016, many business leaders from around the world formed the Business and Sustainable Development Commission (BSDC). Perhaps partially fuelled by the fear that the SDGs would be seen by business as yet another set of “not so business relevant” objectives, the Commission set-out to make a powerful case — supported by sound evidence, rigorous research and compelling real-world examples — as to why business leaders should seize upon sustainable development as the greatest opportunity of a lifetime. Their work resulted, among other things, in *Better Business, Better World*,^{xvii} the Commission flagship report, released on 16 January 2017. In the report, “Valuing the SDG prize: unlocking business opportunities to accelerate sustainable and inclusive growth”^{xviii} the value of business opportunities across four key systems: food; cities; energy and materials; and health and well-being is quantified.

Across the four industry systems, AlphaBeta, which conducted the research [to support the report], finds 60 opportunities that could be worth collectively more than \$12 trillion annually by 2030. While this is based on revenue and savings rather than value added, it represents approximately 10 per cent of the global GDP forecast for 2030. The 15 largest opportunities account for more than half of this prize. These are (1) affordable housing, (2) circular models in automobiles, (3) improving energy efficiency in buildings, (4) expansion of renewables, (5) circular models in appliances, (6) risk pooling in health care, (7) remote patient monitoring, (8) reducing food waste in the value chain, (9) forest ecosystem services, (10) circular models in electronics, (11) telehealth, (12) electric and hybrid vehicles, (13) improving energy efficiency in non-energy intensive industries, (14) low-income food markets and (15) energy storage systems.

The geographic distribution of these SDG business opportunities depends on the industry system. Overall, more than half of the value of the opportunities in each industry system will be generated in developing countries.

The identified SDG-related business opportunities could also create almost 380 million jobs by 2030, which is more than 10 per cent of the projected labour force for that year. Almost one fifth of the total employment potential – approximately 70 million jobs – comes from just one opportunity: affordable housing. The SDG prize report suggests that almost 90 per cent of jobs will be created in developing countries, including 23 per cent in Africa and 59 percent in developing Asian countries.

Substantial investment will be needed to capture the SDG opportunities. Based on research for the report, the total annual investment required for the 60 opportunities across the four systems is estimated to reach approximately \$4 trillion. Though these investment costs are extensive, more than \$20 trillion in sustainable investment assets are under management globally already, and the size of this asset pool is increasing rapidly. While the global supply of capital will certainly be adequate to achieve these business opportunities, it will be challenging to ensure that the investment reaches the regions where it is most needed, especially in the developing world. Beyond capital investment, there will need to be additional radical departures from current approaches. The largest required shifts are in engaging with public policy and product innovation.^{xix}

Countries, companies and people adjusting to change around them is nothing new. We do it all the time, as necessity dictates or opportunity occurs. We all know the joke that the stone age did not end because the stones were finished. Anticipating change, planning ahead and building economies that are future-fit is more of a challenge. Partly because change is not always good for powerful interests, which like things just the way they are. But as indicated in the SDG prize report, the sustainability challenges and goals are creating real and meaningful opportunities to capitalize on positive opportunities to make that work in pursuit of sustainable development. To shape a new vision of value.

But how? Where can leaders focus in shaping a vision that aligns strong growth with sustainable development. How can we deepen our understanding of risks and opportunities? What is the role of government and where can international organizations extend support? Where does the private sector play a role? Perhaps most importantly: how can this be an urgent yet manageable transition for and by people?

VI. What now?

If climate change and the other sustainability-related trends referred to earlier create both opportunities and threats for countries in the Asia-Pacific region, the question is what should be done. Not every country in the region is equally equipped or for that matter advanced when it comes to integrating sustainability related issues into policymaking. A thousand useful things can and should be done, but let's start with a few suggestions. All will be relevant to none, but hopefully a few to some.

1. Assess potential impact of climate change and related sustainability trends and develop response strategies, including the National Adaptation Programmes of Action (NAPA)

A first critical step is to ensure that there is a solid understanding of the potential impact of climate change and other trends on the countries in the region. Especially in the context of climate change and related trends, a great deal of work has been done by IPCC and the United Nations Office for Disaster Risk Reduction (UNDRR). Most of this work is, however, not country specific. Having said this, there is a growing group of countries that have assessed their vulnerability to the impacts of climate change; 101 countries globally, including 20 least developed countries^{xx} have prepared disaster risk preparedness strategies in accordance with the Sendai Framework^{xxi} and more than 30 countries and regions, including eight Asia-Pacific countries – have prepared plans to address climate change adaptation and resilience (National Adaptation Plans).^{xxii} The Philippines is a notable example of the latter.^{xxiii}

Member countries of ESCAP countries may wish to task the secretariat, working with UNDRR on risk-related issues, to prepare an assessment of the regional status of National Adaptation Programmes of Action and Disaster Risk Preparedness Strategies (building on the *Asia-Pacific Disaster Report 2021*^{xxiv}), facilitate peer learning among countries and assist in the enhancement or development of plans upon request of national governments. This can lead to targeted efforts to mobilize funding for implementation using domestic resources and drawing on the support of the Green Climate Fund, the Adaptation Fund, the Asian Development Bank (ADB) and the other similar entities.

Such an exercise can also serve as a comprehensiveness check of the status of existing NAPAs. Experience shows that sometimes these programmes are not integrated into broader economic planning and have not been shaped based on input from all relevant ministries.

2. Understand the potential consequences for the country of economic measures taken by other countries in the context of climate change action

A second critical step is to understand how countries in the region may be affected by the climate change and sustainability strategies of countries and companies outside the Asia and the Pacific region. For example, if the European Union (and other regional integration organizations or countries) were to introduce border tax adjustments in the context of the climate action plans, how would this impact the economies of countries in the Asia and the Pacific Region?^{xxv}

Equally the policies that countries implement at home to reduce the carbon content of products, set emission standards for vehicles or ensure responsible sourcing, have an impact beyond borders.

For example, the vehicle emission standards set by the European Union, immediately affects manufacturers and indeed standard setters abroad.

At the same time, climate action and other international efforts to address global issues can represent an important source of investment (or revenue). For example, the climate change regime has created a global carbon market that can be used to attract foreign capital to achieve domestic emission reduction efforts, and within this, regional and country-based emissions trading schemes have been created. A percentage of the revenue generated by the offsets created in the global scheme (known as Clean Development Mechanism (CDM) credits) in turn feeds the Adaptation Fund and other financial mechanisms available to different groups of countries. For various reasons, the amounts generated for the Adaptation Fund, as an example, have been only \$211 million to date.^{xxvi} However, the total value of the global carbon market – such as those in Europe, North America and now in China and beyond was estimated at a record \$272 billion in 2020 by financial analysis company Refinitiv^{xxvii}. Allocating just 2 per cent of this value to funds, such as the Adaptation Fund could, therefore, potentially raise more than \$5 billion.

3. Assess the impact on the economy of sustainability related measures being taken by foreign corporate partners and in international markets

If companies headquartered outside the region decide on net-zero climate goals, how could this affect suppliers in the ESCAP region? More broadly the question is how many countries and companies in the region will be affected by the sustainability strategies of others. We have already seen significant trends around sustainable sourcing of beef, soy and palm oil, sustainable fisheries and forest products, responsible mining practice and so forth.

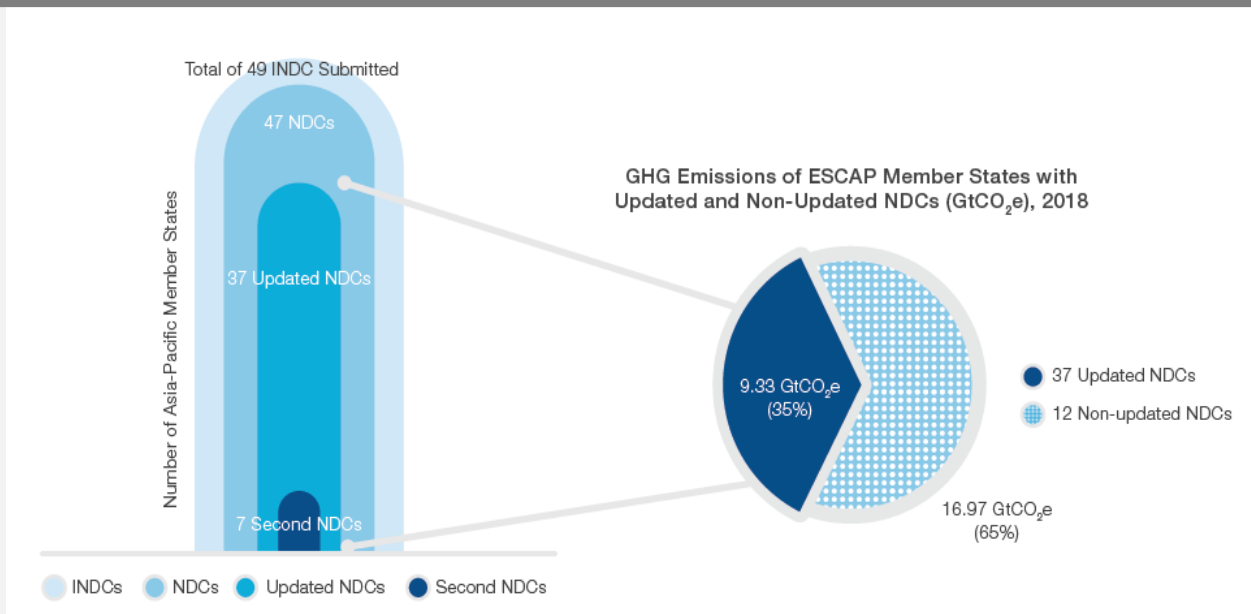
Member countries of ESCAP may wish to task the secretariat to conduct an assessment of the potential economic impact of the climate change and sustainability impact of countries and companies outside the region on different sectors of their economies.

The potential outcome of this could be a focused programme of action to ensure not only a solid understanding of potential sustainability-related trends and policies on countries in the region, but more significantly, to define response strategies that align with sustainability trends and turn them into a competitive advantage. This could be supported by ESCAP, working with other United Nations commissions and associations of market players, such as the Consumer Goods Forum.^{xxviii}

4. Define the potential to reduce emissions/achieve carbon neutrality and identify related benefits in terms of cost reduction

In the context of their contributions to international efforts to address climate change under the United Nations Framework Convention on Climate Change (UNFCCC), virtually every country has prepared (multiple) plans to reduce its emissions. Most recently, countries were asked to enhance their national ambitions in the run-up to CoP26 (and most did so, as shown in figure 3) and they will be asked to do this again for CoP27.

Figure 3 Status of Asia-Pacific Nationally Determined Contributions submissions and their greenhouse gas emissions share (GtCO₂e), January 2022



Source: ESCAP, and others (2021), *Is 1.5°C within Reach for the Asia-Pacific Region? Ambition and Potential of NDC Commitments of the Asia-Pacific Countries*, methodology annex (ST/ESCAP/2979).

Notes: NDCs; Nationally Determined Contributions; INDC, Intended Nationally Determine Contributions, GtCO₂e, global annual carbon dioxide emissions.

Many countries, including approximately one third of the countries in the Asia-Pacific region that submitted NDCs prior to CoP26,^{xxix} have made a distinction in their plans to specify what they can do under their own “steam” versus what can be achieved if international support (finance, technology and capacity-building) is provided. This is important because it covers more specificity how ambitions can be realized.

The question remains as to what extent these plans –NDCs – are motivated by the desire to identify cost-effective pathways for emission reductions, or by the desire to achieve economic growth and poverty eradication while contributing to an ambitious reduction in greenhouse gas emissions. This might seem like two different ways to ask the same question, but it is not. Most strategies to reduce emissions seek to identify what can be done in which time frame and at what cost. The critical question being asked less often is how can emission reductions contribute towards strong and sustainable growth and how can national efforts build (climate) resilience.

To (once again) oversimplify, most business leaders define what they do from three perspectives: growth; efficiency; and brand value. The three questions political leaders may wish to use in defining their SDG strategies are the following:

- How can the strategy contribute to the country’s growth through sustainability-related innovation?^{xxx}
- How can the country achieve cost efficiency (and cost reductions) in areas such as energy, water, transport, agriculture and supply chain management?^{xxxi}
- How important is the sustainability-related credibility of the country relevant to its status

internationally and the willingness of other countries (and companies) to transact with the concerned country?

In answering these questions, **suggestion number 1 is of key importance.**

5. Create national partnerships to assess barriers to investment in climate and sustainability solutions

Mobilizing the resources needed to make sustainability-related investments is often a challenge, especially when technology is new, markets are small, risks are high and return is uncertain. Often, many of these barriers can be addressed, or at least reduced, by removing non-financial barriers to an undertaking. Many times, such barriers are best understood at the local level, by the people (and organizations) most directly affected by them. It is, therefore, important to encourage and empower local government to build (green deal) partnerships with civil society organizations, businesses and knowledge providers. Many examples of such initiatives have occurred in the ESCAP region. For example, in India, there are innovative examples of small-scale solar energy projects that have been assessed to enhance social mobilization, community empowerment and sustainability.^{xxxii} Bangladesh is famous for its efforts to bring sanitation to and reduce poverty in low-income communities through microfinance; the country is now implementing similar initiatives for renewable energy^{xxxiii}, the Philippines has community initiatives around adaptation in partnership with GGGI^{xxxiv}. “Musrenbang” provides a mechanism for each community in Indonesia to have discussions on development planning so that civil societies and governments can exchange information on climate action ideas and implementation.^{xxxv} Outside the region, the Netherlands has created the “Green New Deal” programme, which has spawned hundreds of partnerships involving local governments, businesses and knowledge institutions.^{xxxvi}

6. Task the finance ministry, working with financial sector partners, to define and implement risk reduction solutions (both financial and non-financial)

Globally, the availability of capital is not the main barrier to green investments. The first obstacle is often the ability to frame a project proposal in a way that it meets the requirements of potential investors. Then, there may be barriers that relate to local content requirements and the like. On both the financial- and non-financial side, it is critical to understand what stands in the way of a risk, rate of return and size of market perspective that can be made to work.^{xxxvii}

Several initiatives are being taken to address financial and non-financial barriers to sustainable development initiatives. For example, multilateral development banks (and other development finance partners) have taken initiatives to provide blended finance a (mix of grants, concessional finance and regular loans) and risk reduction instruments. In addition, the volume of green investment initiatives are increasing significantly. And then there is, of course, the CoP26 commitment by many investors to make their portfolios carbon neutral by 2050.

Having said this, more can be done by the multilateral development banks and other development finance partners. Some experts have argued that, for instance, rather than creating new funds or initiatives, mainstreaming climate change needs (to create more fiscal space) into existing lending instruments or debt sustainability frameworks or even credit rating agency assessments, is crucial.^{xxxviii}

Furthermore, another barrier is often the lack of resources and skills to frame potential

sustainability initiatives in a way that is acceptable to potential investors and to take projects through the difficult pre-feasibility phase. Fortunately, a growing number of initiatives are being implemented to assist in the development of bankable project proposals and to help in accessing resources, for example from the Green Climate Fund.

It is, therefore, critical that multilateral banks, finance (and strategy) ministries, and national planning agencies are fully engaged in the many international processes related to sustainability in order to understand the institutional landscape and lead strategies to access both domestic and international finance, and address the non-financial barriers that stand in the way of more sustainable solutions.

7. Task the ministry of strategy or national planning agency to fully integrate the Sustainable Development Goals into the multi-year planning process

More broadly, these points raise the question to what extent the SDGs have been integrated into national decision-making, especially in cases in which major governmental programmes and investments are concerned.^{xxxix} As mentioned earlier, current metrics for measuring economic success lack a broader perspective on value creation. Can the SDGs and their underpinning indicators offer a comprehensive framework for assessing opportunities for more sustainable growth decision-making, while boosting national benefits and contributing to the achievement of the global goals? Countries, both in and outside the region, such as Fiji^{xl} and the United Arab Emirates^{xli}, have developed broader-based green growth strategies that are projected to bring stronger growth than conventional approaches, also in terms of economic growth.

If sustainable development has such obvious advantages, one cannot help but wonder why it is not already the chosen pathway globally. Issues related to vested interests, the desire to bolster the economy that has taken a country to where it is, and the desire to maximize current competitive advantages present many barriers that stand in the way of sustainable choices. While some of these barriers are financial, more are of a non-financial in nature and many of the financial barriers can be (partially) addressed through non-financial solutions.

What does this mean? To oversimplify, a decision on where to invest (or not) is determined by three factors: risk; rate of return; and size of market. The question then is what can be done to influence these factors positively to the advantage of a country. Many of the non-financial barriers related to risk deal with creditors' risk appetite and the investment climate of a country. With regard to the latter, while the Doing Business Index of the World Bank has recently been discontinued for various important reasons^{xlii}, there is a strong view by investors that it needs to be "easy" to do business in countries, based on various, often measurable metrics. What can be done to reduce risk by removing investment barriers of a non-financial nature? The aforementioned 2011 Netherlands Green New Deal focused on identifying barriers and reducing them, without any kind of financial support involved. Many barriers were regulatory or dealt with inefficiency or lack of digitalization, for instance. Obviously, there are also measures of a financial nature that can be taken to reduce risk. Some examples are the mobilization of matching domestic finance, price guarantees, risk reduction instruments, blended finance and grants.

Most - if not all - of the options here have a positive influence on the rate of return offered by an investment. However, in many smaller economies and in the context of niche investments, such as small-scale off-grid energy projects, size of market – as well as the size of the investment related to investor's broader portfolios – is also of critical importance.^{xliii} Some inspiring examples of how to address this challenge have their origins in India. For example, the International Solar Alliance is

supporting its member countries by first pooling or putting in a cluster for the application of certain technologies (for example solar water pumps) across multiple projects and countries. This obviously offers the supplier of the technologies a large market, which is more lucrative. The Alliance then works with suppliers to understand how the offer of a sizable market and guaranteed demand can help to reduce the cost of technology.

Understanding what can be done to reduce risk, enhance return and bring impact at scale must be a country-specific undertaking. This also holds true for the mirror-image: a growth strategy framed towards achieving the SDG's. In the nexus of policy, finance and technology, some key regional players, such as ESCAP, the Asian Infrastructure Investment Bank (AIIB)^{xliv}, ADB and the Asian Institute of Technology (AIT)^{xlv} can support this endeavour.

8. Instruct all ministries to develop strategies to achieve the Sustainable Development Goals relevant to their domain

The 17 SDGs cut across all aspects of our lives. Very few if any of the Goals can be addressed (and achieved) within the domain of a single ministry. An action in response to one goal can have positive impacts on several others. Bringing (renewable) energy to a village could help to meet a climate/energy goal, while at the same time allowing children to study in the evenings, run the refrigerator of the local clinic and power the sewing machines of village entrepreneurs. A 100 km tarmac road is an infrastructure solution that takes children to school, women to maternity clinics (on time) and vegetables to markets before they spoil. Consequently, the previous recommendation (integrate the SDGs into the national planning process) can only be achieved if this is a “whole of government exercise” that cuts across the domains of ministries. Actions and benefits must be defined across domains and implementation of related initiative must be everyone's challenge. All too often the sustainable development challenge struggles to be truly embraced beyond the portals of the environment ministry, which often translates into a very small tail trying to wag a very large dog.

Within Asia and the Pacific, a recent ESCAP study indicates that very few countries in the region, 6 to 8 per cent, are coordinating sufficiently nationally, especially at the head of State level, and the ones that are doing it tend to be relatively high-income countries, such as Australia, Japan, New Zealand and the Republic of Korea. With regard to local actions, approximately 58 per cent of the countries have no local-level coordination mechanisms – with only 14 countries assigning responsibilities to local governments, and three countries having regular coordination across municipalities.^{xlvi} This evidence suggests coordination requires significant attention in the region.

9. Integrate a Sustainable Development Goals assessment into all public procurement programmes and into investment decision-making

Approximately thirty years ago, it was a real change to get painters and decorators in the Netherlands to work with water-based paint. They were sure it would drip off the walls, not last as long as other paint and be impossible to sell to customers. The change happened when the Government, a major player when it came to maintenance of public buildings, decided only to contract painters and decorators trained in working with water-based paint. Similarly, the Dutch railway company's decision to allow contractors to charge more if they meet climate and sustainability goals has led to something that now shows that spending a little more can actually save money.^{xlvii}

The point here is that public procurement is potentially a very powerful instrument in terms of driving the right choices. Initially paying more for sustainability may be a hard sell, but integrating “contributions to achieve the SDGs” into tender documents can set an important ball rolling, in terms of how we look at the value an undertaking creates.

References

- ⁱ President Gold Standard Foundation, Former Executive Secretary of the United Nations Framework Convention on Climate Change (UNFCCC), Former Director-General of the Global Green Growth Institute (GGGI) and Former KPMG's Global Chairman of Climate Change & Sustainability Services
- ⁱⁱ ESCAP, and others (2021), *Is 1.5°C within Reach for the Asia-Pacific Region? Ambition and Potential of NDC Commitments of the Asia-Pacific Countries* (ST/ESCAP/2979).
- ⁱⁱⁱ Fiona Harvey (2021), "Far from where Cop26 needs to be: dismay at 2.4C 'reality check'", Guardian, 9 November. Available at <https://www.theguardian.com/environment/2021/nov/09/shock-at-24c-reality-check-prompts-dismay-at-cop26> (Date accessed 12/01/2022).
- ^{iv} Michael Page (2016), "Was Kyoto climate deal a success? Figures reveal mixed results", New Scientist, 14 June. Available at <https://www.newscientist.com/article/2093579-was-kyoto-climate-deal-a-success-figures-reveal-mixed-results/>.
- ^v FAO, and others (2021), *The State of Food Security and Nutrition in the World*, Rome, FAO.
- ^{vi} Paul Greening, and Euan Strachan (2021), "Energy in ASEAN: hydrogen in Asia Pacific", AG Speaking Energy, 24 August. Available at <https://www.akingump.com/en/experience/industries/energy/speaking-energy/energy-in-asean-hydrogen-in-asia-pacific.html>
- ^{vii} KPMG International (2012), "Expect the unexpected, building business value in a changing world, part 1. Available at <https://assets.kpmg/content/dam/kpmg/pdf/2012/08/building-business-value-part-1.pdf>.
- ^{viii} Cassie Dummet, and Author Blundell (2021), "Illicit harvest, complicit goods: the state of illegal deforestation for agriculture. Forest Policy Trade and Finance Initiative report, May, Available at https://www.forest-trends.org/wp-content/uploads/2021/05/Illicit-Harvest-Complicit-Goods_rev.pdf
- ^{ix} Convention on Biological Diversity (2018), "The economics of ecosystems and biodiversity (TEEB)", 31 May. Available at <https://www.cbd.int/incentives/teeb/>.
- ^x Hannah Ryder (2021), "Does Covid-19 offer a new way of looking at African risk?" African Business, 24 March. Available at <https://african.business/2021/03/technology-information/does-covid-19-offer-a-new-way-of-looking-at-african-risk/>.
- ^{xi} ABC News (2004). Transcript of interview with Bjorn Stigson (former President, World Business Council on Sustainable Development) "Call for debate on role of business in society" on "The World Today", 1 July. Available at <https://www.abc.net.au/worldtoday/content/2004/s1144889.htm>.
- ^{xii} Forum for the Future (2018), "The five capitals – a framework for sustainability". Available at <https://www.forumforthefuture.org/the-five-capitals>.
- ^{xiii} Integrated Reporting.<IR> (2021), "International <IR> Framework", Available at <https://www.integratedreporting.org/wp-content/uploads/2021/01/InternationalIntegratedReportingFramework.pdf>.
- ^{xiv} United Nations Department of Economic and Social Affairs (2015), *Transforming our world: the 2030 Agenda for Sustainable Development* (A/RES/70/1).
- ^{xv} United Nations Department of Economic and Social Affairs (2015), "The 17 Goals: history". Available at <https://sdgs.un.org/goals>.
- ^{xvi} KPMG (2021), KPMG 2021 CEO Outlook Pulse Survey. Available at <https://home.kpmg/xx/en/home/insights/2021/03/ceo-outlook-pulse.html>.

-
- ^{xvii} Business & Sustainable Development Commission (2017). Better Business, Better World. Retrieved from <https://sustainabledevelopment.un.org/index.php?page=view&type=400&nr=2399&menu=1515> (Date accessed: 05/01/2022)
- ^{xviii} Business and Sustainable Development Commission (2017), “Valuing the SDG prize: unlocking business opportunities to accelerate sustainable and inclusive growth”. Available at <http://businesscommission.org/our-work/valuing-the-sdg-prize-unlocking-business-opportunities-to-accelerate-sustainable-and-inclusive-growth>.
- ^{xix} Ibid., p. 16.
- ^{xx} Reliefweb (2021), “UNDRR to boost number of LDCs with national DRR strategies, press release, 30 March. Available at <https://reliefweb.int/report/world/undrr-boost-number-lDCs-national-drr-strategies>.
- ^{xxi} General Assembly resolution 69/283.
- ^{xxii} UNFCCC (2021), National Adaptation Plans. Available at <https://www4.unfccc.int/sites/NAPC/Pages/national-adaptation-plans.aspx>.
- ^{xxiii} Philippines (2022), National and Integrated Climate Change Database and Information Exchange System, and Government of Philippines Climate Change Commission (2011), National Climate Change Action Plan. Available at <https://niccdies.climate.gov.ph/action-plans/nccap-monitoring-and-evaluation>.
- ^{xxiv} ESCAP (2021), *Asia-Pacific Disaster Report 2021*, United Nations publication, Sales No.E.21.II.F10.
- ^{xxv} Teresa Belardo (2021), “What you need to know about the European Green Deal - and what comes next, World Economic Forum, 13 July. Available at <https://www.weforum.org/agenda/2021/07/what-you-need-to-know-about-the-european-green-deal-and-what-comes-next/>.
- ^{xxvi} World Bank (2022), “Financial intermediary funds: Adaptation Fund. Available at <https://fiftrustee.worldbank.org/en/about/unit/dfi/fiftrustee/fund-detail/adapt>.
- ^{xxvii} Frank Watson (2021), “Global carbon market grows 20% to \$272 billion in 2020: Refinitiv”, S&P Global Commodity Insights. Available at <https://www.spglobal.com/platts/en/market-insights/latest-news/coal/012721-global-carbon-market-grows-20-to-272-billion-in-2020-refinitiv>.
- ^{xxviii} See <https://www.theconsumergoodsforum.com/>.
- ^{xxix} ESCAP, and others (2021), *Is 1.5°C within Reach for the Asia-Pacific Region? Ambition and Potential of NDC Commitments of the Asia-Pacific Countries*, methodology annex (ST/ESCAP/2979).
- ^{xxx} ADB (2016): *ADB Outlook 2016 Update: Meeting the Low-Carbon Growth Challenge*, Manila, ADB.
- ^{xxxi} For some examples see the New Climate Economy region and country research (<https://newclimateeconomy.net/content/region-and-country-research>).
- ^{xxxii} Guarav Joshi, and Komali Yenneti (2020), “Community solar energy initiatives in India: a pathway for addressing energy poverty and sustainability?”, *Energy and Buildings*, vol. 2010.
- ^{xxxiii} Noor Elahi (2021,). “How Grameen Shakti is providing a sustainable renewable energy solution in rural Bangladesh”, The Dakar Tribune, 25 August. Available at <https://archive.dhakatribune.com/climate-change/2021/08/25/how-grameen-shakti-is-providing-a-sustainable-renewable-energy-solution-in-rural-bangladesh>.
- ^{xxxiv} GGGI (2014). “GGGI Philippines Report: Eco-town Framework”. Available at <https://ggi.org/report/gggi-philippines-report-eco-town-framework/>.
- ^{xxxv} Andi Asmayanti (2021), “Catalyzing impact through public-private partnerships: our learnings from musrenbang at cocoa life Indonesia”, Progress blog, 3 April. Available at <https://www.cocoalife.org/progress/musrenbang>.

-
- ^{xxxvi} Green Deal, “About us. Available at <https://www.greendeals.nl/english>.
- ^{xxxvii} Government and Social Development Resource Centre (2012), “Helpdesk research report: country risk indices. Available at <https://gsdrc.org/publications/country-risk-indices/>.
- ^{xxxviii} Hannah Ryder (2021), “We don’t need another hero – or an IMF trust fund. Africa Business, 15 October. Available at <https://www.theafricareport.com/136441/we-dont-need-another-hero-or-an-imf-trust-fund/>.
- ^{xxxix} United Nations (2021), *The Sustainable Development Goals Report 2020*, New York, United Nations.
- ^{xl} Fiji (2014), A green growth framework for Fiji: restoring the balance in development that is sustainable for our future. Available at <https://cop23.com.fj/wp-content/uploads/2018/01/GREEN-GROWTH-FRAMEWORK-Fiji.pdf>.
- ^{xli} Beeatna.ae (2021). “UAE Green Growth Strategy”. Available at <https://beeatna.ae/en/our-sustainable-environment/strategies/uae-green-growth-strategy.aspx?DisableResponsive=1>.
- ^{xlii} World Bank (2021), “World Bank Group to discontinue doing business report”, statement. Available at <https://www.worldbank.org/en/news/statement/2021/09/16/world-bank-group-to-discontinue-doing-business-report>.
- ^{xliii} ADB (2021), *Asian Development Outlook 2021 Update: Transforming Agriculture in Asia*, Manila, ADB.
- ^{xliv} <https://www.aiib.org/en/index.html>.
- ^{xlv} See <https://www.ait.ac.th>.
- ^{xlvi} ESCAP (2021), *Asia-Pacific Disaster Report 2021*, United Nations publication, Sales No.E.21.II.F10.
- ^{xlvii} Co2 Performance Ladder (2017), “Co2 Performance Ladder: cut emissions, save costs and win business. Available at <https://www.co2-prestatieladder.nl/en/news-item/co2-performance-ladder-cut-emissions-save-costs-and-win-business>.

Get connected. Follow us.



www.unescap.org



facebook.com/unescap



twitter.com/unescap



instagram.com/unitednationsescap



youtube.com/unescap



linkedin.com/company/united-nations-escap