STRENGTHENING THE ENVIRONMENTAL DIMENSIONS OF THE SUSTAINABLE DEVELOPMENT GOALS IN ASIA AND THE PACIFIC

STOCKTAKE OF NATIONAL RESPONSES TO SUSTAINABLE DEVELOPMENT GOALS 12, 14, AND 15

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ASIAN DEVELOPMENT BANK

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Notes:
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All photos and illustrations are from ADB unless specified.
On the cover: Images of forest habitat, marine life, and community-based fishing activities evoke the priorities of Sustainable Development Goals 12, 14, and 15. The graphic illustration is inspired by the color wheel representing the Sustainable Development Goals as a whole.

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BOXES

Abbreviations

ADB	Asian Development Bank
APFSD	Asia–Pacific Forum on Sustainable Development
CBD	Convention on Biological Diversity
DMC	developing member country
HLPF	High-level Political Forum on Sustainable Development
Lao PDR	Lao People's Democratic Republic
MAPS	Mainstreaming Acceleration Policy Support
MEA	multilateral environmental agreement
MDG	Millennium Development Goal
MOI	means of implementation
NKRA	National Key Results Areas
PRC	People's Republic of China
SCP	sustainable consumption and production
SDG	Sustainable Development Goal
TA	technical assistance
UN	United Nations
UNDP	United Nations Development Programme
UN Environment	United Nations Environment Programme
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific

Foreword

Compared to the Millennium Development Goals, the Sustainable Development Goals (SDGs) address environmental sustainability more squarely. Economic growth can no longer be attained at the cost of the environment. Understanding the importance of the SDGs' environmental dimensions, the SDG interlinkages, and alignment with locally-adapted priority targets and indicators is critical in delivering sustainable development and ensuring a prosperous future for all.

The new Strategy 2030 of the Asian Development Bank (ADB) is aligned with major global commitments, including the SDGs. ADB is working to support its developing member countries (DMCs) in achieving their SDG targets. In 2017, ADB initiated a technical assistance (TA) project, *Supporting Implementation of Environment-Related SDGs in Asia and the Pacific,* to help policy makers integrate SDGs 12, 14, and 15—and other selected targets that are environment-related—in their countries' development plans, policies, and programs, including those for investment. If growth is to be environmentally sustainable, these goals and targets should be given equal consideration alongside governments' economic and social priorities. The TA project aims to understand and help DMCs address the issues and challenges behind their effective integration. It also aims to build capacities to strengthen policy making and implementation of the environmental dimensions of the SDGs, including identifying and leveraging new sources of finance, and enhancing monitoring and reporting systems.

This report presents the results and findings of the TA project's regional stocktake on national responses to SDGs 12, 14, and 15. ADB extends its sincere appreciation to all those who participated in the interviews to inform the stocktake report and peer reviewed the draft. We thank government participants from Bangladesh, Bhutan, Cambodia, Fiji, Indonesia, Kazakhstan, the Lao People's Democratic Republic, Mongolia, Nepal, the Philippines, Samoa, Sri Lanka, Timor-Leste, and Viet Nam as DMCs that the regional stocktake targeted. We extend our thanks to the United Nations Economic and Social Commission for Asia and the Pacific and the United Nations Environment Programme that helped shape the study and collaborated with ADB to hold a regional knowledge-sharing workshop at which the preliminary results and findings of this report were presented and validated.

The stocktake identified that at the country level, capacity needs to be strengthened, resources need to be mobilized, and indicators need to be developed to strengthen implementation of the selected environment-related goals and targets. In addition to this report, the TA project has also prepared *Strengthening the Environmental Dimensions of the SDGs in Asia and the Pacific: Tool Compendium*, an inventory of tools that policy makers can use to better (i) understand the critical interlinkages within and between environment-related goals and targets; (ii) promote policy coherence and integration of the environmental dimensions of the SDGs; and (iii) develop and select appropriate indicators, policies, and institutional arrangements to support the effective implementation of the environmental dimensions of the SDGs, with special emphasis on SDGs 12, 14, and 15.

The way forward will involve greater and deeper integration of the environmental dimensions into DMC priorities so that green investments can be driven domestically and sustained in the long run. Through better integration, DMCs will achieve significant progress toward responsible consumption and production and sustainable marine and terrestrial ecosystems management.

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Acknowledgments

Executive Summary

This report presents the results of a stocktake of national responses to selected environment-related Sustainable Development Goals (SDGs) and targets in 15 Asian Development Bank (ADB) developing member countries (DMCs) from across Asia and the Pacific. The stocktake was completed under the first phase of an ADB technical assistance (TA) project on *Supporting Implementation of Environment-Related Sustainable Development Goals in Asia and the Pacific.* The TA project aims to help DMCs in Asia and the Pacific strengthen their responses to the environmental dimensions of the SDGs, notably SDG 12 on Responsible Consumption and Production, SDG 14 on Life below Water, and SDG 15 on Life on Land, and selected environment-related targets determined as having a direct relationship with responsible consumption and production, and sustainable marine and terrestrial ecosystems management. It seeks to ensure the SDGs' environmental dimensions are not left behind in Asia and the Pacific.

Beyond their inclusivity and universality, one of the more notable features of the SDGs and their 169 targets is that they place an equal emphasis on the economic, social, and environmental dimensions of sustainable development. They represent the logical extension of past international processes promoting integration of the environment in development plans. In total, the SDGs reflect the commitment to integration, but with greater attention to goal setting, reporting, and financial and other means of implementation, building off lessons learned from the multilateral environmental agreements and the Millennium Development Goals. Their ultimate success will nonetheless rest on responses from and action by national governments, rather than trends in global agreements. However, there is a risk countries will struggle to integrate the environmental dimensions of the SDGs in their development plans. Recent SDG status reports indicate that implementation of SDGs with a stronger environmental focus shows limited progress. Asia and the Pacific is arguably the region with the greatest need for strengthening national responses to SDGs 12, 14, and 15. This need reflects that the region's exceptional growth comes at steep environmental costs undermining the prospects for sustained economic growth and social development within, and even beyond, the region.

To help understand the reasons behind the limited progress toward the achievement of SDGs 12, 14, and 15 in Asia and the Pacific, the study takes stock of 15 DMCs' responses to the selected environment-related goals and targets. The stocktake was informed by an extensive desk study using primary and secondary sources (including SDG progress reports) and approximately 50 semi-structured in-country interviews with more than 120 respondents from 14 surveyed countries. Preliminary results and findings were presented and validated at a regional knowledge-sharing workshop attended by DMC representatives and subject matter experts. The information collected during the stocktake was used to address four questions:

(i)   Which of the selected environment-related goals and targets are priorities for DMCs in the region?

(ii) What are the main issues, challenges, and barriers to DMCs leveraging the SDGs to effectively address existing and emerging environmental issues and priorities?

(iii) What activities have DMCs already initiated to address the SDGs and their environmental dimensions?

(iv) How can the international development and environment communities help DMCs in the region overcome barriers and expand promising practices?

In answering these questions, the stocktake found that, at the goal level, environment priorities identified by surveyed countries are generally aligned with the selected environment-related goals and targets. Furthermore, as parties to related multilateral environmental agreements and the 10-Year Framework of Programmes on Sustainable Consumption and Production, most government ministries and agencies interviewed possess a high level of awareness of SDGs 12, 14, and 15. While many stocktake countries have made commitments to the environment, it is a challenge to translate these into meaningful action. Most of the stocktake countries are focused on addressing "conventional" environmental issues and their environment ministries or agencies are doing so in isolation of other sectors; such a sector-based approach is not conducive to integration. Frequently cited reasons for limited integration are difficulties with interagency coordination, technical capacity and availability of human resources, costs of collating environmental data, and identification of appropriate monitoring indicators. Monitoring and reporting on progress is a huge challenge for the region, given the vast lack of sufficient and up-to-date baseline data on environmental parameters.

Nevertheless, there are some promising good practices and experiences in the region with the potential to address many of the common barriers to integration. These include Bhutan's alignment of national key result areas with the SDG indicators; Indonesia's climate change and biodiversity budget tagging; the Lao People's Democratic Republic's enhancement of enabling policies and regulatory frameworks by capitalizing on the SDGs; the People's Republic of China's mobilization of green finance to catalyze cleaner production; and Sri Lanka's engagement in SDG mapping exercises to strengthen institutional coordination. Scaling up these promising practices will require concerted effort and collaboration among different stakeholders, including governments, civil society, and the private sector.

Moving forward, there is no need to invent new concepts, but rather to use existing decision-making tools, methods, and approaches to help promote more integrated and coordinated approaches to the environment. Many successful existing regional and national initiatives exist that can be scaled up, but multiple ministries and agencies must work together and take on the mandate to achieve the environmental dimensions of the SDGs, rather than requiring environment ministries or agencies to address them on their own. Policy makers also need to better comprehend the impact of their policies on the environment, and the importance of delivering the SDGs as an integrated whole. Taking a whole-of-government approach is necessary to avoid trade-offs between environment and socioeconomic priorities. Screening mechanisms and strategic environmental assessment are important tools to ensure conflicts and trade-offs are understood and facilitate the reworking of draft policies. Understanding of green financing by governments and financial institutions needs to be strengthened. Finally, capacities must be developed and strengthened so those responsible for data collation and management can work together, and with more innovative data technologies and sources.

1 Introduction

1.1 Background on the Report

This report presents the results of a survey of national responses to selected environment-related Sustainable Development Goals (SDGs) and targets in 15 Asian Development Bank (ADB) developing member countries (DMCs) from across Asia and the Pacific. The stocktake was completed under the first phase of an ADB technical assistance (TA) project on *Supporting Implementation of Environment-Related Sustainable Development Goals in Asia and the Pacific*.[1] The TA project aims to help DMCs in the region strengthen their responses to the environmental dimensions of the SDGs, notably SDGs 12, 14, and 15,[2] and selected environment-related targets determined as having a direct relationship with responsible consumption and production, and sustainable marine and terrestrial ecosystems management. It seeks to ensure the environmental dimensions of the SDGs are not left behind in Asia and the Pacific.

The main objectives of this report are (i) to take stock of progress on and identify challenges in implementing the environmental dimensions of the SDGs in Asia and the Pacific; and (ii) to make pragmatic recommendations on how DMCs in the region can enhance their capacities to overcome recurring barriers to integrating the environmental dimensions into their national policies, plans, and programs.

This chapter provides important background on the SDGs. It also discusses the growing need to take an integrated approach, setting the scene for a deeper review of challenges to integration of the environmental dimensions of the SDGs later in the report.

1.2 Background to the Sustainable Development Goals

The SDGs (Figure 1) were conceived in what was then the most inclusive intergovernmental process to date.[3] Through a carefully designed set of deliberations and meetings following Rio+20 in 2012, a United Nations (UN) Open Working Group recommended 17 SDGs and 169 targets universal and globally applicable to all countries, irrespective of their level of development. The 2030 Agenda for Sustainable Development was adopted at the UN Sustainable Development Summit in September 2015 with these SDGs as its centerpiece. Subsequently, a set of 232 indicators to monitor the targets was developed by the Inter-agency and Expert Group on SDG Indicators and adopted at the UN General Assembly in July 2017.[4]

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[1]   Asian Development Bank. 2016. *Supporting Implementation of Environment-Related Sustainable Development Goals in Asia and the Pacific.* Manila. https://www.adb.org/sites/default/files/project-document/215401/50158-001-tar.pdf
[2]   SDG 12 on Responsible Consumption and Production, SDG 14 on Life below Water, and SDG 15 on Life on Land.
[3]   United Nations. 2014. *The Road to Dignity by 2030: Synthesis Report of the Secretary-General On the Post-2015 Agenda.* New York. http://www.un.org/disabilities/documents/reports/SG_Synthesis_Report_Road_to_Dignity_by_2030.pdf
[4]   United Nations General Assembly. 2017. *Work of the Statistical Commission Pertaining to the 2030 Agenda for Sustainable Development.* https://undocs.org/A/RES/71/313.

Figure 1: The Sustainable Development Goals

Source: United Nations. 2015. https://www.un.org/sustainabledevelopment/sustainable-development-goals/.

Beyond their inclusivity and universality, one of the more notable features of the SDGs and their 169 targets is that they place an equal emphasis on the economic, social, and environmental dimensions of sustainable development. To ensure equal weighting of priorities, countries are encouraged to treat the SDGs as an integrated framework for action, recognizing the role that the environment plays in socioeconomic development and vice versa. Nonetheless, there is a risk countries will struggle to integrate the SDGs' environmental dimensions into their development plans. While many countries have made commitments to the environment, it is a challenge to translate these into meaningful action.

1.3 The Importance of an Integrated Approach

Over more than 4 decades, the environmental community has underlined the need for development that does not exceed the ecological limits of growth. Recent research shows the environment does not simply set limits on socioeconomic development. Rather, this is a dynamic relationship wherein "nested interdependencies" exist between the economic, social, and environmental dimensions of sustainable development (Figure 2).[5] The failure to recognize the important role of the environment in development plans is already resulting in adverse effects on the health and well-being of populations, and could ultimately undermine other socioeconomic achievements. Nonetheless, the explicit integration of the environment in policy decisions could stimulate economies and address equity concerns. At an international level, three processes have contributed important lessons: (i) milestone international conferences and reports, (ii) multilateral environmental agreements (MEAs), and (iii) the Millennium Development Goals (MDGs).

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[5]   D. Griggs et al. 2013. Policy: Sustainable Development Goals for People and Planet. *Nature* 495. (7,441). pp. 305–307. https://sustainabledevelopment.un.org/content/documents/844naturesjournal.pdf

Figure 2: Nested Interdependencies

Environment

Society

Economy

Source: D. Griggs et al. 2013. Policy: Sustainable Development Goals for People and Planet. *Nature* 495. No. (7,441).

Calls for integration in international environmental conferences have risen to prominence lately, but are far from new. These calls were voiced nearly every decade since the UN Conference on the Human Environment in 1972. They include statements from milestone documents, such as the 1987 Brundtland Report's support for stronger integration across environmental and economic resources.[6] They also came out of global sustainable development summits, such as, the 1992 Earth Summit in Rio de Janeiro, Brazil, where Agenda 21 pointed to four areas where environment and development could be integrated: policy, planning, and management levels; legal and regulatory frameworks; use of economic instruments; and environmental and economic accounting.[7] Similar suggestions were articulated at the 2002 World Summit on Sustainable Development in Johannesburg, South Africa, with the Johannesburg Plan of Implementation.[8] But these calls for greater support for integrating the environment, arguably, have lacked the targets and incentives provided by the MEAs.

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[6]   World Commission on Environment and Development. 1987. *Report of the World Commission on Environment and Development: Our Common Future (The Brundtland Report)*. http://www.un-documents.net/our-common-future.pdf.

[7]   United Nations. 1992. *Agenda 21*. Rio de Janeiro. https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf

[8]   United Nations. 2002. *World Summit on Sustainable Development: Johannesburg Plan of Implementation*. New York. http://www.un-documents.net/jburgdec.htm

The MEAs offer both positive and negative lessons for efforts to integrate the environment in development plans. For the positive lessons, most MEAs focus on a specific set of problems with a related reporting process and possible funding sources or other forms of technical support. Due to their issue-specific focus, some MEAs helped boost awareness of environmental problems that otherwise may have gone unnoticed, and generated action where momentum may have been lacking. In many cases, both reporting and awareness raising were encouraged by targets and incentives for implementation. But while the MEAs capitalized on these targets and incentives, many also failed to fully account for interlinkages with other environmental issues or socioeconomic development priorities.[9]

The MDGs offer another set of positive and negative lessons for ongoing efforts to integrate the environment. Some favorable lessons relate to the significant headway made by the MDGs in encouraging and tracking voluntary action on a select set of development areas, where past international development initiatives often failed. However, partially because the MDGs were conceived through an exclusive, closed-door process by a group of experts appointed by the UN Secretary-General, some issues did not receive sufficient levels of attention.[10] This may have been the case with the one MDG on environmental sustainability (MDG 7), formulated in a hasty, ad hoc manner. As environmental sustainability was confined to a single goal, the MDGs took a rather sectoral approach that did not—or only weakly—recognized the links between the environment and development priorities.[11]

The question that arises is how the international community and countries can learn from the experiences with the MEAs and MDGs, while carrying forward the long-standing support for integration found in milestone international conferences and reports. In many ways, the SDGs provide the answer to this question. By their nature, the 17 SDGs and their 169 targets require integrated implementation strategies given the interlinkages within and between the goals. They also retain the emphasis on goal setting and (voluntary) reporting that proved helpful in the case of some of the MEAs and the MDGs. In total, the SDGs reflect the international communities' commitment to integration, but with greater attention to goal setting, reporting, and financial and other means of implementation (MOI), which are more familiar to the ways the MEAs and MDGs helped spur action. The SDGs have already begun to integrate this combined commitment into several relevant processes at the global and regional levels (Box 1).

1.4 Taking Advantage of the Sustainable Development Goals

The SDGs hold considerable promise to build on and extend beyond the achievements of past international processes. Their ultimate success will rest on responses from and action taken by national governments rather than trends in global agreements. The question is, are countries taking advantage of the SDGs in strengthening their environmental dimensions? At least on the surface, the answer seems to be yes.

9   N. Kanie. 2007. Governance with Multilateral Environmental Agreements: A Healthy or Ill-Equipped Fragmentation. *Global Environmental Governance*. pp. 67–86. http://www.centerforunreform.org/sites/default/files/GEG_Kanie.pdf

10   W. Easterly. 2009. How the Millennium Development Goals Are Unfair to Africa. *World Development*. 37 (1). pp. 26–35. https://doi.org/10.1016/j.worlddev.2008.02.009.

11   J. Vandemoortele. 2011. If Not the Millennium Development Goals, Then What? *Third World Quarterly* 32. March 2015. pp. 9–25, https://doi.org/10.1080/01436597.2011.543809.

Box 1: Incorporating the Sustainable Development Goals into Regional Policy-Making Processes in Asia and the Pacific

The first Asia–Pacific Ministerial Summit on the Environment, jointly organized by the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) and the United Nations Environment Programme (September 2017 in Bangkok, Thailand), focused on addressing the links between resource efficiency and pollution reduction, under the theme "towards a resource-efficient and pollution-free Asia–Pacific." The Ministerial Declaration on Environment and Development for Asia and the Pacific, 2017, which was adopted as a key outcome of the summit, called for enhanced policy coherence and interlinkages between the three dimensions of sustainable development to accelerate the implementation of the Sustainable Development Goals and transition toward environmentally sustainable economies and societies for all. The declaration[a] also aligns with the recommendations of the Regional Road Map for Implementing the 2030 Agenda for Sustainable Development[b] adopted at the 4th Asia–Pacific Forum on Sustainable Development in March 2017. Both documents identified critical areas for joint environmental action, and addressed sustainable and efficient natural resource management and resource use, ecosystems conservation and rehabilitation, and climate action.

[a] UNESCAP. 2018. *Ministerial Declaration on Environment and Development for Asia and the Pacific, 2017.* https://www. unescap.org/commission/74/document/E74_10A1E.pdf.

[b] UNESCAP. 2017. *Regional Road Map for Implementing the 2030 Agenda for Sustainable Development in Asia and the Pacific.* https://www.unescap.org/publications/regional-road-map-implementing-2030-agenda-sustainable-development-asiaand-pacific.

Source: Authors.

Countries often refer to integration in public statements and planning documents. Moreover, the Voluntary National Reviews—developed for reporting requirements on the SDGs at the annual High-level Political Forum on Sustainable Development (HLPF)—show some efforts to align existing development plans and priorities with the SDGs and the 2030 Agenda for Sustainable Development. However, the view is less encouraging below these surface-level assessments. At a global level, SDG activities appear to be a rebranding or repackaging of existing activities, suggesting a lack of additional action on integrating the environmental dimensions.

Part of the challenge for countries is that the widespread adoption of an integrated approach involves explicitly acknowledging how environmental and socioeconomic issues affect each other across multiple stages of decision-making (from planning through implementation, to monitoring and review). Furthermore, supporting integration of the environment into multistage decision-making processes will necessitate strengthening at least four key areas: (i) institutional architecture and leadership; (ii) enabling policies and regulatory frameworks; (iii) finance, capacity, and other MOI; and (iv) indicators, data, and monitoring and evaluation, where limited changes are seen at the global level.

Therefore, understanding the barriers to integration of the environmental dimensions of the SDGs in Asia and the Pacific is imperative. It is equally critical to appreciate how countries are overcoming these barriers through their own initiatives and with the support of decision-making tools, methods, and approaches designed by development partners and research institutes to help strengthen integration between the environmental and other dimensions.

Countries need not pursue integration on their own. ADB is one among several different development actors working on the SDGs in Asia and the Pacific. The United Nations Development Programme (UNDP), the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), and the United Nations Environment Programme (UN Environment), among others, are actively advancing mandates to support the implementation of the SDGs and/or the environmental dimensions of the SDGs. The SDGs have led to a proliferation of tools, methods, and approaches to aid integration, such as the UN Mainstreaming, Acceleration, and Policy Support Framework (MAPS) (Box 2) and the systems approach advocated by UNESCAP (Box 3). Many of these tools could help countries strengthen capacity in the four key areas mentioned above.

Box 2: United Nations Mainstreaming, Acceleration, and Policy Support Framework

In October 2015, the United Nations Development Group (UNDG) proposed a framework to help governments and other stakeholders integrate the Sustainable Development Goals (SDGs) into existing institutional structures at the national, subnational, and local levels. Toward these ends, the UNDG developed the Mainstreaming, Acceleration, and Policy Support Framework (MAPS). This is a planning and implementation initiative designed to ensure country-level interventions adopt a coherent approach to the SDGs. The mainstreaming component focuses on awareness raising as well as ensuring the core principles of the SDGs and the 2030 Agenda for Sustainable Development are reflected in national policy, planning, and budgetary processes. The acceleration component refers to analytical work on drivers and barriers to sustainable development. The policy support component consists of a well-designed approach to the advisory work provided by the United Nations Development Programme and other United Nations country teams to national governments.

MAPS

Mainstreaming	**Acceleration**	**Policy Support**
Landing the SDGs into national, subnational, and local plans for development, and shaping budget allocations	Targeting resources at priority areas, paying attention to synergies and trade-offs, bottlenecks, partnerships, measurement	Ensuring that skills and expertise of the United Nations development system are available in an efficient and timely way

PARTNERSHIP DEVELOPMENT: Channel additional support for national-level partnership development activities, including for parliaments, nongovernment organizations, faith-based groups, private sector, and the media.

ACCOUNTABILITY: Establishing monitoring and review frameworks to hold decision makers and the United Nations to account.

DATA: Contributing to the data revolution by helping strengthen national capacities to collect and analyze information to monitor progress on the 2030 Agenda for Sustainable Development and the SDGs.

MAPS = Mainstreaming, Acceleration, and Policy Support, SDG = Sustainable Development Goal.

Source: United Nations Development Group, 2015. *MAPS – Mainstreaming, Acceleration, and Policy Support Strategy for Post-2015 Implementation.*

Box 3: Systems Approach of the United Nations Economic and Social Commission for Asia and the Pacific

Support from the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) for a systems approach marks a recent advance in looking at the relationship between the environment and development. That thinking began to attract attention around a decade ago when the UNESCAP secretariat promoted the "green growth" approach to development. This was intended to bring environmental sustainability and eco-efficiency to the center of contemporary economic and development debates, and to demonstrate the environment is an essential component in development.[a] In addition, the green growth approach provided a framework for integrating the environmental, social, and economic dimensions of economic growth as a basis for achieving sustainable development (footnote a). At approximately the same juncture, the United Nations Environment Programme put its support behind the similar notion of the "green economy",[b] with both these concepts giving birth to greater support for the green industry and green jobs.[c]

Step 1 — Start with the end in mind. What is your vision for a sustainable future?
Step 2 — Identification of thematic priorities aligned with SDG profiles and the country's SDGs
Step 3 — Systems mapping at goal and target level
Step 4 — Identification of policy leverage
Step 5 — Formulation of integrated policy statements
Step 6 — Revisit system maps by adding SDG indicators, and mapping of institutions
Step 7 — Quantitative modeling of system relationships (causality and correlation statistical analysis)
Step 8 — Scenario planning
Step 9 — Adaptation pathways (plans)
Step 10 — Attracting impact investments and green financing schemes

SDG = Sustainable Development Goal.

Source: A. Karazhanova. 2018. Applying Integrated approaches to National Policy Making: The Sustainability Outlook of Mongolia [PowerPoint slides]. South-East Asia Subregional Training Workshop Integration of the SDGs in National Planning. 13 September 2018, United Nations Conference Centre, Bangkok. https://www.unescap.org/sites/default/files/Applying%20Integration%20in%20SOM.pdf

Since UNESCAP and the United Nations Environment Programme embraced these concepts, several countries in Asia and the Pacific have adopted green growth plans and green economy strategies. While the green growth and green economy approaches arguably did much to help non-environmentalists value the environment, they were also criticized for commodifying nature. This critique was further elaborated by some countries during the Rio+20 Conference in 2012, emphasizing that a green economy must necessarily be viewed in the context of poverty eradication and sustainable development.

Box 3 continued

With the Sustainable Development Goals (SDGs), discussions on integrating the environment reached new heights, prompting a reconsideration of the green growth and green economy approaches. An important catalyst behind this was when UNESCAP began working with countries to introduce a whole-systems approach to planning based on Donella Meadows Systems Thinking.[d] This approach offers both a theoretical perspective and a suite of tools that can help governments address their development challenges holistically. In providing a more holistic view, it has the potential to change mind-sets by convincingly demonstrating to decision makers that the whole is greater than the sum of its parts. Some of this work has been carried forward through a pilot on systems thinking in Mongolia (figure on preceding page) and on an integrated approach to SDG 6 on Clean Water and Sanitation. To help governments respond to the SDGs in a holistic and integrated manner, UNESCAP produced training modules on systems thinking and is promoting the approach regionally and globally at intergovernmental processes.[e]

[a] UNESCAP. 2012. *Low Carbon Green Growth Roadmap for Asia and the Pacific: Turning Resource Constraints and the Climate Crisis into Economic Growth Opportunities.* Bangkok. https://www.unescap.org/sites/default/files/Full-report.pdf

[b] Promoted by the United Nations Industrial Development Organization and International Labour Organization. The Economics of Ecosystems and Biodiversity (TEEB). 2010. *The Economics of Ecosystems and Biodiversity: Mainstreaming the Economics of Nature: A synthesis of the approach, conclusions and recommendations of TEEB.* http://www.teebweb.org/our-publications/teeb-study-reports/synthesis-report/

[c] United Nations Environment Programme. 2011. *Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication: A Synthesis for Policy Makers.* https://sustainabledevelopment.un.org/content/documents/126GER_synthesis_en.pdf

[d] D. Meadows. 2008. *Thinking in Systems: A Primer.* Vermont: Chelsea Green Publishing.

[e] UNESCAP. 2016. *Analytical Framework for Integration of Water and Sanitation SDGs and Targets Using Systems Thinking Approach.* http://sdghelpdesk.unescap.org/sites/default/files/2018-02/integration%20sdg6.pdf; UNESCAP. 2017. *Starting Implementation of the 2030 Agenda for Sustainable Development in the Asia-Pacific Region: A Focus on Integration and Environment and Development Issues. Note by the Secretariat.* Bangkok. https://www.unescap.org/commission/73/document/E73_17E.pdf

Source: Authors.

2 Environmental Dimensions of the Sustainable Development Goals

2.1 Background to the Environmental Dimensions of the Sustainable Development Goals

This chapter explains the environmental dimensions of the SDGs considered by the TA project. It also briefly summarizes the current status of the environmental dimensions of the SDGs in Asia and the Pacific, and provides an overview of ongoing regional activities aimed at catalyzing action on them.

2.2 Selected Environment-Related Goals and Targets

The SDGs were formulated as an indivisible set of goals and targets, with the environmental dimensions integrated into socioeconomic development plans. According to UN Environment, the "environmental dimensions" could refer to a total of 86 out of 169 targets that directly or indirectly seek to reduce environmental damage or emphasize the critical role of natural resources and ecosystem services in ensuring human well-being and prosperity.[12] For practical reasons, the TA project could not consider all of the 86 targets identified by UN Environment. Instead, it concentrates on SDGs 12, 14, and 15 and selected environment-related targets, determined to have a direct relationship with responsible consumption and production, and sustainable marine and terrestrial ecosystems management (Table 1), with the objective to support DMCs in strengthening their responses to these goals and targets. While some goals and targets are not featured, many others interact with those chosen. In some instances, these other goals and targets contribute positively or negatively to or offer a MOI for the environmental dimensions of the SDGs.

Table 1: Selected Environment-Related Targets Addressed by the Technical Assistance Project

2 ZERO HUNGER	3 GOOD HEALTH AND WELL-BEING	6 CLEAN WATER AND SANITATION	7 AFFORDABLE AND CLEAN ENERGY	8 DECENT WORK AND ECONOMIC GROWTH	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	11 SUSTAINABLE CITIES AND COMMUNITIES	17 PARTNERSHIPS FOR THE GOALS
2.4 2.5	3.9	6.3 6.4 6.5 6.6 6a	7.2 7.3 7b	8.4 8.9	9.4	11.4 11.6 11.7 11a 11b 11c	17.7

Source: Asian Development Bank.

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[12]   United Nations Environment Programme. 2016. *A Contribution to the Global Follow-Up and Review in the 2016 High-level Political Forum (HLPF) on the Work of the United Nations Environment Programme.* https://sustainabledevelopment.un.org/content/documents/10554UNEA%20inputs%20to%20the%20HLPF%202016%20(Final).pdf

Figure 3 illustrates the goals and targets selected for the TA project and their interaction with other goals and targets.

Figure 3: Technical Assistance Project Targets and Their Interlinkages

+ / −
effects

+ / −
effects

Selected
environment-
related SDGs
12, 14, 15

Selected environment-related targets (Table 1)

Other environmental dimensions of the SDGs, including SDG 13

Means of implementation
including selected environment-related targets
(Table 1)

SDG = Sustainable Development Goal.

Source: Asian Development Bank.

2.3 Sustainable Development Goal 12: Responsible Consumption and Production

SDG 12 on Responsible Consumption and Production covers a wide range of topics that could facilitate the decoupling of economic growth from natural resource use. Decoupling is much needed, as material footprints and domestic material consumption have increased globally. Decisions made now are locking in resource-intensive consumption and production patterns for generations. Country efforts will need to vary since material use efficiency tends to be higher in developed countries, but their total material consumption greatly exceeds that of developing countries. In Asia and the Pacific, this same general trend

holds, but with material consumption in developing countries rising sharply.[13] The region's 2.4 kilograms of materials per unit of gross domestic product (GDP) exceeds the global average,[14] while annual municipal solid waste for the region was estimated at around 870 million metric tons in 2014, accounting for 43% of the world total (footnote 14). In relation to No Hunger (SDG 2) and sustainable food production systems, estimates suggest that "15%–50% of fruits and 12%–30% of grains are lost between production and market."[15] Many economies in the Asia and Pacific region also generate a significant portion of their wealth by exporting food and other commodities to developed countries. The result can be that much of the region's environmental damage comes from the manufacture of products used outside of it.

Beyond general material consumption, SDG 12 focuses on chemicals and waste covered by several MEAs, notably the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, the Stockholm Convention on Persistent Organic Pollutants, and the Montreal Protocol on Substances that Deplete the Ozone Layer.[16] The issues covered under these MEAs appear to be gaining in salience with the number of signatories and countries regularly reporting data and information related to hazardous wastes, persistent organic pollutants, and ozone-depleting substances increasing over the past decade (Figure 4).

Figure 4: Number of Asia and the Pacific Countries That Are Party to International Agreements on Hazardous Waste and Other Chemicals
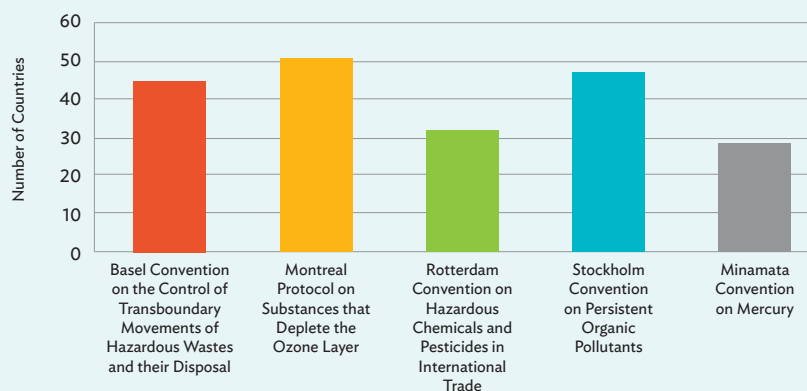
Source: United Nations Economic and Social Commission for Asia and the Pacific. 2018. *SDG12 Goal Profile.* https://www.unescap.org/sites/default/files/SDG%2012%20Goal%20Profile%20Final%20260218.pdf

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[13]   UNESCAP. 2016. *Analytical Framework for Integration of Water and Sanitation SDGs and Targets Using Systems Thinking Approach.* http://sdghelpdesk.unescap.org/sites/default/files/2018-02/integration%20sdg6.pdf

[14]   United Nations. 2016. *Progress Towards the Sustainable Development Goals.* United Nations Economic and Social Council. July. p. 28; United Nations Environment Programme. 2017. *Towards a Resource-Efficient and Pollution-Free Asia-Pacific Region. Ministerial Dialogue.* Bangkok. http://apministerialenv.org/document/MCED_UNEP_INF2E.pdf

[15]   UNESCAP, ADB, and UNDP. 2017. *Asia–Pacific Sustainable Development Goals Outlook.* https://www.adb.org/publications/asia-pacific-sdg-outlook

[16]   The following reference provides a more comprehensive discussion on the links between MEAs and the SDGs: United Nations Environment Programme. 2016. *Role of Multilateral Environmental Agreements (MEAs) in Achieving the Sustainable Development Goals (SDGs).* http://wedocs.unep.org/handle/20.500.11822/9966

The eight substantive targets of SDG 12 and their 10 corresponding indicators cover issues that relate to lifestyles and behavior generally, and chemicals and waste specifically. These include targets on promoting universal understanding of sustainable lifestyles (12.8); promoting sustainable public procurement practices (12.7); encouraging companies to adopt sustainable practices and sustainability reporting (12.6); substantially reducing waste generation (12.5); responsible management of chemicals and wastes, significantly reducing releases to air, water, and soil (12.4); and halving global per capita food waste (12.3). All these targets aim to achieve the sustainable management and efficient use of natural resources by 2030 (12.2) and implementation of the 10-Year Framework of Programmes (10YFP) on Sustainable Consumption and Production (12.1). The 10YFP, adopted at Rio+20 Conference in 2012, is designed to develop, replicate, and scale up sustainable consumption and production (SCP) and resource efficiency initiatives at the regional and national levels, while decoupling environmental degradation and resource use from economic growth.

Since it focuses on the environmental impacts of economic activity, many interlinkages exist between SDG 12 and other goals and targets (Figure 5). Achieving SDG 12 will require collaboration across sectors and a strong national framework integrated into sector policies and plans, business practices, and consumer behavior. This will further necessitate adherence to international hazardous waste and chemical management norms.[17]

SDG 12 has three targets (12a, 12b, and 12c) and three corresponding indicators for MOI. These focus on supporting developing countries' scientific and technological capacity for SCP (12a), developing and implementing tools to monitor sustainable tourism (12b), as well as removing market distortions that encourage wasteful consumption (12c). Beyond this, an important MOI is encouraging the general public to become more knowledgeable of the impacts of their material consumption, as much can also be achieved by changing personal attitudes toward material use and waste generation.

SDG 12 was reviewed at the HLPF in 2018 (Box 4). At the regional level, the 2018 Asia–Pacific Forum on Sustainable Development (APFSD) engaged member states and other stakeholders on regional and subregional perspectives related to SDG 12. It was found that even though there was some progress on sustainable public procurement practices, sustainability reporting, and responsible management of chemicals and waste, overall, the region was not on track to achieve SDG 12 by 2030. Particular areas identified as requiring more attention include natural resource use, waste generation, consumer information and awareness raising, as well as sustainable tourism and removing fossil fuel subsidies.[18]

2.4 Sustainable Development Goal 14: Life below Water

SDG 14 on Life below Water addresses a set of problems becoming increasingly serious for reasons related to their direct impacts and the indirect stresses they place on the environment. For example, ocean acidification, overfishing, and marine pollution and eutrophication are resulting in deterioration of coastal and marine ecosystems. In fact, data on marine ecosystems is of particular concern. Some global reports show an estimated 40% of the world's oceans are heavily affected by human activities, ranging from pollution to depleted fisheries to loss of coastal habitats (footnote 15). In addition, plastic pollution

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[17]   United Nations Economic and Social Council. 2017. *Progress towards the Sustainable Development Goals: Report of the Secretary-General.* New York. https://unstats.un.org/sdgs/files/report/2017/secretary-general-sdg-report-2017--EN.pdf

[18]   International Institute for Sustainable Development. 2018. *APFSD Bulletin.* 208 (22). http://enb.iisd.org/download/pdf/sd/enbplus208num22e.pdf

Figure 5: Visualization Map of the Interlinkages between Sustainable Development Goal 12 and Other Sustainable Development Goals
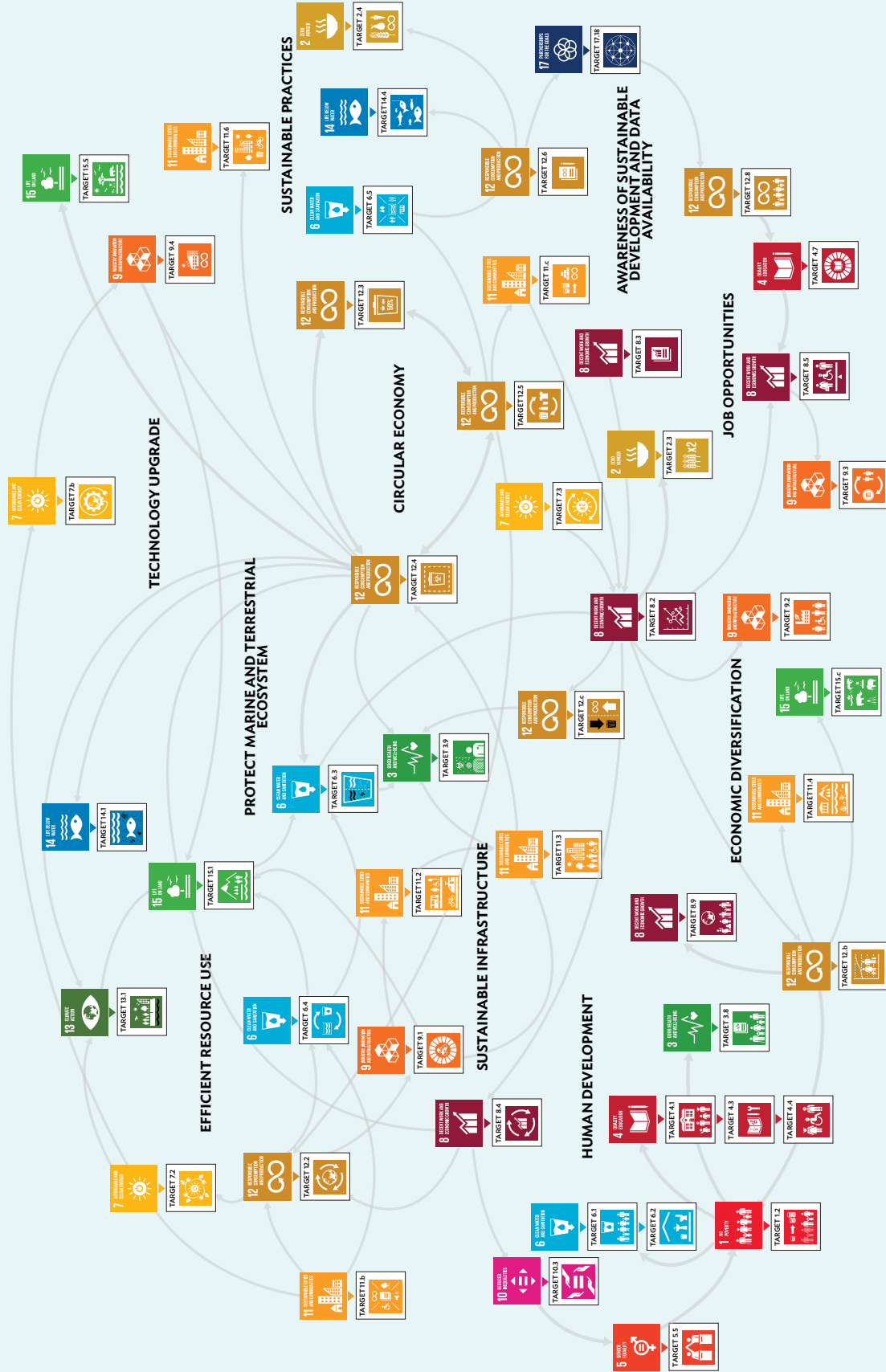
Note: This figure is intended for illustrative purposes only and does not reflect all possible interlinkages between the presented SDG targets.

Source: United Nations Economic and Social Commission for Asia and the Pacific. 2018. *Visualisation map of the interlinkages between SDG 12 and the other SDGs.* https://www.unescap.org/sites/default/files/Visualisation%20of%20interlinkages%20for%20SDG%2012.pdf

in oceans is a sizable problem now garnering needed attention.[19] Of the 63 large marine ecosystems evaluated under the Transboundary Waters Assessment Programme, 16% are in the "high" or "highest risk" categories for coastal eutrophication, while the proportion of global marine fish stocks within biologically sustainable levels declined from 90% in 1974 to 68.6% in 2013 (footnote 17). Recent reports find that about 85% of global fish stocks are fully fished, overfished, or have collapsed (footnote 15). While the geographic extent of marine-protected areas increased by roughly sevenfold from 2000 to 2014, the area coverage still falls below the Convention on Biological Diversity (CBD) Aichi Target 11 of 10% for coastal and marine areas.[20]

Several MEAs directly or indirectly address SDG 14 (footnote 16). The more direct links can be seen in the CBD, the Convention on International Trade in Endangered Species of Wild Flora and Fauna, the Convention on the Conservation of Migratory Species of Wild Animals, and the Regional Seas Conventions and Action Plans. MEAs indirectly relevant to SDG 14 include the United Nations Framework Convention on Climate Change (UNFCCC) and the hazardous waste and chemical conventions listed under SDG 12.

SDG 14 has seven substantive targets and seven corresponding indicators that collectively aim to preserve the health and well-being of marine ecosystems. There are references to interventions to increase the economic benefits from the sustainable use of marine resources (14.7), and the ending of subsidies contributing to overfishing (14.6). There are also targets on the conservation of coastal and marine areas (14.5), sustainable fishing (14.4), and the reduction of ocean acidification (14.3). Lastly, there are targets to protect and restore marine ecosystems (14.2), and to reduce marine pollution (14.1).

The three targets (14a, 14b, and 14c) and three corresponding indicators for MOI of SDG 14 focus on increasing scientific knowledge, research, and technology for ocean health (14a); support for small-scale fishers (14b); as well as implementing and enforcing international legal frameworks, such as the UN Convention on the Law of the Sea (14c).

SDG 14 was reviewed at the HLPF in 2017, revealing that, while the challenges captured in this SDG are well recognized, limited human and financial resources for implementation and monitoring, data availability and gaps in data, unclear institutional arrangements and regulations, and a lack of interagency coordination are among the barriers to its successful implementation.[21] At the regional level, the 2017 APFSD held sessions that reaffirmed the socioeconomic contribution of seas and coastal ecosystems. Challenges to protecting these ecosystems include climate-induced ocean acidification, overfishing, pollution, invasive species introduction, and habitat loss. Many of these challenges are not naturally occurring, but arise from poor sector management practices. Moreover, limited knowledge and transfer of marine technology are threatening ocean health, with serious harmful and irreversible consequences.[22] Seabed mining also represents a major and expanding source of concern in the Pacific. These findings are even more disconcerting in the Asia and Pacific region since many marine-protected areas remain largely "paper parks."[23]

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[19]   United Nations Environment Programme. 2017. *Towards a Resource-Efficient and Pollution-Free Asia-Pacific Region.* Bangkok. http://apministerialenv.org/document/MCED_UNEP_INF2E.pdf

[20]   Convention on Biological Diversity. 2013. *Quick Guides to the Aichi Biodiversity Targets: Protected Areas Increased and Improved (Target 11).* Montreal: Secretariat of the Convention on Biological Diversity. https://www.cbd.int/doc/strategic-plan/targets/compilation-quick-guide-en.pdf

[21]   United Nations Department of Economic and Social Affairs. 2017. *Synthesis of Voluntary National Reviews 2017.* p. 78.

[22]   UNESCAP. 2017. Fourth Asia-Pacific Forum on Sustainable Development: Assessment of the Progress in Implementation of SDGs at the Regional Level. *Reports of the Round Tables on Sustainable Development Goals 1, 2, 3, 5, 9 and 14 Organised under Agenda Item 2(b) Assessment of the Progress in Implementation of SDGs at the Regional Level.* https://www.unescap.org/sites/default/files/pre-ods/EESCAPFSD%284%29CRP1_0.pdf

[23]   UNESCAP. 2017. Starting Implementation of the 2030 Agenda for Sustainable Development in the Asia-Pacific Region: A Focus on Integration and Environment and Development Issues. *Note by the Secretariat.* Bangkok. https://www.unescap.org/commission/73/document/E73_17E.pdf

2.5 Sustainable Development Goal 15: Life on Land

In many ways, SDG 15 on Life on Land attempts to achieve similar objectives to SDG 14, but with a focus on terrestrial ecosystems. Terrestrial ecosystems are linked to almost all the SDGs because they provide a basis for many essential goods and services (Figure 6). Protecting these land-based ecosystems is crucial. There are some encouraging signs, such as the increasing proportion of protected areas globally from 16.5% in 2000 to 19.3% in 2016, and a slowing in the rate of deforestation due to a balance between land conversion for agriculture, and food production and forest restoration efforts. Nonetheless, this figure still falls short of internationally agreed targets.[24] Further, while official development assistance earmarked for biodiversity increased, loss of land productivity, loss of biodiversity, and poaching and trafficking of wildlife remain serious issues to be dealt with under SDG 15.

Recent reports suggest the continued supply of ecosystem services is increasingly at risk in the Asia and Pacific region. For example, in 2015, the region's share of protected terrestrial areas was 15.3%,[25] below the 17% in the global Aichi Biodiversity Targets. Moreover, overall forest loss remains an issue in many countries. This is largely caused by land use change and natural resource demand within and beyond the region. Since the turn of the millennium, around 158,862 square kilometers of natural forest area were lost in Southeast Asia alone, and progress on the CBD Aichi Targets is insufficient to make up for this loss (footnote 23). Moreover, the protection of forest areas and reduction in their degradation also weakened since 2015, following a period from 2000 to 2015 where the region lost natural forest area three times the area of Denmark (footnote 15). In halting biodiversity loss, the region is regressing at a worrying scale and pace.

Comparable to the other environment-related goals, several MEAs are designed to reverse the above trends (footnote 16). The MEAs directly related to SDG 15 include the CBD, the Convention on International Trade in Endangered Species of Wild Flora and Fauna, the Convention on the Conservation of Migratory Species of Wild Animals, the Convention on Wetlands of International Importance especially as Waterfowl Habitat, the International Treaty on Plant Genetic Resources for Food and Agriculture, the Convention Concerning the Protection of the World Cultural and Natural Heritage, and the International Plant Protection Convention. The UNFCCC, the UN Convention to Combat Desertification, and the hazardous waste and chemical conventions listed under SDG 12 are also relevant to SDG 15.

SDG 15 has nine substantive targets and 11 corresponding indicators to monitor progress. These focus on integrating ecosystems and biodiversity into governmental planning (15.9), preventing invasive alien species on land and in water ecosystems (15.8), eliminating poaching and trafficking of protected species (15.7), promoting access to genetic resources and fair sharing of the benefits (15.6), protecting biodiversity and natural habitats (15.5), ensuring the conservation of mountain ecosystems (15.4), ending desertification and restoring degraded land (15.3), and ending deforestation and restoring degraded forests (15.2). All these targets contribute to ensuring the conservation and restoration of terrestrial and freshwater ecosystems in line with existing commitments under international agreements (15.1).

SDG 15 has three MOI targets (15a, 15b, and 15c) and three corresponding indicators addressing increasing financial resources to conserve and sustainably use ecosystems and biodiversity (15a), financing and incentivizing sustainable forest management (15b), and combating global poaching and trafficking (15c).

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[24] United Nations. 2016. *Progress Towards the Sustainable Development Goals.* United Nations Economic and Social Council. https://unstats.un.org/sdgs/files/report/2016/secretary-general-sdg-report-2016--en.pdf

[25] UNESCAP. 2014. *Statistical Yearbook for Asia and the Pacific 2014.* Bangkok. https://www.unescap.org/publications/statistical-yearbook-asia-and-pacific-2014

Figure 6: Visualization Map of the Interlinkages between Sustainable Development Goal 15 and Other Sustainable Development Goals

Note: This figure is intended for illustrative purposes only and does not reflect all possible interlinkages between the presented SDG targets.

Source: United Nations Economic and Social Commission for Asia and the Pacific. 2018. *SDG 15 Goal Profile.* https://www.unescap.org/sites/default/files/SDG%2015%20Goal%20Profile.pdf

SDG 15 was reviewed at the HLPF in 2018 (Box 4). At the regional level, the 2018 APFSD engaged member states and other stakeholders to focus on regional and subregional dimensions of SDG 15. Pertinent highlights were the need to clarify land tenure arrangements, the untapped potential of diverse forms of knowledge to support ecosystem-based management, as well as the need to better mainstream biodiversity conservation across government, including in sectors not directly concerned with SDG 15 (footnote 18).

2.6 Selected Environment-Related Targets of Other Sustainable Development Goals

Many other environment-related targets can be found across the 169 targets of the SDGs. The TA project focuses on 15 additional substantive targets related to SDG 2 on Zero Hunger; SDG 3 on Good Health and Well-Being; SDG 6 on Clean Water and Sanitation; SDG 7 on Affordable and Clean Energy; SDG 8 on Decent Work and Economic Growth; SDG 9 on Industry, Innovation, and Infrastructure; and SDG 11 on Sustainable Cities and Communities (Appendix 1). It also considers one MOI target under SDG 17 on Partnerships for the Goals (and five MOI targets from SDGs 6, 7, and 11 that directly relate to responsible consumption and production, and sustainable marine and terrestrial ecosystems management). Certainly, the links between the environment, and the social and economic aspects of the SDGs extend well beyond the above list of selected environment-related targets. However, the need to draw the line somewhere led to the TA project focusing on implementation of these targets as well as SDGs 12, 14, and 15.

The selected environment-related targets included target 2.4 because it focuses on sustainable food production and resilient agricultural practices. As of 2017, only 1.1% of global agricultural land was organic, suggesting ample scope for improvement.[26] Target 2.5 was considered as it focuses on maintaining the genetic diversity in food production. It requires the management of both wild and farmed plants and species, as well as fair and equitable sharing of benefits derived from access to genetic resources as referenced in the Nagoya Protocol.[27] These concerns are central to the sustainable use of natural resources under SDGs 14 and 15, and biodiversity's contributions to health, well-being, and livelihoods.

Target 3.9 on reducing illness and death from hazardous chemicals and pollution was considered due to the link between chemicals and air, water and soil pollution, and health. Environmental pollution is by far the largest environmental cause of deaths and illnesses both globally and in the Asia and Pacific region.[28]

Continuing with progress made in the MDG era, SDG 6 remains a priority for the Asia and Pacific region, which in 2012 still had almost 1.7 billion people without access to improved sanitation.[29] Target 6.3 on improving water quality, wastewater treatment, and safe reuse is important for the region for two reasons. First, it is estimated that close to 90% of generated wastewater, especially in developing countries, is discharged directly into water bodies only partially treated or without any treatment (footnote 29). Second, there is scope for exchange of knowledge and technology to help improve the situation. Target 6.4 focuses on increasing water use efficiency and ensuring freshwater supplies. While much progress

[26]   J. Lernoud and H. Willer. 2017. *The World of Organic Agriculture 2017: Summary, The World of Organic Agriculture, Statistics, and Emerging Trends.* https://shop.fibl.org/CHen/mwdownloads/download/link/id/785/?ref=1

[27]   Secretariat to the Convention on Biological Diversity. 2011. *Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity. Text and Annex.* Montreal. https://www.cbd.int/abs/

[28]   P. Das and R. Horton. 2017. Pollution, Health, and the Planet: Time for Decisive Action. *The Lancet.* 19 October. https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(17)32588-6/fulltext; The Energy and Resources Institute. 2015. *Air Pollution and Health. Discussion Paper.* pp. 1–21. http://www.teriin.org/projects/teddy/pdf/air-pollution-health-discussion-paper.pdf.

[29]   Japan Sanitation Consortium et al. 2018. Regional Report Asia-Pacific. *Asia Pacific Water Forum.* March. pp. 1-63.

was made under the MDGs, subregional challenges persist, especially in the developing countries of South Asia and East Asia.[30] This challenge is closely linked with targets 6.5 on implementing integrated water resources management; 6.6 on protecting and restoring water-related ecosystems; as well as 6a (an MOI target) on expanding water and sanitation support to developing countries, including water harvesting, desalination, water efficiency, wastewater treatment, and recycling and reuse technologies.

Countries in Asia and the Pacific produce more than 30% of global GDP, but consume more than half of the global energy supply. Additionally, in 2014, the Asia and Pacific region produced 55% of global greenhouse gas emissions from fossil fuel combustion with nearly two-thirds coming from coal.[31] Shortsighted investments in building design and power generation could lock in fossil fuel-intensive consumption and production patterns for generations. Links between energy and the environment are reflected in target 7.2 on increasing the global share of renewable energy. Despite its increasing competitiveness compared to fossil fuels, recent data shows that modern renewables only contributed just over 10% of total final energy consumption in 2016,[32] leaving considerable room for growth if the UNFCCC Paris Agreement targets are to be met. This is linked to target 7.3 on doubling the rate of improvements in energy efficiency; and target 7b (a MOI target) on expanding and upgrading energy services for developing countries, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promoting investment in energy infrastructure and clean energy technology. These are all areas where progress or a lack of it can have a significant impact on the environment.

Focusing on industry, innovation, and infrastructure, there exists significant room for improvement for target 8.4 on improving resource efficiency in consumption and production, and endeavoring to decouple economic growth from environmental degradation.[33] Target 8.9 on promoting beneficial and sustainable tourism reflects the linkages between biodiversity and economy, and could have either positive or negative impacts on the environment.

Urban livelihoods require goods and services produced by the environment, while cities have environmental impacts that need to be managed. Target 11.4 was considered due to its focus on the protection of the world's cultural and natural heritage. Target 11.6 on reducing the environmental impact of cities through a focus on waste management is especially relevant for the Asia and Pacific region as it houses more than half of the world's urban population.[34] Target 11.7 on providing access to safe and inclusive green and public spaces was also considered due to its ambition to increase the ratio of green public spaces in a socially equitable context. The MOI target 11a on strong regional and national development planning, requiring a strengthening of environmental links between rural, peri-urban, and urban areas in urban planning, was considered due to the importance of goods and waste flows from and to cities; while target 11b implementing policies for inclusion, resource efficiency, and disaster risk reduction was considered due to its focus on integrated planning to improve resource efficiency and others. Target 11c on financial and technical support to least developed countries in building sustainable

30   United Nations World Water Assessment Programme. 2015. *Water for a Sustainable World.* http://www.unesco.org/new/en/natural-sciences/environment/water/wwap/wwdr/2015-water-for-a-sustainable-world/

31   The Asian and Pacific Energy Forum and UNESCAP. 2017. *Asia-Pacific Progress in Sustainable Energy.* https://www.unescap.org/publications/asia-pacific-progress-sustainable-energy-global-tracking-framework-2017-regional

32   REN21. 2017. *Advancing the Global Renewable Energy Transition: Highlights of the REN21 Renewables 2017 GSR in Perspective.* http://www.ren21.net/wp-content/uploads/2018/06/180603_GSR_2018_Highlights_D_2.pdf

33   UNESCAP. 2018. *Assessment of Progress in the Implementation of Sustainable Development Goals 6, 7, 11, 12, 15, and 17 at the Regional Level. Note by the Secretariat.* https://www.unescap.org/sites/default/files/APFSD5_INF1E_0.pdf

34   UNESCAP 2017. *Urbanization and sustainable development in Asia and the Pacific: linkages and policy implications. Note by the Secretariat.* Bangkok. 7 March 2017. https://www.unescap.org/commission/73/document/E73_16E.pdf

and resilient buildings using local materials was included since urbanization plays an increasingly important role for the sustainability of the Asia and Pacific region.

Finally, target 17.7 on promoting sustainable technologies to developing countries was included due to its focus on the transfer of environmentally sound technologies.

2.7 Sustainable Development Goal 13: Climate Action

SDG 13 on Climate Action is a significant issue and clearly a factor in environmentally sustainable growth, particularly in many countries in the Asia and Pacific region which are at risk from climate change impacts. Climate change has many interlinkages with SDGs 12, 14, and 15, for example, through support for climate change mitigation that also reduces air pollution, and ecosystems-based adaptation. These links notwithstanding, the TA project did not focus on SDG 13. This is the most obvious environmental dimension not covered in the stocktake, but this decision was made since the UNFCCC Paris Agreement and other initiatives are already leading to sufficient financial and other resources flowing to climate change. Furthermore, the risk that countries will neglect SDG 13 is far less than for the other environmental dimensions, although addressing many of the selected environment-related targets would have considerable benefits for the objectives of SDG 13 as well.

2.8 Progress on the Environmental Dimensions of the Sustainable Development Goals in Asia and the Pacific

The region with arguably the greatest need for strengthening national responses to SDGs 12, 14, and 15 is Asia and the Pacific. This need reflects that the region's exceptional growth has come at steep environmental costs. For example, in 2015, the region accounted for 50% of global domestic material consumption and 55% of global material footprint, but only 32% of global GDP.[35] Similarly, troubling signs can be seen in findings that 100 of the world's most polluted cities are in Asia and the Pacific (footnote 15). Meanwhile, the Environmental Performance Index, a well-recognized composite measure of the management of a range of environmental issues, echoes a comparable theme in suggesting Asia and the Pacific ranks second lowest globally, next to Africa (Figure 7).[36]

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[35] UNESCAP. 2017. Sustainable Management of Natural Resources in Asia and the Pacific: Trends, Challenges and Opportunities in Resource Efficiency and Policy Perspectives. *Economic and Social Council.* http://apministerialenv.org/document/MCED_2E.pdf
[36] Environmental Performance Index (EPI). 2018. *2018 EPI Report.* https://epi.envirocenter.yale.edu/2018/report/category/hlt

Figure 7: Average Environmental Performance Index Values by Region
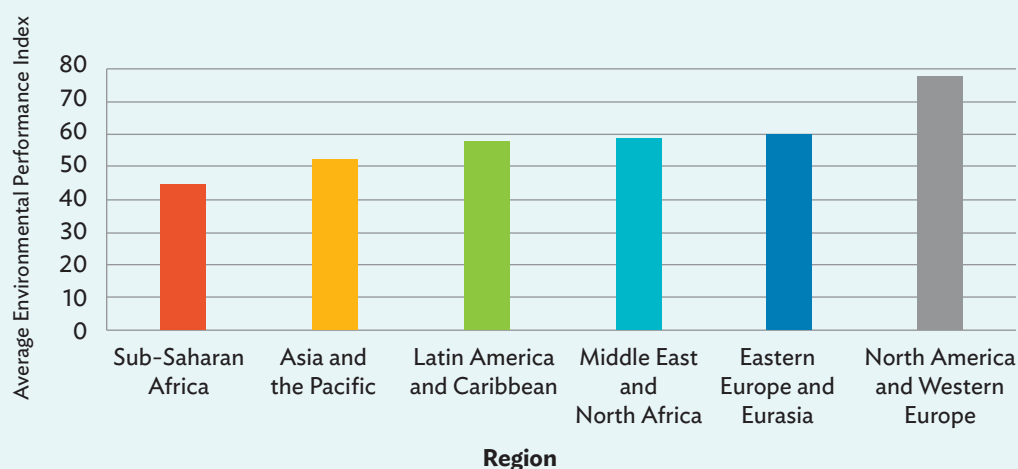
Note: The graph presents regional averages for the Environmental Performance Index (EPI). The EPI is a long-running initiative that attempts to quantify the performance of countries across 10 environment-related issue categories constructed from 24 indicators. Scores are given to countries based on their overall performance across these categories. In 2018, the scores ranged from 27 (minimum) to 87 (maximum). Among the 15 Asian Development Bank developing member countries considered in this stocktake, the scores range from 25 (minimum) to 53 (maximum).

Source: Environmental Performance Index (EPI). 2018. *2018 EPI Report*. https://epi.envirocenter.yale.edu/2018/report/category/hlt

Reviews of progress on SDGs 12, 14, and 15 tell a similar story. UNESCAP tracks the status of implementation of the SDGs in the region through regular reports and its annual APFSD. Figure 8 shows that while some of environment-related goals and targets have made progress globally, the Asia and Pacific region has performed poorly. Further, a fundamental problem in assessing progress is incomplete data. For environmental issues, only 15% of the needed data was available to determine the current status for SDG 12; no data (except proxies) was available for SDG 14; and only 36% of the needed data was available for measuring progress on SDG 15.[37]

The Second Forum of Ministers and Environment Authorities of Asia Pacific, in September 2017 in Bangkok, Thailand, reiterated the region's need to promote sustainable consumption and production, and resource efficiency to combat pollution; and the need for enhanced environmental cooperation at regional and national levels, including through the Association of Southeast Asian Nations (ASEAN) and the ADB's Core Environment Program for the Greater Mekong Subregion, and through the UN Environment Sub-regional Office for the Pacific. In addition to this, the forum also reaffirmed a strong commitment to deal with the growing problem of marine debris and plastics pollution, and the sound management of chemicals and waste in the context of the region's rapid industrialization.

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[37]   UNESCAP. 2017. *Asia and the Pacific SDG Progress Report 2017*. Bangkok. https://www.unescap.org/publications/asia-and-pacific-sdg-progress-report-2017

Figure 8: Snapshot of Sustainable Development Goals Progress in Asia and the Pacific
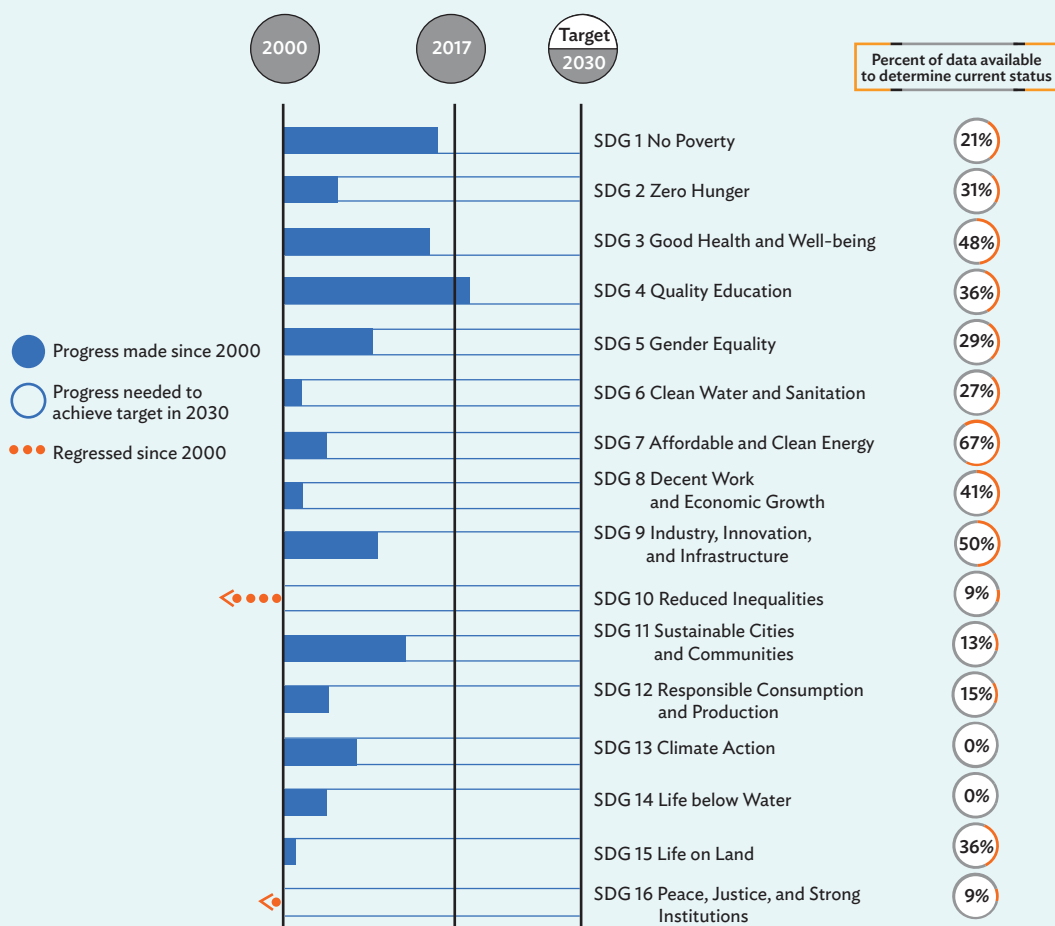
Source: United Nations Economic and Social Commission for Asia and the Pacific. 2017. *Asia and the Pacific SDG Progress Report 2017*. Bangkok. https://www.unescap.org/publications/asia-and-pacific-sdg-progress-report-2017

2.9 Asia and the Pacific Regional Initiatives

The SDGs offer countries in the region an opportunity to reverse many of the above trends and take a more sustainable development course. Many regional initiatives focus on the SDGs' environmental dimensions. Many of these initiatives have a legacy—i.e., work has been ongoing since before the 2030 Agenda for Sustainable Development was defined—but with the introduction of the SDGs, many regional partners are aligning their programs to identify points of convergence or adopting new initiatives to address them.

The Poverty-Environment Initiative (PEI) is a joint initiative of UNDP and UN Environment that has worked on promoting an integrated approach to environment and development since its creation in 2005. Nine countries in this region have been involved in one or more PEI projects. These projects

Box 4: The 2018 High-level Political Forum on Sustainable Development

In July 2018, many government officials and leading thinkers converged at the United Nations in New York for the annual High-level Political Forum on Sustainable Development (HLPF). The HLPF is held once a year to offer countries, businesses, nongovernment organizations, and other stakeholders a chance to collectively review progress on several select Sustainable Development Goals (SDGs) and broader themes under the 2030 Agenda for Sustainable Development. The HLPF in 2018 was particularly relevant to the stocktake because it focused on reviewing progress on SDGs 12 and 15, as well as many of the selected environment-related targets under SDGs 6, 7, and 11. The results of the nearly two weeks of meetings echoed many of the findings underlined in this report. A parallel between the report's findings and points of emphasis at HLPF is that, thus far, overall progress on the SDGs in the Asia and Pacific region has fallen far short of expectations. To date, the only area where countries appear to be making sufficient headway in the region is education. Many of the environment-related goals and targets are not far enough along—or there is still insufficient information to judge progress. The main reason for the limited information to assess progress is data remains a significant hurdle. Throughout a series of thematic sessions on SDGs 12 and 15, as well as other related areas, the absence of quality data was referenced as an impediment. Similar sentiments were expressed when observers pointed to financing for data collection and management as a critical need area. When it came to the actual reviews of SDGs 12 and 15, there were also similarities to the findings in this report. In both cases, there were good practices and worthwhile experiences—for instance, through the formulation and promulgation of green public procurement or eco-labeling measures. However, the broader institutional and structural changes needed to advance more holistic approaches within SDGs 12 and 15 and linkages with other goals and targets appear to be lacking.

Source: Authors.

aimed to improve people's livelihoods as well as increase their resilience to natural hazards and climate change impacts by offering financial and technical support (Box 5). Other relevant initiatives in the region include the recently formed UNESCAP SDG-Helpdesk, a platform that consists of a knowledge hub, data portals, communities of practice, as well as toolboxes that can be useful for planning and implementation of the SDGs, including their environmental dimensions. A third set of activities are supported by the United Nations Environment Programme's Finance Initiative, a partnership between UN Environment and the global financial sector to promote sustainable finance. The partnership brings together more than 200 financial institutions, including private banks, insurers, and investors, to address environment, social, and governance issues. It regularly convenes and produces guidelines and reports to improve the management of investments in natural resources to ensure social and environmental safeguards; sustainable finance road maps; and national sustainable finance forums, green bond guidance, and private bank lending guidance, among others.[38]

Many organizations, such as the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), the Japan International Cooperation Agency, the Korea International Cooperation Agency, and the Global Green Growth Institute are also active on the SDGs generally, and their environmental dimensions specifically. The European Union and other aforementioned organizations provide assistance and fund projects related to the environmental dimensions of the SDGs, including Ridge to Reef, REDD+, and SWITCH-Asia. The Partnerships in Environmental Management for the Seas of East Asia is working on SDG 14 in the Philippines and other parts of Asia and the Pacific.

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[38]   United Nations Environment Programme. 2018. *UNEP Statement of Commitment by Financial Institutions on Sustainable Development.* http://www.unepfi.org/about/unep-fi-statement/

Research institutions are also helping countries to make inroads on the SDGs, including developing models that help decision makers envision an integrated approach. Examples include the Millennium Institute's Integrated Sustainable Development Goals model examining the effects of multiple scenarios on the SDGs; the Institute for Global Environmental Strategies Interlinkages and Data Visualization Tool; and the Stockholm Environmental Institute's model on the degree of synergies and trade-offs in applied policy settings. Meanwhile, institutions such as the Global Reporting Initiative are focusing on SDG 12.6 as a way to promote sustainability reporting from companies.

Box 5: Lessons Learned from the Poverty-Environment Initiative

For more than a decade, the Poverty-Environment Initiative (PEI) has strategically engaged core development ministries and agencies to internalize environmental and social sustainability issues. Over this period, it has also sought to strengthen countries' own systems for public policy, planning, and budgeting, applying flexibility to suit the country-specific poverty–environment context. The PEI has found that integrated planning, budgeting, and investment management is possible under the right conditions, paving the way for increasingly integrated approaches to planning and budgeting for the sustainable development goals implementation. Key lessons learned are:

- Planning and budgeting ministries and agencies need to be engaged to mainstream poverty-environment actions.
- Poverty–environment advice needs to be framed in economic language to draw interest from development policy makers.
- Inputs should focus on strengthening already existing planning and budgeting systems, and avoid introducing new systems which are not familiar.
- Local governments require a mandate to be involved in integrated planning and budgeting at local levels.
- A lopsided focus on process-oriented activities may not work at the local government level, due to insufficient knowledge and understanding, and lack of capacity to coordinate cross-sector issues.
- Citizen awareness and empowerment are vital for ensuring that environmental issues are addressed at the local level.
- There is a need to understand and be able to respond to differing national and local contexts in meeting countries' poverty-environment needs, flexibility is essential, and prescriptive approaches should be avoided.
- Budget allocations at national level need to be informed by the benefits derived from allocating expenditure to environment and climate change.
- The environmental dimensions of the poverty-environment nexus still need to be better defined, measured, and understood to create convincing arguments for the social benefits deriving from pro-environmental policies.
- Trade-offs and synergies between social, environmental, and sector development priorities need to be better understood.
- In undertaking budget and expenditure reviews, it is better to direct resources toward data collection and use standardized approaches.

The PEI produced a compendium of tools to address environmental and social concerns, grouping them under four main headings: (i) integration, (ii) investments, (iii) institutions, and (iv) information. It has just launched a new phase focusing on poverty–environment action for the Sustainable Development Goals.

Source: PEI Asia–Pacific. 2018. *Asia and the Pacific PEI Regional Support Programme, 2018.* http://www.unpei.org/asia-and-the-pacific-pei-regional-support-programme

3 Stocktake Objectives and Methods

3.1 Stocktake Objectives

The previous chapters concluded that it is important to examine progress with and identify challenges to implementing the environmental dimensions of the SDGs in Asia and the Pacific. This chapter sets out the methodology that the TA project adopted to take stock of 15 national responses to SDGs 12, 14, and 15, and selected environment-related targets (Table 1). The stocktake aimed to answer four questions:

(i) Which of the selected environment-related goals and targets are priorities for DMCs in the region?

(ii) What are the main issues, challenges, and barriers to DMCs leveraging the SDGs to effectively address their existing and emerging environmental issues and priorities?

(iii) What activities have DMCs already initiated to address the SDGs and their environmental dimensions?

(iv) How can the international development and environment communities help DMCs in the region overcome barriers and expand promising practices?

3.2 Country Selection

To answer these questions, the TA project developed national profiles for 15 stocktake countries (Table 2). To choose which DMCs to include, interviews were conducted with approximately 50 experts from ADB and regional partners. The following criteria were considered in determining which among the 40 ADB DMCs would be involved in the stocktake:

(i) geographic balance and representation,

(ii) potential needs (including ADB operational relevance),

(iii) overall SDG readiness,

(iv) ongoing work on the selected environment-related goals and targets,

(v) interest in working with the TA project, and

(vi) upcoming voluntary national review.

Among the criteria, geographic representation was weighted heavily to ensure there was a spread of DMCs across the ADB regions. Other criteria were given roughly equal weight, so the stocktake was reflective of DMCs beginning to respond to the SDGs, as well as countries further ahead that could share their experiences with others.

Table 2: Countries Selected for the Stocktake

Small Island States and Pacific Islands	Southeast Asia	South Asia	East, Central, and West Asia
Fiji Samoa Timor-Leste	Cambodia Indonesia Lao People's Democratic Republic Philippines Viet Nam	Bangladesh Bhutan Nepal Sri Lanka	China, People's Republic of (PRC)[a] Kazakhstan Mongolia

[a] The PRC was included for rounds 1 and 2 of the stocktake; a national profile was developed, but in-country interviews were not undertaken, thus, the survey-related results presented in this report exclude the PRC.

Source: Asian Development Bank.

3.3 Development of National Profiles

The 15 national profiles were established following roughly the same steps, with some variation based on information availability and participation of DMCs in in-country interviews. Beyond available information and interview participation, another factor adding to the variation was some DMCs have not yet clearly delineated where institutional arrangements for SDGs, in general, differ from arrangements for implementing the environmental dimensions, in particular. Key environmental issues were identified based on a predefined list of common environmental issues reflected in SDGs 12, 14, and 15, as well as the selected environment-related targets. With these caveats in mind, the national profiles of the 15 selected DMCs were developed using the thematic headings and foci shown in Table 3 as an outline.

Table 3: Issues Considered in Establishing National Profiles

Thematic Headings	Focus
Socioeconomic background	• High-level data to provide the country context, including population, economic performance, Human Development Index, Environmental Performance Index, and Gini coefficient
Key environmental issues	• Overview of the state of the environment with respect to pollution, energy, water and sanitation, solid waste, hazardous waste management, pesticide use, land and soil, forest cover, threatened species, marine ecosystems and wetlands, fisheries, other issues, and governance
Country and the SDGs	• Country's overall approach to the SDGs • Overarching policy and planning documents • Institutional arrangements • Voluntary national review (if any)

Country and the environmental dimensions of the SDGs	• Status of and progress with respect to implementation of:
	  » SDGs 12, 14, and 15
	  » Selected environment-related targets
	• Policy and plans in related sector or thematic areas
	• Tools and methods used in policy and planning
	• Environmental indicators and review mechanisms
	• Environment-related policy frameworks (laws and regulations)

Table 3 continued

Thematic Headings	Focus
Implementation arrangements for the environmental dimensions of the SDGs	• Institutional arrangements • Budgeting and financing arrangements • Relevant initiatives and partnerships
Tools to promote integration	• Familiarity with tools to promote integrated approaches
Additional information	• Related Asian Development Bank in-country activities • Key development partners and in-country activities

SDG = Sustainable Development Goal.

Source: Asian Development Bank.

The national profiles were prepared through four successive rounds of gathering, synthesizing, and validating data from different sources (Figure 9). Initially, desk studies and publicly available information were drawn upon to develop first-cut reviews. Following feedback from ADB resident missions and country experts, deeper analysis of activities pertaining to the selected environment-related goals and targets (for instance, details of environmental laws and regulations, or related thematic strategies) was undertaken. National coordinators in 14 of the 15 stocktake countries (excluding the People's Republic of China [PRC]) were then contracted to help finalize the draft national profiles with reference to national language documentation, and gather additional insights and information from in-country interviews. Following the regional workshop, the final draft profiles were shared with government participants for validation. For the PRC, the national profile was not validated by the government, but comments were provided by ADB's resident mission in the PRC.
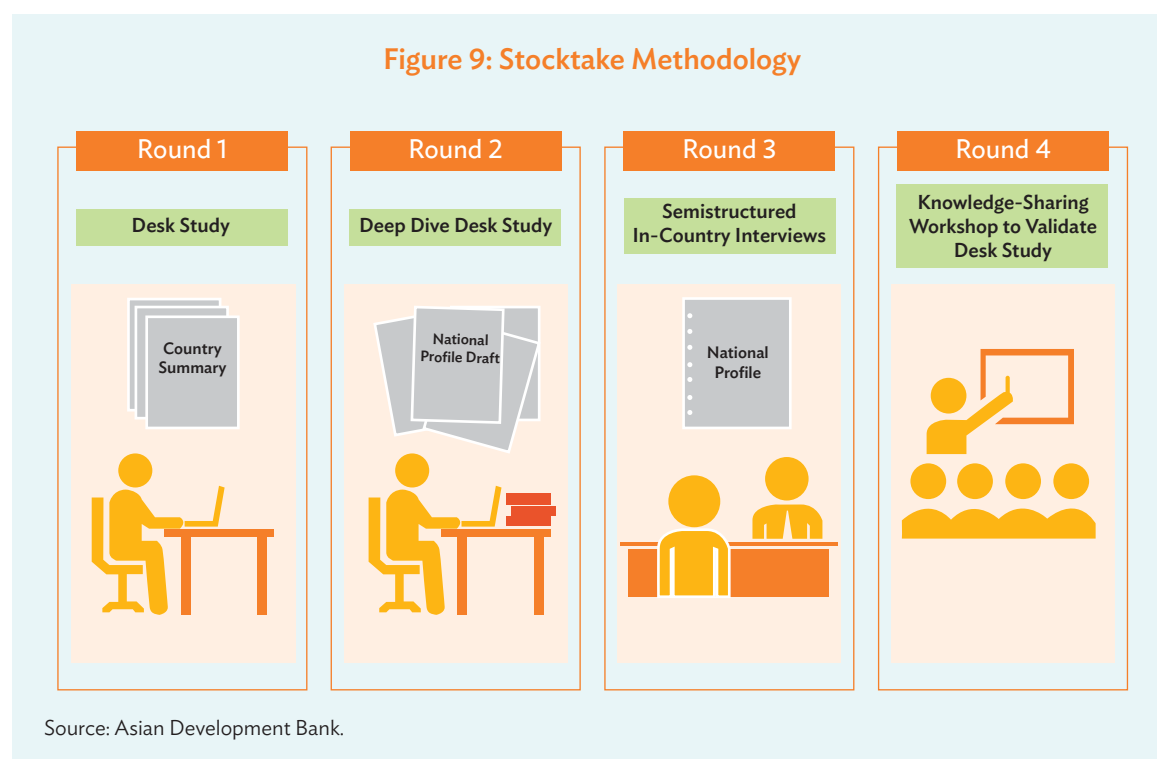
3.4 In-Country Interviews

National consultants conducted in-person interviews for 14 of the 15 stocktake countries (excluding the PRC) using a survey instrument based upon the research teams' extensive experience working on environmental issues associated with the environment-related SDGs. To help structure the interviews, and ensure the same questions were asked, a research briefing and questionnaires (Appendix 2) were provided to the national coordinator. The questionnaire included (i) capacity needs and implementation progress assessment and (ii) tool assessment. The latter considered tools that could be used to overcome identified barriers and help strengthen integration of the environmental dimensions of the SDGs into decision-making processes.

Interviews were conducted with officials in relevant line ministries or agencies and other subject matter experts from national organizations and in-country representatives of regional or international organizations (Appendix 3). In-country interviewees were identified based on regional workshop nominees, and advice from ADB resident missions, as well as other development partners who shared available lists of SDG-related focal points at the national level with ADB.

National coordinators were asked to conduct interviews with the identified government officials, but when this was not feasible, they were requested to approach the next highest-level official with knowledge of the SDGs. One limitation of this approach is there were varying ministries or agencies consulted and perspectives from different interviewees with different ranks and/or from different

departments with slightly different portfolios. Though this might result in views varying across countries, the research team decided it was important to get as much information and meet with as many people as possible.

An additional limitation of the interviews was government respondents were asked to reflect the view of their ministry or agency. Nonetheless, it is possible some of the answers were representative of individual, as opposed to institutional, perspectives. Similarly, respondents may have interpreted the questions differently depending on how these were presented by national coordinators.

Figure 9: Stocktake Methodology

Round 1	Round 2	Round 3	Round 4
Desk Study	Deep Dive Desk Study	Semistructured In-Country Interviews	Knowledge-Sharing Workshop to Validate Desk Study
Country Summary	National Profile Draft	National Profile	

Source: Asian Development Bank.

The national coordinators conducted approximately 50 interviews (with over 120 interviewees) in the 14 surveyed countries to gather information for the national profiles. In some cases, interviews were held on a one-to-one basis; in other instances, interviews were conducted in small focus group discussions. Most respondents were from line ministries or agencies, since government (as opposed to the private sector or civil society) is most likely to develop a national policy response to the SDGs (Figure 10). But only about a quarter of interviewees were representatives from environment ministries or agencies. Capturing perspectives outside of environment ministries or agencies was deemed to be important since often ministries or agencies outside the environment have a degree of responsibility for ensuring the environmental dimensions of the SDGs are integrated into national policies, plans, and programs. To get a relatively balanced view, over half of interviewees were from ministries of national planning, economic affairs, finance, and sector ministries or agencies.

The national coordinators recorded the results of these interviews and the results were used to arrive at a single "composite" country response. These country responses contributed to the source material for the findings presented in the following chapter. One drawback of arriving at a single "composite" country response is that it was difficult to present divergent views within a DMC. However, the pitfall of compiling a response for each interviewee was those countries with more respondents weighed more heavily in the results. A straightforward regional review had the added advantage of being the first such study to look across a range of DMCs in the region to identify patterns and trends that could help inform efforts to strengthen integration of the environmental dimensions of the SDGs in national policy, plans, and programs.
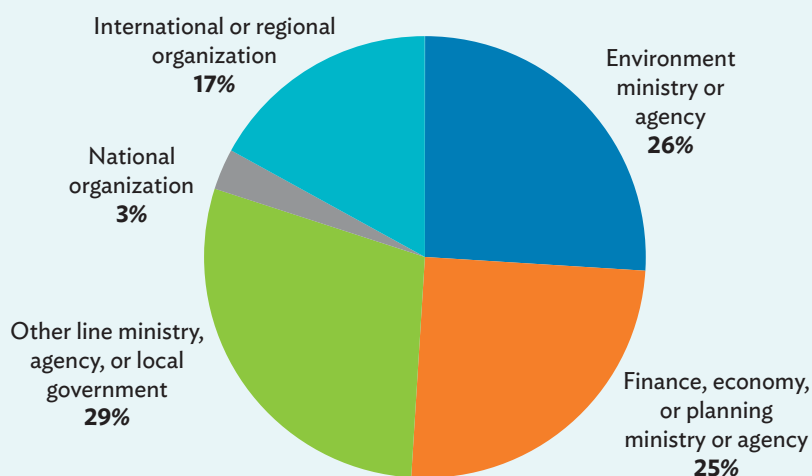
3.5 Regional Knowledge-Sharing Workshop

The findings from the national profiles, the capacity needs and implementation progress assessment, and the outcome of the tool assessment were collated and presented in a final validation of the stocktake. A regional knowledge-sharing workshop was held by ADB in conjunction with UNESCAP and UN Environment in Bangkok, Thailand in February 2018 (photo below) to present and solicit additional feedback on the preliminary findings of the stocktake with participants from the 14 surveyed countries, other DMC participants, as well as experts from international and regional organizations, the private sector, and civil society.[39]

Regional knowledge-sharing workshop. Participants in the knowledge-sharing workshop on strengthening the environmental dimensions of the Sustainable Development Goals in Asia and the Pacific posing for the group photo.

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[39]   ADB. 2018. *Strengthening the Environment Dimensions of the Sustainable Development Goals in Asia and the Pacific: Knowledge-Sharing Workshop Proceedings.* Manila. https://www.adb.org/publications/environment-dimensions-sdgs-asia-pacific-proceedings

Figure 10: Breakdown of Survey Participants in the 14 Surveyed Countries
(N=14)

International or regional
organization
17%

National
organization
3%

Environment
ministry or
agency
26%

Other line ministry,
agency, or local
government
29%

Finance, economy,
or planning
ministry or agency
25%

Note: Other line ministries include energy, water, agriculture, and forest ministries (unless a part of environment ministries). National organization primarily refers to civil society and nongovernment organizations. International and regional organization refers to country representatives.

Source: Asian Development Bank.

3.6 Stocktake Limitations

A few limitations of the stocktake methodology warrant highlighting. One such limitation is that it was impossible to monitor the interviews conducted. While the research team made every effort to access government officials with the most knowledge of the SDGs and environment-related goals and targets, time and resource constraints made this challenging in some cases. Therefore, the research team supplemented interview data with primary and secondary resources where additional information was needed. A second limitation is that much of the report focuses on the process of policy integration, but offers limited discussion of the integration of goals or targets at the project level. Because projects are typically smaller in scale and may require daily management, the results presented might differ. Additional research may look more closely at the success factors and challenges that influence projects.

4 Stocktake Findings

4.1 Stocktake Findings

This chapter sets out the findings of the stocktake, looking closely at the details underlying an initial assessment of awareness and national priorities, and discusses how identified barriers could be overcome to help strengthen integration of the environmental dimensions of the SDGs in decision-making and action.

4.2 Awareness of the Environmental Dimensions of the Sustainable Development Goals

The first set of questions the stocktake sought to answer involved whether government officials were aware of the importance of the SDGs' environmental dimensions. To determine if this was the case, respondents were asked whether they were aware of a need to address the selected environment-related goals and targets alongside economic and social priorities. Most responses suggested that awareness among government agencies interviewed was "high," with only a few of the surveyed countries indicating awareness was "medium" and no country suggesting it was "low" (Figure 11).[40] This result would seem to confirm that efforts to raise awareness of the SDGs at government level have been generally successful. In many countries, the UN and other international and regional organizations have been active in raising awareness; this was then often followed with strategic support, such as linking SDGs with existing development plans through the previously mentioned UN MAPS (Box 2), which was piloted in Cambodia, Mongolia, Sri Lanka, and Timor-Leste. These efforts could have been a factor in contributing to awareness of the SDGs at the government agency level.[41] Furthermore, several governments are likely aware of the environmental dimensions of the SDGs since they are parties to related MEAs and the 10-Year Framework of Programmes on Sustainable Consumption and Production.

Since government actions will ultimately influence other stakeholders, it is also important to take stock of awareness among actors outside government. Interviewees were asked about awareness levels among "the public" to get a sense if awareness was high among local communities, the private sector, civil society, and nongovernment organizations.[42] In this case, interviewees felt public awareness of the environment-related goals and targets were often the opposite of government officials. As illustrated

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[40]   Questions aimed to identify the level of government awareness at SDG level, and not necessarily at the level of the targets.
[41]   Analysis of whether countries that received international support through, for example, MAPS, reported higher levels of awareness would provide a more robust test of this claim. Unfortunately, the measure of awareness did not consist of enough options to capture possible differences in awareness levels that might show such a correlation. Furthermore, it would have been difficult to empirically capture the differences in levels of international support.
[42]   The survey questionnaire referred to the "public" without further specifying what is meant by that term.

**Figure 11: Perception of Government Awareness
of Selected Environment-Related Goals
(N=14)**
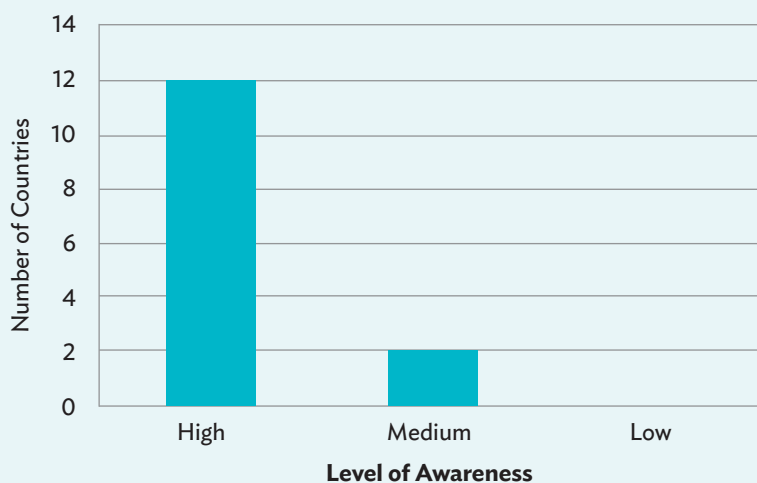
Source: Asian Development Bank.

in Figure 12, the pattern exhibited is almost the inverse of that presented in Figure 11.[43] The difference suggests a nuanced picture—one where there may be gaps between the recognized importance of environment-related goals and targets and the actual action needed to achieve them. However, the above interpretation is made with caution, since the measure of public awareness is based primarily on government officials' perception, not public views. A possible area for follow-up research is to conduct similar surveys with the public that would allow for more accurate measures of public awareness and more informed inferences.

# 4.3 National Environmental Priorities

4.3.1 Sustainable Development Goal Priorities

The stocktake involved understanding whether there was an overlap between national environmental priorities and the selected environment-related goals and targets. To determine if these parallels existed, interviewees were first asked which of the SDGs (12, 14, and 15, plus selected environment-related targets under 2, 3, 6, 7, 8, 9, 11, and 17) were considered priorities for their country, ministry, or agency (even if these were not yet translated into national policies, plans, and programs).[44] Figure 13 suggests all 14 surveyed countries perceived SDGs 12 and 15 as priorities. SDG 14 was an exception in that only 9 of the 14 countries considered it a priority. However, the five countries that did not view it as a priority—Bhutan, Kazakhstan, the Lao People's Democratic Republic (Lao PDR), Mongolia, and Nepal—are landlocked and, thus, understandably less concerned about SDG 14 (although some of these countries did indicate an interest in related issues, such as, ensuring preservation of their freshwater fisheries).

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43 It would have been useful to determine awareness levels for the SDGs, in general, followed by the environment-related SDGs. Unfortunately, the questions focused only on the environment-related SDGs.

44 Where DMCs had not yet formally mapped the SDGs against development plans, responses are based upon an understanding of environmental issues being managed as priorities prior to the introduction of the SDGs.

**Figure 12: Perception of Public Awareness of Selected Environment-Related Goals
(N=14)**
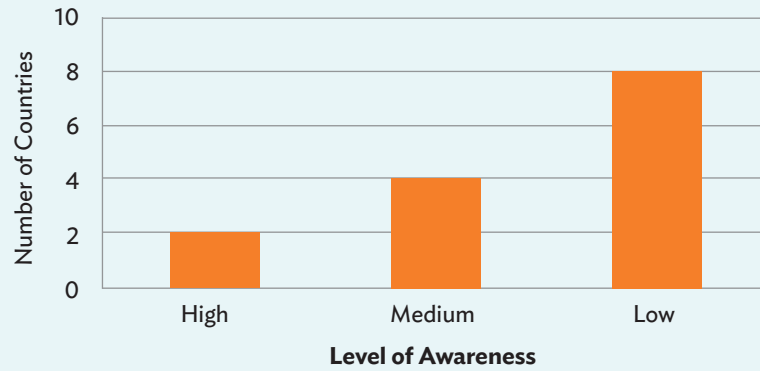
Source: Asian Development Bank.

**Figure 13: Priority Environment-Related Goals
(N=14)**
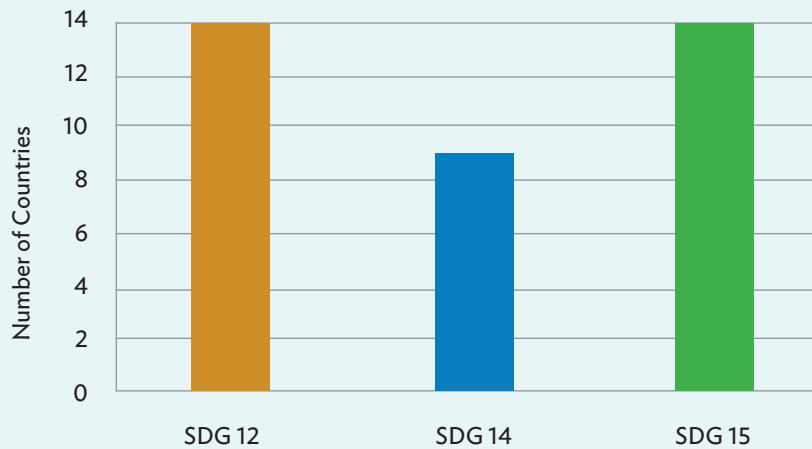
SDG = Sustainable Development Goal.

Source: Asian Development Bank.

At first glance, these results suggest the issues covered by SDGs 12, 14, and 15 are important to and consistent with priorities for decision makers in all 14 surveyed countries.

From the broad finding that these SDGs are considered government priorities in Asia and the Pacific, one might infer that countries could easily make the link between the issues featured in their development plans and the range of social, economic, and environmental issues covered by these SDGs, such that all targets under them were also priorities. However, before this claim can be made confidently, a deeper review of how the countries are working on particular targets is needed. Such a review is particularly warranted given the perceived lack of public awareness of the environment-related goals and targets.

4.3.2 Targets of Sustainable Development Goals 12, 14, and 15

To get a deeper look, respondents were asked which SDG 12, 14, and 15 targets had been identified as priorities in their country (Figures 14 to 16). The answers to questions on targets generated some revealing insights. One of the more notable results is there is significantly more cross-national variation

Figure 14: Variation in Priorities at Target Level for Sustainable Development Goal 12
(N=14)
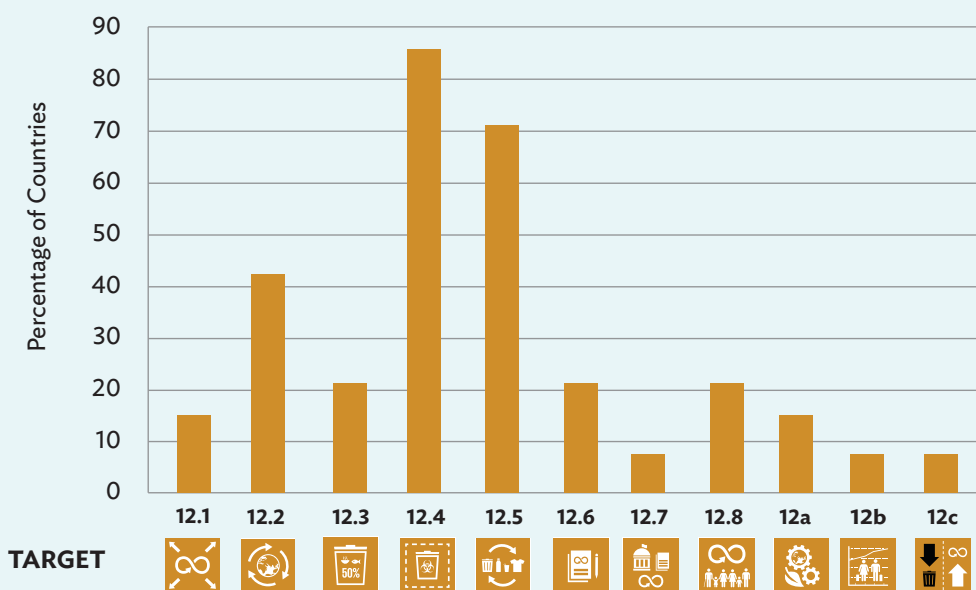
Implement the 10-year Sustainable Consumption and Production Framework

Sustainable Management and Use of Natural Resources

Halve Global Per Capita Food Waste

Responsible Management of Chemicals and Waste

Substantially Reduce Waste Generation

Encourage Companies to Adopt Sustainable Practices and Sustainability Reporting

Promote Sustainable Public Procurement Practices

Promote Universal Understanding of Sustainable Lifestyles

Supporting Developing Countries' Scientific and Technological Capacity for Sustainable Consumption and Production

Develop and Implement Tools to Monitor Sustainable Tourism

Remove Market Distortions that Encourage Wasteful Consumption

Source: Asian Development Bank.

Figure 15: Variation in Priorities at Target Level for Sustainable Development Goal 14
(N=9)

Reduce Marine Pollution

Protect and Restore Ecosystems

Reduce Ocean Acidification

Sustainable Fishing

Conserve Coastal and Marine Areas

End Subsidies Contributing to Overfishing
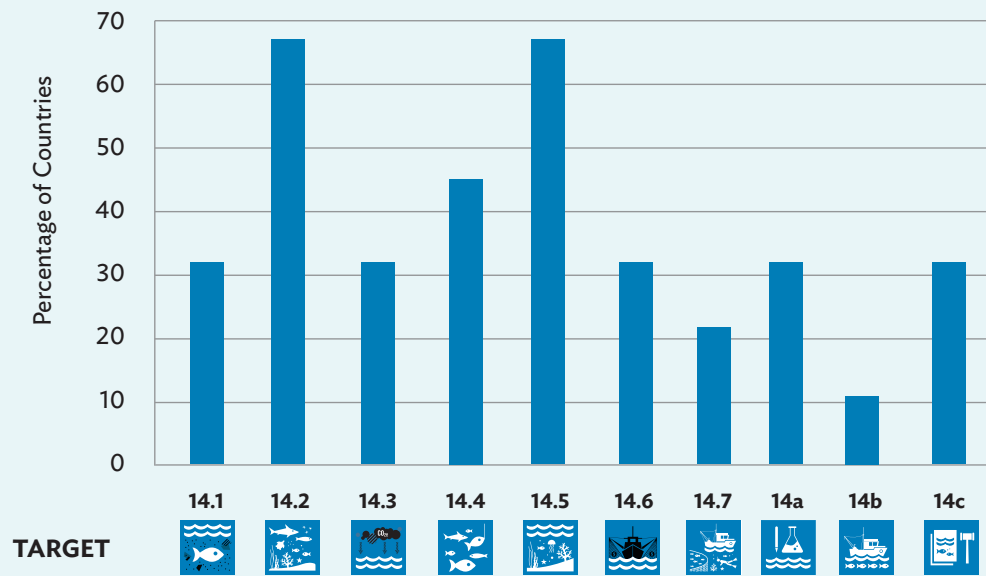
Increase the Economic Benefits from Sustainable Use of Marine Resources

Increase Scientific Knowledge, Research and Technology for Ocean Health

Support Small-Scale Fishers

Implement and Enforce International Sea Law

Note: For SDG 14, the percentage for the total number of countries analyzed was nine, as four did not identify SDG 14 as a priority due to their being landlocked.

Source: Asian Development Bank.

in the kinds of issues considered priorities at the target level than at the headline goal level. For some of the targets, only one or two of the surveyed countries indicated they were a priority despite the goal itself being a priority. At the same time, there also appears to be some convergence among many of the surveyed countries on SDG targets addressing a familiar set of longstanding "conventional" environmental issues: notably 12.4 on the responsible management of chemicals and waste, 12.5 on substantially reducing waste generation, 14.2 on protecting and restoring marine ecosystems, 14.5 on conserving coastal and marine areas, 15.2 on ending deforestation and restoring degraded forests, and 15.5 on protecting biodiversity and natural habitats.

**Figure 16: Variation in Priorities at Target Level for Sustainable Development Goal 15**
(N=14)
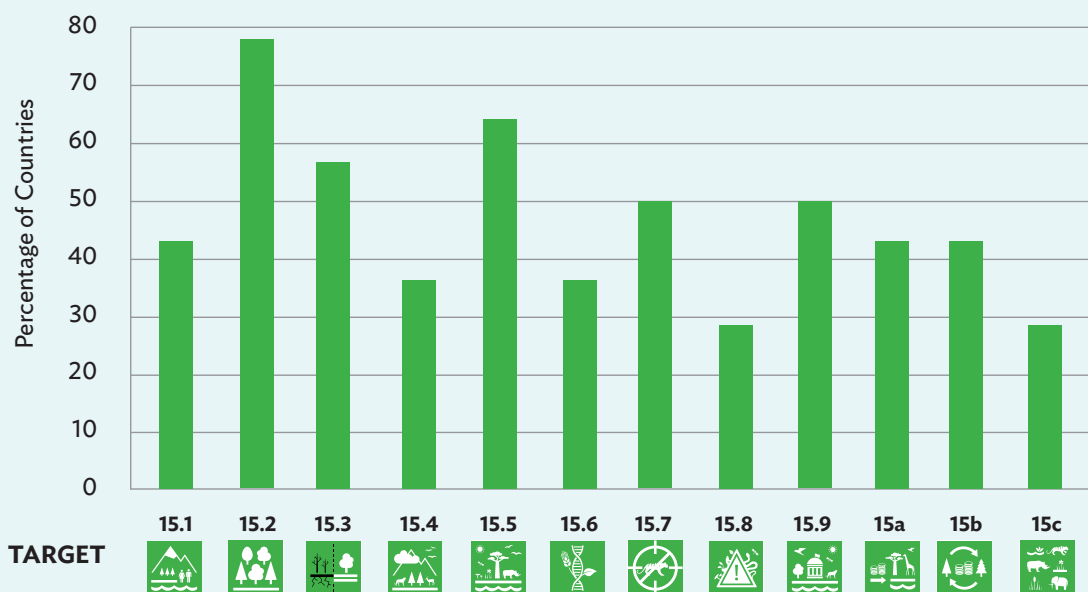
Icon	Description	Icon	Description
	Conserve and Restore Terrestrial and Freshwater Ecosystems		Prevent Invasive Alien Species on Land and in Water Ecosystems
	End Deforestation and Restore Degraded Forests		Integrate Ecosystem and Biodiversity in Governmental Planning
	End Desertification and Restore Degraded Land		Increase Financial Resources to Conserve and Sustainably Use Ecosystems and Biodiversity
	Ensure Conservation of Mountain Ecosystems		Finance and Incentivize Sustainable Forest Management
	Protect Biodiversity and Natural Habitats		
	Promote Access to Genetic Resources and Fair Sharing of the Benefits		Combat Global Poaching and Trafficking
	Eliminate Poaching and Trafficking of Protected Species		

Source: Asian Development Bank.

This suggests that more attention is being given to addressing "conventional" environmental issues clearly within the traditional remit of environment ministries or agencies. In contrast, less importance seems to be attached to areas beyond these familiar environmental issues. This can be seen even more clearly from the differences in the targets within a specific goal. With greater intra-goal integration, a more uniform pattern in the bar charts in Figures 14 to 16 would be expected. To explain why this should be expected, Figure 17 provides an illustration of the interlinkages between target 12.5 (substantially reducing waste generation) for Cambodia, which is an identified priority in many countries, with other targets, including within SDG 12, to demonstrate the importance of integration. The points listed below suggest some other reasons a flatter pattern would be expected within SDGs 12, 14, and 15:

Figure 17: Theoretical Interlinkages between Target 12.5 for Cambodia
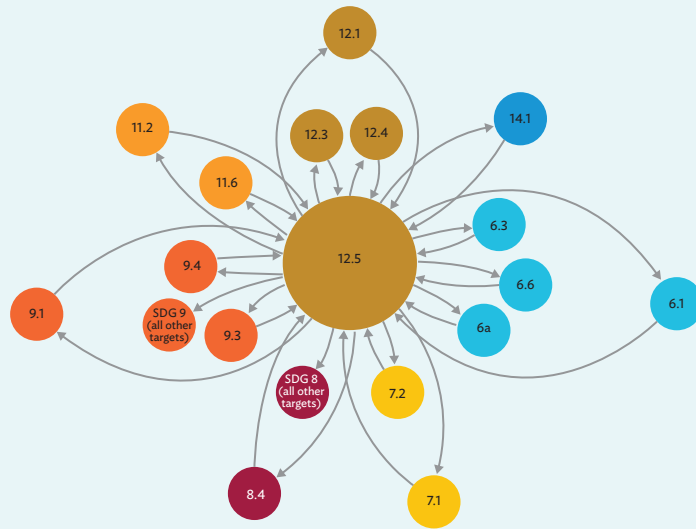
Note: The figure above illustrates how target 12.5 is linked with other Sustainable Development Goals (SDGs) and targets in Cambodia. The figure was developed based on the methodology employed in the Institute for Global Environmental Strategies (IGES) SDG Interlinkages Analysis and Visualization Tool. The IGES methodology identifies interlinkages between SDG targets based on knowledge obtained from international consultation processes on SDG indicators and a literature review.[a] As causal relationships between a pair of targets may be unidirectional or bidirectional, the existence of bidirectional relationships is shown by two lines in opposite directions linking the same pair of targets.

[a] X. Zhou and M. Moinuddin. 2017. Sustainable Development Goals Interlinkages and Network Analysis: A Practical Tool for SDG Integration and Policy Coherence. *Institute for Global Environmental Strategies.* June. p. 140. https://pub.iges.or.jp/pub/sustainable-development-goals-interlinkages

Source: Asian Development Bank.

- For SDG 12, promoting sustainable public procurement practices (12.7) is only a priority in one of the 14 surveyed countries. Given the amount of government finance spent in many countries, adopting more sustainable procurement practices would be a relatively low-hanging fruit that could create economies of scale for greener products and services that could help deliver target 12.4 on the responsible management of chemicals and waste, and target 12.5 on substantially reducing waste generation—which are priority objectives in 12 (target 12.4) and 10 (target 12.5) of the countries.

- For SDG 14, reducing marine pollution (14.1) is only a priority in three of nine countries,[45] but conserving coastal and marine areas (14.5) is a priority in six countries. In many contexts, these two targets would appear to be closely related. Again, there appears to be a failure to understand the links between targets within the SDGs.

- For SDG 15, promoting access to genetic resources and fair sharing of benefits (15.6) is only a priority in five of the 14 surveyed countries, while protecting biodiversity and natural habitats (15.5) is a priority in nine of the countries. However, benefit sharing offers an opportunity for countries to ensure their population is not disadvantaged by necessary biodiversity management activities.

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[45]   Note that the research team only looked at the nine countries that were not landlocked to analyze priority targets.

4.3.3 Other Environment-Related Targets

A similar—albeit not as stark—pattern can be seen in the results from a question about whether the 21 other selected environment-related targets (Table 1) were regarded as a national priority (Figure 18). Of these additional 21 targets, the most frequently selected targets were 6.3 on improving water quality, wastewater treatment, and safe reuse; 6.4 on increasing water use efficiency and ensuring

Figure 18: Variation in Priorities at Target Level for Selected Environment-Related Targets
(N=14)
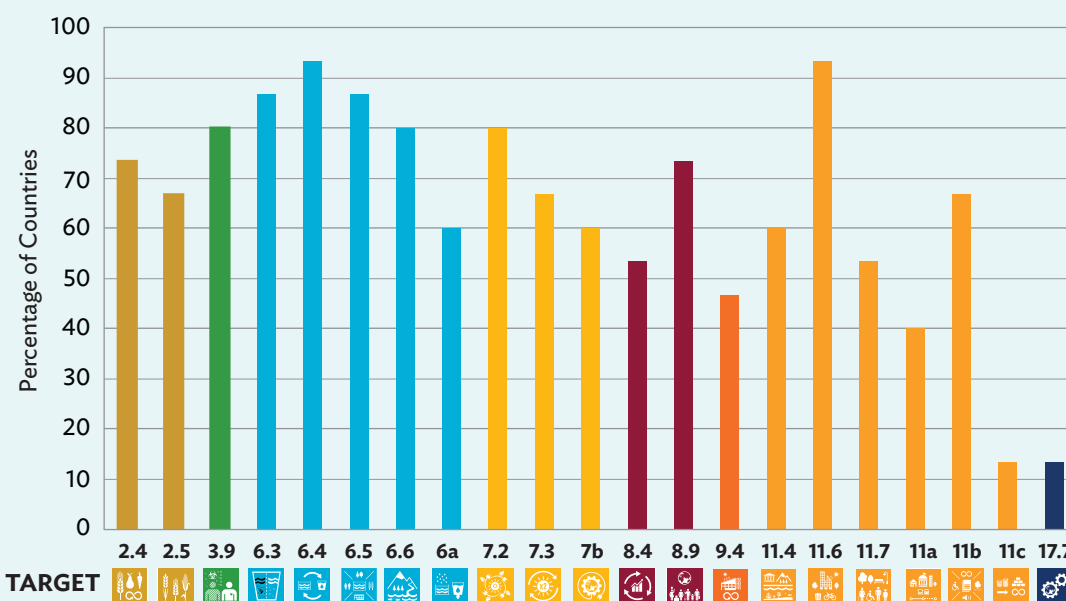
Sustainable Food Production and Resilient Agricultural Practices

Maintain the Genetic Diversity in Food Production

Reduce Illnesses and Death from Hazardous Chemicals and Pollution

Improve Water Quality, Wastewater Treatment and Safe Reuse

Increase Water-Use Efficiency and Ensure Freshwater Supplies

Implement Integrated Water Resources Management

Protect and Restore Water-Related Ecosystems

Expand Water and Sanitation Support to Developing Countries

Increase Global Percentage of Renewable Energy

Double the Improvement in Energy Efficiency

Expand and Upgrade Energy Services for Developing Countries

Improve Resource Efficiency in Consumption and Production

Promote Beneficial and Sustainable Tourism

Upgrade All Industries and Infrastructures for Sustainability

Protect the World's Cultural and Natural Heritage

Reduce the Environmental Impact of Cities

Provide Access to Safe and Inclusive Green and Public Spaces

Strong National and Regional Development Planning

Implement Policies for Inclusion, Resource Efficiency, and Disaster Risk Reduction

Support Least Developed Countries in Sustainable and Resilient Building

Promote Sustainable Technologies to Developing Countries

SDG = Sustainable Development Goal.

Source: Asian Development Bank.

freshwater supplies; 6.5 on implementing integrated water resource management; and 11.6 on reducing the environmental impact of cities. Again, there appears to be a strong emphasis on "conventional" environmental issues within the traditional remit of environment ministries or agencies. The targets given the least attention (identified as a priority in only 1 of the 14 surveyed countries) were supporting developing countries in sustainable and resilient buildings (11c), and promoting sustainable technologies to developing countries (17.7), both of which are important MOI for addressing the environmental dimensions of the SDGs which of the 14 surveyed countries are likely to be beneficiaries of.

Furthermore, the results demonstrate disconnect between "pure" environmental priorities and those, such as energy provision, that can help tackle the pollution issues that are a priority for surveyed countries. For example, the environment-related energy target 7.3 (doubling the improvement in energy efficiency) was not a commonly selected priority target, even though, at the goal level, SDG 7 is a priority across the region. To foreshadow some of the conclusions of this report, this may be because conventional institutional setups and ministry or agency portfolios form barriers to making the connections between environment and energy issues a priority—a sector-based approach to government is not conducive to integration.

Even with a tendency to focus on "conventional" environmental issues, these other selected environment-related targets are getting relatively more attention than the SDG 12, 14, and 15 targets. This may be because these SDGs focus on higher-profile issues and there is perhaps a greater understanding of the connections between the traditional mandates of line ministries and the environmental dimensions. Thus, these sector goals may be a good entry point for countries to start addressing interlinkages and ensuring more effective integration of the environmental dimensions across the SDGs.

## 4.4. Progress in Responding to the Sustainable Development Goals

While the previous section suggests integration is thus far limited at the target level, it offers limited insights into why this is the case. To better understand these reasons, the stocktake looked at a range of possible explanations.

One set of explanations centers on how far DMCs in the region have moved in responding to the SDGs. A review of the 15 national profiles sheds some light on this progress—or lack thereof—in responding to the SDGs. That review shows that more than half of the stocktake countries have limited activity or have only mapped the SDGs against existing development plans. Only four are at differing stages of reviewing interlinkages among the SDGs, their targets, and how to respond to those linkages institutionally, or allocating resources to implement the environment-related SDGs (Figure 19). The lack of integration across targets within SDGs may be attributed to limited progress in examining interlinkages among more than half of the countries.

4.5 Barriers to Integration

A related set of explanations looked more closely at why DMCs may have made limited progress. To identify challenges, a list was developed of over 40 widely cited barriers classified as belonging to five

Figure 19: Snapshot of Current Status vis-à-vis Environment-Related Goals
(N=15)

Allocated resources
13%

Limited activity
27%

Reviewing interlinkages
27%

Mapping SDGs with
existing plans
33%
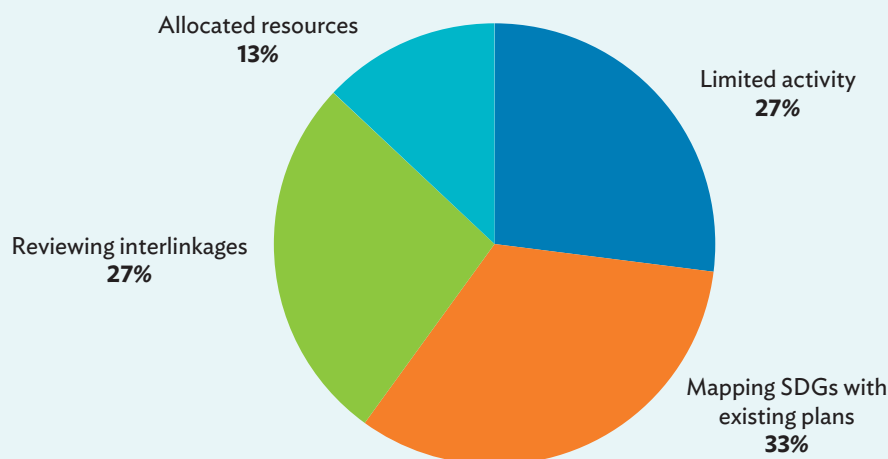
SDG = Sustainable Development Goal.
Source: Asian Development Bank.

larger categories. These five categories are listed in the key of Figure 20. The full list of barriers from the stocktake can be found in its entirety in the capacity needs interview questionnaire (Appendix 2). The barriers are familiar to most environmental policy makers and researchers and have been discussed in governance and development literature for some time.[46] The literature often focuses on the challenges of implementing integrated approaches and how they may be overcome by focusing on necessary capacities and institutional arrangements,[47] although issues of political economy and consensus building will be crucial as well.[48] Given that different barriers at different stages of the policy cycle are likely, interviewees were asked to select the top three to five barriers at three separate stages, as shown by the three pie charts in Figure 20.
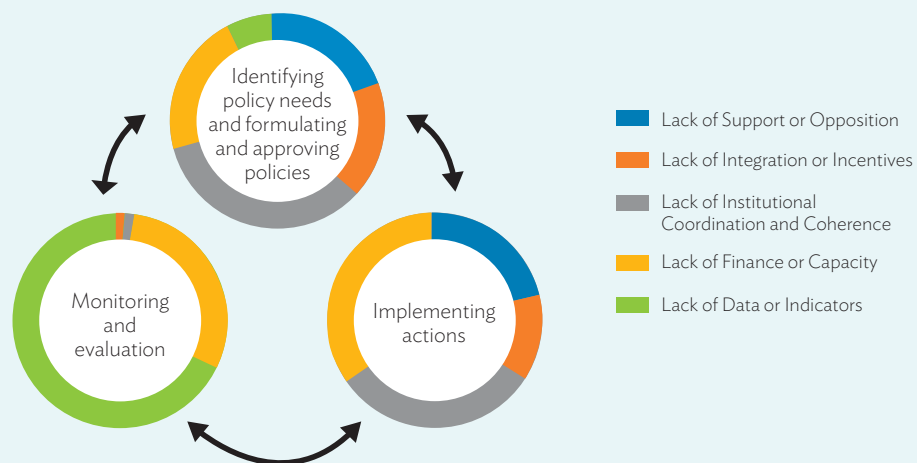
Figure 20 demonstrates that different barriers prove more challenging at different stages of the policy cycle. For example, a lack of support or opposition, and a lack of institutional coordination and coherence were most apparent early in the policy process, while a lack of data was most problematic during the final monitoring and evaluation stage. Lack of finance and capacity appeared to be a hurdle across all three stages.

[46]   M. S. Grindle. 2004. Good Enough Governance: Poverty Reduction and Reform in Developing Countries. *Governance.* 17 (4). pp. 525–48; M. N. Asadullah and A. Savoia. 2018. Poverty Reduction during 1990–2013: Did Millennium Development Goals Adoption and State Capacity Matter? *World Development.* 105. pp. 70–82. https://www.gov.uk/dfid-research-outputs/poverty-reduction-during-1990-2013-did-millennium-development-goals-adoption-and-state-capacity-matter#link

[47]   Å. Persson. 2004. Environmental Policy Integration: An Introduction. *Policy Integration for Sustainability (PINTS).* June. p. 54. https://mediamanager.sei.org/documents/Publications/Policy-institutions/pints_intro.pdf; A. Jordan and A. Lenschow. 2010. Environmental Policy Integration: A State of the Art Review. *Environmental Policy and Governance.* 20 (3). 27 May. pp. 147–58; D. Le Blanc. 2015. *Towards Integration at Last? The Sustainable Development Goals as a Network of Targets. DESA Working Paper No. 141.* https://www.un.org/esa/desa/papers/2015/wp141_2015.pdf

[48]   D. J. Wolfson. 2015. *The Political Economy of Sustainable Development: Valuation, Distribution, Governance.* London: Palgrave Macmillan.

Figure 20: Identified Challenges at Different Stages of the Policy Cycle (N=14)

Identifying policy needs and formulating and approving policies

Monitoring and evaluation

Implementing actions

■ Lack of Support or Opposition
■ Lack of Integration or Incentives
■ Lack of Institutional Coordination and Coherence
■ Lack of Finance or Capacity
■ Lack of Data or Indicators

Source: Asian Development Bank.

Barriers to integration. Knowledge café participants at the regional workshop on strengthening the environmental dimensions of the Sustainable Development Goals (SDGs) in Asia and the Pacific discussing how to effectively integrate SDGs 12, 14, and 15 into national policy, plans, and programs.

Figure 21: Frequency of Barriers Mentioned
(N=14)

Number of Times That Barriers Were Selected
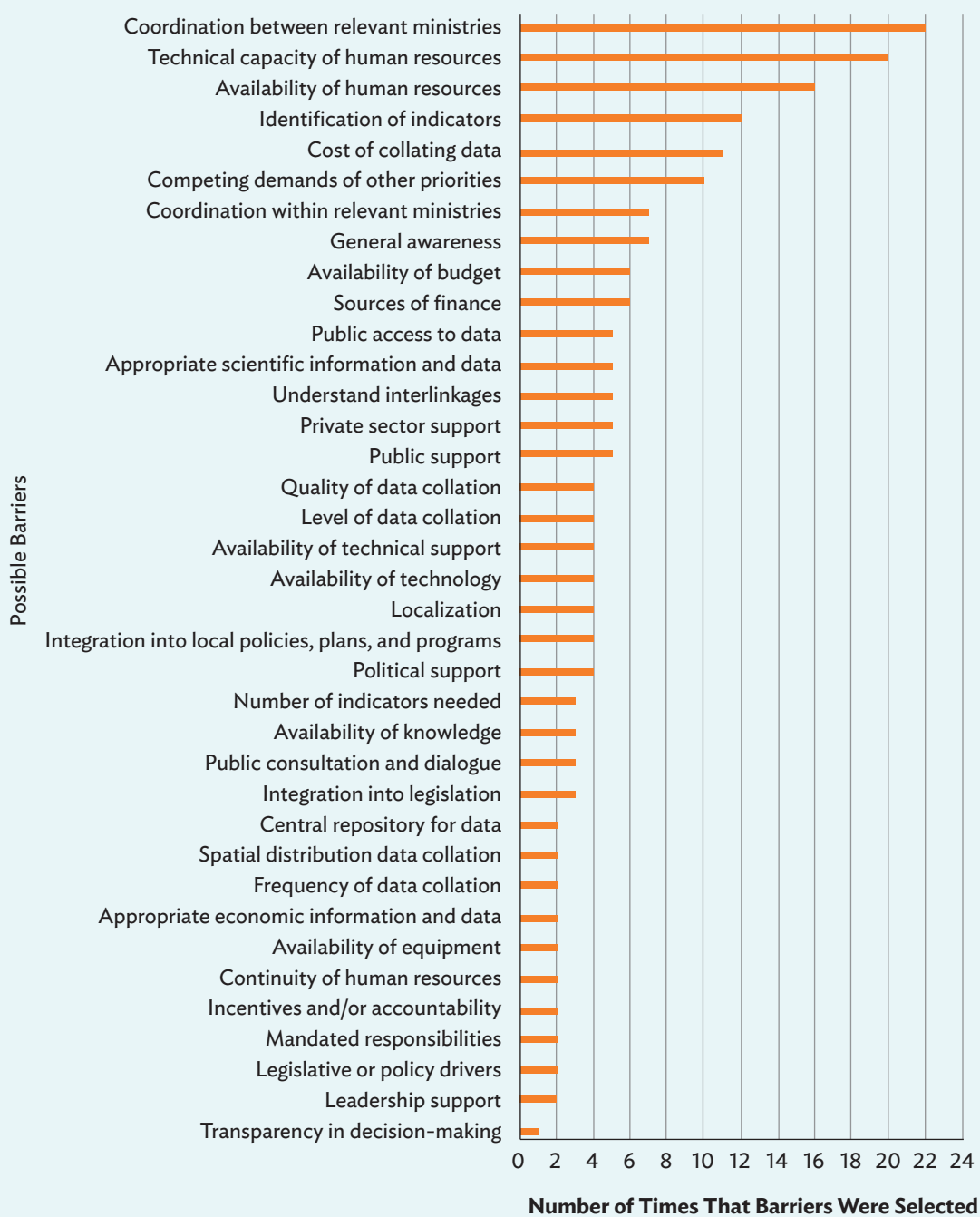
Note: The question was asked for three stages of the decision-making process; therefore, it was possible that a respondent could select a barrier for all three stages; so if a surveyed country picked a barrier in the first and second stage, it got two points (out of a maximum of 45).

Source: Asian Development Bank.

To get another perspective on these barriers, the five larger categories used in Figure 20 were divided into more specific challenges without distinguishing between different stages of the policy cycle. Figure 21 gives a more detailed breakdown of the barriers identified. This view reveals that the most frequently cited challenge to integration was coordination between ministries and agencies. This was followed by the technical capacity of and the availability (shortage) of human resources, and two areas related to SDG indicators—the costs of collating environmental data and the identification of appropriate monitoring indicators.[49] Monitoring and reporting on progress is a huge challenge for the region, given the vast lack of sufficient and up-to-date baseline data on environmental parameters.

In addition to the barriers identified from the in-country interviews, a knowledge café hosted during the regional knowledge sharing workshop highlighted additional impediments not part of the original list of 40 barriers (photo on p. 40). These discussions also cast light on the relationship between different barriers. For example, participants highlighted barriers, such as political instability and frequent institutional changes that hamper institutional memory. Power imbalances were also raised as a hurdle, i.e., ministries or agencies "in charge" of the environment-related goals and targets often have less influence compared to traditionally large sector ministries or agencies, such as energy, industry, and trade. Differences between SDG, environmental, and finance language and jargon were further mentioned as constraints. Those familiar with the SDGs use terminology not readily understood by people outside the development community, while environment and finance decision makers also tend to use a different language.

4.6 Analysis of Capacity Development Needs

The stocktake was not only intended to assess the challenges of the DMCs in the region, but to identify their capacity development and tool utilization needs for integrating the environmental dimensions of the SDGs into national policy, plans, and programs.

Capacity development needs in the 14 surveyed countries were considered during in-county interviews under the same three stages of the policy cycle used in Figure 20. Many responses from the 14 surveyed countries were similar.

4.6.1 Identifying Policy Needs, and Formulating and Approving Policies

In outlining their needs, respondents expressed a general lack of awareness and understanding of the systemic relationships between economic, social, and environmental dimensions, and thus, the interlinkages among the 17 SDGs and their targets. Many respondents suggested that the interlinkages and interactions among and between SDGs have generally not been assessed or mapped (Figure 19), and there is a general lack of thorough assessments of the causal dynamics occurring with regards to the wider implications of sector-specific policy implementation, especially involving the economy–environment nexus. There is still largely a linear and sector-based approach to assessing causes and solutions to development issues. Systems thinking and dynamic simulation and modeling tools are still mostly new concepts, and the opportunities and capacities for using them in the surveyed countries have yet to

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[49]   Different countries may have different views on data-related challenges. In least developed countries, there may be a lack of resources for the collection of many types of data, whereas in more developed countries, the challenges are likely to involve collecting data on a smaller set of specific, difficult-to-access indicators. Unfortunately, the survey questions did not allow for this level of detail.

materialize—with a few exceptions, such as Mongolia, where UNESCAP piloted their systems thinking approach on the Sustainability Outlook of Mongolia (Box 3). Respondents also noted this is largely because interministerial coordination arrangements are weak, ineffective, or nonexistent. In turn, these institutional weaknesses affect how environmental issues are understood and framed.

Relevant to policy formulation and drafting, one of the most significant needs is to strengthen policy makers' understanding of the costs and benefits to the environment of their socioeconomic decisions, and of tools that can be used for assessing the environmental implications (costs and benefits) during the decision-making process. A need for better engagement of all stakeholders in the early stages of policy formulation and assessment, and for tools, methods, and approaches to improve government engagement with other stakeholders (including private sector, academe, civil service organizations, and nongovernment organizations) as policies and plans are formulated, was also expressed. Finally, there was a demand for guidance on effective institutional management, particularly via interministerial and inter-agency coordination systems, so available tools for integration of environmental priorities (SDGs) in national policy and plans can be effectively used by decision makers for greater policy coherence.

4.6.2 Implementing Actions

Human resources capacity development is a critical challenge and need for all countries at all phases of the policy cycle, but particularly in enforcement and implementing actions at the local level. For example, respondents noted that many local government units have limited technical capacity for development planning and programming, including a lack of capacity to prepare technically acceptable and bankable green projects and to use science-based information. Respondents also highlighted a need for tools, methods, and approaches that assist with the prioritization and sequencing of actions for priority goals and targets to help in preparing road maps for implementation. This need was particularly great because there are 169 environment-related targets with multiple causal relationships that are often invisible to decision makers.

Respondents also had a strongly stated need for tools, methods, and approaches to effectively link national policies, plans, and programs with financing sources and green investment opportunities. For example, tools for developing financing strategies for environment-related goal and target implementation were requested, such as budget tagging, raising green taxes, and issuing green bonds. There was also a stated need for sharing of best practice innovative green economy tools, methods, and approaches that can be incorporated into national policy, plans, and programs, including the use of corporate sustainability reports, adoption of a circular economy approach, and green procurement guidance.

4.6.3 Monitoring and Evaluation

For monitoring and evaluation, all surveyed countries identified a need for simple but effective tools, methods, and approaches to support data collection; the measurement and evaluation of policy or plan performance and impacts; as well as statistical data management, data sharing, and reporting, including for national reporting obligations and for reporting against MEAs and the SDG indicators. Human resources capacity development, technology, software, and access to external monitoring data were identified needs for monitoring and reporting on the environmental dimensions of the SDGs.

4.7 Good Practices and Experiences

Thus far, the review of the status of the environmental dimensions of the SDGs focused mainly on barriers and capacity development needs. However, not only did the stocktake identify challenges, but it also sought to identify solutions and good practices to integration, implementation, monitoring, and reporting of the environmental dimensions.

This section draws upon some of the more qualitative findings of the stocktake in relation to good practices and experiences related to (i) institutional architectures; (ii) enabling policies and regulatory frameworks; (iii) finance, capacity, and other MOI; and (iv) indicators, data, monitoring and evaluation.
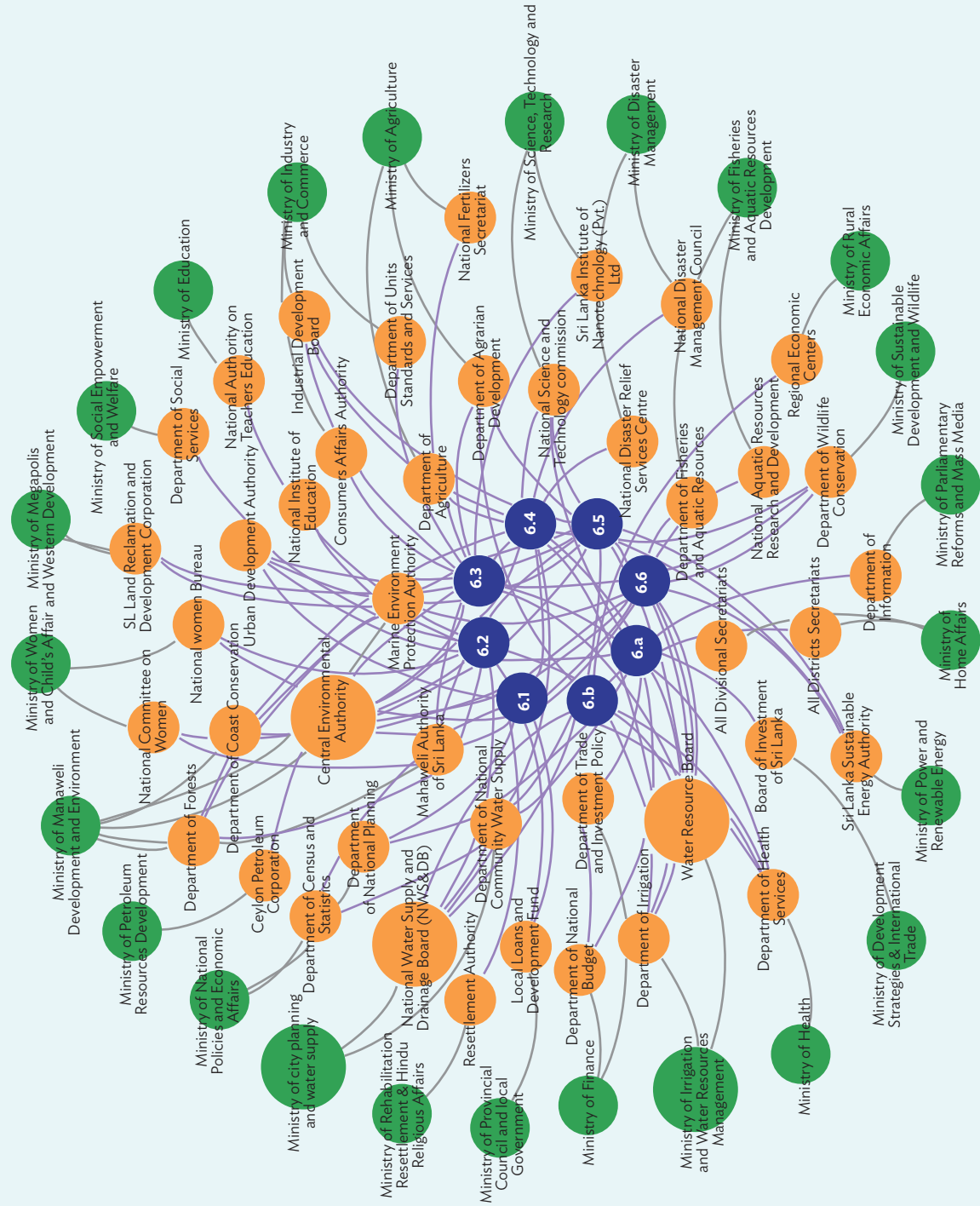
4.7.1 Institutional Architectures

As may be expected three years into the SDGs' implementation, almost all the 15 stocktake countries have responded to the 2030 Agenda for Sustainable Development. Few of these countries though have reacted with a particularly strong focus on the environmental dimensions of the SDGs. Part of the reason for the limited focus on these issues, as noted in the previous sections, are institutional arrangements that fail to integrate the environmental dimensions into development planning. The familiar sector-based approaches to decision-making discourages integration, often relegating the environment to the margins of development planning.

Nonetheless, the stocktake revealed several context-appropriate examples from DMCs in the region capable of responding to the environmental dimensions of the SDGs. Some of the stocktake countries have environment ministries or agencies (or ministries or agencies in charge of biodiversity issues) coordinating the national response to the environmental dimensions of the SDGs. These ministries then cooperate with other line ministries to craft more holistic plans, including collaborating with traditionally powerful planning agencies (such as the National Development Agency in Mongolia and the National Economic and Development Authority in the Philippines). In other cases, interministerial cooperation is facilitated by the creation of a new agency. For example, Cambodia's National Sustainable Development Council was established (under the Ministry of Environment by Royal Decree No. 0515/403) for the purposes of facilitating coordination on the SDGs. In yet other instances, having an environment ministry or agency take the lead can help generate actions that build trust with other agencies. In Sri Lanka, the Ministry of Sustainable Development and Wildlife undertook an elaborate SDG mapping exercise to identify and match government agencies with SDG targets (Figure 22).

Not all the stocktake countries adopted this environment in the lead model. There were also examples of allocating environment-related goals and targets among different sector ministries that can pave the way for an integrated approach. In the case of Viet Nam, policy makers decided to share the responsibilities for environment-related goals and targets across several ministries. Such an approach may be particularly relevant for SDG 12, since it requires tackling the linkages between consumption levels and resource efficiency in production, which are traditionally related to economic planning ministries, and environmental impacts, which are more pertinent to environment ministries and agencies (Box 6).

Another set of interesting practices involves whether and how the SDGs are interpreted and acted upon locally: coordination and institutional responses should extend beyond the national policy-making level to the local level where implementation happens. Several of the stocktake countries are working actively with subnational governments and cities to bring down or vertically integrate the SDGs. Often, this

Figure 22: Mapping of Sri Lankan Government Responsibilities Related to Sustainable Development Goal 6

**Box 6: Sustainable Consumption and Production
as an Entry Point for Institutional Integration**

While the stocktake found that all surveyed countries recognized the importance of the issues reflected under Sustainable Development Goal 12, some countries (the Philippines, Viet Nam) are making it a high-order priority. In the case of Viet Nam, the targets under SDG 12 are shared among eight different ministries.[a] This practice of widely delegating responsibilities can be useful for countries that may not yet have taken action under SDG 12. SDG 12 is a complex goal with environmental, social, and economic targets with linkages to many other SDGs, including those related to energy, water, industry, infrastructure, and cities. Therefore, for countries contemplating the appropriate institutional response to SDG 12, it may make sense to share responsibility for this SDG among ministries of finance, economy, planning and industry, as well as with environment ministries or agencies, to achieve necessary integration.

[a] Ministry of Industry and Technology, Ministry of Natural Resources and Environment, Ministry of Agriculture and Rural Development, Ministry of Construction, Vietnam Chamber of Commerce and Industry, Ministry of Finance, Ministry of Planning and Investment, and Ministry of Information and Communications.

Source: Authors.

**Box 7: The Partnerships in Environmental Management
for the Seas of East Asia Program**

The Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) is a regional organization specializing in integrated coastal and ocean governance of the seas of East Asia. It is a partnership agreement comprised of 11 country and 21 noncountry partners with a collective commitment to implementing the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA). In localizing the Sustainable Development Goals (SDGs), members of PEMSEA's Network of Local Governments for Sustainable Coastal Development are already acting—through the implementation of integrated coastal management programs—to improve conservation efforts, protect biodiversity, adapt to climate change, reduce pollution, and build sustainable communities. In addition, the PEMSEA Sustainable Development Strategy for the Seas of East Asia (SDS-SEA 2015) is a regional declaration of commitment to implement a shared vision adopted by 14 countries, while their ADAPT strategy and action program on climate change and disaster risk reduction and management advances the role of partnerships and innovative financing (e.g., blue carbon) and operationalizes "blue economy" principles through integrated coastal management as a means for achieving the SDGs, particularly SDGs 6, 11, 13, 14, and 17.

Source: PEMSEA. 2015. *How Does PEMSEA Contribute to the SDGs?* http://pemsea.org/sites/default/files/SDG%20flyer%20 2017.pdf

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process of vertical integration begins with identifying indicators to determine baselines at the subnational level; these can then be reported back to national level. Examples of identifying indicators as part of the localization process are already underway in Indonesia, Mongolia, and the Philippines. In other cases, localizing the SDGs is gaining support from international actors. Members of the Partnerships in Environmental Management for the Seas of East Asia's Network of Local Governments for Sustainable Coastal Development are working to build local capacities to effectively respond to many of the environmental dimensions linked with SDG 14 (Box 7). Support to build the necessary capacity to act on the SDGs is also forthcoming from the European Union which, together with regional partners and UN Environment, is working on the SWITCH-Asia Initiative in over 18 countries of the region (Box 8).

Box 8: SWITCH-Asia Initiative, Sri Lankan Case Study Example

The SWITCH-Asia Sustainable Consumption and Production National Policy Support Component for Sri Lanka supported the strengthening of the overall government policy and institutional framework for implementation of sustainable consumption and production (SCP) prior to the introduction of the Sustainable Development Goals. It included two sets of activities, the first related to the food and beverage industry addressing the optimal usage of natural resources (raw materials, energy, and water) and compliance with international food safety standards; and the second related to the greening of Sri Lanka's hotels to support sustainable tourism.

The food and beverage industry activities included

- transferring skills and knowledge of international partners from India and the Netherlands to the Sri Lanka partners, enabling them to reach out to a large number of small and medium-sized enterprises (SMEs);
- training of over 400 SMEs on the adoption of best practices in SCP;
- training to enable compliance with international food safety standards;
- establishing a best practices database on SCP and sharing those practices widely applicable in the food and beverage industry to SMEs in the sector; and
- studying current SCP policies in Sri Lanka.

The hotel activities included:

- setting up a comprehensive database of hotels in Sri Lanka.
- setting up a website to give information to the public about the activities and the registered hotels; resource consumption data can be submitted by the hotels to the website, which generates reports on consumption patterns so hotels can self-monitor their performance.
- undertaking walkthrough audits, comprehensive cleaner production audits, and detailed energy audits in hotels.
- developing a Green Certification Scheme for hotels providing incentives in the a form of reduced annual registration fees for hotels certified under this scheme; this was a voluntary scheme that gave recognition to hotels for their environmental efforts.

Source: SWITCH-Asia Network Facility. 2013. *Using Food Safety Standards and Eco-Labelling to Open up International Markets for the Food and Beverage Industry in Sri Lanka.* https://www.switch-asia.eu/fileadmin/user_upload/Impact_sheet_-_food_and_Beverages_-_WEB.pdf; SWITCH-Asia Network Facility. 2014. *Hotels in Sri Lanka Improving Efficiency and Embracing Green Credentials.* https://www.switch-asia.eu/fileadmin/user_upload/Publications/2014/Impact_sheets/Switch_Asia_Impact_Sheet_-_2014_-_Greening_Sri_Lankan_Hotels.pdf

4.7.2 Enabling Policies and Regulatory Frameworks

The stocktake showed all the stocktake countries have enabling policies and regulatory frameworks to support the environment; most are part of the countries' standard set of environmental laws and regulations. While the 2030 Agenda for Sustainable Development requires that countries update existing regulatory frameworks and bring them in line with the SDGs, most of the stocktake countries have not done so. Updates may be needed due to conflicting policies requiring harmonization—i.e., a policy promoting the sale of timber could be incompatible with one encouraging sustainable forestry—or because appropriate policy instruments are required for effective implementation. For example, respondents from one DMC said they initiated a tax on petroleum products as a pollution control tax, but the collected revenue had not been spent due to a lack of policies determining how earmarked funds can be used.

Though an exception, capitalizing on the SDGs to strengthen enabling policies was already happening in some of the stocktake countries. DMCs such as Indonesia, Timor-Leste, and Viet Nam introduced new policy instruments to support SDG implementation, in general, that will also deliver benefits for their environmental dimensions, specifically. These newly introduced and revised policies offer an official mandate for governments to cooperate on planning and action on the SDGs. In addition, some countries have taken advantage of the SDGs (and the UNFCCC Paris Agreement) to draw attention to existing enabling policies. For instance, the Government of Bhutan committed to maintain at least 60% of its land under forest cover at all times; this makes the country carbon-negative—currently absorbing more carbon dioxide than it generates.

Other countries are also starting to introduce an even wider set of policy changes to support the implementation of the SDGs. To provide another illustration, the Lao PDR is revising their existing natural resources protection and management, and pollution laws and regulations as well as developing and endorsing new regulations and decrees such as the Water Resource Law (2017), Chemical Management Law (2017), Decree on Pesticides Management (2018), among others. The Government of the Lao PDR also recently announced a four-year moratorium on new mining investments and the granting of concessions for rubber and banana plantations due to environmental and social concerns. Related to the above set of reforms, in 2016, the Lao PDR's Prime Minister ordered officials in a heavily polluted southern province of the country to reject proposals for new mining projects, citing severe damage already caused to the local environment.

While the above examples outline how the enabling policies introduced are encouraging, it is necessary to strengthen the capacity of responsible agencies to enforce them and ensure compliance. This frequently involves consideration of finance, capacity, and other MOI.

4.7.3 Finance, Capacity, and Other Means of Implementation

The most important factor influencing implementation of the environmental dimensions of the SDGs is arguably the MOI. This is partially a reflection of the sum of resources needed to implement the SDGs in their entirety. According to some estimates, these costs could run from $3.3 trillion to $4.5 trillion per year.[50] While this sounds like a significant sum, it should be viewed in light of the costs and benefits of moving away from business-as-usual development. To cite a particularly relevant cost–benefit ratio, investments in biodiversity are estimated to yield up to tenfold financial returns over time.[51] For arguments based on these kinds of ratios to gain traction requires a fundamental change in the view on the economic returns of maintaining a sound environment and natural resource base for development.

It also necessitates engaging with stakeholders who can offer funding targeted to build national capacity to mobilize resources so investments can be generated locally, for instance, through green taxes and fees. At present, most actions on the environment remain primarily driven by stocktake countries' international and regional development partners, limiting prospects for viable long-term financing for implementing the environmental dimensions of the SDGs. A precautionary approach that helps to align planned and proposed investments with appropriate environment-related indicators may be useful. Some of the stocktake countries in Southeast Asia appear to be taking this kind of approach, and this could be replicated elsewhere in the region.

50   A. Maasho. 2015. UN Conference Agrees on Plan to Finance Development Goals. *Reuters*. https://www.reuters.com/article/us-africa-development-idUSKCN0PQ21D20150716

51   B. Lomborg. 2015. The Price of Biodiversity. *Project Syndicate*. http://www.project-syndicate.org/commentary/biodiversity-price-sustainable-development-by-bj-rn-lomborg-2015-03.

For the environmental dimensions of the SDGs to get the resources they need to be implemented, the private sector has to be engaged more frequently and actively. While foreign investments bring in capital, technology, and skills, many investments end up being environmentally and socially harmful, focusing on single sectors to the detriment of others. Moreover, guidance is needed on how to leverage the private sector's contribution, and how to link financing to these SDGs to maximize investment opportunities and sources. In addition, although SDG work plans or road maps are being developed, costing exercises still need to be undertaken, especially for the environment-related goals and targets. In doing so, it is pertinent to strategically mobilize public resources with a view to expanding opportunities for private investments.

Other stakeholders are the government ministries and agencies that allocate funding, particularly ministries of financing economics, and planning. They have a significant influence on whether the environmental dimensions are addressed or not, because DMCs need to move away from ad hoc environment actions driven by development partners; instead, investment in the environment needs to be driven domestically through national policies, plans, and programs that effectively integrate the environmental dimensions of the SDGs. Interviews during the stocktake revealed that financing the environmental dimensions is sometimes considered a second priority compared to infrastructure and growth-oriented development activities. Environment-related goals and targets currently receive fewer resources than traditional human development priorities. For example, the stocktake revealed some governments direct only a low percentage (1%–4%) of the state budget to the environment ministry's activities. Moreover, some of the surveyed countries noted that finance ministries do not currently have dedicated financing for the environment. In this case, and because financing traditional forms of development are likely to remain a priority in DMCs for the foreseeable future, integrating environmental concerns into other priority funding areas will be needed. Among others, this requires environment specialists to familiarize themselves with the national budget cycle and prepare financing cases well ahead of the annual budget call. Such preparations can include creating "alliances" beyond the immediacy of the environment and focusing on why good performance on the environment-related goals and targets will benefit society and the economy as a whole. It may not be about making a business case for the environment as such, but decision makers require necessary political support. Such support can be mobilized once a broader segment of policy makers understand why a sound environment is in their interest as well.

There are some positive signs the region may be able to raise and allocate enough resources for the environmental dimensions of the SDGs (Box 9). Even though necessary budgets for them may be lacking at the moment, some of the stocktake countries are undertaking costing exercises to determine how much will be needed to achieve environmental sustainability. In Viet Nam, the Ministry of Planning and Investment and Ministry of Finance oversee regular allocations of resources from the state budget to support the collection of monitoring data and the preparation of progress reports on the implementation of the national SDGs. The government is also encouraging the private sector to voluntarily contribute to the implementation of the SDGs and intends to introduce regulations to enable collecting of finances from the private sector to fund implementation. Ministries, as well as local government and other relevant institutions, also have to prepare budgets for action on the SDGs, to be provided funding for implementation in accordance with existing provisions of the state budget.

A related example is from Nepal's natural resources and environment sector. This sector has been mobilizing funding from environmental tax reforms, thus, increased funding for national environment priorities is possible. The country has also assigned "SDG codes" to all programs and projects under the national budget to help track how allocations contribute to the SDGs. Another example is from Bhutan, where the Bhutan for Life Fund was established in collaboration with the World Wide Fund for Nature

Box 9: The People's Republic of China's Green Finance Platform

Green finance covers a range of financial services; institutional arrangements; country initiatives and policies; and products (debt, equity, insurance, or guarantees) designed to promote the flow of finance toward environmentally sustainable activities and projects. These would actively promote environmental improvement, climate change mitigation and adaptation, and improve efficiencies in natural capital preservation and resource mobilization.

The establishment of a green financing platform in the People's Republic of China (PRC) is one active example—with a $0.5 billion loan from the Asian Development Bank, this platform is expected to leverage about $4 billion to help small and medium-sized enterprises (SMEs) find the knowledge to switch to cleaner production and help implement this by having easier access to commercial bank loans.[a] It recognized the importance of scaling up green finance and the need to consider options for increasing private capital for green investment. Before the 2016 G20 summit, PRC President Xi Jinping launched a set of green guidelines to create a green finance system for the country, including a green financing mechanism to facilitate the economy's transition to sustainable growth, one of the first to take such an initiative.

The PRC has also quickly established itself as the largest issuer of green bonds, going from zero green bonds to more than 40% share of the green bonds market, and an issuance of over $17 billion worth of green bonds in 2016 alone, though with some localized green bond standards applied. The PRC has also launched its own country-specific guidelines for green bonds. The Central University of Finance and Economics in the PRC supports capacity development on green bonds and related issues.

[a] Asian Development Bank. 2017. *People's Republic of China: Green Finance Catalyzing Facility Project.* Manila. https://www.adb.org/projects/51194-003/main

Source: Climate Bonds Initiative. 2016. *Bonds and Climate Change: The State of the Market in 2016*. https://www.climatebonds.net/files/files/reports/cbi-hsbc-state-of-the-market-2016.pdf; United Nations Environment Programme. 2017. *Green Finance Progress Report*. https://wedocs.unep.org/bitstream/handle/20.500.11822/21608/Green_Finance_Progress_Report_2017.pdf?sequence=1&isAllowed=y

(WWF). This collaboration helped raised $45 million for the maintenance of protected areas, funded through the Green Climate Fund, UNDP, the Global Environment Facility, and the private sector. While it may be difficult to replicate this funding arrangement in other contexts, it could be useful for other countries that may wish to leverage funding with other interested agencies in this way.

Another DMC that offers some useful lessons is Indonesia. Its Ministry of Finance is developing a Green Planning and Budgeting Strategy coordinated by the ministry's Center for Climate Change Finance and Multilateral Policy, and supported by an interministerial team and a senior advisory panel. The strategy responds to six key policy areas for green growth—ranging from forestry, agriculture and irrigation, to education and health—and outlines approaches to encourage more productive public financing and private investment. The Jakarta Stock Exchange provides another good example of applying sustainable financing through the SRI KEHATI Index. This stock market index refers to sustainable and responsible investment of listed companies by considering seven main factors: environmental, community, corporate governance, human rights, business behavior, labor practices, and decent work.

Other examples of innovative financing arrangements can be found in the Philippines. As part of the move to Performance-Informed Budgeting, in 2014, the Department of Budget and Management introduced a Program Expenditure Classification tool. This initiative restructures government agencies' budgets and presents program budgets so that they are aligned to agency mandates and envisioned outcomes. The Program Expenditure Classification tool helps decision makers and oversight agencies

improve their understanding of how government agency programs contribute to societal outcomes. It further allows the government to adjust or cancel programs not significantly contributing to agency mandates and outcomes. It also helps the Congress (legislative branch of the government) in analyzing the budget performance of agencies against their mandates and to allocate resources effectively to relevant and high-impact programs. Another approach implemented in the Philippines involves encouraging local government units to track their climate expenditures in their annual investment programs. Climate expenditure tagging is the process of prioritizing and assigning codes to climate change programs, projects, and activities. This is done during the preparation of the annual investment program.

Many of the MOI needs will not be addressed by a single actor operating in isolation, but by multiple actors in partnership. Partnership is important both for financial as well as other technological and capacity-development MOI. Hence, it is not only interlinkages across targets, but also the links between public, private, and nonstate actors that require attention. It is due to this perceived need that surveyed countries in South Asia and Southeast Asia are calling for capacity development to improve working modalities with civil society organizations and the private sector. Other surveyed countries lament the lack of success in attracting global investors despite efforts made in attracting foreign direct investment through policy reforms and incentives. One interviewee revealed that application of new knowledge and technology should include indigenous (tacit or implicit) and explicit knowledge extraction and improvement by way of new and innovative methods using modern technology. This could start from when citizens are still very young through to universities and other institutions. An example from Bhutan shows this is already being done. At the tertiary education level in Bhutan, sustainable consumption and production (SCP) content is incorporated in environment courses. At the vocational education level, training on SCP is provided and a handbook for teachers and course materials were developed to help with training. In the informal education sector, besides incorporating SCP in their entire curriculum, the informal education instructors of all 20 *dzongkhags* (districts) are being trained on SCP.

However, at the local level, government units in most of the stocktake countries still have only limited technical capacities on development planning and programming, let alone monitoring and reporting. While sustainable development and the SDGs are official policy goals in all of the stocktake countries, many are challenged by lack of capacity and instruments required to undertake proper licensing and monitoring of compliance. These challenges link back to the section on institutional arrangements and the importance of localization. Dedicating resources to this from the national level is particularly important when in countries that otherwise have strong local governments, such as the Philippines.

Many of the expressed technical capacity development needs focused on the last of the four sets of issues reviewed in this subsection: collecting data to monitor the SDGs, especially Tier 2 and Tier 3 indicators (Figure 23), and addressing data gaps, especially data disaggregation. As summarized in Chapter 2, the problem with data is many of the targets from the biodiversity-related goals and targets do not have a history of collected data, and current baselines are based on proxy indicators. Monitoring data in particular will require prolonged attention and concerted efforts from development partners and available national experts to bring up to speed the data generation and collection necessary to monitor environment-related goals and targets.

4.7.4 Indicators, Data, Monitoring and Evaluation

In general, the stocktake found that there needs to be a better understanding of the need for quality monitoring data and assessments to support an evidence-based approach to policy making and resolution of conflict. If decision makers and other stakeholders do not have access to these, it will be difficult for them to fully understand the positive and negative interlinkages of environmental with

Figure 23: Types of Sustainable Development Goal Indicators Sorted by Tiers
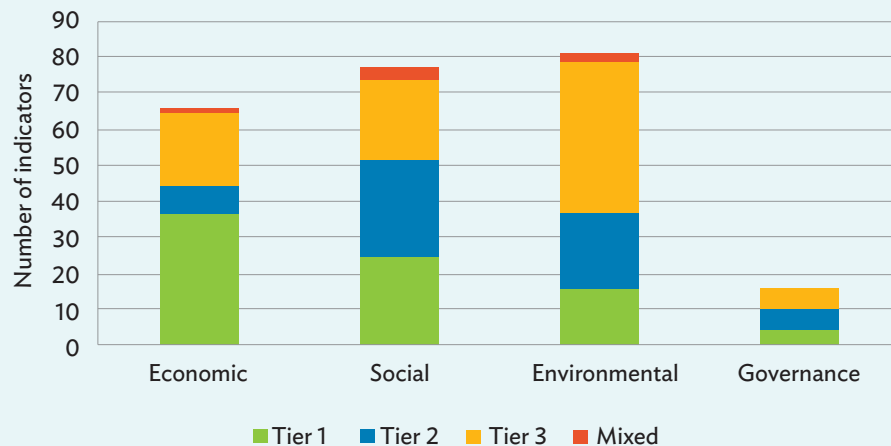
Note: Tier 1: Conceptually clear, has established methodology and standards and data is available for at least 50% of countries where relevant. Tier 2: Conceptually clear, has established methodology and standards, but data not regularly produced Tier 3: Lack of established methodology or standards, but is being (or will be) developed or tested.

Source: E. Zusman, T. Yoshida, and S. Høiberg Olsen. 2016. Environment is the Weakest Link in SDGs Indicators. *IGES Commentary;* United Nations Statistics Division. 2018. *Tier Classification for Global SDG Indicators.* https://unstats.un.org/sdgs/files/Tier%20Classification%20of%20SDG%20Indicators_11%20May%202018_web.pdf

socioeconomic issues, and the importance of supporting integrated policies and plans. Without quality monitoring data and assessments, countries will also find it hard to address political and economic issues, resulting in economic and social issues continuing to be given more weight than environmental issues.

There are limited environmental indicators and data available other than those existing for MDG 7 on forest cover. Moreover, a significant amount of data is several years old and not necessarily reflective of the current state of the environment. This lack of good quality data is of concern as it hampers the ability of governments to make informed decisions on integration. During the stocktake, some of the surveyed countries shared that the lack of data for indicators prevented them from making environment-related targets a priority. The lack of data needs to be addressed, and where data gaps cause neglect of environment-related targets, development partners should provide support. More strategic, uniform, and regular collation of data on the environment and natural resources, and consolidation of existing information from all levels of government is important.

Because the SDG indicators were defined at the global level, focusing on accumulated inputs from international experts and stakeholders, the ability to accurately reflect the SDG indicators with available data at national levels varies a great deal across countries. Most struggle to find suitable data for the environment-related targets. To deal with data gaps, some countries are using context-appropriate

proxies based on different needs and circumstances.[52] This is pragmatic, but proxies do not always capture the multiple dimensions of an issue in the same way that the official indicators intended. Therefore, while the strong sentiments among interviewed experts and government officials revealed that usage of proxies is a necessary way forward, it is to be expected that, over time, data will have to be generated to accurately reflect the multiple dimensions the SDG indicators intend to measure.

Monitoring the progress of the SDGs requires compilation and analysis of data related to numerous indicators and subject areas, and may necessitate new ways of collecting data. In addition to national-level data, more disaggregated data is crucial to identify disparities across locations and socioeconomic groups, and to develop strategies to ensure that "no one" is left behind. At first glance, disaggregation may not seem relevant to the SDG 12, 14, and 15 targets. However, several contain targets focusing on "access," jobs in sustainable tourism, per capita waste generation, and others. For these examples, disaggregation of data will be necessary to accurately identify gaps and track progress.

Another identified challenge is various organizations collect relevant data in the surveyed countries, but there is no "one-stop shop" for environment-related data. In one Southeast Asian DMC, weak coordination has resulted in irregular tracking and monitoring of output, and performance of environmental and natural resource management activities across the national and subnational government agencies and units.

Moreover, only a few of the stocktake countries make use of new geospatial technology and remote sensing for data collection and assessment, but application of this technology has clear advantages as it can be easier to survey the condition of land, forests, and land use from space, rather than from the field. The underuse of this technology is mainly due to lack of capacity and investment in equipment, but development partners could also focus on providing easy access and training to enable DMCs to familiarize themselves with such technologies.

Thus, significant additional efforts will be needed to increase the environmental monitoring capacity in many of the stocktake countries. This is evident in Figure 24, which illustrates the challenge of surveying and matching the current data and indicator situation in countries. Four out of the 15 stocktake countries show limited activity on the collection of data; eight countries are at different stages of identifying data, indicators, and gaps; and three countries are already beginning to evaluate their current status based on available data. Moreover, none of the stocktake countries have data matching the entire set of 232 SDG indicators.
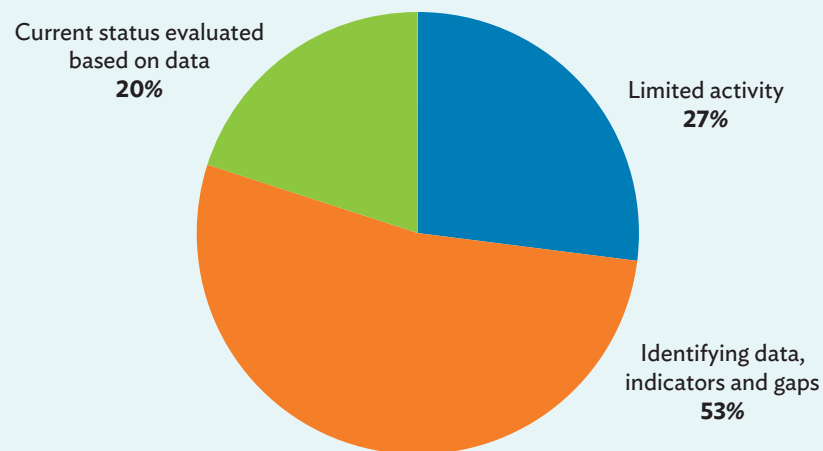
In addition, it is known at a global level that environmental indicators are an issue and a challenge. Compared to the economic and social indicators, only a fraction of environmental indicators are Tier 1 indicators with established methodologies and data already regularly collated. The bulk of environmental indicators are Tier 3 with no available established method for data collation or regularly collected data. This situation applies to the entire region and prospects for improvement are gradual at best.

While the status of data is generally unfavorable, several good practices are implemented in the region. One such good data-related practice comes from Bhutan, which makes use of 16 National Key Result Areas (NKRAs) identified for the 11th Five-Year Plan. These are aligned with 14 of the 17 SDGs. In particular, SDG 12 is (partly) addressed by NKRA 5 on Healthy Ecosystem Service Maintained, and SDG

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[52] Several interviews revealed additional indicators have to be identified to serve the national context rather than conform with global indicators. In some cases, global targets and indicators were "adopted" in national planning documents, but there is a sense that, in some cases, this may have been done too quickly and without ensuring the local situation corresponds to the focus of targets and indicators.

**Figure 24: Snapshot of Current Status of Work
on Environment-Related Goal Indicators
(N=15)**

Current status evaluated
based on data
20%

Limited activity
27%

Identifying data,
indicators and gaps
53%

Source: Asian Development Bank.

15 is addressed by NKRA 5 as well as NKRA 6 on Carbon-Neutral, Climate-Resilient, Development-Enhanced. Each policy proposal is scored against the NKRAs based on 61 key performance indicators and a certain scoring threshold ensures that there is no significant change in the direction of important policy areas. Bhutan also identified 107 out of the 232 SDG indicators already integrated with the NKRAs.

Another potentially replicable practice can be found in the Lao PDR. According to the Lao PDR's Ministry of Planning and Investment, the government developed process indicators that makes it possible to track progress on awareness raising and education on sustainable development, and of the development of sustainable tourism. The indicators are the development of primary and secondary curricula and teacher education programs on sustainable development, the number of universities with campus sustainability plans, and the extent of adoption and implementation of the Lao PDR Action Plan for Pakse Declaration on ASEAN Road Map for Strategic Development of Ecotourism Clusters and Tourism Corridors.

Overall, the challenge of monitoring and reviewing progress is linked to what the SDGs set out to measure. An integrated approach to the SDGs will require disaggregated data to reflect various dimensions and their linkages. This is a novel requirement that breaks from the more reductionist measurement of the MDGs. Naturally, DMCs and stakeholders will be challenged to produce such data when there is no history of doing so. This challenge is also linked to the lack of data to reflect the environmental dimension of the SDGs in the stocktake countries. It would be helpful for DMCs to prioritize developing their technical capacity and to seek the right technology to undertake monitoring for SDGs 12, 14, and 15; as well as to gain a more thorough understanding of what statistical data might be relevant, and when innovative data sources can be used. For example, establishing the capacity to use remote sensing to monitor biodiversity progress would be a good long-term priority. Meanwhile, proxies can be employed, such as qualitative community surveys of perception of air quality impacts on health, if quantitative data cannot be collected and collated from the outset.

4.8 Tools, Methods, and Approaches for Integration

As the previous sections discuss, action on the environment-related goals and targets seems to fall behind traditional socioeconomic development priorities. An output of the TA project is to identify tools that can be useful in different stages of the policy cycle to support efforts to integrate environment in national policy and plans to help achieve policy coherence and reduce the tendency to trade-off the environment for socioeconomic development. This section presents a summary of the stocktake of existing tools to aid integration.[53]

The stocktake reinforced the prevailing view that policy and planning systems in most of the stocktake countries are still structured and implemented (including budget allocation) using a sector-based approach, whereas the economic, social, and environmental sectors and corresponding ministries and line agencies that make policy and carry out most of their planning, programs, and projects, work with little to no integration with the other two sectors. While the monitoring situation for the environmental dimensions of the SDGs is a long-term challenge without quick fixes, it is necessary to tackle it to allow identification of baselines and subsequent tracking of progress for the concerned SDG targets, to better reflect the environment's real situation, and to allow for a better integration of the environmental dimensions in DMCs' development priorities. The stocktake identified various tools available to decision makers that they can opt to use in helping them with this integration. These tools were developed over the past several decades and are mostly open source. With the launch of the 2030 Agenda for Sustainable Development and the SDGs, many more new tools are becoming available, designed to specifically facilitate SDG integration.

To better understand their status, the stocktake looked at the tools governments used in the past or are actively using. Of the 14 surveyed countries, each one had experience with, or is currently using different tools for sector-based policy, planning, and implementation, which have the potential to be redirected and adapted for strengthening environmental integration at different policy formulation and implementation stages and scales. A few of the surveyed countries are also beginning to take an integrated systems approach to policy and planning, including the creation of supportive inter-institutional coordination mechanisms. For example, governmental institutions responsible for SDG coordination in both Mongolia and Sri Lanka are now using systems thinking, network analysis, and dynamic simulation and modeling tools for integrated policy considerations and coherence. Some of the tools used by stocktake countries in Asia and the Pacific are shown in Figure 25.

The stocktaking revealed that even though many different tools are available to aid an integrated approach to policy and planning, government awareness of such tools remains limited. Additionally, not enough guidance is available to help potential users select the right tools, and the introduction of such tools into the decision-making process usually hinges on inputs from external experts and development partners.

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53   Asian Development Bank. 2019. *Strengthening the Environmental Dimensions of the Sustainable Development Goals in Asia and the Pacific: Tool Compendium.* Manila. https://www.adb.org/publications/environmental-dimensions-sdgs-tool-compendium

Figure 25: Examples of Tools for Integrating the Environmental Dimensions of the Sustainable Development Goals

Examples:
- Biodiversity Strategies and Action Plans
- Ecosystems Based Adaptation
- Ecosystem Services Review
- Biodiversity Finance Initiative (BIOFIN)
- Earth Observation, Remote Sensing and Geographic Information Systems (GIS)

Examples:
- Marine Spatial Planning
- State of the Coasts Reporting
- Integrated Information Management Systems for Coastal and Marine Environments

Examples:
- Integrated Ecosystem Management
- Natural Capital Accounting for Water and Wetlands
- Restoration Opportunities Assessment Methodology

to SDGs 14 and 15 (Life under Water and Life on Land)

to SDG 14 (Life under Water)

to SDG 15 (Life on Land)

29 TOOLS

7 TOOLS

15 TOOLS

Applicable Tools

21 TOOLS

47 TOOLS

24 TOOLS

to SDG 12 (Responsible Consumption and Production)

to an integrated approach to the SDGs in general

to the environmental dimensions of the SDGs in general[a]

Examples:
- Practical Tools for Sustainable Consumption and Production
- Indicators for a Resource-Efficient and Green Asia and the Pacific
- Sustainable Public Procurement
- Sustainability Reporting including the Global Reporting Initiative (GRI)
- Eco-labeling and Eco-Certification Schemes

Examples:
- Mainstreaming, Acceleration, and Policy Support (MAPS) Framework
- Institutional and Coordination Mechanisms
- Scenario Development or Planning
- Systems Thinking
- SDG Interactions Framework
- SDG Interlinkages Analysis and Visualization Tool

Examples:
- Framework for the Development of Environment Statistics
- Nexus Approaches to Environmental Resource Management
- System of Environmental-Economic Accounting (SEEA)
- Environmental Finance Tools
- Integrated Planning, Budgeting and Investment Tools for Achieving the SDGs: Poverty-Environment Initiative Asia-Pacific in Focus
- Green Finance Catalyzing Facility

[a] A study by the United Nations Environment Programme has shown that 86 out of 169 targets directly or indirectly seek to reduce environmental damage or emphasize the critical role of natural resources and ecosystem services in ensuring human well-being and prosperity. For practical reasons, the technical assistance project, and thus the tool compendium, is focused on SDGs 12, 14, and 15 and selected environment-related targets from SDGs 2, 3, 6, 7, 8, 9, 11, and 17. Climate change (SDG 13) is a significant issue and has many interlinkages with these environment-related goals and targets, for example, through support for climate change mitigation, air pollution reduction, and ecosystems-based adaptation, but this SDG is not a focus of the technical assistance project.

SDG = Sustainable Development Goal.

Source: Asian Development Bank.

5 Conclusions and Recommendations

This report presented the results of a stocktake of national responses to selected environment-related goals and targets in 15 DMCs from across Asia and the Pacific. Recent SDG status reports indicate implementation of SDGs with a stronger environmental focus shows limited progress. The region with arguably the greatest need for strengthening national responses to SDGs 12, 14, and 15 is Asia and the Pacific. This need reflects how the region's exceptional growth comes at steep environmental costs; now undermining the prospects for sustained economic growth and social development within and even beyond the region.

The stocktake found that, at the goal level, surveyed countries' environment priorities are generally aligned with the selected environment-related goals and targets. Furthermore, most government ministries and agencies interviewed possess a high level of awareness of SDGs 12, 14 and 15; since they are parties to related MEAs and the 10-Year Framework of Programmes on Sustainable Consumption and Production. While many stocktake countries have made commitments to the environment, it is a challenge to translate these into meaningful action. Most of the stocktake countries are focused on addressing "conventional" environmental issues and their environment ministries or agencies are doing so in isolation from other agencies. Such a sector-based approach is not conducive to integration as limited attention is given to the intra- and cross-SDG interlinkages. Although stocktake countries are starting to leverage the SDGs to address environmental issues, deeper integration within the goals that are DMC priorities promises to be important.

Part of the reason for the limits on this deeper integration are frequently cited barriers, including a lack of institutional coordination, constraints on the technical capacity and availability of human resources, a lack of financing for monitoring data and assessment, and troubles with developing monitoring indicators. To understand these barriers, as well as possible solutions, the report looked more closely at the following areas: (i) institutional architectures; (ii) enabling policies and regulatory frameworks; (iii) finance, capacity, and other MOI; and (iv) indicators, data, monitoring and evaluation. It was concluded that:

- Most of the stocktake countries have created institutions to implement the SDGs, in general, but few have yet to focus on implementing the environment-related goals and targets. There is still scope for greater integration between environmental issues and socioeconomic issues. In some cases, this may require considering how to "fit" the SDGs into existing institutions and rules—for example, through encouraging existing ministries and agencies to map institutional responsibilities. In other instances, creating and empowering new agencies may be warranted. Both types of institutional responses can help create an atmosphere in which relevant ministries and agencies are actively encouraged to work toward a whole-of-government approach that can maximize synergies and minimize trade-offs between environmental, economic, and social development concerns.

- In some of the stocktake countries, overlapping, conflicting, and lack of appropriate enabling policies impedes integration. This can be because sector policies are not supported by robust legal frameworks. Greater efforts to tailor SDGs 12, 14, and 15 to diverse national and local contexts could help align regulatory frameworks with the environment-related goals and targets. Several of the stocktake countries are updating and strengthening their environmental regulatory policy frameworks to match the SDGs, and these can serve as useful models.

- As for finance, capacity, and MOI, many of the stocktake countries do not have incentives yet to promote action on the environmental dimensions of the SDGs. Funding the environmental dimensions will require enabling other actors to get involved in the areas they cover. Some of the stocktake countries established funds and fiscal tools that generate revenues from and for natural resources management. Such funds and fiscal tools require enabling policies directed at practical areas where the environment can benefit.

- As for indicators, data, monitoring and evaluation, stocktake countries are beginning to map their indicators and identify data gaps. Some are selecting proxy-indicators and started costing exercises for implementing the SDGs, even where data might still be missing. Most stocktake countries require attention to monitoring and evaluating progress in the coming years.

While most countries surveyed express recognition of the links between environment and socioeconomic development, there is significant scope to leverage the SDGs to transform national development models and place the region on a more environmentally sustainable course. Finding workable ways to make an integrated vision of the SDGs operational is a challenge that is perhaps more urgent, but not unique to Asia and the Pacific.

Moving forward, there is no need to invent new concepts. Many existing decision-making tools and methods can be used to help promote more integrated and coordinated approaches to the environment. Fitting them to specific national and local realities will become important since the since the applicability of tools for integration often depends on the issues, stakeholders, and national contexts. There is no one-size-fits-all set of tools due to these differences in context. To strengthen implementation of the environment in the SDGs, practical guidance on how these tools can be applied to address the identified barriers and facilitate integration will be needed in Asia and the Pacific, and beyond.

Many successful existing regional and national initiatives also exist with the potential to address many of the common barriers to integration that can be scaled up. These include Bhutan's alignment of national key result areas with the SDG indicators; Indonesia's climate change and biodiversity budget tagging; the Lao PDR's enhancement of enabling policies and regulatory frameworks by capitalizing on the SDGs; the PRC's mobilization of green finance to catalyze cleaner production; and Sri Lanka's engagement in SDG mapping exercises to strengthen institutional coordination.

Scaling up of these existing approaches will require concerted effort and collaboration among different stakeholders, including governments, civil society, and the private sector. Multiple ministries and agencies must work together and take on the mandate to achieve the environmental dimensions of the SDGs, rather than requiring environment ministries or agencies to address them on their own. Policy makers need to better comprehend the impact of their policies on the environment, and the importance of delivering the SDGs as an integrated whole. Taking a whole-of-government approach is needed to avoid trade-offs between environmental and socioeconomic priorities. Screening mechanisms and strategic environmental assessment are important tools for ensuring conflicts and trade-offs are understood, and for facilitating the reworking of draft policies. Understanding of green financing tools, methods, and approaches by governments and financial institutions needs to be strengthened. Capacities must be

developed and strengthened so those responsible for data collation and management can work together, and with more innovative data technologies and sources.

Therefore, the report concludes and recommends that an important way forward is to equip decision makers at different levels with decision-making tools that support integration. The technical assistance project has published a separate tool compendium that offers government and other stakeholders guidance on what tools are available for different purposes (footnote 53).

References

M. N. Asadullah and A. Savoia. 2018. Poverty Reduction during 1990–2013: Did Millennium Development Goals Adoption and State Capacity Matter? *World Development.* 105. pp. 70–82. https://www.gov.uk/dfid-research-outputs/poverty-reduction-during-1990-2013-did-millennium-development-goals-adoption-and-state-capacity-matter#link

Asian Development Bank. 2016. *Supporting Implementation of Environment-Related Sustainable Development Goals in Asia and the Pacific.* Manila. https://www.adb.org/sites/default/files/project-document/215401/50158-001-tar.pdf

———. 2017. *People's Republic of China: Green Finance Catalyzing Facility Project.* Manila. https://www.adb.org/projects/51194-003/main

———. 2018. *Strengthening the Environment Dimensions of the Sustainable Development Goals in Asia and the Pacific: Knowledge-Sharing Workshop Proceedings.* Manila. https://www.adb.org/publications/environment-dimensions-sdgs-asia-pacific-proceedings

———. 2019. *Strengthening the Environmental Dimensions of the Sustainable Development Goals in Asia and the Pacific: Tool Compendium.* Manila. https://www.adb.org/publications/environmental-dimensions-sdgs-tool-compendium

Climate Bonds Initiative. 2016. *Bonds and Climate Change: The State of the Market in 2016.* https://www.climatebonds.net/files/files/reports/cbi-hsbc-state-of-the-market-2016.pdf

Convention on Biological Diversity. 2013. *Quick Guide to the Aichi Biodiversity Targets. Protected Areas Increased and Improved (Target 11).* Montreal: Secretariat of the Convention on Biological Diversity. https://www.cbd.int/doc/strategic-plan/targets/compilation-quick-guide-en.pdf

P. Das and R. Horton. 2017. Pollution, Health, and the Planet: Time for Decisive Action. *The Lancet.* 19 October. https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(17)32588-6/fulltext#.

W. Easterly. 2009. How the Millennium Development Goals Are Unfair to Africa. *World Development.* 37 (1). pp. 26–35. https://doi.org/10.1016/j.worlddev.2008.02.009

Environmental Performance Index (EPI). 2018. *2018 EPI Report.* https://epi.envirocenter.yale.edu/2018/report/category/hlt

D. Griggs, et al. 2013. Policy: Sustainable Development Goals for People and Planet. *Nature.* 495 (7,441). pp. 305–307. https://sustainabledevelopment.un.org/content/documents/844naturesjournal.pdf

M. S. Grindle. 2004. Good Enough Governance: Poverty Reduction and Reform in Developing Countries. *Governance.* 17 (4). pp. 525–548. https://onlinelibrary.wiley.com/doi/abs/10.1111/j.0952-1895.2004.00256.x

International Institute for Sustainable Development. 2018. *APFSD Bulletin*. 208 (22). http://enb.iisd.org/ download/pdf/sd/enbplus208num22e.pdf.

Japan Sanitation Consortium et al. 2018. Regional Report Asia–Pacific. *Asia Pacific Water Forum*. March. pp. 1-63.

A. Jordan and A. Lenschow. 2010. Environmental Policy Integration: A State of the Art Review. *Environmental Policy and Governance.* 20 (3). 27 May. pp. 147–58. https://onlinelibrary.wiley.com/ doi/abs/10.1002/eet.539.

N. Kanie. 2007. Governance with Multilateral Environmental Agreements: A Healthy or Ill-Equipped Fragmentation. *Global Environmental Governance*. pp. 67–86. http://www.centerforunreform.org/ sites/default/files/GEG_Kanie.pdf

A. Karazhanova. 2018. Applying Integrated approaches to National Policy Making: The Sustainability Outlook of Mongolia [PowerPoint slides]. South-East Asia Subregional Training Workshop Integration of the SDGs in National Planning. 13 September 2018, United Nations Conference Centre, Bangkok. https://www.unescap.org/sites/default/files/Applying%20Integration%20in%20 SOM.pdf

D. Le Blanc. 2015. Towards Integration at Last? The Sustainable Development Goals as a Network of Targets. *DESA Working Paper No. 141.* https://www.un.org/esa/desa/papers/2015/wp141_2015.pdf.

J. Lernoud and H. Willer. 2017. *The World of Organic Agriculture 2017: Summary, The World of Organic Agriculture, Statistics, and Emerging Trends.* https://shop.fibl.org/CHen/mwdownloads/download/ link/id/785/?ref=1

B. Lomborg. 2015. The Price of Biodiversity. *Project Syndicate*. http://www.project-syndicate.org/ commentary/biodiversity-price-sustainable-development-by-bj-rn-lomborg-2015-03

A. Maasho. 2015. UN Conference Agrees on Plan to Finance Development Goals. *Reuters.* https://www. reuters.com/article/us-africa-development-idUSKCN0PQ21D20150716

D. Meadows. 2008. *Thinking in Systems: A Primer.* Vermont: Chelsea Green Publishing.

Ministry of Sustainable Development and Wildlife. 2017. *Draft Handbook Institutional Architecture for Implementing the Sustainable Development Goals in Sri Lanka.* Battaramulla. http://www. parliament.lk/uploads/documents/paperspresented/performance-report-ministry-of-sustainable- development-2017.pdf

Partnerships in Environmental Management for the Seas of East Asia. 2017. *How Does PEMSEA Contribute to the SDGs?* http://pemsea.org/sites/default/files/SDG%20flyer%202017.pdf

A. Persson. 2004. Environmental Policy Integration: An Introduction. *Policy Integration for Sustainability (PINTS).* June. p. 54. https://mediamanager.sei.org/documents/Publications/Policy-institutions/ pints_intro.pdf

B. Pisupati. 2016. *Role of Multilateral Environmental Agreements (MEAs) in Achieving the Sustainable Development Goals (SDGs).* United Nations Environment Programme. https://wedocs.unep.org/ handle/20.500.11822/9966

Poverty-Environment Initiative Asia–Pacific. 2018. *Asia and the Pacific PEI Regional Support Programme, 2018.* http://www.unpei.org/asia-and-the-pacific-pei-regional-support-programme

REN21. 2017. *Advancing the Global Renewable Energy Transition. Highlights of the REN21 Renewables 2017 GSR in Perspective.* http://www.ren21.net/wp-content/uploads/2018/06/180603_GSR_2018_Highlights_D_2.pdf

Secretariat to the Convention on Biological Diversity. 2011. *Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity. Text and Annex.* Montreal. https://www.cbd.int/abs/.

SWITCH-Asia Network Facility. 2013. *Using Food Safety Standards and Eco-Labelling to Open up International Markets for the Food and Beverage Industry in Sri Lanka.* https://www.switch-asia.eu/fileadmin/user_upload/Impact_sheet_-_food_and_Beverages_-_WEB.pdf

SWITCH-Asia Network Facility. 2014. *Hotels in Sri Lanka Improving Efficiency and Embracing Green Credentials.* https://www.switch-asia.eu/fileadmin/user_upload/Publications/2014/Impact_sheets/Switch_Asia_Impact_Sheet_-_2014_-_Greening_Sri_Lankan_Hotels.pdf

The Economics of Ecosystems and Biodiversity (TEEB). 2010. *The Economics of Ecosystems and Biodiversity: Mainstreaming the Economics of Nature: A synthesis of the approach, conclusions and recommendations of TEEB.* http://www.teebweb.org/our-publications/teeb-study-reports/synthesis-report/

The Energy and Resources Institute. 2015. *Air Pollution and Health. Discussion Paper.* pp. 1–21. http://www.teriin.org/projects/teddy/pdf/air-pollution-health-discussion-paper.pdf

The Asian and Pacific Energy Forum and United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP). 2017. *Asia–Pacific Progress in Sustainable Energy.* https://www.unescap.org/publications/asia-pacific-progress-sustainable-energy-global-tracking-framework-2017-regional

United Nations. 1992. *Agenda 21.* Rio de Janeiro. https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf

———. 2002. *World Summit on Sustainable Development: Johannesburg Plan of Implementation.* New York. http://www.un-documents.net/jburgdec.htm

———. 2014. *The Road to Dignity by 2030: Synthesis Report of the Secretary-General On the Post-2015 Agenda.* New York. http://www.un.org/disabilities/documents/reports/SG_Synthesis_Report_Road_to_Dignity_by_2030.pdf

———. 2016. *Progress Towards the Sustainable Development Goals.* United Nations Economic and Social Council. July. p. 28. https://unstats.un.org/sdgs/files/report/2016/secretary-general-sdg-report-2016--en.pdf

United Nations Department of Economic and Social Affairs. 2017. *Synthesis of Voluntary National Reviews 2017.* p. 78.

United Nations Development Group. 2015. *MAPS -Mainstreaming, Acceleration and Policy Support Strategy for Post-2015 Implementation.*

United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP). 2012. *Low Carbon Green Growth Roadmap for Asia and the Pacific: Turning Resource Constraints and the Climate*

Crisis into Economic Growth Opportunities. Bangkok. https://www.unescap.org/resources/low-carbon-green-growth-roadmap-asia-and-pacific

———. 2014. *Statistical Yearbook for Asia and the Pacific 2014.* Bangkok. https://www.unescap.org/publications/statistical-yearbook-asia-and-pacific-2014

———. 2016. *Analytical Framework for Integration of Water and Sanitation SDGs and Targets Using Systems Thinking Approach.* http://sdghelpdesk.unescap.org/sites/default/files/2018-02/integration%20sdg6.pdf

———. 2017. *Asia and the Pacific SDG Progress Report 2017.* Bangkok. https://www.unescap.org/publications/asia-and-pacific-sdg-progress-report-2017

———. 2017. Fourth Asia-Pacific Forum on Sustainable Development: Assessment of the Progress in Implementation of SDGs at the Regional Level. *Reports of the Round Tables on Sustainable Development Goals 1, 2, 3, 5, 9, and 14 Organised under Agenda Item 2(b) Assessment of the Progress in Implementation of SDGs at the Regional Level.* www.unescap.org/sites/default/files/pre-ods/EESCAPFSD%284%29CRP1_0.pdf

———. 2017. *Regional Road Map for Implementing the 2030 Agenda for Sustainable Development in Asia and the Pacific.* https://www.unescap.org/publications/regional-road-map-implementing-2030-agenda-sustainable-developmentasiaand-pacific.

———. 2017. *Starting Implementation of the 2030 Agenda for Sustainable Development in the Asia–Pacific Region: A Focus on Integration and Environment and Development Issues. Note by the Secretariat.* Bangkok. https://www.unescap.org/commission/73/document/E73_17E.pdf.

———. 2017. Sustainable Management of Natural Resources in Asia and the Pacific: Trends, Challenges, and Opportunities in Resource Efficiency and Policy Perspectives. *Economic and Social Council.* http://apministerialenv.org/document/MCED_2E.pdf.

———. 2017. *Urbanization and sustainable development in Asia and the Pacific: linkages and policy implications. Note by the Secretariat.* Bangkok. 7 March 2017. https://www.unescap.org/commission/73/document/E73_16E.pdf

———. 2018. *Assessment of Progress in the Implementation of Sustainable Development Goals 6, 7, 11, 12, 15, and 17 at the Regional Level. Note by the Secretariat.* https://www.unescap.org/sites/default/files/APFSD5_INF1E_0.pdf

———. 2018. *Ministerial Declaration on Environment and Development for Asia and the Pacific, 2017.* https://www.unescap.org/commission/74/document/E74_10A1E.pdf.

———. 2018. *SDG 15 Goal Profile.* https://www.unescap.org/sites/default/files/SDG%2015%20Goal%20Profile.pdf

———. 2018. *Visualisation map of the interlinkages between SDG 12 and the other SDGs.* https://www.unescap.org/sites/default/files/Visualisation%20of%20interlinkages%20for%20SDG%2012.pdf

UNESCAP, ADB, and United Nations Development Programme. 2017. *Asia–Pacific Sustainable Development Goals Outlook.* https://www.adb.org/publications/asia-pacific-sdg-outlook

United Nations Economic and Social Council. 2017. *Progress towards the Sustainable Development Goals: Report of the Secretary-General.* New York. https://unstats.un.org/sdgs/files/report/2017/secretary-general-sdg-report-2017--EN.pdf

United Nations Environment Programme. 2011. *Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication. A Synthesis for Policy Makers.* https://sustainabledevelopment.un.org/content/documents/126GER_synthesis_en.pdf

———. 2016. *A Contribution to the Global Follow-Up and Review in the 2016 High-level Political Forum (HLPF) on the Work of the United Nations Environment Programme.* https://sustainabledevelopment.un.org/content/documents/10554UNEA%20inputs%20to%20the%20HLPF%202016%20(Final).pdf

———. 2016. Role of Multilateral Environmental Agreements (MEAs) in Achieving the Sustainable Development Goals (SDGs). http://wedocs.unep.org/handle/20.500.11822/9966

———. 2017. *Green Finance Progress Report.* https://wedocs.unep.org/bitstream/handle/20.500.11822/21608/Green_Finance_Progress_Report_2017.pdf?sequence=1&isAllowed=y

———. 2017. *Towards a Resource-Efficient and Pollution-Free Asia-Pacific Region.* Bangkok. http://apministerialenv.org/document/MCED_UNEP_INF2E.pdf

———. 2018. *UNEP Statement of Commitment by Financial Institutions on Sustainable Development.* http://www.unepfi.org/about/unep-fi -statement/

United Nations General Assembly. 2017. *Work of the Statistical Commission Pertaining to the 2030 Agenda for Sustainable Development.* https://undocs.org/A/RES/71/313.

United Nations Statistics Division. 2018. *Tier Classification for Global SDG Indicators.* https://unstats.un.org/sdgs/files/Tier%20Classification%20of%20SDG%20Indicators_11%20May%202018_web.pdf

United Nations World Water Assessment Programme. 2015. *Water for a Sustainable World.* http://www.unesco.org/new/en/natural-sciences/environment/water/wwap/wwdr/2015-water-for-a-sustainable-world/

J. Vandemoortele. 2011. If Not the Millennium Development Goals, Then What? *Third World Quarterly* 32. March 2015. pp. 9–25. https://doi.org/10.1080/01436597.2011.543809.

D. J. Wolfson. 2015. *The Political Economy of Sustainable Development: Valuation, Distribution, Governance.* London: Palgrave Macmillan.

World Commission on Environment and Development. 1987. *Report of the World Commission on Environment and Development: Our Common Future (The Brundtland Report).* http://www.un-documents.net/our-common-future.pdf

X. Zhou and M. Moinuddin. 2017. Sustainable Development Goals Interlinkages and Network Analysis: A Practical Tool for SDG Integration and Policy Coherence. *Institute for Global Environmental Strategies.* June. p. 140. https://pub.iges.or.jp/pub/sustainable-development-goals-interlinkages

E. Zusman, T. Yoshida, and S. Høiberg Olsen. 2016. Environment Is the Weakest Link in SDGs Indicators. *IGES Commentary*. https://www.iges.or.jp/en/sdgs/commentary/20161014.html

APPENDIX 1

Environment-Related Goals and Targets

SDG	Target	SDG Target
		SDG 12: Responsible consumption and production
	12.1	• Implement the 10-Year Framework of Programmes on Sustainable Consumption and Production, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries.
	12.2	• By 2030, achieve the sustainable management and efficient use of natural resources.
	12.3	• By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses.
	12.4	• By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.
	12.5	• By 2030, substantially reduce waste generation through prevention, reduction, recycling, and reuse.
	12.6	• Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle.
	12.7	• Promote public procurement practices that are sustainable, in accordance with national policies and priorities.
	12.8	• By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature.
	12a	• Support developing countries to strengthen their scientific and technological capacity to move toward more sustainable patterns of consumption and production.
	12b	• Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products.
	12c	• Rationalize inefficient fossil fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities.

Appendix 1: continued

SDG	Target	SDG Target
		SDG 14: Conserve and sustainably use the oceans, seas, and marine resources
	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 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 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% of coastal and marine areas, consistent with national and international law and based on the best available scientific information.
14 LIFE BELOW WATER	**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.
	14a	• 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.
	14b	• Provide access for small-scale artisanal fishers to marine resources and markets.
	14c	• Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in UNCLOS, which provides the legal framework for the conservation and sustainable use of oceans and their resources, as recalled in paragraph 158 of The Future We Want.
		SDG 15: Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss
	15.1	• By 2020, ensure the conservation, restoration, and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements.
15 LIFE ON LAND	**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.

Appendix 1: continued

SDG	Target	SDG Target
	15.4	• By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, 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.
	15a	• Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems.
	15b	• Mobilize significant resources from all sources and at all levels to finance sustainable forest management, and provide adequate incentives to developing countries to advance such management, including for conservation and reforestation.
	15c	• 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.
Selected Environment-Related Targets[a]		
2 ZERO HUNGER	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.
3 GOOD HEALTH AND WELL-BEING	3.9	• By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water, and soil pollution, and contamination.

Appendix 1: continued

SDG	Target	SDG Target
6 CLEAN WATER AND SANITATION	**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.
	6a	• By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programs, including water harvesting, desalination, water efficiency, wastewater treatment, recycling, and reuse technologies.
7 AFFORDABLE AND CLEAN ENERGY	**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.
	7b	• 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.
8 DECENT WORK AND ECONOMIC GROWTH	**8.4**	• Improve progressively, through 2030, global resource efficiency in consumption and production and endeavor 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.
	8.9	• By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products.
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	**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.

Appendix 1: continued

SDG	Target	SDG Target
	11.4	• Strengthen efforts to protect and safeguard the world's cultural and natural heritage.
	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 SUSTAINABLE CITIES AND COMMUNITIES	**11a**	• Support positive economic, social, and environmental links between urban, peri-urban, and rural areas by strengthening national and regional development planning.
	11b	• By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans toward 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.
	11c	• Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials.
17 PARTNERSHIPS FOR THE GOALS	**17.7**	• Promote the development, transfer, dissemination, and diffusion of environmentally sound technologies to developing countries on favorable terms, including on concessional and preferential terms, as mutually agreed.

SDG = Sustainable Development Goal.

a It is clear that the environmental dimension is interwoven with the social and economic dimensions of sustainable development throughout the SDGs. Therefore, it is impossible to justly distinguish between goals and targets that are more or less environment-related. For practical purposes, not all 17 SDGs and 169 targets could be selected for consideration in the scope of the Technical Assistance project. Thus, following an analysis of the text of all 169 targets, SDGs 12, 14, and 15, and these 21 targets from other SDGs related to responsible consumption and production, and sustainable marine and terrestrial ecosystems management were selected as the environment-related targets to be studied.

Source: Asian Development Bank.

APPENDIX 2

Stocktake Questionnaires

Environment-Related Sustainable Development Goals

Implementation Progress and Capacity Needs Assessment Form

Instructions for National Consultants:

Use the questions provided as a guide for your individual interviews and research and the space provided in this note-taking template to capture and record your interview and research notes. It is recommended to also record your interviews, so responses can be checked.

List interviewees present	
Name/Role	**Ministry/Organization**

1. **Question for Interviewee:** Has your country/ministry already mapped its priority SDGs and targets? If so, which environment-related SDGs and targets have been identified as priorities for your country/ministry? Has your country/ministry already mapped interlinkages between priority goals and non-priority environment-related SDGs and targets? **Note to Interviewer:** Provide the person's rationale for the answers given. Confirm if the overall SDG is a priority or list the individual targets that are. See the word document "environment-related targets" for the full list of the environment-related targets identified in relation to SDGs 2, 3, 6, 7, 8, 11, and/or 17. Obtain references you can use for further information on these answers.	
	Response/Explanation Yes, no (qualify answer)
Priority goals and targets mapped	
SDG 12	
SDG 14	
SDG 15	
Environment-related targets from SDGs 2, 3, 6, 7, 8, 11, and/or 17	
Interlinkages mapped	

2. **Question for Interviewee:** Has your country/ministry adapted the environment-related SDGs, targets. and/or indicators to reflect the national and/or local context?

    If so, how have they been adapted?

    Note to Interviewer: Write four separate explanations for i) SDG 12; ii) SDG 14; iii) SDG 15; and iv) other targets. Obtain references that you can use for further information on these answers.

	Response/Explanation Yes, no (qualify your answer)
SDG 12	
SDG 14	
SDG 15	
Targets from SDGs 2, 3, 6, 7, 8, 11, and/or 17	

3. **Question for Interviewee:** How aware are ministries and the public of the need to address the environment-related SDGs and targets, alongside economic and social driven priorities?

    Note for Interviewer: They may answer for their own ministry and/or all ministries they consider relevant, e.g., planning, finance, environment, agriculture, forestry, water, energy, transport, urban, local government, etc.

    Use scale of low, medium, high awareness; provide the person's rationale for answer given.

Ministry Name	**Qualification of Interviewee's Answer** Low, medium, high (qualify your answer)
Public	

4. **Question for Interviewee:** What existing activities are being undertaken by your country/ministry in relation to implementing the SDGs and its environment priorities?

    What is your impression or knowledge of the effectiveness of these existing activities?

    What lessons have been learned?

    Note to Interviewer: Write four separate explanations for i) SDG 12; ii) SDG 14; iii) SDG 15; and iv) other targets. Obtain references you can use for further information on these answers.

	Existing Activities/ Responsible Ministry	**Effectiveness**	**Lessons Learned**
SDGs overall			
SDG 12			
SDG 14			
SDG 15			
Targets from SDGs 2, 3, 6, 7, 8, 11, and/or 17			

5. **Question for Interviewee:** What support activities are already being undertaken by development partners to help your country/ministry implement the SDGs and its environmental priorities?

   What is your impression or knowledge of the effectiveness of these support activities?

   What lessons have been learned?

   Note to Interviewer: Write four separate explanations for i) SDG 12; ii) SDG 14; iii) SDG 15; and iv) other targets. Obtain references you can use for further information on these answers.

	Support Activities/ Development Partner	Effectiveness	Lessons Learned
SDGs overall			
SDG 12			
SDG 14			
SDG 15			
Targets from SDGs 2, 3, 6, 7, 8, 11, and/or 17			

6. **Question for Interviewee:** What existing plans do you have in relation to further improving your country's/ministry's implementation of the environment-related SDGs and targets?

   Note to Interviewer: Write four separate explanations for i) SDG 12; ii) SDG 14; iii) SDG 15; and iv) other targets. Obtain references you can use for further information on these answers.

	Qualification of Interviewee's Answer
SDGs overall	
SDG 12	
SDG 14	
SDG 15	
Targets from SDGs 2, 3, 6, 7, 8, 11, and/or 17	

7. **Question for Interviewee:** What are your country's/ministry's priority capacity building needs for further improving your country/ministry's implementation of the environment-related SDGs and targets?

   Note to Interviewer: Seek to clarify the interviewees top 3–5 needs, but also record all other needs identified during your discussion. Record separate responses for i) SDG 12; ii) SDG 14; iii) SDG 15; and iv) other targets.

	Qualification of Interviewee's Answer
SDGs overall	
SDG 12	
SDG 14	
SDG 15	
Targets from SDGs 2, 3, 6, 7, 8, 11, and/or 17	

8.   **Question for Interviewee:** What barriers or challenges have you found in regards to your country's/ ministry's environment priorities being given equal or stronger consideration than economic and social driven priorities in ***identifying policy needs*** [step 1 in the policy cycle], and ***formulating and approving policies*** [step 2]?

Elaborate on your responses (in your country's context).

Note to Interviewer: Seek to identify the interviewees top 3–5 barriers and challenges, but also record all other barriers and challenges identified during your discussion, checking all that are applicable from the list below. Provide the person's rationale for their top 3–5 barriers and challenges.

Barriers or Challenges (check ☑ as applicable)	Explanation
____ General awareness	
____ Political support	
____ Public support	
____ Leadership support	
____ Private sector support	
____ Vested interest in maintaining status quo	
____ Competing demands of economic and social priorities	
____ Understanding of the key interlinkages between environment, economic, and social priorities	
____ Legislative or policy drivers	
____ Public consultation and dialogue	
____ Transparency in decision making	
____ Mandated responsibilities	
____ Incentives/accountability	
____ Coordination within relevant ministries (horizontal coherence)	
____ Coordination between relevant ministries (horizontal coherence)	
____ Localization (vertical coherence)	
____ Availability of human resources	
____ Technical capacity of human resources	
____ Availability and/or access to expert technical support	
____ Availability and/or access to knowledge	
____ Scientific evidence base (information/data) to support arguments	
____ Economic evidence base (information/data) to support arguments	
____ Other reasons:	

9. **Question for Interviewee:** What barriers or challenges have you found to ***implementing*** [step 3] your country's/ministry's environment priorities?

    Elaborate on your responses (in your country's context).

    Note to Interviewer: seek to identify the interviewees top 3–5 barriers and challenges, but also record all other barriers and challenges identified during your discussion, checking all that are applicable from the list below. Provide the person's rationale for their top 3–5 barriers and challenges.

Barriers or Challenges (check ☑ as applicable)	Explanation
____ Political support	
____ Public support	
____ Leadership support	
____ Private sector support	
____ Vested interest in maintaining status quo	
____ Competing demands of other priorities	
____ Integration into legislation	
____ Integration into national policies, plans, and programs	
____ Integration into local policies, plans, and programs	
____ Incentives/accountability	
____ Coordination within relevant ministries (horizontal coherence)	
____ Coordination between relevant ministries (horizontal coherence)	
____ Localization (vertical coherence)	
____ Sources of finance	
____ Availability of budget	
____ Availability of human resources	
____ Continuity of human resources	
____ Technical capacity of human resources	
____ Availability of equipment	
____ Availability of technology	
____ Availability and/or access to expert technical support	
____ Availability and/or access to knowledge	
____ Adequate and/or appropriate scientific information and data	
____ Adequate and/or appropriate economic information and data	
____ Other reasons:	

10.   What barriers or challenges have you found to ***monitoring and evaluating progress*** [step 4] in relation to implementing your country's/ministry's environment priorities?

Elaborate on your responses (in your country's context).

Note to Interviewer: Seek to identify the interviewees top 3–5 barriers and challenges, but also record all other barriers and challenges identified during your discussion, checking all that are applicable from the list below. Provide the person's rationale for their top 3–5 barriers and challenges.

Barriers or Challenges (check ☑ as applicable)	Explanation
____ Identification of indicators	
____ Number of indicators needed	
____ Cost of collating data	
____ Level of data collation	
____ Frequency of data collation	
____ Spatial distribution data collation	
____ Quality of data collation	
____ Public access to data	
____ Central repository for data	
____ Mandated responsibilities	
____ Incentives/accountability	
____ Coordination within relevant ministries (horizontal coherence)	
____ Coordination between relevant ministries (horizontal coherence)	
____ Localization (vertical coherence)	
____ Availability of human resources	
____ Continuity of human resources	
____ Technical capacity of human resources in data collation, analysis, and/or management	
____ Availability of equipment	
____ Availability of technology for data collation and/or management	
____ Availability and/or access to expert technical support	
____ Availability and/or access to knowledge	
____ Other reasons:	

Tools Utilization Assessment Form

Instructions for National Consultants:

Use the questions provided below as a guide for your individual interviews and research, and use the space provided in this note-taking template to capture and record your interview and research notes.

11. **Question for Interviewee:** What tools, methods, frameworks have your ministry or you used for the following areas in the policy and planning cycle?

    Note: Provide name and description of the tool mentioned, as well as context of its use.

Policy Cycle Stage	Notes on Tools Used
Stage 1: Policy Need Identification	
Stage 2: Formulation and Approval (including assessment, high-level and general stakeholder consultation, budgeting, etc.)	
Stage 3: Implementation (including financing)	
Stage 4: Review, Evaluation, and Monitoring	

12. **Question for Interviewee:** What is your impression or knowledge of the effectiveness of the tools identified in question 1 in achieving expected results?

    Note: Low, medium, high effectiveness (Please provide the person's rationale for the answer given).

Tool Name	Perceived Effectiveness of Use Low, medium, high (qualify your answer)

13. **Note taking form for Interviewer:** What are some reasons given (by the interviewee) for level of effectiveness/lack of effectiveness in the use of the tools and methods for environmental policy and planning formulation and implementation (in your country's context of use)?

Reasons Given for Effectiveness/ Non-Effectiveness of Tool Use in Policy and Planning Formulation/Implementation (Check all that apply)	Explanation
___ General familiarity and understanding of the tool and its application and results	
___ Human resources with capacity to use the tool effectively	
___ Available financial resources (budget) to use the tool effectively	

___ Availability of equipment, resources, and technology to use the tool effectively	
___ Adequate and/or appropriate information and data	
___ Leadership support to use these tools	
___ Other reasons:	

14. **Question for Interviewee:** What are some tools and methods you know or are aware of that would help your country/ministry to better integrate environment consideration (i.e., SDGs) into policy and planning? (please qualify your answer)

Tool Use Classification	Identified Tools and Brief Rationale/Explanation
Assessment and monitoring tools	
Statistical data management tools	
System interlinkage mapping tools	
Dynamic simulation and modeling tools	
Financing and budgeting tools	
Stakeholder consultation and dialogue support tools/methods	
Economic forecasting and modeling tools	
Risk analysis and risk management tools	
Visioning tools	
Planning tools	
Integration/mainstreaming (i.e., analysis and/or implementation) tools	
Training and capacity building tools and methods	
Communication (external) tools	

15. **Question for Interviewee:** Can you suggest other tools and methods you have experience with, or know of, that would be effective in supporting the integration of environmental considerations (i.e., environmental SDGs 12, 14, 15) into national policy and planning?

Tool Name	Qualification of Interviewee's Answer

16. **Question for Interviewee:** Where or who would you turn to (i.e., resources) to seek out and identify appropriate tools for supporting the integration of environment into policy and planning?
Note: These likely might be "new" tools developed to support the SDG framework implementation.

Resource Person or Organization You Would Turn To	Contact Details and Remarks

SDG = Sustainable Development Goal.

Source: Asian Development Bank.

APPENDIX 3
Interviewees

REGIONAL PARTNERS: Asia Foundation; Asia-Europe Foundation; Biodiversity Finance Initiative of the United Nations Development Programme (UNDP); Center for Environmental Concerns, Philippines; Global Reporting Initiative, Regional Hub, People's Republic of China; International Union for Conservation of Nature, Asia; South Pacific Regional Environmental Programme; Stockholm Environment Institute; SWITCH Asia; UNDP; United Nations Economic and Social Commission for Asia and the Pacific; United Nations Environment Programme; Poverty-Environment Initiative of UNDP and United Nations Environment Programme; Partnerships in Environmental Management for the Seas of East Asia; and the World Wide Fund for Nature.

BANGLADESH: Arannayk Foundation/Bangladesh Tropical Forest Conservation Foundation; Center for Natural Resource Studies; International Centre for Climate Change and Development; Ministry of Agriculture; Ministry of Environment and Forests; Ministry of Finance; and Ministry of Water Resources.

BHUTAN: Department of Forest and Park Services, Ministry of Agriculture and Forests; Gross National Happiness Commission Secretariat; National Biodiversity Centre, Ministry of Agriculture and Forests; National Environment Commission Secretariat; and Royal Society for Protection of Nature.

CAMBODIA: Ministry of Environment; Ministry of Planning; and National Council for Sustainable Development, Ministry of Environment

FIJI: Ministry of Economy; Ministry of Forestry; Ministry of Health and Medical Services; Ministry of Industry, Trade, and Tourism; Ministry of Local Government, Housing, and Environment; and World Wide Fund for Nature.

INDONESIA: Directorate of Forestry and Water Resources Conservation, National Development Planning Agency/Ministry of National Development (BAPPENAS); Association of Southeast Asian Nations Secretariat, Ministry of Foreign Affairs; Ministry of Maritime Affairs and Fisheries; Secretariat of SDGs, BAPPENAS; UNDP; and World Bank.

KAZAKHSTAN: Ministry of Agriculture; and Ministry of Energy.

LAO PEOPLE'S DEMOCRATIC REPUBLIC: Department of Forestry, Ministry of Agriculture and Forestry; Ministry of Natural Resources and Environment; UNDP; and SDG Secretariat, Ministry of Foreign Affairs.

MONGOLIA: Human Development Research and Training Centre; Ministry of Environment and Tourism; Ministry of Finance; National Development Agency; and Ulaanbaatar City Government.

NEPAL: Ministry of Forests and Environment; Ministry of Local Development and Federal Affairs; and Ministry of Population and Environment.

PHILIPPINES: Department of Environment and Natural Resources; Department of Interior and Local Government; National Economic and Development Authority; and Philippine Statistics Authority.

SAMOA: Ministry of Agriculture; Ministry of Finance; Ministry of Foreign Affairs and Trade; Ministry of Prime Minister and Cabinet; Ministry of Natural Resources and Environment; Ministry of Women, Community and Social Development; Secretariat of the Pacific Regional Environment Programme; Samoa Chamber of Commerce and Industry; Samoa Conservation Society; Samoa Bureau of Statistics; Samoa Tourism Authority; and UNDP.

SRI LANKA: Department of Forest Conservation; Global Sustainability Solutions; Ministry of Mahaweli Development and Environment; Ministry of National Policies and Economic Affairs; and Ministry of Sustainable Development and Wildlife.

TIMOR-LESTE: Ministry of Agriculture and Fisheries; Ministry of Commerce, Industry and Environment; Ministry of Finance; Ministry of State Administration; and Sustainable Development Goals Secretariat, Office of the Prime Minister.

VIET NAM: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ); Ministry of Natural Resources and Environment; Ministry of Planning and Investment; Vietnam Business Council for Sustainable Development; and World Wide Fund for Nature.

ASIAN DEVELOPMENT BANK STAFF:[1] Sonia Sandhu, senior advisor to the Vice President, Office of the Vice President for Knowledge Management and Sustainable Development. Nessim Ahmad, deputy director general concurrently chief compliance officer, Office of the Environment and Safeguards Cluster Head, Abul Basher, natural resources and agriculture specialist, Agriculture, Rural Development and Food Security Unit, Claudia Buentjen, principal public management specialist, Governance Division, Bruce Dunn, principal environment specialist, Environment and Safeguards Division, Herath Gunatilake, director, Environment and Safeguards Division, Gil-Hong Kim, senior director concurrently chief sector officer, Office of the Sector Cluster Head, Paolo Manunta, infrastructure specialist (earth observation), Urban Sector Group, Daniele Ponzi, chief, Environment Thematic Group, Deborah Robertson, young professional, Environment Thematic Group, and Susann Roth, senior social development specialist (social protection), Health Sector Group, of the Sustainable Development and Climate Change Department. Valerie Hill, director, Strategy, Policy and Business Process Division, Smita Nakhooda, senior results management specialist, Results Management and Aid Effectiveness Division, and Masayuki Tachiiri, principal planning and policy specialist, Strategy, Policy and Business Process Division, of the Strategy, Policy, and Review Department. Arturo Jr. M Martinez, statistician, Development Economics and Indicators Division, Economic Research and Regional Cooperation Department. Akmal Siddiq, director, Environment, Natural Resources, and Agriculture Division, Central and West Asia Department. Mark Bezuijen, senior environment specialist, Environment, Natural Resources and Agriculture Division, David G Boland, environment economist, Environment, Natural Resources and Agriculture Division, Frank Radstake, principal environment specialist, Environment, Natural Resources and Agriculture Division, Alvin Lopez, senior natural resources and agriculture specialist, Environment, Natural Resources

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[1]   Staff designation when interviewed.

and Agriculture Division, Xuedu Lu, lead climate change specialist, Energy Division, and Sergei Popov, principal environment specialist, Office of the Director General, of the East Asia Regional Department. Cindy Malvicini, principal portfolio management specialist, Environment, Natural Resources and Agriculture Division, Dewi Utami, principal safeguards specialist, Environment, Natural Resources and Agriculture Division, and Karma Yangzom, senior environment specialist, Transport and Communications Division, of the South Asia Regional Department. Thuy Trang Dang, environment specialist (safeguards), Environment, Natural Resources and Agriculture Division, Anouj Mehta, principal regional cooperation specialist, Regional Cooperation and Operations Coordination Division, Ancha Srinivasan, principle climate change specialist, Environment, Natural Resources and Agricultural Division, and Jiangfeng Zhang, director, Environment, Natural Resources and Agriculture Division, of the South East Asia Regional Department. Olly Norojono, director, Transport, Energy and Natural Resources Division, and Jean Williams, senior environment specialist, Transport, Energy and Natural Resources Division, of the Pacific Department. Farhat Jahan Chowdhury, senior project officer (Environment), Bangladesh Resident Mission; Genevieve O'Farrell, environment specialist (safeguards), Cambodia Resident Mission; Li Ning, environment officer, People's Republic of China Resident Mission; Najibullah Yamin, safeguards specialist (environment), Indonesia Resident Mission; Kenzhekhan Abuov, project officer, Giovanni Capannelli, country director, and Asem Chakenova, project officer, of the Kazakhstan Resident Mission; Vongphet Soukhavongsa, safeguards officer, Lao Resident mission; Ongonsar Purev, senior environment officer, Mongolia Resident Mission; Nurlan Djenchuraev, senior environment specialist, Pakistan Resident Mission; K.M. Palitha Bandara, senior project officer (Natural Resources and Environment), Sri Lanka Resident Mission; Pavit Ramachandran, Principal Environment Specialist, Environment, Thailand Resident Mission; and Antoine Morel, senior environment specialist, Viet Nam Resident Mission.

OTHERS: Peter Hazlewood; Mei Kok, Asian Development Bank Youth Team; and Paul Steele, chief economist, International Institute for Environment and Development.

Strengthening the Environmental Dimensions of the Sustainable Development Goals in Asia and the Pacific
Stocktake of National Responses to Sustainable Development Goals 12, 14, and 15

This report presents the results of a stocktake of national responses to Sustainable Development Goals (SDGs) 12, 14, and 15, and selected environment-related targets that have a direct relationship with responsible consumption and production, and sustainable marine and terrestrial ecosystems management, by 15 developing countries in Asia and the Pacific. The report was completed under the first phase of a technical assistance project by the Asian Development Bank (ADB), with the aim of understanding and helping its developing member countries address the issues and challenges behind effective integration of these goals and targets into national policies, plans, and programs.

About the Asian Development Bank

ADB is committed to achieving a prosperous, inclusive, resilient, and sustainable Asia and the Pacific, while sustaining its efforts to eradicate extreme poverty. Established in 1966, it is owned by 67 members—48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.

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