Framework for the Victorian State of the Environment 2023 Report
Science for Sustainable Development

Traditional Owners

The Commissioner for Environmental Sustainability proudly acknowledges Victoria's Aboriginal community and their rich culture and pays respect to their Elders past and present.

We acknowledge Aboriginal people as Australia's first peoples and as the Traditional Owners and custodians of the land and water on which we rely. We recognise and value the ongoing contribution of Aboriginal people and communities to Victorian life, and how this enriches us.

We embrace the spirit of reconciliation, working towards the equality of outcomes and ensuring an equal voice.

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Commissioner's foreword

My job as Victoria's Commissioner for Environmental Sustainability (CES) is to provide independent and objective reporting on the state of Victoria's natural environment to inform policy and practice and to advise government. A critical part of my job is to shine a light on the areas of Victoria's environment that are working well, and make recommendations to the Victorian Government on areas we need to improve.

The five-yearly Victorian State of the Environment Report (SoE) is a report card that provides an independent and transparent evaluation of the state's environmental condition. The findings of the SoE act as a blueprint for recommendations to government on the priority actions and interventions to benefit Victoria's natural assets for at least the next five years.

This framework builds on the method adopted for the *State of the Environment 2018 Report* (SoE 2018) and the expression of the principles and objectives described in the Victorian *Commissioner for Environmental Sustainability Act 2003* (the Act). It recognises the importance of investment in science and the need to work with community, across all sectors of the economy and all levels of government – federal, state and local – to pursue ecologically sustainable development.

The long-term goal of environmental reporting is to maintain a healthy environment. Since 2014, building a stronger scientific evidence base and developing recommendations to improve environmental outcomes has been a key focus of our work with partners and collaborators across the community, government and industry. I have also advocated for the important role of science, and investment by government, in developing the tools and capabilities that we need to adequately protect, manage and restore Victoria's environment.

The SoE 2018 is a comprehensive scientific analysis of Victoria's environmental condition, measured across 170 indicators. It was the product of an exhaustive process that also assessed the adequacy of the Victorian Government's monitoring and management systems. For the first time in SoE reporting, the SoE 2018 brought a systems approach to the analysis and adaptive management principles that underpin the recommendations to government for improving environmental outcomes.

The SoE 2018 reporting process ushered in new ways of working with our stakeholders to enhance the value of independent science reporting by the CES. Central to this endeavour was the embedding of international frameworks and advocacy for the adoption of the United Nations (UN) Sustainable Development Goals (SDGs) and the UN System of Environmental-Economic Accounting (SEEA) into local reporting. Accordingly, the SoE 2023 will build on lessons learnt and continue to highlight the important roles of science, data and community in decision-making for ecologically sustainable development (ESD). Using the SDGs individually and collectively as an organising framework will push SoE reporting beyond previous cycles. This will also address the four objectives of the Commissioner, set out in s. 7 of the Act:

a. report on matters relating to the condition of the natural environment of Victoria;

b. encourage decision making that facilitates ecologically sustainable development;

c. enhance knowledge and understanding of issues relating to ecologically sustainable development and the environment;

d. encourage sound environmental practices and procedures to be adopted by the Government of Victoria and local government as a basis for ecologically sustainable development.[1]

"Putting the United Nations Sustainable Development Goals under the microscope to determine which are the most relevant to environmental reporting in Victoria is a crucial step in achieving meaningful, high-quality and transparent reporting."

Hon. Lily D'Ambrosio MP, Minister for Energy, Environment and Climate Change, 2018

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1. *Commissioner for Environmental Sustainability Act 2003* (Vic) s. 7(a)–(d).

Commissioner's foreword

The Sustainable Development Goals as an organising framework for environmental reporting

The SDGs have been adopted to broaden the focus of environmental reporting to better address economic, social and environmental considerations. This provides a depth and breadth of science on, and storytelling about, the natural environment to better reflect the views, and respond to the needs, of Victoria's diverse community. I believe that the SDGs provide a unique organising framework to better define and quantify the concept of ESD. In this respect, they are the link that was previously missing in attempts to bring effect to the Act's objectives.

The SDGs are an outcomes framework. They are a set of quantitative targets and an evidence-based assessment tool to measure and report on sustainable development. However, the SDGs are more than just a useful tool for tracking progress. They enable new narratives to emerge from old stories – what we are doing well, where the gaps are in our knowledge, and what we can do better.

The SDGs and their targets enable new and diverse perspectives on wicked problems. As an internationally agreed framework, they help to tell a broader story about local and global progress towards ESD. Beyond reporting on the condition of our natural assets, the SDGs help to describe the multiple benefits of a healthy environment to our economy and community and, therefore, facilitate informed conversations and debate.

The Victorian SoE 2018 was the first attempt in Australia to apply the SDG framework to environmental reporting at a sub-national level. It laid the foundation for the *Science for Sustainable Development* framework, and the SoE 2023 will continue to align environmental reporting to the SDGs at the target level, measured against local indicators and priorities. The application of the SDGs and the rich analyses this will provide will enable better, holistic conversations with the community as we track our progress on ESD over the next decade.

In addition, in contrast to the national approach to UN SDG reporting, the approach used by the CES is an attempt to merge a relatively mature environmental reporting system with a new organising framework (the SDGs). This approach highlights where existing reporting and SDG targets overlap, helping us to maximise efficiency and ensure processes are not duplicated.

About the Framework for the Victorian State of the Environment 2023 Report

This framework is ambitious and commits the 2023 report to retrospective and prospective analyses. The SoE 2023 will continue to assess the environmental condition of the SoE 2018 baseline indicators – in terms of status, trend and data quality. It will also measure Victoria's progress against relevant SDG targets and aim to determine (through predictive models that also explore the interlinkages between economic, social and environmental targets) those interventions that can improve progress towards ESD.

"A sustainable global financial system requires the realisation of the SDGs. That is why we are committed to investing in a way that contributes to the achievement of these ambitious goals and encourage others to join us."

David Atkin, CEO, Cbus[2]

The SoE reports are ultimately a measure of the shared capacity and success of accountable government, non-government and community organisations, and policies in monitoring, managing and protecting our environment. Building capacity cooperatively is critical in achieving an ecologically sustainable society. As environmental reporters, we must strive to be part of the solution and re-imagine our roles within government and on behalf of our communities in the way we work, to continuously improve and increase the value and impact of what we do.

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2. Cited in Douma, K, L Scott & A Bulzomi, The SDG investment case, Principles for Responsible Investment and PWC, 2017, https://www.unpri.org/sdgs/the-sdg-investment-case/303.article, accessed 7 August 2019.

Commissioner's foreword

SoE reports that are not integrated into decision-making processes and adaptive management cycles are insufficient to engender change. Environmental reporting is not a static discipline – it must continue to evolve, innovate and adopt new methods to improve its impact. In the future, advances in digital communications, earth observation and spatial technologies, and citizen science initiatives will offer considerable opportunities to improve the impact of SoE reporting and support practical action.

The Act enables ongoing innovation in SoE reporting in Victoria. As an empowering and flexible piece of legislation, the Act – combined with the willingness and enthusiasm of the Commissioner, government, scientists, partners and the broader community to work collaboratively – will improve environmental outcomes in Victoria.

Section 17(2) of the Act states that the Commissioner is required to prepare a report on the State of the Environment of Victoria in accordance with a framework developed by the Commissioner and approved by the Minister. This framework fulfils that requirement. It aims to build on the insights and outcomes delivered through the SoE 2018.

Science for Sustainable Development is an important milestone because it is the guiding framework for all reports to be prepared by my office as part of the 2023 State of the Environment reporting cycle. It demonstrates our ongoing commitment to developing an environmental reporting framework for Victoria with the SDGs at its core. It also continues our commitment to prepare best-practice science-based reports to inform policy-makers, scientists and the wider Victorian community. But we know there is still much work to be done.

It is an honour to serve the Victorian community as Commissioner for Environmental Sustainability and a privilege to collaborate with talented and dedicated people.

We are united in our desire to protect and improve our precious environmental assets. These bring us wellbeing and prosperity: we must ensure that future generations also have the joy of experiencing them.

We owe our children, grandchildren and future generations of Victorians nothing less. I am pleased to present the Framework for the Victorian State of the Environment 2023 Report, *Science for Sustainable Development*.

Dr Gillian Sparkes
Commissioner for
Environmental Sustainability,
Victoria

1. Context

The authorising environment for State of the Environment reporting in Victoria

SoE reporting was introduced in Victoria through the *Commissioner for Environmental Sustainability Act 2003* (the Act). The Act established an independent Commissioner for Environmental Sustainability (the Commissioner) and set out statutory objectives and functions, including to prepare 'a periodical Report on the State of the Environment of Victoria' (s. 1(2)). The Act was the first in the Victorian legislature to define ESD as 'development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends' s. 4(1).[3] The objectives that support this definition allow the Commissioner to report on the connection and interaction between environmental functions, community wellbeing and welfare and economic development, with the aim of safeguarding equity within and between generations.

This framework takes the opportunity to push beyond the scope of previous reporting cycles by applying the SDGs to more specifically address the four objectives of the Commissioner set out in s. 7 of the Act:

    a. report on matters relating to the condition of the natural environment of Victoria;

    b. encourage decision making that facilitates ecologically sustainable development;

    c. enhance knowledge and understanding of issues relating to ecologically sustainable development and the environment;

    d. encourage sound environmental practices and procedures to be adopted by the Government of Victoria and local government as a basis for ecologically sustainable development.

SoE reporting is a key function that assists the Commissioner to achieve these objectives and deliver on the principles listed in s. 10(1) of the Act:

In performing the functions and exercising the powers under this Act, the Commissioner must have regard to the following principles:

    a. the effective integration of economic, social and environmental considerations with the need to improve community well-being and the benefit of future generations;

    b. that actions should add value and be targeted to achieving the most benefit for the people of Victoria;

    c. that decision making should focus on developing solutions and achieving improvements;

    d. the need to ensure impartiality, openness, transparency and accountability.

These principles must underpin the environmental reporting frameworks prepared by the Commissioner in each cycle. The previous framework prepared by the Commissioner, *State and Benefit*, was tabled in the 58th Parliament of Victoria in December 2015 and outlined the strategy for the SoE 2018. *State and Benefit* also ushered in a reform program which modernised environmental reporting in Victoria. The *Science for Sustainable Development* framework retains and builds on core elements of that reform. It also seeks to continue to enable and animate the Commissioner's accountabilities under s. 10(1) of the Act through the Commissioner's principal report, the SoE, by:

- delivering on the statutory obligations of the Act (ss. 7–8)

- building on the comprehensive scientific baseline established by the SoE 2018

- adopting international frameworks (especially SDGs and the UN SEEA) with localised indicators

- demonstrating Victoria's leadership in reporting and accountability at the local, state, national and international level

- considering the multiple uses of data, including data for condition reporting, predictive analysis, management effectiveness and interjurisdictional benchmarking

- aligning state environmental reports by the CES and adopting a consistent set of statewide indicators for reporting across portfolios

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3. Since 2003, the *Sustainable Forests (Timber) Act 2004* and the *Marine and Coastal Act 2018* have also adopted the ESD definition from the Act.

1. Context

- incorporating a contemporary environmental reporting scope, including socio-economic benefits, climate change adaptation, cultural health and landscape management, and citizen science

- tailoring multiple reporting products for Victorians to meet the diversity of needs, including full scientific reports, summary reports and traffic-light report cards; interpretative websites; case studies; environmental-economic accounts and journal articles

- striving for authentic engagement with partners and stakeholders when developing reports and incorporating principles of co-creation and co-design with the aim of achieving collective impact.

Accurate and accessible information for Victorians

Environmental reporters play a critical role in influencing the knowledge framework, championing best-practice science and methods and ultimately demonstrating the value that scientific rigour has to improved decision-making. A key principle of the the SoE 2023 framework is the intention of the Commissioner to use this reporting cycle to continue to work collaboratively with stakeholders to help influence and build scientific capacity within government.

Through the assessment of 170 indicators of environmental condition, the SoE 2018 provides a comprehensive scientific baseline of Victoria's environmental condition. The *Science for Sustainable Development* framework continues to align environmental reporting by the CES through a consistent set of indicators, takes forward the scientific baseline of the SoE 2018 and extends, as required, to report on the SDGs. The suite of indicators for condition reporting in SoE 2018 will be retained and/or improved upon where recommendations from the report have been accepted.

The intention is not to expand the scope of environmental reporting in a way that would place an onerous or unnecessary monitoring and reporting burden on agencies and data custodians. Instead, we will focus on collecting high-impact data and applying the principles of adaptive management to direct science investment. This will enable us to produce data and analyses that inform local decision-making and our responses to critical pressures such as climate change and biodiversity loss.

Data from stakeholders beyond the conventional Victorian Government sources will be required to meet the objectives of this framework. The request for data for the SoE 2023 will extend to local government, non-government and Traditional Owner organisations. Citizen science will also help address the significant data gaps identified in the SoE 2018 and improve our ability to report on the SDG targets in the SoE 2023.

"We will never be able to monitor the environmental dimension of the goals using traditional data sources alone. Data generated by citizens (citizen science) has tremendous potential for helping us monitor the goals. Engaging citizens in the data collection process improves community awareness and action."

Jillian Campbell, statistician leading the UN Environment Programme's work on monitoring the SDGs[4]

Image courtesy of CSIRO Data 61

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4. Cited in UN Environment Programme, 'The untapped potential of citizen science to track progress on the Sustainable Development Goals, *UN Environment Programme* [website], 11 October 2019, https://www.unenvironment.org/news-and-stories/story/untapped-potential-citizen-science-track-progress-sustainable-development, accessed 20 October 2019.

1. Context

Environmental reporting is not a static discipline – it must continue to evolve, innovate and adapt to improve impact. The potential of earth observation, geospatial data and predictive analysis to improve our ability to monitor and report on trends in environmental condition, and measure progress on the SDGs at sub-national and local scales, cannot be overstated. Of the 170 indicators in the SoE 2018, approximately one-third could be improved through better geospatial information.

Transforming our world: the 2030 Agenda for Sustainable Development

Australia is a founding member state of the UN. The Australian Government and civil society contributed to the development of the SDGs.[5] On 25 September 2015, the UN General Assembly adopted Resolution 70/1, *Transforming our world: the 2030 Agenda for Sustainable Development* (the 2030 Agenda) – 'a comprehensive, far-reaching and people-centred set of universal and transformative Goals and targets'[6] – to be fully implemented by 2030.

As a member state, Australia has committed to:

> *develop as soon as practicable ambitious national responses to the overall implementation of this Agenda. These can support the transition to the Sustainable Development Goals and build on existing planning instruments, such as national development and sustainable development strategies.[7]*

The Australian Government completed its first national review in 2018, consistent with its UN obligations. The UN encourages the involvement and cooperation of regional and sub-regional governments to improve peer learning, share best practices and discuss shared targets. An inclusive regional process is seen as critical to delivering the outcomes of the 2030 Agenda (para. 80).

"The SDGs have fundamentally changed the game. They are the closest thing the world has to a strategy."

Dr Jake Reynolds, Cambridge Institute for Sustainability Leadership[8]

SDGs by design, not default: international targets, local indicators and addressing the connectivity dilemma

The SDGs inform decision-making to achieve multiple outcomes and provide a whole-of-system approach to understanding the trade-offs and mutual benefits between environmental, cultural, social and economic interests.

Although exploratory in nature, the SoE 2018 provided proof of concept for several key insights into how the SDGs can add value to environmental reporting in Victoria. The SDGs:

- assist in structuring the scientific assessments and framing the sustainable development narrative

- provide quantitative targets when they are absent in a jurisdiction's legislative or policy commitments

- enable an evaluation of how far Victoria is from achieving targets and where to prioritise resources

- facilitate an evaluation of interlinkages between environmental indicators and socio-economic indicators, to maximise multiple benefits and minimise trade-offs

- enable strategic, forward-looking analyses and interventions that can accelerate progress towards environmental outcomes.

The CES is committed to developing an environmental reporting framework for Victoria with the SDGs at its core. But there is still much work to be done. It is also critical that this work acknowledges and emphasises Australia's international obligations, rather than being a substitute for these. This is particularly important for biodiversity outcomes, such as those aspired to in the Aichi Biodiversity Targets and the Montréal Process for the Conservation and Sustainable Management of Temperate and Boreal Forests.

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5. Commonwealth Department of Foreign Affairs and Trade, Submission No. 60 to the Senate Foreign Affairs, Defence and Trade References Committee, Parliament of Australia, *Inquiry into the United Nations Sustainable Development Goals*, March 2018, p. 3.

6. United Nations General Assembly, *Transforming our world: the 2030 Agenda for Sustainable Development*, GA Res. 70/1, UN Doc. A/RES/70/1 (21 October 2015, adopted 25 September 2015), para. 2.
7. Ibid., para. 78.
8. Douma, K, L Scott & A Bulzomi, The SDG investment case, Principles for Responsible Investment and PwC, 2017. https://www.unpri.org/sdgs/the-sdg-investment-case/303.article. accessed 7 August 2019.

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Furthering the work that was done in the SoE 2018 to operationalise the SDGs, the SoE 2023 will align local indicators with the SDGs at the target level. International analysis and local application is a key principle in this effort. Scanning international trends for innovation is critical; however, maintaining a focus on those actions which can be implemented in the Victorian context is paramount. This is consistent with the method used for the SoE 2018, where a literal (default) rendering of the SDGs and the proposed international indicators was nuanced through a designed, bespoke approach, targeted at improving the sustainable development system in Victoria. In the SoE 2023, the application of the SDGs as an organising framework will lead to improved management outcomes, along with regulative and legislative change in Victoria, as current settings are reviewed and obstacles to sustainable development are revealed by monitoring and reporting on Victoria's progress towards the SDGs.

The 20 recommendations in the SoE 2018 were identified and prioritised as those that would maximise environmental outcomes in Victoria. The scientific assessments were used as the primary evidence in making recommendations, with other criteria also considered including: (i) demonstrating multiple benefits, (ii) aligning with third-party evidence from other respected reports and agencies and (iii) aligning with SDG targets. Recommendations for the SoE 2023 will be developed using a similar approach, with added emphasis on progressing Victoria's ESD performance framed by the SDG targets selected for the SoE 2023.

In this way, the SoE 2023 will be not only retrospective (extending the scientific baseline another five years) but also prospective. It will measure Victoria's progress on the SDGs – identifying areas in which the State is lagging; exploring how economic, social and environmental targets interlink; and aiming to model how recommendations can improve progress on ESD over time.

"Finding transformational solutions and implementing them in concrete contexts will likely involve re-thinking the ways in which we approach the production, flows and use of these complex types and sources of knowledge."

David J Abson et al., 'Leverage points for sustainability transformation'[9]

Image from *State of the Environment 2018*

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9. DJ Abson, J Fischer, J Leventon, J Newig, T Schomerus, U Vilsmaier, H von Wehrden, P Abernethy, CD Ives, NW Jager & DJ Lang, 'Leverage points for sustainability transformation', *Ambio*, vol. 46, no. 1, 2016, pp. 30–39.

1. Context

National and sub-national reporting

While many national governments have now reported on national progress against the SDGs in their Voluntary National Reviews (VNRs) submitted to the High-Level Political Forum on Sustainable Development, very few have provided an evidence-based assessment of national progress against the SDG targets and indicators.[10] Australia's VNR did not attempt to systematically assess Australia's progress towards the SDG targets and indicators; rather, it took a narrative approach, addressing each of the SDGs with case studies and other analyses.[11]

A national assessment of Australia's progress on the SDGs was also undertaken by the SDG Transforming Australia Project, produced by the National Sustainable Development Council (NSDC). The NSDC includes senior representatives from business, civil society and academia in Australia. The assessment was developed following the Australian SDGs Summit held in 2016, which identified responding to the need for a national baseline assessment of Australia's progress on the SDGs as a top priority action. The outcomes of this process, and the summary of reporting against the SDGs in Australia, are outlined in Allen et al.[12]

What differentiates the CES's approach from those of Australia's VNR and SDG Transforming Australia is that the preparation of the Victorian SoE report is led by an independent commissioner, with legislative authority through the Act to request data and drive reform to improve assessments and reporting processes across government.

In addition, in contrast to the national approach to UN SDG reporting, the approach used by the CES is an attempt to merge a relatively mature environmental reporting system with a new organising framework (the SDGs). This approach highlights where existing reporting and SDG targets overlap, helping us to maximise efficiency and ensure processes are not duplicated. This is consistent with para. 74(f) of the 2030 Agenda: 'They will build on existing platforms and processes, where these exist, avoid duplication and respond to national circumstances, capacities, needs and priorities.'[13]

The approach adopted by this framework combines a 'bottom-up' method (where existing local data is used to track progress) and a 'top-down' method to identify deficiencies in data relevant to tracking progress towards global targets.

"To overcome the current challenges, one must understand how to connect top-down national policies to bottom-up development strategies."

Liette Vasseur (International Union for Conservation of Nature, Climate change adaptation group leader/Brock University) and Mike Jones (International Union for Conservation of Nature, Resilience group leader/Swedish Biodiversity Centre)[14]

10. Allen, C, M Reid, J Thwaites, R Glover & T Kestin. 'Assessing national progress and priorities for the Sustainable Development Goals: experience from Australia', *Sustainability Science*, Vol. 15. 2019, pp 521–538.
11. Commonwealth Department of Foreign Affairs and Trade, *Report on the implementation of the Sustainable Development Goals*, Commonwealth Department of Foreign Affairs and Trade, 2018, p. 6.
12. Allen et al., *'Assessing national progress and priorities for the Sustainable Development Goals (SDGs): experience from Australia'*.
13. United Nations General Assembly, *Transforming our world: the 2030 Agenda for Sustainable Development*, GA Res. 70/1, UN Doc. A/RES/70/1 (21 October 2015, adopted 25 September 2015), para. 74(f).
14. L Vasseur & M Jones, 'Adaptation and resilience in the face of climate change: protecting the conditions of emergence through good governance', Global Sustainable Development Report Brief, UN, 2015, https://sustainabledevelopment.un.org/content/documents/6579124-Vasseur-Adaptation%20and%20resilience%20in%20the%20face%20of%20climate%20change.pdf, accessed 8 August 2019, p. 2.

2. Approach
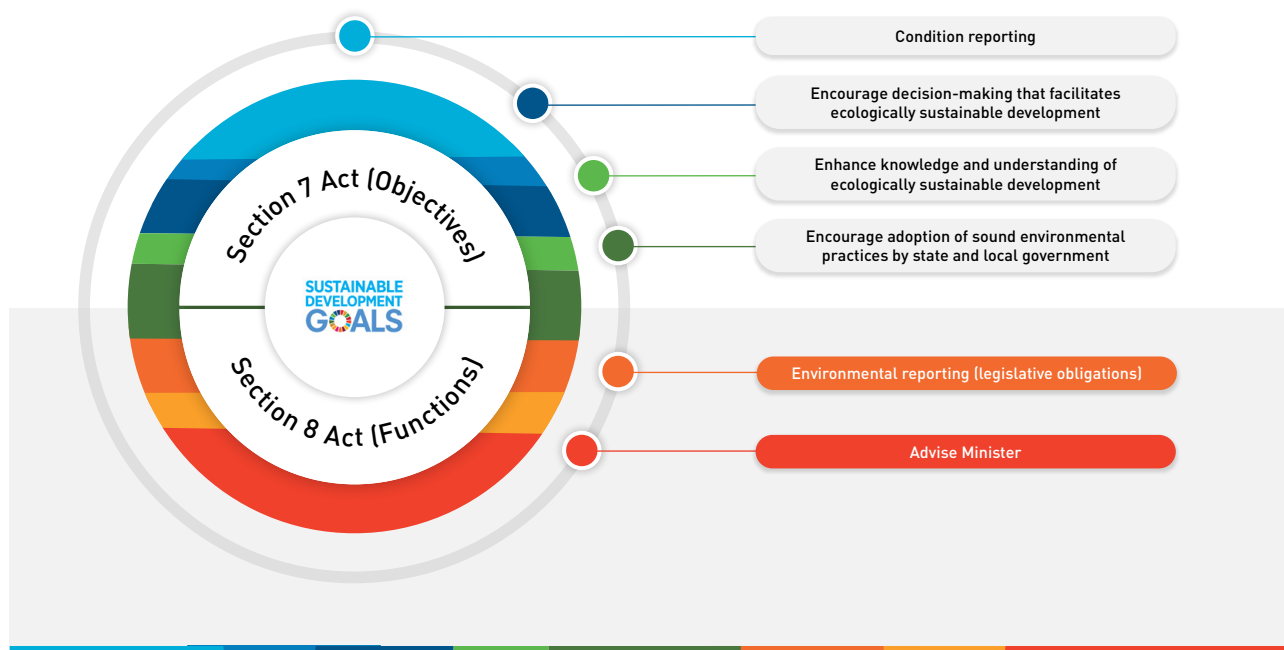
Figure 1. A representation of the SDGs, as an operating framework, to animate the
objectives of the Act (s. 7) to fulfil the functions of the Act (s. 8).

Reporting to support practical action

A key assumption of this framework is that the SDGs can animate the four objectives of the Act in a way that was not available to the CES for SoE reporting prior to 2015. Hence this framework pushes the aspiration for SoE reporting beyond the limitations of previous cycles, to more specifically address the objectives (s. 7) of the Act, as follows:

a. *Report on matters relating to the condition of the natural environment of Victoria.*

   The SoE 2023 will carry forward the SoE 2018 scientific baseline and update status and trend reporting.

b. *Encourage decision-making that facilitates ecologically sustainable development.*

   Applying the SDGs as the organising framework and working at the SDG target level, the SoE 2023 will develop a method for analysing and reporting on the connectivity and interlinkages between the SDG targets. This will require an initial assessment of the interdependencies between all 169 SDG targets for Victoria and then a segmentation of the connectivity relevant for the subset of the SoE 2023 targets identified in (c).

c. *Enhance knowledge and understanding of issues relating to ecologically sustainable development and the environment.*

   The SoE 2023 will continue to investigate and validate the SDG target suite by applying a co-design, co-creation method to interrogate the efficacy of the 52 selected targets reported on in the SoE 2018 report. This will include comparison of these assessments with other respected national and international reports.

d. *Encourage sound environmental practices and procedures to be adopted by the Government of Victoria and local government as a basis for ecologically sustainable development.*

   The SoE 2023 will track Victoria's progress against the selected SDG targets by prototyping and testing the veracity of using localised indicators that are meaningful at a state, regional, precinct or ecosystem scale.

   These four objectives, and the assessments that the SoE 2023 will undertake to meet them, are explored in more detail on the following pages.

2. Approach

a. Report on matters relating to the condition of the natural environment of Victoria

We all have a responsibility to understand the impact of our activities on the environment. The decisions we make are important for the future of our natural and built environments, and how they each contribute to livability. Respecting and valuing each other and the role of science in decision-making is fundamental for the future prosperity and environmental health of Victoria.

The five-yearly SoE reports are a key tool to enable transparent evaluation and disclosure of the condition of Victoria's environment by the CES.

The SoE is a comprehensive scientific baseline of environmental condition, measured by key indicators. But it is more than that. It is the product of an exhaustive reporting process, an assessment of the available science on Victoria's environment, and it identifies the challenges ahead. SoE reporting also assesses the monitoring and management systems that Victorians rely on for better environmental outcomes. It is this systems approach to our analysis, and the adaptive management principles which underpin it, that inform the recommendations presented in SoE reports.

The SoE 2023 report will carry forward and build on the scientific baseline of Victoria's environmental condition presented in the SoE 2018. Better understanding of the gaps in our science and monitoring programs will enable a shift by government towards 'getting the science we need, not just the science we can get' to inform policy, regulatory, adaptation and management decisions. Ultimately, this will lead to better outcomes for Victoria's environment in the face of the increasing pressures of population growth and a changing climate. However, responding to these pressures will require a paradigm shift over the next decade. We must go beyond traditional methods to develop a new approach that includes better use of predictive models, citizen science and gathering data from local government and regional sources.

"Investment in climate science and prediction is not a luxury; it is a necessity to protect the Australian people, protect our environment and position our economy for long-term growth. The return on that investment – knowing where the fires will be, when the drought will break, where the floods will occur or where an ecosystem will collapse is immeasurable."

Prof. AJ Pitman, Director of the ARC Centre of Excellence for Climate Extremes, University of New South Wales

Condition reporting is also increasingly informed by the UN SEEA. With expertise provided by the Department of Environment, Land, Water and Planning, the SEEA is a critical framework for future environmental reporting and indicator selection. The SEEA framework integrates economic and environmental data and better enables reporting on Victoria's natural assets, highlighting not only their condition but also their benefits.

b. Encourage decision-making that facilitates ecologically sustainable development

The SoE 2023 will apply the SDGs to tackle this objective more specifically.

The SoE 2018 recommended adoption of the UN SDGs and SEEA by Victoria. The driver for this is to broaden the focus of environmental reporting to:

- better address economic, social and environmental considerations

- develop richer stories and a deeper understanding of the multiple benefits and outcomes derived from a healthy environment

- highlight the need for a more nuanced investigation of the roles of 'bottom-up action' in society.

2. Approach

The SDGs offer a consensus framework on which we can measure our progress towards a sustainable and inclusive society. Aligning SoE reporting with the SDGs enables the monitoring of trends across a broader suite of socio-economic and biophysical indicators. Assessing these trends provides a more reflective analysis of the complex interlinkages between environment, community and economy than traditional condition reporting.

This innovation in SoE reporting addresses the limitations of the conventional Driving forces – Pressure – State – Impact – Response (DPSIR) framework for environmental reporting, which was broadly adopted in the late 1990s and early 2000s. The limitations of applying the DPSIR model for SoE reporting are explained in detail in a recent paper, 'Reporting for practical action: reforming State of the Environment reporting in Victoria'.[15] Limitations of the application of the DPSIR model include:

- a tendency to oversimplify complex causal networks and ultimately, in the context of sustainable development, propose inadequate solutions to complex problems[16]

- inconsistencies in how the DPSIR terms are defined and the potential for multiple representations of the same system[17]

- a fundamental reliance on sufficient, high-quality data, which restricts reporting to only those systems with such data available[18]

- a tendency to lend itself to hierarchical bias in decision-making by excluding marginalised voices and knowledge – in this context, it is also viewed as a discourse-selective framework, rather than a tool that generates neutral knowledge.[19]

The SoE 2018 demonstrated strong alignment between the Victorian SoE indicators and the SDG targets. It also showed that while alignment was strongest with the four environmental goals (6, 13, 14 and 15), there was also significant alignment with other SDGs. There is an opportunity for the SoE 2023 to further develop our understanding of the interconnectivity between goals, targets and local indicators.[20]

For instance, recognising the interdependence of environmental health and human health (*Goal 3: Good Health and Well-Being* and *Goal 6: Clean Water and Sanitation*) is of increasing importance in SoE reporting. Similarly, *Goal 16: Peace, Justice and Strong Institutions* and *Goal 17: Partnerships for the Goals* are critical for tracking the institutional reform, policy coherence, effective partnerships and better measures of progress required to transform environmental management and tackle systemic challenges such as biodiversity loss and climate change.

Broadening the scope of SoE analysis to include both environmental and socio-economic indicators, and exploring their interlinkages, will deliver a range of benefits. It will (i) highlight how the environment and natural capital underpin Victoria's social and economic wellbeing, (ii) identify trade-offs and areas of tension and potential co-benefits and (iii) highlight potential leverage points in the SDG network.

To enable the application of the SDGs as an organising framework for the SoE 2023, a method to report on the connectivity and interlinkages of the SDG targets will be required. This method will also identify a subset of the 169 SDG targets to be reported on in the SoE 2023.

"The 2030 Agenda for Sustainable Development is intentionally ambitious, providing a transformative and integrated approach to sustainable development, and is anchored by a set of 17 integrated and indivisible SDGs, 169 targets and a global indicator framework in order to measure and monitor progress."

Stefan Schweinfest, Director of the United Nations Statistics Division[21]

15. G Sparkes, S Rawlings, J Coates-Marnane & J Jelbart, 'Reporting for practical action: reforming State of the Environment reporting in Victoria', in preparation.
16. ER Carr, PM Wingard, SC Yorty, MC Thompson, NK Jensen & J Roberson, 'Applying DPSIR to sustainable development', *International Journal of Sustainable Development & World Ecology*, vol. 14, no. 6, 2007, pp. 543-555.
17. SR Gari, A Newton & JD Icely, 'A review of the application and evolution of the DPSIR framework with an emphasis on coastal social–ecological systems', *Ocean & Coastal Management*, vol. 103, 2015, pp. 63–77.
18. Ibid.
19. H Svarstad, LK Petersen, D Rothman, H Siepel & F Wätzold, 'Discursive biases of the environmental research framework DPSIR', *Land Use Policy*, vol. 25, no. 1, 2008, pp. 116-125.
20. M Nilsson, D Griggs & M Visbeck, 'Policy: map the interactions between Sustainable Development Goals', *Nature*, vol. 534, 2016, pp. 320-322.
21. Schweinfest, S, Foreword. Sustainable Development Goals Connectivity Dilemma: land and geospatial information for urban and rural resilience, edited by Abbas Rajabifard, Taylor & Francis, London. 2019, pp 15-17.

2. Approach

Predictive analysis will be an important component of this work, to assess the causal interlinkages for decision-making. A range of methods could be used for exploring these interlinkages – qualitative, semiquantitative (matrix/network analysis), quantitative (statistical correlation), and dynamic quantitative (modelling). In this context, it is acknowledged that the SDG targets are not all of one type. Some will inform scientific assessments of the SoE. Others are framed to assist decision-making and prioritisation in relation to environmental issues and systemic challenges, and will be applied to directly inform recommendations.

c. Enhance knowledge and understanding of issues relating to ecologically sustainable development and the environment

Throughout the 2023 reporting cycle, we will continue to use the co-creation model set out in *State and Benefit*. This involves working in collaboration with our partners and stakeholders to develop science reports on behalf of the community.

Science for Sustainable Development is a consultative framework that will build on the participatory science model of the *State and Benefit* framework and recognises that science and knowledge present in many ways and forms. Recognition of other forms of science being generated outside of government agencies and traditional scientific institutions is an underpinning principle of this framework.

Co-creation enables innovation – new ways of seeing old problems. Environmental reporting needs to describe the 'state of' (that is, the current conditions), and then facilitate a shift from project response to project design. Science curation and more sophisticated use of digital platforms will also enable this shift to a programmatic focus on critical areas.

d. Encourage sound environmental practices and procedures to be adopted by the Government of Victoria and local government as a basis for ecologically sustainable development

The fourth legislative objective confirms that environmental reporting in Victoria must contribute in a meaningful way to local priorities. It also confirms that environmental reporting is essential to achieve the second legislative objective: to encourage decision-making that facilitates ESD.

This framework responds to the UN's call for a united effort to move beyond exclusively top-down strategies. It also responds to the call for action from new agents of change at multiple levels of society,[22] including business, cities and local communities:

"Mobilising new agents of change for the SDGs requires innovations in governance, and... those innovations need to draw on a critical scrutiny of experiences gathered from decades of work in the field of sustainable development."

Enayat A Moallemi et al., 'Local Agenda 2030 for sustainable development'[23]

Scalability of data will be a challenge. The CES will apply the principles of this framework to prepare all 'state of' reports until 2024 at multiple scales – including state, regional, catchment, precinct and ecosystem (where data is available).

At the local scale, reports are often more relatable. For example, the *State of the Yarra and Its Parklands 2018*, a sub-catchment or 'precinct'-scale report, provides more precise indicators and specific recommendations than larger statewide reports. It also exposes more precise gaps in, and challenges for, developing a comprehensive evidence base. But in reports such as SoE, at the state scale, it is difficult to attribute specific challenges or system flaws to a specific agency or group. Accountability at the local scale is often, but not always, more attributable.

22. Schweinfest, S, Foreword. Sustainable Development Goals Connectivity Dilemma: land and geospatial information for urban and rural resilience, edited by Abbas Rajabifard, Taylor & Francis, London. 2019, pp 15-17.
23. E Moallemi, S Malekpour, M Hadjikakou, R Raven, K Szetey, MM Moghadam, R Bandari, R Lester & BA Bryan, 'Local Agenda 2030 for sustainable development', *The Lancet, Planetary Health*, vol. 3, no. 6, 2019, pp. 240-241.

2. Approach

The transition to SDGs as the organising framework for Victoria's environmental information is important and pragmatic – aligning with the SDGs enables the issue of scale to be addressed. The SDGs have been designed as a scalable framework from the global to the local scale. Practical application of SDGs at the local scale can help to minimise trade-offs between competing outcomes and optimise the benefits.

Furthermore, a gap that has been identified in the current reporting system is the absence of local government engagement on indicators, and local government contribution to the evidence base as data custodians. Ecosystem and 'precinct' scale reports, such as the State of the Yarra and Its Parklands or the potential State of the Great Ocean Road Coast and Parks, provide opportunities to work more closely with local government, catchment management authorities and committees of management, to achieve accurate and pragmatic reports at the local scale.

Objective (d) directly authorises the CES to develop localised indicators with local government to improve reporting on sustainability and resilience. The adoption of the SDGs as an organising framework will enable the development of key strategies, tools and methods by the CES for gathering consistent data across local government areas. These strategies and tools will also be made available by the Commissioner for use by other government agencies – such as by Sustainability Victoria for translating into school programs.

It is envisaged that an outcome of the SoE 2023 reporting cycle will be improved insight and analysis of environmental monitoring and reporting capabilities through the preparation of various 'state of' reports across multiple scales in Victoria.

"We are aligning Victoria with international environmental reporting frameworks and rewiring the system so that the SDGs frame environmental monitoring and reporting in Victoria."

Dr G Sparkes, Unlocking the Transformation of the SDGs: State of the Environment Reporting Framed by the UN SDGs, presentation to the IC-SD, New York City, 2018

Image from Shutterstock

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Appendices

Appendix 1: Baseline indicators assessed in the State of the Environment 2018 Report

Appendix 2: State of the Environment 2018 indicators by Sustainable Development Goal targets

Appendix 3: Sustainable Development Goals and targets

Image courtesy of CSIRO

Appendix 1: Baseline indicators assessed in the State of the Environment 2018 Report

Indicator number	Chapter	Theme	Indicator
1	CLIMATE CHANGE IMPACTS	Climate	CC:01 Observed average rainfall
2		Climate	CC:02 Snow cover
3		Climate	CC:03 Observed surface temperature
4		Climate – projections	CC:04 Projected changes in temperature
5		Climate – projections	CC:05 Projected changes to average rainfall
6		Climate – projections	CC:06 Regional climate projections
7		Sea level	CC:07 Observed sea level
8		Sea level – projections	CC:08 Projected sea level
9		Sea temperature	CC:09 Sea-surface temperature
10		Greenhouse gas emissions	CC:10 Annual greenhouse gas emissions
11		Carbon storage	CC:11 Victorian ecosystem carbon stocks
12		Impacts of climate change	CC:12 Occurrence and impacts of extreme weather
13		Impacts of climate change	CC:13 Extent and condition of key climate-sensitive ecosystems
14		Impacts of climate change	CC:14 Community awareness of climate risks and associated responsibilities
15		Management	CC:15 Councils (or other organisations) with urban forestry plans or urban greening or cooling-related strategies
16		Management	CC:16 Considering climate change risks in land use planning (including in the coastal zone)
17		Management	CC:17 Percentage of agri-businesses using long-term weather and climate change projections
18	AIR	Air pollutant	A:01 Ambient ozone levels (summer smog)
19		Air pollutant	A:02 Carbon monoxide and nitrogen dioxide
20		Air pollutant	A:03 Particle pollution (PM10 and PM2.5)
21		Air pollutant	A:04 Sulfur dioxide
22		Air pollutant	A:05 Stratospheric ozone
23		Amenity	A:06 Odour and noise
24		Amenity	A:07 Light pollution
25		Air pollutant – sources	A:08 Emissions of major air pollutants by sector
26		Health	A:09 Health impacts of air pollution
27		Health	A:10 Health impacts of noise pollution
28		Health	A:11 Indoor air quality

Appendix 1: Baseline indicators assessed in the State of the Environment 2018 Report

Indicator number	Chapter	Theme	Indicator
29		Invasive plant and animals	B:01 Invasive freshwater plants and animals
30		Invasive plant and animals	B:01A Trend in carp (*Cyprinus carpio*) distribution
31		Invasive plant and animals	B:02 Invasive terrestrial plants
32		Invasive plant and animals	B:03 Invasive terrestrial animals
33		Invasive plant and animals	B:03A Deer
34		Invasive plant and animals	B:03B Horses
35		Threatened species	B:04 Trend in populations and distributions of threatened freshwater species in the wild
36		Threatened species	B:04A Trend in population number and distribution of trout cod (*Maccullochella macquariensis*)
37		Threatened species	B:04B Trend in population number and distribution of Macquarie perch (*Macquaria australasica*)
38		Threatened species	B:04C Trend in population number and distribution of Murray crayfish (*Euastacus armatus*)
39		Threatened species	B:04D Trend in population number and distribution of spotted tree frog (*Litoria spenceri*)
40		Threatened species	B:04E Trends in population number and distribution of Booroolong tree frog (*Litoria booroolongensis*)
41	BIODIVERSITY	Threatened species	B:04F Trends in population number and distribution of Baw Baw frog (*Philoria frosti*)
42		Threatened species	B:05 Threatened species that are wetland dependent
43		Threatened species	B:06 Trends in populations and distributions of threatened terrestrial species
44		Threatened species	B:06A Vascular plants
45		Threatened species	B:06B Vertebrates
46		Threatened species	B:06C Invertebrates
47		Protecting Victoria's biodiversity	B:07 Private land conservation
48		Protecting Victoria's biodiversity	B:08 Conservation of Victorian ecosystems
49		Freshwater biodiversity	B:09 River health
50		Freshwater biodiversity	B:10 Riparian vegetation habitat extent
51		Freshwater biodiversity	B:11 Area of functional floodplain
52		Freshwater biodiversity	B:12 Distribution and abundance of frogs
53		Freshwater biodiversity	B:13 Distribution and abundance of fish
54		Freshwater biodiversity	B:14 Distribution and abundance of waterbirds in the Murray Darling Basin
55		Freshwater biodiversity	B:15 Distribution and abundance of macroinvertebrates

Appendix 1: Baseline indicators assessed in the State of the Environment 2018 Report

Indicator number	Chapter	Theme	Indicator
56	BIODIVERSITY	Freshwater biodiversity	B:16 Wetland extent and condition
57		Biodiversity 2037 indicators	B:17 Health and status of Ramsar wetlands in Victoria
58		Biodiversity 2037 indicators	B:18 Net gain in extent and condition of native vegetation
59		Biodiversity 2037 indicators	B:19 Landscape scale change
60		Biodiversity 2037 indicators	B:20 Change in suitable habitat
61		Biodiversity 2037 indicators	B:21 Area of management in priority locations
62		Biodiversity 2037 indicators	B:22 Victorians value nature
63		Biodiversity 2037 indicators	B:23 Number of Victorian Government organisations that manage environmental assets that contribute to DELWP standard output data
64	LAND	Land use	L:01 Land use types in Victoria
65		Land use	L:02 Changes in major land uses in Victoria
66		Land use	L:03 Changes in land tenure
67		Land use	L:04 Greenfield versus infill development
68		Soil health	L:05 Soil carbon content
69		Soil health	L:06 Area affected by salinity
70		Soil health	L:07 Soil acidification
71		Soil health	L:08 Soil erosion
72		Contaminated sites	L:09 Contaminated sites
73		Land management	L:10 Land management activities
74		Land management	L:11 Participation in natural resource management activities
75		Land management	L:12 Use of best practice on agricultural lands
76		Land management	L:13 Proportion of agricultural area under productive and sustainable agriculture

Appendix 1: Baseline indicators assessed in the State of the Environment 2018 Report

Indicator number	Chapter	Theme	Indicator
77		Ecosystem diversity	Fo:01A Area of forest by type and tenure: forest canopy cover
78		Ecosystem diversity	Fo:01B Area of forest by type and tenure: forest type
79		Ecosystem diversity	Fo:01C Area of forest by type and tenure - plantation forest
80		Ecosystem diversity	Fo:02 Area of forest type by growth stage
81		Ecosystem diversity	Fo:03 Area of forest type by growth stage distribution in protected zones
82		Ecosystem diversity	Fo:04 Fragmentation of native forest cover
83		Genetic diversity	Fo:05 Number of in-situ and ex-situ conservation efforts for forest-dependent species
84		Species diversity	Fo:06 The status of forest-dependent species at risk of not maintaining viable breeding populations, as determined by legislation or scientific assessment
85		Species diversity	Fo:07 Degree of disturbance to native-forest species caused by invasive species
86	FORESTS	Ecosystem health	F:08A Scale and impact of agents and processes affecting forest health and vitality – mortality, dieback, canopy health sub-section
87		Ecosystem health	F:08B Scale and impact of agents and processes affecting forest health and vitality – bushfire affected area and climate sub-section
88		Ecosystem health	Fo:09A Area and type of human-induced disturbance – planned burns
89		Ecosystem health	Fo:09B Area and type of human-induced disturbance – grazing
90		Carbon cycles	Fo:10 Total forest ecosystem biomass and carbon pool by forest type, age class and successional stages
91		Carbon cycles	Fo:11 Contribution of forest ecosystems to the global greenhouse gas balance
92		Productive capacity	Fo:12 Area and percentage of forest and net area of forest available and suitable for wood production
93		Productive capacity	Fo:13 Area of native forest harvested
94		Productive capacity	Fo:14 Annual production of wood products from state forests compared to sustainable harvest levels
95		Productive capacity	Fo:15 Proportion of timber harvest area successfully regenerated by forest type
96		Legal, institutional and economic	Fo:16 Extent to which the legal framework (laws, regulations, guidelines) supports the conservation and sustainable management of forests
97		Legal, institutional and economic	Fo:17 Extent to which the institutional framework supports the conservation and sustainable management of forests
98		Legal, institutional and economic	Fo:18 Extent to which the economic framework supports the conservation and sustainable management of forests
99		Legal, institutional and economic	Fo:19 Capacity to conduct and apply research and development aimed at improving forest management, including development of scientific understanding of forest ecosystem characteristics and functions
100		Socio-economic benefits	Fo:20 Investment and expenditure in forest management
101		Socio-economic benefits	Fo:21 Value ($) of forest-derived ecosystem services

Appendix 1: Baseline indicators assessed in the State of the Environment 2018 Report

Indicator number	Chapter	Theme	Indicator
102	FIRE	Fire occurrence	Fi:01 Area of native vegetation burnt in planned fires and bushfires
103		Fire impacts	Fi:02 Impacts of bushfires
104		Fire impacts	Fi:03 Actual fire regimes compared to optimal fire regimes
105		Fire risk	Fi:04 Bushfire risk
106	MARINE AND COASTAL ENVIRONMENT	Ecosystem health – intertidal vegetation	MC:01 Mangrove extent
107		Conservation	MC:02 Saltmarsh extent
108		Ecosystem health – intertidal vegetation	MC:03 Seagrass condition
109		Ecosystem health – seagrass	MC:04 Seagrass-dependent fish
110		Biodiversity – seagrass	MC:05 Estuarine condition
111		Estuarine health	MC:06 Mobile invertebrates on intertidal reefs
112		Biodiversity – intertidal reef	MC:07 Sessile invertebrates on intertidal reefs
113		Biodiversity – intertidal reef	MC:08 Mobile megafaunal invertebrates on subtidal reefs
114		Biodiversity – subtidal reef	MC:09 Subtidal reef fish
115		Biodiversity – subtidal reef	MC:10 Macroalgae-dominated subtidal reefs
116		Ecosystem health – subtidal reef	MC:11 Macroalgae on intertidal reefs
117		Ecosystem health – intertidal reef	MC:12 Migratory shorebirds
118		Biodiversity – birds	MC:13 Little penguins
119		Biodiversity – birds	MC:14 Piscivorous (fish-eating) birds
120		Biodiversity – birds	MC:15 Marine and coastal waterbirds
121		Biodiversity – birds	MC:16 Over-abundant sea urchins on subtidal reefs
122		Ecosystem health – subtidal reef	MC:17 Invasive marine species
123		Introduced marine species	MC:18 Catchment inputs into coastal waters
124		Water quality	MC:19 Point source discharges to marine waters
125		Water quality	MC:20 Harmful algae blooms
126		Water quality	MC:21 *Enterococci* bacteria
127		Water quality	MC:22 Impacts of fisheries production
128		Fisheries	MC:23 Conservation of coastal ecosystems in protected areas
129		Conservation	MC:24 Conservation of marine ecosystems in protected areas

Appendix 1: Baseline indicators assessed in the State of the Environment 2018 Report

Indicator number	Chapter	Theme	Indicator
130	WATER RESOURCES	Water resources	WR:01 Water resources and storage trends
131		Water resources	WR:02 Projected runoff to dams and catchments
132		Flow regimes	WR:03 Condition of flow regimes
133		Flow regimes	WR:04 Delivering water for the environment
134		Flow regimes	WR:05 Number of dams, weirs and levees
135		Water consumption	WR:06 Surface water harvested for consumptive use
136		Water consumption	WR:07 Percentage of waterways and groundwater areas, subject to extraction, with a limit on extraction
137		Water recycling	WR:08 Water recycling
138		Management	WR:09 Percentage of agricultural land with approved irrigation
139		Groundwater ecosystems	WR:10 Groundwater ecosystems
140		Groundwater quality	WR:11 Groundwater quality
141		Groundwater resources	WR:12 Groundwater levels
142		Groundwater consumption	WR:13 Groundwater harvested for consumptive use
143	WATER QUALITY	Algal blooms	WQ:01 Occurrence of algal blooms
144		Water quality	WQ:02 Dissolved oxygen concentration in rivers
145		Water quality	WQ:03 Salinity concentrations in rivers
146		Water quality	WQ:04 Total nitrogen concentration in rivers
147		Water quality	WQ:05 Total phosphorus concentrations in rivers
148		Water quality	WQ:06 Turbidity levels in rivers
149		Water quality	WQ:07 pH
150		Water quality	WQ:08 Proportion of bodies of water with good ambient water quality
151		Discharges	WQ:09 Volume of sewage discharge to surface waters
152		Pollution incidents	WQ:10 Reported inland water pollution incidents

Appendix 1: Baseline indicators assessed in the State of the Environment 2018 Report

Indicator number	Chapter	Theme	Indicator
153	WASTE AND RESOURCE RECOVERY	Waste	W:01 Total waste generation
154		Waste	W:02 Generation of municipal waste per capita
155		Food waste	W:03 Total food waste generated
156		Waste litter	W:04 Diversion rate
157		Waste recycling	W:05 Litter and illegal dumping
158		Hazardous waste	W:06 Total hazardous waste managed
159	TRANSPORT	Travel demand	T:01 Travel demand
160		Greenhouse gas emissions	T:02 Greenhouse gas emission and emission intensities from transport
161		Air pollution	T:03 Air pollution from transport
162	ENERGY	Energy consumption	E:01 Energy use per capita
163		Energy consumption	E:02 Total energy consumption by fuel
164		Energy consumption	E:03 Consumption of renewable energy as a share of total energy consumption
165		Energy consumption	E:04 Total net energy consumption by industry sector
166		Energy consumption	E:05 Total electricity consumption
167		Energy generation	E:06 Total electricity generation by fuel
168		Energy generation	E:07 Share of renewable energy generation of total electricity generation
169		Energy consumption	E:08 Energy used in the transport sector
170		Energy consumption	E:09 Per capita transport energy use

Appendix 2: State of the Environment 2018 indicators by Sustainable Development Goal targets

Chapter	SDG targets aligned with this theme	Total no. of SDG targets aligned with this theme
Climate Change Impacts	1.5; 2.4; 8.4; 9.4; 11.3, 11.4, 11.6, 11.7; 12.6, 12.8; 13.1, 13.2, 13.3; 14.2, 15.1, 15.2, 15.5, 15.7, 15.8	19
Air	3.9; 7.1; 11.3, 11.6; 13.2	5
Biodiversity	2.5; 4.7; 6.3, 6.4, 6.5, 6.6, 6.b; 11.4, 11.7; 12.2, 12.7, 12.8; 13.1, 13.3; 14.4; 15.1, 15.3, 15.4, 15.5, 15.6, 15.7, 15.8, 15.9; 16.6; 17.14, 17.17	26
Land	2.3, 2.4; 3.9; 5.5; 6.6; 11.4, 11.6, 11.7; 12.2, 12.4, 12.7; 15.1, 15.3, 15.4, 15.5, 15.8; 17.17, 17.19	18
Forests	2.5; 6.6; 11.4; 12.2, 12.6; 13.1, 13.2; 14.4; 15.1, 15.2, 15.3, 15.4, 15.5, 15.8, 15.9; 17.14	16
Fire	1.5; 13.1, 13.3; 15.1, 15.3, 15.4, 15.5	7
Marine and Coastal Environments	6.5; 11.3, 11.4, 11.7; 12.2, 12.8; 13.1, 13.3; 14.1, 14.2, 14.3, 14.4, 14.5, 14.b; 15.5, 15.6, 15.7, 15.8, 15.9; 16.6; 17.17	21
Water Resources	6.3, 6.4, 6.5, 6.6, 6.b; 8.4; 9.4	7
Water Quality	6.3, 6.6	2
Waste and Resource Recovery	3.9; 12.2, 12.3, 12.4, 12.5; 14.1	6
Transport	3.9; 8.4; 11.2, 11.6; 13.2, 13.3	6
Energy	7.1, 7.2, 7.3; 8.4; 11.2; 12.6, 12.c; 13.2	8

Appendix 3: Sustainable Development Goals and targets

Goal	Target
1 NO POVERTY	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
2 ZERO HUNGER	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 promote 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

Appendix 3: Sustainable Development Goals and targets

Goal	Target
3 GOOD HEALTH AND WELL-BEING	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

Appendix 3: Sustainable Development Goals and targets

Goal	Target
4 QUALITY EDUCATION	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

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Goal	Target
5 GENDER EQUALITY	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

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Goal	Target
6 CLEAN WATER AND SANITATION	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
7 AFFORDABLE AND CLEAN ENERGY	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, small island developing States and landlocked developing countries, in accordance with their respective programmes of support

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Goal	Target
8 DECENT WORK AND ECONOMIC GROWTH	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 Organisation

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Goal	Target
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	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

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Goal	Target
10 REDUCED INEQUALITIES	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 Organisation 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

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Goal	Target
11 SUSTAINABLE CITIES AND COMMUNITIES	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

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Goal	Target
12 RESPONSIBLE CONSUMPTION AND PRODUCTION	12.1 Implement the 10 Year Framework of Programmes on Sustainable Consumption and Production Patterns, 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 Rationalise 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

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Goal	Target
13 CLIMATE ACTION	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 and small island developing States, including focusing on women, youth and local and marginalized communities
14 LIFE BELOW WATER	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
	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 the United Nations Convention on the Law of the Sea, 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"

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Goal	Target
15 LIFE ON LAND	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 Promote fair and equitable sharing of the benefits arising from the utilization of genetic resources and promote appropriate access to such resources, as internationally agreed
	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 Mobilise and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems
	15.b Mobilise 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

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Goal	Target
 16 **PEACE, JUSTICE AND STRONG INSTITUTIONS**	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

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Goal	Target
17 PARTNERSHIPS FOR THE GOALS	**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 gross national income for official development assistance (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 Mobilise 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 Realise 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

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Goal	Target
17 PARTNERSHIPS FOR THE GOALS	**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