1.5°

Connecting the Dots:
Elements for a Joined-Up Implementation
of the 2030 Agenda and Paris Agreement

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LIST OF ABBREVIATIONS

DAC	Development Assistance Committee of the OECD
DRR	Disaster Risk Reduction
HLPF	High-Level Political Forum
INDC	Intended Nationally Determined Contributions
LEDS	Low Emissions Development Strategies
LNB	Leaving No One Behind
MDG	Millennium Development Goal
M&E	Monitoring and Evaluation
MRV	Measurement Reporting and Verification
NAMA	Nationally Appropriate Mitigation Actions
NAP	National Adaptation Plan
NDC	Nationally Determined Contributions
NGO	Nongovernmental organization
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
SDG	Sustainable Development Goal
SEMARNAT	Ministry of Environment and Natural Resources (Mexico)
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
VNR	Voluntary National Reviews
WRI	World Resources Institute

EXECUTIVE SUMMARY

Highlights

- National-level implementation of the 2030 Agenda for Sustainable Development and the Paris Agreement on climate change generally proceed on different tracks, despite growing recognition of the ample opportunities they present for synergies. In most countries, climate actions under the Nationally Determined Contributions (NDCs) and national targets underpinning the global Sustainable Development Goals (SDGs) have been defined and advanced separately. This siloed approach makes little sense given the short window of opportunity for tackling the interlinked challenges of climate change, ecosystem degradation, inequality rise, and political instability.

- Drawing on experience in 11 countries and the European Union, this paper provides core elements and concrete examples for jointly advancing these agendas, with a focus on five challenges: coordinating institutions, aligning national climate and SDG-relevant targets, mainstreaming both set of goals into policy planning, optimizing financial resources, and building mutually reinforcing monitoring and reporting frameworks. The research also explores how international development can better support national efforts at linking both agendas.

- This study shows that joining up implementation requires governments to make significant shifts in institutional, policy, financial, and monitoring frameworks in order to enhance policy coherence, and cost efficiency.

- Countries can share experiences in advancing both agendas jointly through global review and reporting processes under the Paris Agreement and the 2030 Agenda. High-level political forums in 2018 and 2019 and the Talanoa Dialogue, reviewing implementation of the SDGs and NDCs respectively, offer near-term opportunities for countries to foster this discussion and build on

greater synergies to ramp up their national ambitions.

The Challenge: Bridging Separate Climate and Sustainable Development Implementation Processes

Following the adoption of the 2030 Agenda and the Paris Agreement in 2015, countries now face the challenge of advancing two very ambitious sets of goals to achieve climate-resilient, sustainable development by 2030 and carbon neutrality by the second half of the century.

Although climate action and sustainable development have long been addressed separately in policy and research discussions, the two agendas provide a strong basis for integration. The SDGs mainstream climate change across their targets and emphasize the role of the United Nations Framework Convention on Climate Change (UNFCCC) for defining climate ambition. The Paris Agreement mandates that countries carry out climate actions in the context of sustainable development and poverty eradication.

However, despite growing recognition of these linkages, the two agendas are generally advanced in separate tracks. In most countries, national coordination frameworks for the SDGs and climate action are led by distinct institutions and engage stakeholders through different arrangements. Based on a survey of 90 countries conducted by WRI, this paper highlights that, on average, seven out of eight countries chose environment ministries to steer NDC implementation while they entrusted the 2030 Agenda to more central cabinet-level institutions, such as offices of the president or prime minister or planning and finance ministries. Policymakers from across survey countries report significant challenges in connecting the two processes because each has its own

history, community of actors, and political dynamics. As a result, national SDG-relevant targets and climate actions are often defined with limited coordination between relevant agencies. Efforts at embedding the two sets of goals in development plans also lack an integrated approach, and the proliferation of different guidance for SDG, NDC, gender equality, and green growth mainstreaming overload planning processes.

The Opportunity: Institutional and Policy Shifts Support Joined-up Implementation

Given the short time frame for meeting the ambitious SDGs and Paris goals, it is imperative that countries shift to a more joined-up approach to implementation. This paper seeks to support governments as they embark on this process by drawing on early experience by first mover countries.

Our findings are based on in-country visits and interviews with stakeholders, including representatives of relevant government institutions, civil society groups, research institutes, businesses, and international organizations. The 11 countries plus the European Union (regional-level policies) also reflect an income and geographic balance. All but Finland are members

of the NDC Partnership, a global coalition for advancing the NDC in synergy with the SDGs, which is supported by the German Government and hosted by WRI and the UNFCCC. In addition, the authors conducted a survey of 90 countries to identify common lead institutions for implementing both the 2030 Agenda and the Paris Agreement.

The clear overarching message from this research is that advancing the two agendas in a consistent and integrated way requires linking up institutional, policy, financial, and monitoring instruments and frameworks that support their implementation as shows in Figure 1. A summary of the most relevant and potentially promising approaches under way in case study countries, by key area, is provided below and summarized in Figure 2. Examples of national policy options and practices that are most relevant and replicable are also included throughout the paper.

The Way Forward: Lessons Learned and Recommendations

1. Coordinating institutions

Joining up SDG and NDC implementation often starts with consistent leadership. To overcome siloed processes, there is a clear need for regular coordination

Figure 1: Integrated Approach to the SDG and NDC Implementation through the Policy-making Cycle
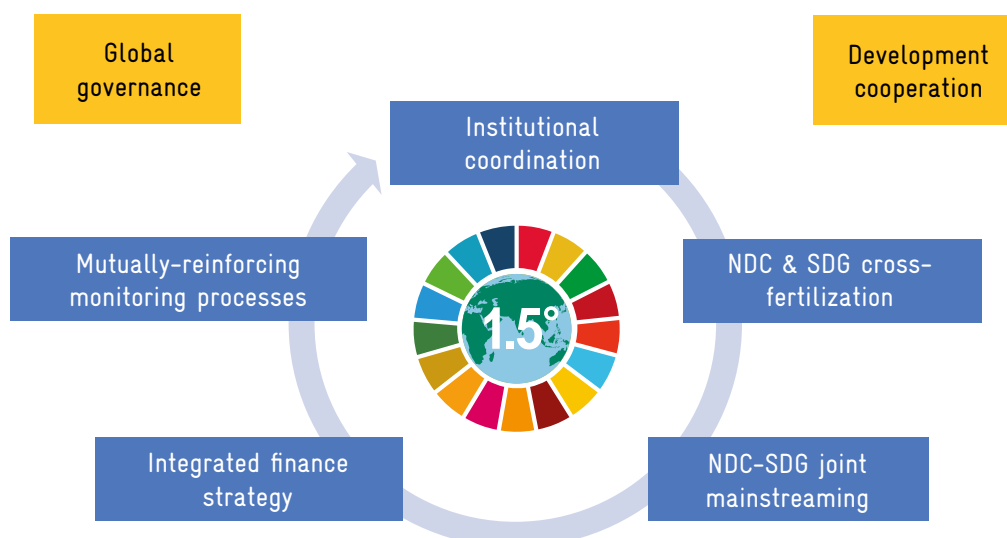
Source: WRI

and joint initiatives among the different ministries and directorates that lead government efforts on the 2030 Agenda and climate change. Distinct lead agencies for the SDGs and NDCs can collaborate effectively through clear arrangements, including participation in national coordination bodies for both agendas, regular check-ins to foster synergy between implementation strategies and work plans, and common policy planning instruments to mainstream both sets of policy objectives jointly in planning and budgeting. However, the research suggests that in the rare cases where one agency leads on both agendas, this outcome does not necessarily enhance policy integration. This is because environment ministries commonly undertake this role and may lack the leverage to achieve inter-ministerial coordination.

A coherent whole-of-government approach to both agendas requires efficient institutional solutions. Rather than introducing entirely new coordination mechanisms, SDG and NDC implementation frameworks can be linked through institutional shifts that provide greater efficiency. Examples include assigning coherent joint responsibilities to ministries and agencies for advancing the SDGs and the NDC, requiring high-level participation in national coordination bodies for both agendas in order to foster consistent decision-making, and mandating that SDG and climate-change focal points across ministries collaborate on mainstreaming SDGs and NDCs in policymaking and data collection. Including parliaments and local authorities in both SDG and NDC national coordination frameworks is also key to promote integrated planning.

Climate and development communities of actors need to be brought together. Participation by climate experts in national coordination bodies for the 2030 Agenda and SDGs and participation by development experts and vulnerable communities in climate coordination bodies can facilitate greater coordination and integration. Both agendas can also be addressed simultaneously through multistakeholder engagement frameworks, such as multidisciplinary advisory expert groups and national forums gathering various interest groups.

2. Ensuring alignment and synergy of SDG and NDC targets

Cross-fertilization between national climate action and SDG-relevant targets is a condition to pursue the two agendas in an integrated and efficient way. Screening climate actions to ensure alignment with the SDGs and the overriding objective of "leaving no one behind" (LNB) helps define and prioritize policies that achieve synergies and benefit to the poorest, most vulnerable and marginalized groups. Similarly, climate actions and priorities under the NDCs can help translate global SDGs into nationally relevant targets. Several countries have also prioritized national climate commitments that are lagging behind in NDC implementation in their national SDG strategy.

Greater alignment sheds light on options for greater ambition. Some countries have defined or strengthened climate action underpinning their NDCs based on the ambition of SDGs targets and potential co-benefits for achieving the SDGs. Similarly, alignment with the NDC and the Paris Agreement can lead countries to enhance the ambition of their national SDG-relevant targets.

Designing single long-term carbon neutral, sustainable development strategies would make a lot of sense to drive more effective and ambitious transitions. Countries that will develop their long-term low-emissions development strategies in the coming years should consider broadening their scope beyond a focus on decarbonization, and involving a much broader range of stakeholders beyond climate experts, to carve out an overall national development trajectory that meets both agendas. Integrated long-term strategies could sequence actions and milestones in a way that maximizes benefits for both agendas and avoids lock-in effects in the short and long runs. Achieving alignment and synergies with the SDG targets would also help countries plan for supporting inequality reduction, despite the impact of climate change, and ensuring a just transition of the workforce – a challenge that remains insufficiently mentioned in climate plans.

3. Jointly mainstreaming both agendas into policy planning

Aligning national SDG targets and climate commitments is a step forward, but countries also need to bring the two agendas jointly into national and local policy planning to reduce transactions costs and foster win-win solutions.

Such efforts start with comprehensive gap analysis against both agendas. A few countries have undertaken policy reviews to identify main gaps and inconsistencies against both agendas.

Guidelines for joint SDG-climate mainstreaming can promote integrated planning. Line ministries often tend to cherry-pick SDG and climate targets, sometimes to match sectoral targets that they have already identified. Therefore, a key indicator for policy coherence for both agendas is not the number of targets addressed, but the definition of actions generating multiple benefits for both agendas through cross-sectoral, integrated planning approaches. Guidelines for joint SDG-climate mainstreaming can spur policy planners address policy linkages.

The central involvement of SDG and NDC lead institutions in key planning processes helps foster policy alignment. Several countries have started to build both sets of goals into their long-term vision and multi-year development plans that are the basis for all sector and local-level planning processes. Strong oversight from NDC and SDG lead agencies early on helps embed both agendas in the core macroeconomic and general framework of draft development plans that is used as reference by sector ministries to develop their contributions.

SDG-NDC mainstreaming needs to be monitored. Early country's experience suggests that reviews of sector and local plans against both sets of goals can limit the risks of policymakers cherry-picking climate and SDG-related targets and achieving only partial alignment.

4. Optimizing budgetary and financial resources

Efficient solutions to mobilizing and tracking SDG-related and climate finance help optimize resources. Options include issuing instructions for budget preparation to ministries addressing SDGs and climate action and establishing consistent budget coding systems for the two agendas. Finance ministries can also set expenditure increase targets for priorities that deliver great benefits for both agendas. A growing number of national funds and banks have also started to adopt comprehensive investment criteria to leverage climate-smart and sustainable finance.

Budgeting processes are powerful incentives for policy integration. In a few countries, line ministries are requested, during annual budget processes, to report back to parliament on progress made on assigned SDG and NDC targets and to justify alignment of future policies and budgets with both agendas.

Integrated fiscal and regulatory reforms can help scale up finance for both agendas. Domestic tax and fiscal reform can drive effective incentives to shift public and private finance toward carbon-neutral and inclusive sustainable development. Examples include combination of carbon pricing with allowances mitigating its effects on low-income households, and as trialed in Indonesia, the phase-out of fossil fuel subsidies combined with measures to support vulnerable groups.

5. Establishing mutually reinforcing monitoring and reporting frameworks

Consistent sets of SDG, climate, and other development indicators and common data strategies support integrated monitoring of outcomes. Case-study countries employ various approaches to better integrate their SDG and climate indicators. These include incorporating climate dimensions in SDG indicators, using climate indicators for SDG monitoring, defining new hinge indicators relevant to both agendas, setting indicators to track SDG-NDC synergies and trade-offs, and aligning national development indicators with integrated SDG-NDC indicators. Integrated approaches to harnessing the data revolution and improving monitoring systems for both agendas also have great potential for optimizing collection and efficient use of data.

National progress reports can address SDG-climate linkages more systematically. A growing number of Voluntary National Reviews (VNRs) at the HLPF address climate action. These efforts could be pursued more systematically. Similarly, countries can use

reporting required under the Paris Agreement to highlight linkages with SDGs. Greater synergies between and across global- and national-level SDG and NDC reporting processes would also support national efforts to advance both agendas jointly.

Implications for international development coordination

Alignment and coordination of donor activities involving the two agendas is in the early stages but urgently needed. A growing number of donors have committed to align their strategies and portfolios with the SDGs and the Paris Agreement and have adopted procedures to do so. Some have also proposed capacity building relevant for both agendas in areas such as policy design, statistics and data, and financing. Platforms like the NDC Partnership foster coordinated engagement for effectively and efficiently supporting joined-up SDG and NDC implementation.

Early Benefits from Integrated Approach to SDG and NDC Implementation

Findings from research in 11 countries and the EU highlight the strong potential of an integrated approach to facilitate and accelerate implementation. The following early gains are clearest in terms of policy coherence and process efficiency:

Collaboration among SDG and NDC lead institutions helps mobilize government and society more effectively. Through coordination, these institutions can overcome potential lack of capacities or authority to bring a wider range of actors together around the two agendas. This, in turn, can transform the challenge of fragmented leadership into an opportunity for greater action and policy coherence.

Consistent whole-of-government and -society approaches can reduce transaction costs and help actors adopt integrated planning. Overarching strategies to engage ministries, agencies and non-state actors on both agendas avoids duplication in coordination processes. It can also foster creative discussion on climate-sustainable development policy linkages.

Aligning national targets to meet the SDGs and NDC commitments help foster synergies and mutual benefits. Through this integrated approach, countries can carve a long-term trajectory that serves both agendas. Designing climate actions through the lens of the SDGs and the objective of "leaving no one behind" offers great potential for strengthening resilience building, pursuing a just low-carbon transition, and reducing poverty and inequality.

Linking both agendas also helps improve their ownership. While the NDCs can be regarded as evidence-based, robust targets by climate experts, they are still largely perceived as highly technical documents by sector ministries. The SDGs building on the MDGs are more easily associated with sustainable development gains but may be seen as a far-reaching, unspecific agenda. In the countries studied, greater linkages between both agendas have helped garner greater buy-in for implementation.

In many study countries, policymakers view the SDGs as a strong lever to mainstream climate change into planning. Linking the NDC to the SDGs has helped sector ministries better understand the sustainable development benefits they can draw from climate actions. The 2030 Agenda is presented in some countries as a key framework for planning into which is anchored NDC implementation.

Mainstreaming SDGs and NDCs jointly in government planning and budgeting is more efficient and effective. With guidelines for advancing both agendas proliferating, interviewees reported that using criteria to embed both sets of goals jointly into development plans, projects, and budgets makes the task of policymakers significantly easier. It also encourages these players to design win-win solutions, optimizing financial resources.

Mutually reinforcing monitoring and reporting systems are cost effective and will better inform policy planning. Integrating climate and SDG indicators where relevant helps reduce the transaction costs of data collection and enables government agencies to better capture policy linkages. Looking ahead, fruitful interactions among NDC reviews, VNRs, and national planning cycles would enable countries to build on progress achieved under both agendas and increase their ambition.

Figure 2: Elements for Joining Up Implementation of the 2030 Agenda and the Paris Agreement

Institutional coordination

Consistent leadership

- Coherent mandates for steering SDG and NDC implementation
- Coordination or shared leadership between SDG and NDC oversight institutions
- Joint participation of those lead institutions in coordination bodies for both agendas

Coherent whole-of-government approach to both agendas

- Similar institutional arrangements for engaging public institutions around both agendas
- Consistent responsibilities assigned for advancing SDG and NDC targets
- High-level participation in SDG and climate change coordination bodies
- Coordination between SDG and climate change focal points
- Consistent institutional support to local authorities for both agendas

Common non-state actor engagement strategies

- Civil society organization umbrella group and common action platforms supporting both agendas
- Climate and development actors convened in SDG and climate change advisory and decision-making bodies
- Single national multi-stakeholder forums relevant for both agendas

Alignment and synergies between national SDG and climate targets

Climate actions supporting the SDGs

- Impact assessment of climate actions on SDG implementation
- Climate policy and action designed to "leave no one behind"
- NDCs enhanced based on SDGs
- Long-term low-emissions development strategies pursuing the SDGs
- Corrective actions minimizing negative impacts on the SDGs

National SDG priorities supporting the NDCs and the Paris Agreement goals

- Nationally-relevant SDG targets and priorities consistent with the NDC
- Impact assessment of nationally-relevant SDG targets on the NDC
- Sustainable development strategies supporting a decarbonization path

Joint SDG and NDC mainstreaming in policy planning

Common policy review

- Identification of linkages among NDC, SDGs and national priorities
- Comprehensive reviews of existing policies based on both agendas

Consistent planning guidelines

- Guidelines for joint SDG-NDC mainstreaming in climate and development policy planning

SDG-NDC aligned long-term national visions

- Aligned long-term aspirations
- Development trajectories meeting the SDGs and Paris Agreement goals

SDG-NDC integration in national development plans

- National development plan defined as overarching framework for both agendas
- Guidance to address cross-sectoral SDG-NDC linkages

SDG-NDC integration in sector development plans

- Sector-relevant capacity building for SDG-NDC mainstreaming
- Oversight of sector plans by both NDC and SDG lead institutions

SDG-NDC integration in local development plans

- Coordination of national and local-level definition of SDG and NDC priorities
- Support to local authorities from NDC and SDG lead institutions

Monitoring of SDG-NDC mainstreaming

- Reviews and alignment certificates
- Use of performance frameworks and contracting systems integrating the SDGs and NDC
- Accountability to Parliament

Common budgetary and financial instruments

SDG-NDC integration in budget frameworks

- SDG and NDC aligned budget objectives and instructions
- Expenditure targets for NDC–SDG win–win priorities
- Consistent climate and SDG coding systems
- Review of annual budgets for alignment with both agendas

Leveraging national funds and banks

- Sustainable development criteria for climate finance
- Mainstreaming of climate change in development funds

SDG and NDC aligned fiscal and regulatory reforms

- Equitable and green tax reforms
- Aligning public procurement with both agendas
- Regulations for socially responsible and sustainable investments

Mutually reinforcing monitoring, evaluation and reporting systems

Indicators relevant for both agendas

- Climate-proofing SDG indicators
- Use of climate indicators for SDGs
- Indicators relevant for both SDG and NDC targets
- Indicators tracking SDG-NDC synergies and trade-offs
- National development indicators aligned with both agendas

Integrated data strategies

- Integrated data roadmaps
- Efficient data collection and use
- Win–win open data strategies

Mutually reinforcing national SDG, climate and growth reviews

- Climate actions mainstreamed in Voluntary National Reviews on SDGs
- SDGs addressed in climate reporting
- Annual economic surveys tackling the SDGs and NDCs

Coordinated reporting cycles

- Coordinated national SDG and climate change reviews and development planning cycles
- Enhanced synergies between global SDG and climate reporting processes

Implications for international development

SDG-NDC alignment of donor support

- Joint mainstreaming of SDGs and NDCs in strategies and projects
- Donor portfolios consistent with long-term carbon-neutral development paths
- Capacity building for joined-up implementation

Greater donor coordination

- Engagement with both SDG and NDC lead institutions
- Application of lessons learned in development effectiveness to climate finance

Enhanced coherence across climate and development financing

- New criteria and standards for greater consistency across international financing instruments
- Potential of multilateral funds harnessed for joined-up implementation

1. INTRODUCTION

Following global adoption of the 2030 Agenda for Sustainable Development and the Paris Agreement on Climate Change in 2015, there is a compelling need to move both agendas forward in an integrated manner at the country level. Joining up implementation of the SDGs and climate actions offers strong potential for governments to improve cost efficiency and effectiveness. Yet, while recognition is growing of the interlinkages between the two agendas, the question of how to achieve integration swiftly remains.

Linking up both agendas is challenging in part because sustainable development and climate action have long been addressed separately in research and policy discussions. Agenda 21, which was agreed to in 1992 at the Rio Summit at the same time that the UN Framework Convention on Climate Change (UNFCCC) was adopted, mentioned climate change in only 5 of its 40 chapters.[1] Similarly, although the right to sustainable development was recognized by the UNFCCC, thinking on climate change policy initially gave too little attention to its human and social dimensions (IPCC 2007; Michaelowa and Michaelowa 2007). Climate change policymaking has gradually adopted a sustainable development lens as a way to mainstream climate mitigation and adaptation action in policymaking (Swart and Raes 2007).

Nonetheless, the 2030 Agenda and the Paris Agreement provide a strong basis for integration. Both reflect a new global consensus for shifting all societies toward a low-carbon, sustainable development path. Unlike the Millennium Development Goals (MDGs) which they replaced, the 17 Sustainable Development Goals (SDGs) were defined through an inclusive process and commit all countries to change their current growth patterns.[2] Similarly, more than 190 countries formulated their climate mitigation and adaptation commitments in Nationally Determined Contributions (NDCs), and 175 had ratified the Agreement as of March 2018. Both the 2030 Agenda and the preamble of the Paris Agreement recall the intrinsic relationship between climate change actions, equitable access to sustainable development and poverty reduction (UNGA 2015; UNFCCC 2015). Climate change is a risk multiplier for poor populations and jeopardizes any gain for the SDGs. Likewise, climate change mitigation and resilience cannot progress in a context of unsustainable growth and widespread inequalities.

More than two decades after Agenda 21 was adopted, the 2030 Agenda mainstreams climate change throughout its 17 goals. It refers to the UNFCCC as the primary international forum for negotiating the global response to climate change, which arguably involves reading climate SDG targets in consistency with the Paris Agreement.

Similarly, the Paris Agreement requires parties to embed climate action "in the context of sustainable development and efforts to eradicate poverty" (UNFCCC 2015, Article 2.1). The Agreement's preamble introduces the concept of just transition to ensure decent work and social inclusion while managing decarbonization transitions. Greater attention is also given to the most vulnerable in implementing the Agreement with the creation of a Gender Action Plan and an Indigenous Peoples' Platform.

However, integration is still not reflected in early implementation efforts in most countries. This represents a missed opportunity for greater policy synergies, efficiency, and coherence.

A Missed Opportunity for Integration?

Implementation of the 2030 Agenda and of NDCs under the Paris Agreement has been launched in two distinct tracks, mirroring the division at the global level between the UNFCCC and the High-Level Political Forum (HLPF) for Sustainable Development.

Although the global agreements were negotiated concurrently, national climate commitments and nationally relevant targets underpinning the SDGs have been defined at least a year apart. Countries were required to submit their NDCs (initially Intended NDCs before the ratification of the Paris Agreement) ahead of the 21st Conference of the Parties (COP 21) to support the Agreement, whereas the global SDG targets were defined collectively, to be translated into national policies once adopted.

In most countries, the two agendas are advanced under distinct national coordination frameworks, led by different institutions. Environment ministries have long been the primary drivers of climate-change policies and played a key role in the formulation of the Paris Agreement and the NDCs. Those ministries largely kept that central function for the implementation of NDCs. By contrast, for the 2030 Agenda, foreign ministries typically negotiated the SDGs but, in most cases, handed over the coordination role for implementation to domestic ministries in 2015. Many countries opted for institutions with oversight, planning, and budget powers, as explained in Chapter 2.

As a result of this separation between planning and implementation tracks, there have been relatively limited alignment and synergies ensured between the specific climate actions supporting the NDCs and the national sustainable development targets underpinning the global SDGs. As of February 2018, 103 NDCs underscore their contribution to sustainable development and 39 mention benefits for the SDGs, but only 11 highlight efforts for aligning with the SDGs. Sustainable development benefits often feature in the selection of climate actions supporting the NDCs, but these benefits are assessed and weighted in various ways and are rarely connected to SDGs.[3] Similarly, while half of the 44 VNRs submitted at the HLPF (2016) explicitly refer to climate plans (including NDCs) as integral elements of their strategies for achieving the SDGs, so far, alignment of national-level SDG targets with specific actions under the NDCs and the goals of the Paris Agreement is generally weak.

Efforts to embed the two sets of goals into national policy planning, budgeting, and monitoring are also rarely connected. Policymakers often have to navigate between different guidelines, when they exist, for mainstreaming the SDGs, climate change, and other cross-cutting issues, such as gender equality and green growth, into their national, sector, and local development plans and budgets. Significant capacities are allocated to the definition of national indicators for tracking both agendas but, in most countries, with little consideration of their linkages.

Achieving the Benefits of Joined-Up implementation

Since the adoption of both agendas in 2015, the potential for synergies between implementation of the Paris Agreement and the SDGs has gained increasing attention (Care and WWF 2015; Northrop et al. 2016). Countries also have to integrate the different objectives of the two agendas, such as the eradication of extreme poverty and achieving carbon neutrality, in national-level implementation. Major opportunities to enhance impact are analyzed in more detail throughout this paper.

Fostering synergies between the two agendas

The potential for effective linkages goes in both directions. First, policies undertaken to implement the 2030 Agenda can significantly support climate action, even in the case of mitigation measures that the 2030 Agenda does not explicitly address. Forty-nine targets across 13 SDGs can provide climate mitigation and adaptation outcomes (for details, see Appendix A):[4]

- Twenty targets across 8 goals can deliver both mitigation and adaptation outcomes in agriculture, infrastructure and cities, water, food waste, education, and marine and forest ecosystems;

- Thirteen SDG targets across 8 goals specifically aim to develop adaptive capacities and build resilience of vulnerable populations, ecosystems and economic sectors; and

- Sixteen targets across 5 goals can provide mitigation outcomes by fostering sustainable

energy, industrialization and urbanization, and consumption and production patterns.

Most of the other targets can provide co-benefits by building capacities to face climate change (for example, targets 1.3 and 6.2 to provide universal access to social protection systems and sanitation respectively), or enabling governance frameworks for climate action (for example, targets 12.6 on corporate sustainability reporting and 17.19 on new measurements of progress on sustainable development).

Second, the NDCs can also contribute strongly to progress toward the SDGs. WRI identified climate commitments in 94 NDCs (at that time INDCs) that are relevant to 154 out of the 169 SDG targets (Northrop et al. 2016). The NDCs not only focus on outcomes in line with the 49 climate-relevant SDG targets, but they also include actions enabling sustainable development outcomes, such as climate-resilient crops ensuring food security in vulnerable regions, or that reinforce those outcomes, such as low-carbon transportation options improving air quality and health.
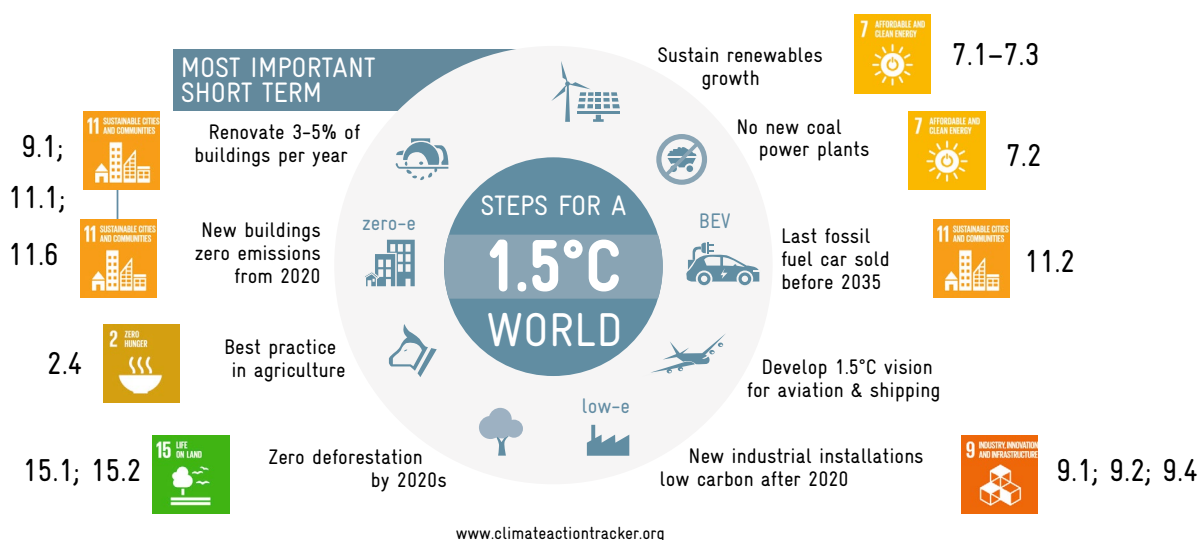
Strategies proposed for rapid decarbonization and climate resilience address challenges that are core to the SDGs (New Climate et al. 2016). The 10 mitigation strategies put forward by Climate Action Tracker for a pathway consistent with the 1.5°C target show clear linkages with the SDGs (Figure 3). Mission2020 also identified six key sectors – energy, infrastructure, transportation, land use, industry, and finance – in which rapid action is needed by 2020 to reach both the SDGs in 2030 and net zero emissions by 2050 (Mission2020 2017).

Reconciling different goals in national-level implementation

The two agendas not only overlap, they also have different approaches and objectives. Joined-up implementation is needed to reconcile those objectives in national decision-making.

The 2030 Agenda complements the Paris Agreement by linking climate mitigation and adaptation with other sustainable development challenges across its 17 goals. The SDG targets can be regarded as enablers for policy integration because they address cross-sectoral

Figure 3: Priority Short-Term Mitigation Steps to Achieve a 1.5°C World and the SDGs

MOST IMPORTANT SHORT TERM

9.1; 11.1; 11.6 — Renovate 3–5% of buildings per year (11 SUSTAINABLE CITIES AND COMMUNITIES)

New buildings zero emissions from 2020 (11 SUSTAINABLE CITIES AND COMMUNITIES)

2.4 — Best practice in agriculture (2 ZERO HUNGER)

15.1; 15.2 — Zero deforestation by 2020s (15 LIFE ON LAND)

STEPS FOR A 1.5°C WORLD

zero-e / low-e

Sustain renewables growth — 7.1–7.3 (7 AFFORDABLE AND CLEAN ENERGY)

No new coal power plants — 7.2 (7 AFFORDABLE AND CLEAN ENERGY)

BEV — Last fossil fuel car sold before 2035 — 11.2 (11 SUSTAINABLE CITIES AND COMMUNITIES)

Develop 1.5°C vision for aviation & shipping

New industrial installations low carbon after 2020 — 9.1; 9.2; 9.4 (9 INDUSTRY, INNOVATION AND INFRASTRUCTURE)

www.climateactiontracker.org

Source: Based on Climate Action Tracker.

Note: A 10th strategy not included in the figure—CO$_2$ removal: begin research and planning for negative emissions—is controversial due to concerns over the proposed technologies. However, CO$_2$ removal through sustainable ecosystem and forest management, land restoration, and so on, could harness synergies with SDG 15.

policy linkages (Leblanc 2015). For instance, the SDGs consider all factors of vulnerability in an integrated way, linking vulnerability to climate change to socioeconomic poverty, lack of social protection mechanisms and political instability. Conceived as integrated and indivisible, the SDG targets spur countries to overcome potential trade-offs between climate actions and other sustainable development objectives. For instance, SDG targets 7.1 and 11.1 call for providing energy and transportation that are both sustainable and affordable for all, which involves mitigating and compensating the possible initial increase in the costs of those services to ensure access to low-income households. Target 12.c also requires phasing out harmful fossil fuel subsidies while minimizing possible adverse impacts on the poor and affected communities. The SDGs are equally relevant for addressing potential conflicts between climate action and sustainable management of natural resources (target 12.2) and environment protection (SDGs 14 and 15). For instance, greater policy coherence would involve improving production of low-carbon technologies such as solar panels and electric cars that rely today on polluting extraction processes of rare-earth metals for their batteries (Pitron 2018).

The 2030 Agenda also commits countries to "Leave No One Behind (LNB)." This overriding objective was first introduced by the High-Level Panel on the post-2015 agendas as one of the transformative shifts that should drive the global agenda (HLP 2013). Through this pledge, countries not only endorsed historic commitments of ending extreme poverty and curbing inequalities by 2030, but also agreed to "endeavour to reach the furthest behind first." These countries acknowledged that no SDG will be met until it is met for everyone (UNGA 2015). LNB requires prioritizing actions for the poorest so that they progress at a higher rate than those who are better off (ODI 2017). LNB derived from the acknowledgment that a focus on average poverty doesn't prevent a sharp increase in inequalities and that a trickle-down approach to progress has largely proved to be wrong. There is already recognition that those left behind hitherto by development benefits are also usually those hit hardest by climate change.[5] Seventy-five percent of the extreme poor live in rural

areas and depends on climate-sensitive activities such as agriculture (FAO 2017). An additional 100 million people could live in extreme poverty by 2030 because of climate change impacts (Hallegatte et al. 2016). Embedding the LNB objective in climate actions would support respect of human rights and a just transition (UNFCCC 2015, Preamble), and help ensure that the poorest and more marginalized are given priority in adaptation efforts and are empowered to support and benefit from a low-carbon transition.

The Paris Agreement introduces the goals of achieving carbon neutrality by the second half of the century and peaking emissions as soon as possible. Those goals are not reflected in the SDGs but will dramatically affect their implementation.

Defining consistent and cost-efficient responses to common implementation challenges

The Paris Agreement and the 2030 Agenda reflect similar policy shifts that have major implications for the way in which policies are planned in all countries. A joined-up implementation would help develop consistent and cost-efficient responses to these common challenges.

Policy coherence for sustainability and climate action. Policy coherence for sustainable development reflected in SDG target 17.14 is not only a key objective of the 2030 Agenda, but is also highly relevant for pursuing effective implementation of NDCs. National reports for the Rio+20 Conference highlighted modest progress in mainstreaming sustainability in policy planning over two decades (UNDESA 2012).[6] Recent analyses also show that, as of 2017, only 4 in 10 countries have factored climate change into their national development plans (Nachmany and Frankhauser 2017).

Integrated long-term planning. Long-term national strategies are needed to give direction for achieving the transformation required by both agendas, to inform today's policy choices, and to avoid unsustainable lock-in effects.

Consistent whole-of-society strategies. Both agendas require broad-based mobilization, as reflected in

SDG 17 calling for inclusive decision-making and partnerships and in the multistakeholder Marrakech Partnership for Global Climate Action under the UNFCCC.

Common and cost-effective actions for shifting financial flows. The Addis Ababa Action Agenda (AAAA), financing framework for the SDGs, and Paris Agreement call for consistent and efficient measures to reorient the whole financial system toward low-emission and resilient development.

Efficient responses to higher monitoring and reporting requirements. Although the Paris Agreement and the 2030 Agenda have distinct accountability processes, consistent and integrated monitoring and reporting frameworks can simplify and improve data collection and use.

Identifying trade-offs. An integrated approach also helps identify trade-offs and conflicts that can arise between climate policies and other sustainable development goals. For instance, introduction of pricey low-carbon technologies or carbon taxes can affect the ability of lower-income households to have access to goods and services, such as vehicles, fuels, and heating.

The coming years provide a unique opportunity to lay down foundations for pursuing both agendas in an integrated way and tapping into those opportunities for greater impact.

Research Objectives and Approach

This paper is a joint undertaking by the World Resources Institute (WRI) and the German agency for international cooperation, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) on behalf of the Federal Ministry for Economic Cooperation and Development (BMZ). Its overall objective is to support countries in their efforts to link up implementation of the 2030 Agenda and the Paris Agreement and, ultimately, to deliver more powerful outcomes and ramp up countries' national ambitions by 2020 and beyond. This paper aims to clarify the institutional and policy challenges raised by joined-up implementation and provide policymakers with options on how to address them.

Building on analyses of 11 countries and the EU, the paper addresses five challenges that countries face as they try to develop an integrated approach to the 2030 and climate agendas:

- Coordinating institutions

- Fostering cross-fertilization and synergies between SDG targets and NDC actions

- Jointly mainstreaming SDGs and NDCs in policy planning

- Optimizing budgetary and financial resources

- Developing mutually reinforcing monitoring, evaluation, and reporting systems

The paper also explores the implications of integrated implementation for international development cooperation and global policy processes, as shown in Figure 1.

This research began with a literature review on climate and sustainable development policy integration and the implementation of the 2030 Agenda and the Paris Agreement. We included VNRs presented at the HLPF, progress reports from the UN agencies, and publications by academia and civil society. Box 1 provides a glossary of key terms used throughout this paper.

The paper also provides a more detailed analysis of 11 countries and the European Union (EU), based on desk research, in-country visits, and 80 semi-structured interviews with stakeholders, including representatives of government institutions responsible for advancing the SDGs and the NDCs; members of civil society organizations; representatives from business, research institutes, and international organizations; and others engaged in either or both agendas. The 11 countries and the EU were selected for their demonstrated leadership and early initiatives to advance the SDGs and their NDCs in a coordinated manner. The countries also reflect a balance among high-, middle- and low-income countries, and geographical distribution: Bangladesh, Colombia, Ethiopia, the EU (regional-level European policies), Finland, France, Indonesia, Kenya, Mexico, Peru, the Philippines, and Uganda. All of them but Finland are members of the NDC Partnership, a global coalition launched at COP 22 to enhance international cooperation for the NDC and SDG

implementation, which is supported by the German Government and hosted by WRI and the UNFCCC.

The authors also conducted a study of 90 countries to identify the lead institutions that each of them chose for overseeing implementation of the 2030 Agenda and the Paris Agreement. In addition to the 12 countries mentioned above, the authors also examined countries that have reported to the HLPF in 2016 and 2017 and members of the NDC Partnership. The results of this survey are presented in Chapter 2.

In subsequent chapters, the paper analyses the main obstacles to a joined-up implementation faced by case-study countries and showcases actions undertaken in these countries to address the five main challenges listed earlier. The authors highlight lessons that may be valuable to other countries as they develop an integrated approach to both agendas in their own policymaking cycles. Examples of national policy options and practices considered the most relevant and replicable are included throughout the paper to provide concrete illustrations of possible ways forward.

Given the early stage of policy development, and absence of baseline research work conducted prior to the adoption of the new agendas, the effectiveness of these options could not be systematically assessed. In addition, the paper does not aim to address all implementation challenges and is far from comprehensive. Important aspects that could not be treated adequately within the research scope include private-sector involvement and integrated approaches to both agendas taken by local authorities.

BOX 1: GLOSSARY

Policy alignment: ensuring that policy objectives are consistent with a common baseline, which can be a new national overarching policy agenda or an international agreement.

Policy mainstreaming: integrating specific goals and targets across a given policy plan or budget.

Policy coherence: coherence ensured across multiple policy objectives, actions, and outputs across sectors (horizontal coherence) and levels of governance (vertical coherence), namely global, national, and local.

Integrated policy planning: decision-making process aimed at advancing multiple policy objectives and benefits across different sectors and potentially different levels of governance, to ensure policy coherence.

Source: WRI author.

2. COORDINATING INSTITUTIONS TO BRIDGE BOTH IMPLEMENTATION PROCESSES

Advancing the 2030 Agenda and the Paris Agreement at the national level requires strong mobilization and collaboration among all relevant actors across policy sectors and levels of governance. In most countries, implementation has been launched with the creation, revival, or strengthening of national coordination frameworks for sustainable development and climate change (national councils, inter-ministerial commissions, or committees), which engage governmental and non-state actors in various ways. Lessons have been learned from the weaknesses of coordination bodies set up after the 1992 Rio Conference, including insufficient powers, absence of legal mandate, lack of long-term political support, and/or constrained financial means (Osborn et al. 2014; UNDP 2017). Since 2015, many countries have put in place SDG and NDC coordination bodies with broad-based representation, legal long-term mandates, and, in some cases, institutional anchoring to independent bodies.[7]

However, to date, there is a lack of coordination to advance the SDGs and national climate action while avoiding duplications and silo-ing of information, capacity, and policymaking. In most countries, coordination bodies established for the two agendas are led by separate institutions that often have different governance characteristics (being either governmental, semi-governmental or independent bodies). As a result, ministries, agencies, parliaments, and non-state actors are engaged to different extents and brought together in different ways around the two agendas. Interviews for this paper highlighted that those differences raise the following challenges for joined-up implementation:

- Coordinating two policy processes, each with its own history and political relationships;

- Building a consistent whole-of-government approach to implementation that enables institutions to adopt integrated planning and ensure policy coherence across the NDC and SDGs;

- Convincing line ministries that coordination to advance the NDC and SDGs would facilitate cost-effective and more impactful policies without necessarily higher transaction costs;

- Developing new institutional practices promoting cross-sector planning for both agendas; and

- Gathering climate and development communities of actors together around the two agendas.

Some countries have started to link up NDC and SDG institutional coordination frameworks to ensure policy coherence and efficiency in implementation. This chapter draws on early experiences to identify options for fostering collaboration between the different lead institutions, mechanisms for inter-agency coordination, and frameworks for non-state actor engagement that are advancing the two agendas.

Ensuring Consistent Leadership

In most countries, the SDG and climate agendas have different lead ministries responsible for coordinating and overseeing national implementation. Their varying powers and level of authority create differing political and institutional environments, some more favorable than others. Analysis for this paper shows that coordination efforts between SDG and NDC lead institutions can build on their respective strengths and weaknesses to turn the challenge of distinct leaderships into an opportunity for greater policy integration across the government.

Typical SDG and NDC lead institutions with their respective strengths and weaknesses

WRI surveyed 90 countries to identify the institutions that are responsible for implementing the SDGs and the NDCs: Seventy-eight countries mandate environment and climate change ministries to oversee the advancement of the NDC (Figure 4), while entrusting implementation of the 2030 Agenda to other institutions that typically have central roles in the cabinet (Figure 5). The most frequent SDG lead institutions across all country-income groups are the offices of the prime minister and the president. Other common SDG lead institutions are planning, economy, and finance ministries. In high-income countries, a co-leadership role for the SDGs is often played by environment and/or foreign ministries, with the latter responsible for the external dimension of the 2030 Agenda related to international development.

Responsibility for coordinating implementation and engaging the whole government was transferred from environment ministries to offices of the prime minister or the president more frequently in the case of the sustainable development than it was for climate change.[8] Those shifts are meaningful because
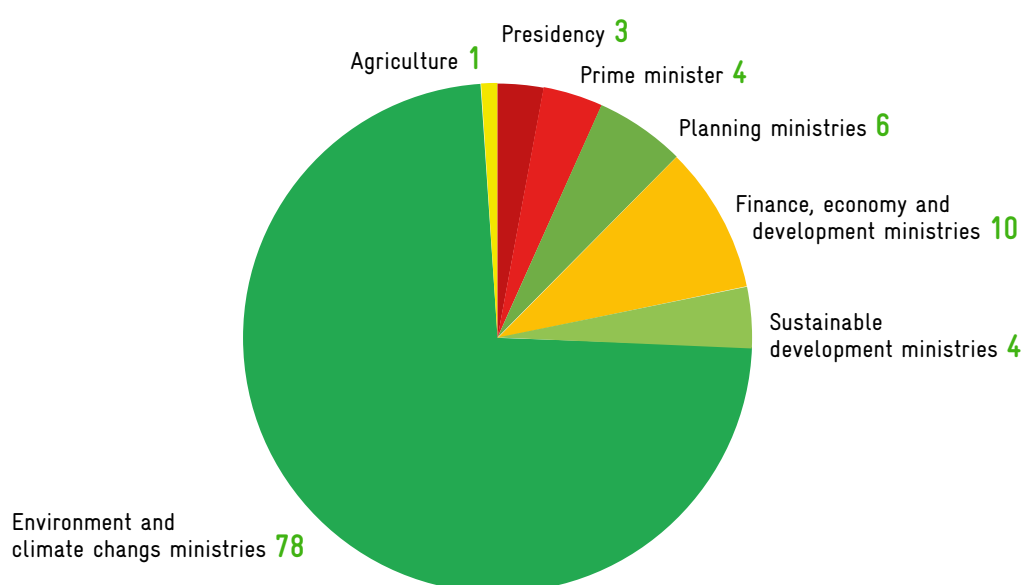
institutions are strongly path-dependent: once they have acquired expertise, they tend to maintain their leadership.

Differences in oversight institutions for SDG and NDC implementation can be partly explained by differing perceptions of the two agendas. Interviews for this paper suggest that policymakers drew the lesson from implementation of the MDGs and Agenda 21 that powerful leadership was needed for mainstreaming new development agendas in policy planning. The 2030 Agenda has also contributed to develop greater understanding of the integrated concept of sustainable development while the cross-cutting nature of climate action may be less recognized in some countries. Climate action is often primarily perceived as a technical issue requiring coordination from a specialized ministry.

While lead institutions for the SDGs and NDCs face the common challenge of not being implementing institutions themselves for specific sectors, they have distinct advantages and drawbacks for mobilizing the government and society.
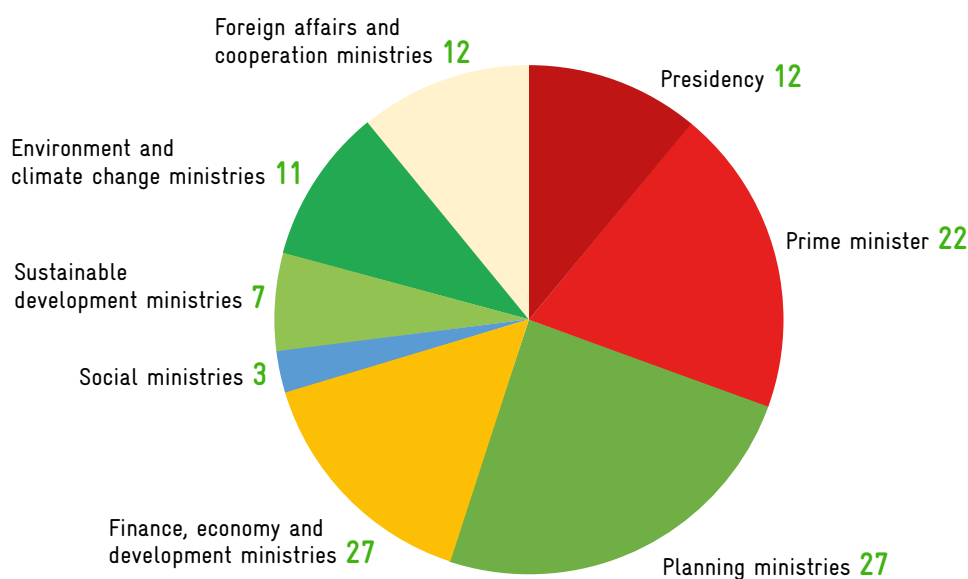
Environment ministries usually have developed expertise and capacities over time for addressing

Figure 4: Lead and Co-Lead Institutions Responsible for Implementing NDCs

Agriculture 1
Presidency 3
Prime minister 4
Planning ministries 6
Finance, economy and development ministries 10
Sustainable development ministries 4
Environment and climate changs ministries 78

Source: WRI author.

Figure 5: Lead and Co-Lead Institutions Responsible for Implementing the SDGs

Foreign affairs and cooperation ministries **12**

Presidency **12**

Prime minister **22**

Environment and climate change ministries **11**

Sustainable development ministries **7**

Social ministries **3**

Planning ministries **27**

Finance, economy and development ministries **27**

Source: WRI author.

Note: The 90 countries include those studied, those having reported at the HLPF in 2016 and 2017, and members of the NDC Partnership. Some institutions have a co-lead role, hence the difference in the total of countries (90) and the total of lead institutions recorded (110 for the SDGs and 106 for the NDC). Categories chosen reflect the most common differentiation between ministries. Finance and planning ministries have been counted as planning ministries.

climate change but may find it hard to ensure national coordination on their own, especially without a legal mandate.[9] These challenges are particularly acute for climate-change departments that are supposed to convene ministries and hold them accountable for reporting on climate actions. This lack of authority can lead to tensions between environment ministries and planning and finance ministries, which often also oversee climate action in planning and budgeting, as observed in several countries.

Presidents' and prime ministers' offices have the authority to play a decisive role in stakeholder mobilization and dispute resolution among ministries. However, they frequently have less capacity and specific expertise than line ministries, and their chairmanship of coordination processes can inhibit institutions from challenging proposed strategies (Osborn et al. 2014).

Finally, planning institutions can play a pivotal role in mainstreaming both agendas in national development plans, but their weight in the cabinet and influence

over sector planning vary considerably across countries. Following the adoption of the two agendas, some of those institutions were strengthened to foster policy integration, such as in Peru and Indonesia.[10]

Coordinating SDG and NDC institutions for a joined-up approach to the two agendas can help overcome those weaknesses.

Options for consistent leadership

Country analyses highlight three options for ensuring consistent leadership for advancing the 2030 and climate agendas:

Distinct SDG and NDC lead institutions coordinate their actions. In this first option, distinct institutions have the authority to advance the two agendas, but they agree on coordination arrangements and joint activities to ensure policy coherence. Currently, in many countries, while NDC and SDG lead institutions are members of national coordination bodies for both climate-change and SDG agendas, their collaboration remains largely ad hoc. Greater

coordination aimed at linking implementation efforts has developed only in a few countries. Mexico is one such example, where SDG and NDC lead institutions meet regularly to ensure synergies between their annual work plans, and set common strategies to mainstream the SDGs and NDC in planning and budgeting (Box 2).

While more than one institution plays an oversight role across the two agendas, one of them has responsibility for both agendas and can play a bridging role between implementation processes. In this second option, one institution leads implementation of both the SDGs and NDC, together with one or several other institutions. For example, in Colombia, the National Planning Department (NPD) shares responsibility with the Ministry of Environment and Sustainable Development for advancing the climate agenda and serves as secretariat for both the High Level Inter-Agency Commission for implementation of the 2030 Agenda and the Inter-Sectoral Commission for

Climate Change. In Indonesia, for a decade the Planning Ministry has assumed a coordination role on the climate agenda under the oversight of the presidency, alongside the environment ministry, and has helped to embed sustainable development challenges in the low-carbon development strategies and climate plans.

Country analyses highlight two conditions for this central institution to play a bridging role between the SDG and NDC tracks. First, a clear division of roles is needed to avoid policy conflicts. In Indonesia, the 2015 climate change governance reform transferred oversight for climate change from the presidency to both the planning and environment ministries without clear distinct mandates. As a result, those ministries worked with little coordination and proposed two different methodologies for the NDC (Indonesia Ministry of Finance 2015, p.17). The final 2016 NDC underlines that "coordination and synergy will continuously be enhanced" between the two ministries (Republic of Indonesia 2016). Second,

BOX 2: STRONG COLLABORATION BETWEEN LEAD INSTITUTIONS FOR THE SDGs AND NDC IN MEXICO

In February 2017, the Office of the President of Mexico, which leads on the 2030 Agenda, and the Ministry of Environment and Natural Resources (SEMARNAT) and the National Institute of Ecology and Climate Change, which are jointly responsible for NDC implementation, agreed to coordinate closely. The three offices acknowledged the need for ensuring synergies between policies and investments supporting both agendas to avoid duplication and scale up impact. They identified the following top priorities for a joined-up implementation: institutional collaboration, alignment between climate policies and the 2030 Agenda implementation strategy, and an integrated approach to mainstreaming of both sets of goals into national- and local-level policy planning and budgeting.

To enhance institutional coordination, the three offices planned to consult each other in defining the annual work programs of the Inter-Ministerial Commission for Climate Change (CICC) and the National Council for the 2030 Agenda.[a] The president tasked the CICC, like other inter-ministerial commissions advancing the national development plan, with mainstreaming the SDGs in their activities. The Office of the Presidency also regularly engages in working groups under the CICC in order to foster discussion of SDG-NDC linkages and ways to deliver greater co-benefits. Overlapping memberships and similar high-level participation have facilitated the understanding and ownership of this objective of greater consistency: Fourteen ministries are represented at the secretary level in both the National Council for the 2030 Agenda and the CICC.

Source: WRI

Note: [a] Interview with policy officer with the Office of the Mexican Presidency, March 14 and July 19, 2017.

internal coordination within the ministry responsible for both processes is key because different directorates are usually in charge of the SDGs and the NDC. Experiences from Colombia's NPD and Finland's ministry of environment show that those directorates often share updates on an ad hoc basis, but without structured coordination and joint work on common priorities.

A single institution is responsible for leadership of both the SDGs and NDC. Only 5 of the 90 countries surveyed give leadership responsibility for both agendas to a single institution. In some other countries, however, the lack of involvement from co-responsible institutions leads to de facto sole leadership. In most cases, sole leadership is carried out by environment ministries, which reflects a view that the sustainable development and climate agendas are still mainly perceived as environmental challenges in those countries. Centralization under one ministry can facilitate the design of mutually reinforcing climate and sustainable development plans, but it can also make inter-ministerial coordination challenging. For instance, in 2015 the former French Ministry for Ecology, Sustainable Development and Energy developed low-carbon and sustainable development strategies and an energy act that are strongly linked, but it had difficulties in mobilizing other ministries, given a lack of engagement from the prime minister office during the early implementation phase.[11]

To conclude, despite some advantages, placing a single ministry in charge of leading both agendas does not necessarily advance integrated implementation if this ministry lacks the leverage to achieve inter-ministerial coordination. On the contrary, close collaboration between two or more institutions can turn the challenge of divided leadership into an opportunity for greater policy coherence, as has occurred in Mexico. Realizing this opportunity appears to depend on several good practices:

- Participation of both SDG and NDC lead institutions in coordination bodies for implementation;

- Regular coordination among lead institutions (or, within a ministry, lead directorates) to ensure consistency and synergy among implementation priorities, strategies, and work plans;

- Processes for information and lessons sharing; and

- Agreement on common strategies and instruments to foster policy and budget alignment at both the national and local levels.

Building a Coherent Whole-of-Government Approach

The challenge of joined-up implementation within government goes beyond the question of oversight institutions. Collaboration is also needed between coordination bodies that engage ministries, parliaments and local authorities around the two agendas. This section reviews some concrete steps being taken by countries to develop whole-of-government approaches.

Consistent inter-ministerial coordination

In all of the countries examined for this paper, separate inter-ministerial coordination bodies have been established for the SDG and climate agendas. Those bodies certainly have similar mandates to develop, advance, and monitor implementation plans across a wide set of ministries and sectors, and create enabling conditions for actions. They also have overlapping memberships, typically including core planning, finance, and budget ministries. Those commonalities can enable bridges to be built between the two tracks, as illustrated in Mexico's case (Box 2). However, early country experience shows that those similarities are not sufficient to develop consistent inter-ministerial coordination linking up both agendas. The following approaches have been identified as potential additional drivers for joined-up implementation.

Assigning consistent and joint responsibilities for SDG and NDC implementation. Ensuring coherence across responsibilities assigned for moving both agendas forward can help ministries and agencies develop integrated implementation strategies and coordinate to address cross-sectoral SDG-NDC policy linkages. To date, planning ministries in several countries have included climate actions underpinning the NDC in the list of SDG targets that they assigned to ministries and agencies. For instance, the Bangladesh

Planning Ministry's handbook for the SDGs attributed shared responsibility to ministries of environment and forest, land, water resources, disaster management and relief, and industries and food to advance SDG target 2.4 for sustainable agriculture, as well as goals from the National Adaptation Program of Action for a climate-resilient agriculture (Bangladesh 2016).

Empowering SDG and climate-change liaison officers to foster an integrated approach. Acting as resource and liaison persons within ministries, focal points for climate change and the 2030 Agenda can be required to coordinate and foster integrated implementation across and within ministries. For instance, in Kenya and Finland, SDG focal points positioned in all ministries address, to some extent, climate actions that support SDG targets in ensuring alignment of sector plans and strategies with the 2030 Agendas. Focal points who are responsible for tackling both agendas, such as Ethiopian Climate-Resilient Green Economy units in various ministries, are in even better position to promote win-win solutions. Liaison officers often need greater capacity to fulfill this role, however. Policymakers underscore the need for an adequate mandate and staff to undertake policy planning. Focal points in charge of other portfolios beyond their coordination role for the SDGs and climate often have limited capacities and influence. Greater coordination could also be ensured with other focal points designated, in some countries, for advancing green growth strategies and the 10th Year Framework of Program for Sustainable Consumption and Production. There are significant missed opportunities for policy efficiency and coherence because those various focal points work in silos and, in several cases, don't even know that the others exist.

Ensuring high-level participation in SDG and climate change coordination bodies. Representation of sector ministries in climate and 2030 Agenda institutional coordination bodies only by their climate change and SDG focal points is unlikely to be sufficient to develop ownership of both agendas by all departments of the ministries and link up both implementation tracks. Experience from Ethiopia, Mexico, and Indonesia highlights that participation at the director-general and minister levels in those coordination bodies helps develop an integrated approach to both agendas in decision-making. This

approach also increases the degree of buy-in from various relevant directorates for joined-up implementation through reporting lines.

Policymakers also highlight the importance of building institutional cultures conducive to cross-sectoral collaboration. Siloed structures, vertical chains of command, and competition for budgets are frequent barriers to cross-sector coordination. Ways to develop those cultures deserve further exploration.

Involvement of the parliament

The formulation of NDCs and the global SDGs generally did not involve parliaments, and their role in national coordination bodies for implementation is relatively limited in many countries. However, given their legislative and budgetary powers and their representation and oversight function, parliaments can be key actors in advancing the two agendas jointly.

Parliamentary participation in both SDG and NDC national coordination bodies. Legislators from countries examined for this paper have been more frequently involved in SDG coordination bodies than those responsible for climate change policies. As pointed out by members of climate change parliamentary committees interviewed, their engagement in both would enable them to submit proposals and channel concerns from constituencies that could lead to greater policy coherence. Members of parliaments interviewed also underscore that their participation in national delegations to the HLPF and the COP provide opportunities to increase their understanding of both agendas and be inspired by best practices in promoting policy integration.

An integrated approach in parliamentary committees. In many countries, distinct parliamentary committees for sustainable development, environment or climate change follow the implementation of the SDGs and climate policy. There are a few examples of sustainability committees that have fostered policy alignment with the two agendas. In South Korea, for example, the National Assembly UN SDG Forum, which replaced the Special Committee on Sustainable Development, has engaged in various awareness-raising and legislative activities relevant to both agendas, including the organization of a debate on the role of the National Assembly in reviewing

implementation measures on SDGs and the Paris Agreement and seeking improvement of policies and legislations (Korea 2016).[12]

Institutionalizing annual SDG and NDC reporting to the parliament. A growing number of countries submit annual SDG and NDC progress reports to parliaments, which can thus scrutinize governmental policies on both agendas (UNDESA 2016). Parliamentary oversight contributes to connect the dots between the two agendas in planning and budgeting, as explored further in Chapters 4 and 5.

Engagement of local authority

Local authorities (subnational governments and municipalities) can be key players in linking implementation of both agendas at the local level and even at the national level. They face immediate sustainable development challenges presented by climate change, growing urbanization, and inequality and hold competencies in key areas of actions for the two agendas. Their smaller administrations, greater flexibility, and proximity to constituencies make them potential incubators of innovative win-win solutions. Joined-up implementation can also help address capacity, financial, and data gaps faced by local authorities. Some countries have started to strengthen horizontal and vertical coordination, between local authorities, across their different departments, and with the central government, to enhance policy coherence. The following strategies were identified from the country analyses:

Defining overarching SDG-NDC local implementation frameworks. As the establishment of local coordination bodies for the SDGs and climate action is still in the early stages in many countries, local authorities have the opportunity to design integrated implementation frameworks for both agendas or, at least, to define mandates to link up their implementation. In Mexico, for instance, local bodies for SDG implementation and monitoring, which were established in 30 out of the 32 states in May 2018, will foster coherence of local development plans and regulations with the national strategy for the 2030 Agenda federal climate-change programs.

Leveraging institutional support for a local-level joined-up implementation. Councils of governors and networks of municipalities, in many countries, including Mexico, Kenya, and Indonesia, have set up or strengthened commissions for climate change and the 2030 Agenda to support implementation efforts of local authorities. Those institutions are well-placed to build capacities of local governments to jointly advance both sets of goals and share best practices. For instance, Kenya's Council of Governors has overseen both the nomination of climate-change ministers and the designation of the directors of planning and economic affairs as SDG leads at the county level (the key subnational jurisdictional level in Kenya). The council also planned capacity-building activities for those focal points that address the SDGs and the climate agenda together.

Involving local authorities in national coordination frameworks for both agendas. As it is the case for parliaments, participation by local authorities in national coordination across the two agendas can spur integration, not only at the local level but also at the national level. This approach can enable local authorities to share their practical experience of climate change and sustainable development linkages, point out inconsistencies, and promote integrated solutions. For example, over the last several years, representatives from local authorities have played an important role in promoting integrated approaches to climate change, air pollution, and mobility in discussions within the French National Council for the Ecological Transition.

Engaging Non-State Actors in Joined-Up Implementation

While there is consensus on the central role of non-state actors in implementation of both agendas, their place and function in national SDG and climate-change coordination frameworks differ significantly among countries and across the two agendas. Research for this paper has identified four main approaches used, often together, for involving non-state actors: non-state actors can be encouraged to engage in initiatives under SDG or climate action platforms, they can play an ad hoc consultative role in

policymaking, they can have an advisory role in independent expert panels, and they can participate fully in semi-governmental bodies that perform policymaking roles. In the countries studied, more inclusive engagement frameworks are identified for the SDG implementation than for climate change, with the exception of Mexico, Colombia, and Peru, which have set up national climate-change systems involving central and subnational governments as well as public and private actors. Although, at the global level, the Global Climate Action Agenda has fostered multistakeholder initiatives in support of the Paris Agenda since COP 21, at the national level, there are often more significant and broader non-state actor platforms developed for the SDGs than for the NDC. This can be partly explained because the SDGs are more easily associated with development benefits. Therefore, greater integration between engagement strategies for the SDGs and NDC could also help the climate community to build on the momentum around the SDGs.

The most important driver for integration is bringing climate and sustainable development actors together to build common visions and solutions. In doing so, countries can consider the five following approaches developed in survey countries.

Overarching action platforms encouraging win-win initiatives for the two agendas. National and global platforms registering non-state actors' voluntary commitments, initiatives, and multistakeholder partnerships in support of the implementation of the SDGs and the NDCs can call for win-win SDG-climate solutions and help track progress toward the two agendas. This is the case of Finland's strategy "Society's Commitment to Sustainable Development Platform" that embraces the carbon neutrality goal. About half of the 420 commitments made by Finnish actors registered in 2016 contribute to climate action. Global platforms like the Gold Standard[13] and Global Compact's SDG Compass also explicitly support both agendas. If many initiatives submitted to the Non-State Actor Zone for Climate Action (NAZCA) platform for Global Climate Action are relevant to the SDGs and 561 of the 3,812 initiatives recorded in April 2018 on the Partnerships for SDGs online platform address goal 13, those platforms could be improved to map out mutual climate and sustainable

development benefits and track their achievements to inform both global stock-take processes.

A nongovernmental organization (NGO) umbrella group on SDG and NDC implementation. In some countries, non-state actor engagement is organized around each SDG with a focal point for each SDG. For instance, in Bangladesh, the International Centre for Climate Change and Development coordinates inputs from civil society on SDG 13 and makes the link with NDC implementation. While important, this arrangement doesn't necessarily encourage attention to intersections between climate action and the other SDGs. A more integrated approach has been adopted by a forum of civil society organizations addressing the two agendas together in ways that can help specialized NGOs move beyond their area of expertise and develop an integrated approach to challenges of low-carbon and equitable transitions. In Kenya, for example, the SDG Forum brings various sustainable development and climate NGOs together and promotes a joined-up approach to both agendas (Box 3).

Multidisciplinary expert groups fostering integrated planning. Sustainable development and climate expert groups set up by the governments to receive analyses and recommendations that will inform decision-making often mirror the separation of governmental bodies. Creating a single expert group could make sense to support the conduct of an overall low-carbon sustainable development transition. However, separate groups with expertise relevant to both agendas can also foster joined-up implementation, as the experience of the Finnish Advisory Sustainable Development Expert Panel shows. Like the parallel Climate Change Panel, this sustainable development panel works on a wide array of disciplines important to both agendas, including social policies, sociology, economics, and climate-change science. Its experts recommended cross-sectoral priorities for low-carbon sustainable development, such as socially fair sustainable energy and an integrated approach to carbon neutrality and equality in the 2030 Agenda implementation strategy.

Inclusion of climate and development actors in national decision-making bodies. Participation by climate experts in 2030 Agenda implementation

coordination bodies can foster consideration of SDG-climate linkages in decision-making. For example, Mexico's National Council on the 2030 Agenda involves NGOs that address environmental and climate-change issues. Similarly, some climate-change decision-making bodies include development experts and representatives from vulnerable communities. For example, the Kenya Climate Change Act provides for the inclusion of a representative from marginalized communities among the nine members of the National Climate Change Council chaired by the president. Kenya's experience also underlines the need for a transparent process to select representatives from marginalized communities.[14]

A unique semi-governmental forum on the national transition toward low-carbon, equitable, and sustainable development. A single national forum cutting across issues involving low-carbon, equitable, and sustainable development can facilitate dialogue on implementation challenges across sectors

and interest groups and build broad-based support for win-win transformative actions. In France, for instance, policies on climate change, energy, sustainable development, biodiversity, and corporate social and environmental responsibilities are all discussed by the advisory National Council on the Ecological Transition, which includes representatives from cities, unions, business, NGOs, associations, and the parliament.

The influence of non-state actors on policy coherence in SDG and NDC implementation naturally depends on their power in national coordination bodies. While they have advisory roles in most bodies, they have the same voice and vote as governmental officials in a few cases, including in Finland's National Commission for Sustainable Development and Mexico's National Council on the 2030 Agenda.

BOX 3: BREAKING DOWN SILOS IN KENYA'S SDG FORUM

Kenya's Civil Society Reference Group on the UN post-2015 Development Agenda and the reference group led by the Global Climate Adaptation Partnership collaborated to engage with the government during the negotiations of 2030 Agenda and the Paris Agreement. These cooperative efforts continued following 2015 under the SDG Kenya Forum.

The forum gathers about 100 Kenyan NGOs working on a wide range of sustainable development issues, including climate change, to build a common vision and engage with the government in a coordinated manner.[a] The forum's coordinators acknowledge that more work has to be done to demystify the climate agenda, which seems overly technical to NGOs not directly involved in climate negotiations and NDC implementation.

The forum holds workshops to spur its member organizations to move out of their silos and connect the dots among the human rights, security, development, and climate agendas. It has conducted capacity-building activities to mainstream the LNB principle in the operations of all its members and has organized local community dialogues to identify and consult with the most marginalized groups. The secretariat to the forum has also promoted an overall vision in engaging with the government. The secretariat assessed the alignment of the country's Medium-Term Plan with the SDGs and African 2063 Strategy (the shared strategic framework for inclusive and sustainable growth in Africa), made recommendations to the African Union's green economy strategy, and provided inputs to Kenya's 2016 VNR. The secretariat has also conducted awareness-raising activities for subnational parliaments at the county level on appropriate budget allocations for the SDGs and for NDC implementation.

Source: WRI author.

Note: [a] Interviews with the board of the SDG Kenya Forum, January 25, 2018, Nairobi.

3. FOSTERING ALIGNMENT AND SYNERGIES BETWEEN NATIONAL SDG AND CLIMATE TARGETS

The institutional divisions identified in Chapter 2 have resulted in limited alignment between countries' climate actions and their sustainable development targets underpinning the global SDGs. The NDCs, NDC implementation road maps and related climate-change plans typically have been formulated mainly by climate-change desk officers from ministries in charge of mitigation and adaptation priorities. Moreover, climate policymakers interviewed for this paper often perceived the SDGs as unspecific and acknowledged limited understanding of how they could support climate policymaking. In the SDG context, climate-change experts have been primarily involved in helping to nationalize SDG 13 on climate action. The NDCs are often regarded by sector ministries as technical documents primarily prepared for the UNFCCC and of difficult use for policy planning. Some interviewees working for SDG lead institutions stated that their 2030 Agenda implementation strategy aligned with the Paris Agreement solely on the basis of assigning responsibility to advance Goal 13 to the NDC lead institution. However, true alignment requires that all national SDG targets be consistent with the country's NDC commitments and plans and support a trajectory toward climate resilience and neutrality.

Cross-fertilization between national climate and sustainable development targets is needed to foster synergies and define the different objectives of the two agendas in an integrated way. Such a joined-up approach would help countries pursue a trajectory that accelerates progress toward both sets of goals. Recognizing this imperative, some countries have begun to align their NDCs and SDG targets. Drawing on national experience, this chapter provides an overview and examples of how countries can foster synergy and integration in this way. A typology of

SDG-NDC potential positive and negative interactions is provided in Appendix B.

Aligning Climate Actions with the SDGs

The 2030 Agenda has key implications for the way that climate actions are designed, selected and prioritized. Countries seeking integration between the agendas have begun to assess the impact of their climate actions on the SDGs and address different targets underpinning the overriding objective of leaving no one behind. Alignment with the SDG targets provides opportunities to enhance the NDCs. Several long-term low-carbon strategies have also been conceived with a broader sustainable development perspective that could support the attainment of the SDGs by 2030.

Assessing the effects of climate action on achieving the SDGs

As of early 2018, several countries have looked for the main linkages between their NDC and the SDGs while developing their climate actions or beginning implementation. For example, Bangladesh's NDC implementation road map highlights benefits for non-climate objectives that are relevant to the SDGs (Bangladesh 2017). A few countries have gone a step further and started to systematically assess the impact of climate actions on the SDGs in order to foster SDG-NDC integration and build a stronger case for advancing climate action.

Ex-post SDG impact assessment of the NDC. There are a small number of examples of countries undertaking a thorough assessment of the impacts of

an existing NDC on the national implementation of the 2030 Agenda. Mexico's experience shows that the active involvement of sector ministries in such an analysis builds an understanding of climate-sustainable development linkages, enables the identification of policy incoherence within and across sectors, and helps get greater buy-in across the government to advance the NDC in synergy with the SDGs (Box 4).

Ex-ante SDG assessment of new climate actions. A handful of countries have taken into account the impact of proposed climate actions on the SDGs in formulating their climate plans. Indonesia was one of the few that considered benefits for the SDGs in selecting actions for its NDC. More recently, the Climate Change Department of Kenya's Ministry of Environment and Forestry undertook an SDG impact assessment of the actions proposed for the second National Climate Change Action Plan (NCCAP) 2018–22, which will serve to carry out implementation of the country's NDC. This analysis was conducted with support from WRI and in close collaboration with both climate-change and SDG focal points in sector ministries. The assessment considers the effects of SDG-climate synergies and trade-offs and has contributed to identifying key low-carbon development opportunities. The assessment also calls for planning specific measures in the projects underpinning the NCCAP II to maximize benefits on inequality reduction and gender equality.

Embedding "leaving no one behind" in climate action

Alignment with the 2030 Agenda involves embracing its overriding objective of leaving on one behind, and therefore maximizing benefits for the poorest and marginalized populations. This challenging objective has insufficiently been reflected in the NDCs, as shown in the case of Mexico (Box 4) and the SDG-NDC module of ClimateWatch. A few countries have addressed the following SDG goals and targets that can be considered as of particular relevance for pursuing this overriding objective in their climate actions.

Eradicate extreme poverty (SDG 1.1). Only a small number of NDCs address this objective, which could help aligning mitigation and adaptation action with the needs of those left behind. Although numerous NDCs refer to poverty and inequality reduction, only 38 NDCs emphasize the resilience of the poorest, and only 6 mention social security mechanisms (ClimateWatch 2017). Bolivia provides a rare example of an NDC that links the objective of ending extreme poverty with its priority climate actions. It sets the target of "reducing extreme poverty to zero in the population dependent on forests by 2030," under the mitigation priority of decreasing deforestation.

Improve in priority the resilience and socioeconomic conditions of the poorest and most vulnerable populations (SDGs 1, 10, and 13). While strengthening resilience of the most vulnerable is a frequent criterion to identify adaptation actions, a few countries also consider impacts on the poorest in selecting and prioritizing mitigation and capacity-building actions, as Mexico did in its NDC and mid-century strategy.

Ensure inclusion of all and reduce inequalities (SDGs 1 and 10). Targets for social, economic, and political inclusion (SDG 10.2) and equal rights to economic resources, ownership, and control over land, natural resources, technologies, and financial services (SDG 1.4) are strongly relevant for enabling vulnerable people's access to opportunities created by climate action as well as greater climate outcomes (ODI 2017). Those targets involve designing climate actions that empower the most vulnerable and marginalized groups to advance and benefit from climate actions. For example, Guyana's NDC increases support to indigenous communities as part of its policies to protect forests. Policies ensuring land rights of indigenous communities and empowering them have demonstrated win-win effects: Deforestation rates inside forests legally managed by indigenous communities are two to three times lower than in other forests (RRI et al 2016).

Achieve gender equality (SDG 5). Only 59 of the 163 NDCs address gender issues. The definition of common principles and objectives under the upcoming UNFCCC Gender Action Plan could lead to greater integration and reporting specifically

BOX 4: MEXICO'S ANALYSIS OF THE CONTRIBUTION OF ITS NDC TO ITS IMPLEMENTATION OF THE 2030 AGENDA

In 2017, Mexico's Office of the Presidency and SEMARNAT, with support from GIZ on behalf of BMZ, commissioned a study on the co-benefits that the implementation of the country's NDC could provide for the achievement of the SDGs. The purpose of this analysis was to identify the opportunities that an integrated approach to the NDC and the SDGs would generate for sector ministries. The study was conducted in five main steps:

- Mapping the intersections between the NDC and the SDGs, informed by a review of the most common sustainable development co-benefits of climate action;

- Identifying the institutions responsible for the policy areas where the greatest co-benefits lie, based on the responsibilities assigned by the National Development Plan;

- Conducting a series of interviews and consultations with decision-makers from those institutions and members of civil society, the private sector, and academia on policy options to foster synergies between NDC and SDG implementation;

- Producing a multi-criteria analysis tool to prioritize NDC actions based on their SDG benefits; and

- Organizing an inter-ministerial workshop in June 2016 to discuss the study's findings.

The analysis shows that all climate actions under the NDC can generate sizable co-benefits for SDG implementation, the greatest synergies lying in the sectors of agriculture and land use, land-use change, and forestry. NDC actions having the greatest co-benefits were identified as "development accelerators" to be prioritized in advancing both agendas. However, the study also highlights a lack of concrete objectives in the NDC to materialize promised co-benefits for poverty eradication (SDG 1), gender equality (SDG 5) and inequality reduction (SDG 10), a gap that should be addressed in implementation.

The study's objectives have largely been met according to the Office of the Presidency and SEMARNAT. The collaboration with line ministries provided an opportunity to enhance their understanding of the benefits that the NDC could generate for their own social, economic, and environmental goals and of neglected trade-offs between those goals and the NDC. Those sector ministries have developed capacities to assess NDC-SDG linkages and mainstream both sets of goals into planning. The experience shows that using the issue of co-benefits was an effective entry point for breaking out sector silos and promoting an integrated SDG and NDC implementation.

Interestingly, the focus on SDG benefits has also helped develop a compelling development case for NDC implementation and securing greater buy-in from line ministries for NDC mainstreaming in policy planning. SEMARNAT's communication and mobilization strategy for the NDC implementation now refers to its SDG co-benefits. However, as of May 2018, the multi-criteria analysis tool on SDG co-benefits has yet to be used in policy planning.

focused on gender issues. Dedicated gender and climate action plans are also useful instruments to foster those synergies. For instance, Peru formulated an action plan on gender and climate change through an inclusive process spearheaded by the Ministry of Environment and the Ministry of Women and Vulnerable Populations. The plan assessed Peruvian women's vulnerability to climate change and sets gender-related actions for all NDC sectors, such as improving women's access to crop insurance and participation in clean energy projects.

Achieve decent work for all (SDG 8.5). The LNB objective is highly relevant for tackling challenges of a

just transition, including planning professional transitions for workers from emissions-intensive industries and addressing barriers such as skill gaps to ensure that disadvantaged groups benefit from green jobs generated by low-carbon sectors. As of 2018, only South Africa's NDC mentions the objective of a just transition. Future NDCs and Biennial Update Reports (BURs) could include relevant assessments of impacts on employment and key actions for a just transition (CIEL et al. 2017).

Ensure responsive, inclusive, participatory, and representative decision-making at all levels (SDG 16.7). A few countries committed to achieve this objective in advancing their climate actions. For instance, at the 2017 HLPF, Uganda reported its objective to better tailor its climate plans to the needs of the most vulnerable through an inclusive planning approach that involves consultations with poor populations (Uganda 2016).

Use disaggregated data by income, gender, age, race, ethnicity, migratory status, disability, geographic location, and other context-relevant characteristics (SDG 17.18). Although the collection disaggregated data may be challenging, such data are needed to assess the impacts of climate action on the most vulnerable. Mexico's climate change strategy of 2013, for instance, requires considering gender, ethnicity, disability, inequality, heath and inequity issues in the access to public services in designing all climate policies (Mexico 2013).

Enhancing climate actions based on the SDGs

Several countries have identified new climate measures as they have gone about putting the global SDGs into action at the national level. Achieving alignment and synergies with the SDGs can help enhance proposed climate action and subsequent NDCs and help close the ambition gap between existing level of commitments and the emission trajectory needed to achieve the goals of the Paris Agreement (UNFCCC 2016).

Complement NDCs with climate-relevant SDG targets. Some SDG targets with strong mitigation and/or adaptation potential have been poorly

included in the first NDCs and could complement national climate commitments. An important example is target 12.3, which is aimed at cutting per capita food loss and waste by half globally by 2030. Only fifteen countries included actions to reduce food loss and waste in their NDCs and with a focus on storage facilities (WRI and NDCP 2017). Yet, the production of food ultimately lost or wasted generates 8 percent of global greenhouse gas (GHG) emissions. Reducing food loss and waste is also an adaptation challenge because food insecurity is likely to worsen due to climate change (Hanson 2017). Several countries have adopted nationally relevant SDG 12.3 targets that complement their national climate change policies. For instance, France committed to halve food waste by 2025, and Colombia set a target to reduce food loss and waste by 3.5 Mt by 2030 in the framework of its 2030 Agenda implementation strategy.

Specify or enhance climate actions against the SDGs and their timeframes. SDG targets and timeframes (2020, 2025, or 2030) can help specify corresponding climate actions that were initially not quantified and time-bound or had a later time horizon. For instance, Bangladesh's handbook mapping national SDG targets reflected in the Seventh Five Year Plan includes 2020 targets to implement SDG 15 (by 2020, increase productive forest coverage to 20 percent and ensure that 15 percent of land is covered by forestry with 70 percent tree density). Those targets clarify mitigation actions for afforestation and reforestation that were not quantified in the NDC.

Add or enhance climate measures to tap into SDG benefits. New climate measures have also been prioritized for their sustainable development benefits that are aligned with SDGs. For instance, in Mexico's NDC, the inclusion of the target aimed at reducing black carbon, a short-lived climate pollutant, by 51 percent by 2030 reflects the requirement in the country's Climate Change Law to prioritize mitigation action with social and well-being co-benefits for the Mexican population, such as improvement of public health (an objective aligned with SDG 3). The formulation of this new target is presented as a way to simultaneously mitigate climate

change in the near term and to improve air quality and ecosystem conservation.

Formulating long-term low-carbon strategies with a sustainable development perspective

A growing number of countries have announced the formulation of "long-term low greenhouse gas emission development strategies" (LTS) by 2020. This planning exercise offers a major opportunity to enhance policy coherence between existing NDC and a decarbonization pathway meeting the Paris goals, between today's policy choices and transformations needed for tomorrow, and between national climate actions and the SDGs. Addressing the 2030 Agenda in formulating LTS would help countries broaden the scope of those strategies beyond a focus on decarbonization and design transition pathways that maximize socioeconomic and environmental benefits and support the achievement of the SDGs by 2030. Such an integrated approach would also help tackle mitigation and adaptation together (McGray 2018). Countries could select and sequence actions that deliver quick wins and structural impacts for both agendas. To this end, the Climate Vulnerable Forum endorsed at COP 22 one of the first commitments to prepare LTS that "limit to the maximum the increase in warming below if not well below 1.5 degrees Celsius, attaining maximal resilience, while endeavoring to achieve or exceed the Sustainable Development Goals" (CVF 2016).

A sustainable development lens will also help countries broaden ownership of LTS so that those strategies can become key reference frameworks for national policy planning and decision-making. While the formulation of LTS to date has been mainly spearheaded by environment ministries, options for shifting the economy toward carbon-neutral sustainable development require transparent and participatory processes involving a much wider range of stakeholders and citizens (Araya 2018). LTS building a society-wide vision for the country's future and highlighting opportunities for development and poverty reduction would improve public buy-in for climate change mitigation, critical reforms, and sustained implementation over time.

To date, countries have taken the following concrete actions to reflect an integrated approach in planning their long-term low-carbon strategies.

Reconciling objectives from both agendas in LTS. Countries can embed the overriding objectives of the 2030 Agenda in LTS. For instance, Mexico's mid-century strategy for low-carbon development intends to address "national priorities of sustainable and more inclusive development" and emphasizes that the well-being of the people is at the core of the strategy (Mexico 2016). The strategy defines targets for 10, 20, and 40 years that have strong benefits for the SDGs, such as sustainable consumption (SDG 12) and the resilience of the most vulnerable groups (SDG 1.5).

Addressing long-term climate and SDG interactions to avoid lock-in and lock-out effects. Countries need to assess and anticipate likely interactions among climate change, options for climate mitigation and adaptation, and other sustainability challenges over time in order to maximize potential synergies and avoid future trade-offs. The path toward net-zero emissions and climate resilience will be affected by climate-change impacts on sustainable development challenges, such as water and energy availability, which may change assumptions about viable mitigation approaches. For instance, Kenya and Colombia have already started to revise their low-carbon energy strategies that relied on expansion of hydropower because their water resources are declining in the context of climate change. Both countries aim at diversifying their power supply to prevent future conflicts over water use and energy insecurity. (Kenya 2017; CDKN 2016). Countries also have to prepare for future opportunities by supporting, for instance, the skills needed for jobs of tomorrow, governance reforms, and technological innovations that will support sector low-carbon transitions. A few modelling tools help countries compare scenario integrating climate change and other sustainable development challenges, such as the iSDG model of the Millennium Institute that enable users to quantify and leverage synergies between climate change mitigation, adaptation and policies for the SDGs (Arquitt et al. 2018).

Planning an inclusive and just transition. An SDG lens would help plan for an inclusive low-carbon transition that prioritizes the poorest and marginalized so that they are not left behind. Integrated long-term strategies can include targeted measures to keep the most vulnerable out of poverty in the context of climate change. An SDG lens is also highly relevant for achieving the just transition called for by the Paris Agreement to minimize negative impacts on jobs and livelihoods of workers from carbon-intensive sectors. Countries that have submitted their LTS by 2017 did not propose concrete plans for achieving a just transition (Ross and Fransen 2017). An integrated approach to national targets for emissions reduction, decent and quality job creation (SDG 8), education and vocational trainings (SDG 4), and social protection (SDG 1) is needed to plan industrial and professional transitions of the workforce. This approach would help phase out carbon-intensive activities while managing socioeconomic impacts. For instance, Finland's Climate and Energy Roadmap 2050 plans a transition period to overcome the impact on employment from phasing out the peat industry.

Planning for regular SDG impact assessments. LTS can plan regular evaluations and potential consequent adjustments to ensure synergies between the country's carbon neutrality path and the pursuit of the SDGs over time. Germany's Climate Action Plan 2050 requires that the SDGs be taken into account in advancing the objective of GHG neutrality to ensure "economically efficient, socially balanced and environmentally sustainable development." The plan sets climate actions selected based on the criteria of social justice, affordability and economic efficiency, and citizen participation and requires comprehensive impact assessment of climate sectoral targets at regular intervals to take their economic and social impacts into account in implementation (Germany 2016).

Addressing negative impacts on achieving the SDGs

Only a small number of NDCs and climate-change plans systematically address potential trade-offs of climate action for development objectives. An SDG lens can help not only in screening for those negative impacts, but also in designing corrective actions that could be taken. Measures to address trade-offs could encompass support for job conversion and education and the provision of financial allowances to populations that are affected by carbon taxes or cannot afford low-carbon technologies. Examples of such approaches are found in France, which has taken action to mitigate the negative impact on air pollution, health, and lower-income households' purchasing power from policies to reduce GHG emissions (Box 5).

Early experiences analyzed in this chapter highlight that that SDG alignment can strongly support NDC implementation. Linking NDCs to SDGs has helped line ministries appreciate the benefits they could reap from climate actions, which has increased their buy-in for moving the climate agenda forward.[15] Consequently, in several countries, including Bangladesh, Indonesia, Kenya, Mexico, and Uganda, integration with SDGs is regarded as a lever for NDC mainstreaming. In Indonesia and Bangladesh, NDC implementation is placed under the SDG framework, that is, as a key reference for planning, and discussions have started to more strongly include the SDGs in the second NDC.

Aligning the SDG Implementation with the NDCs and the Paris Agreement

Climate actions supporting the implementation of NDCs and the Paris Agreement should also influence in the formulation of national targets and priorities underpinning the global SDGs.

Aligning national SDG targets with NDCs and the Paris Agreement

A few countries are leading the way in embracing climate objectives in setting their national SDG targets and priorities.

BOX 5: FRANCE TAKES ACTION TO MITIGATE THE EFFECT OF CLIMATE POLICIES ON AIR POLLUTION AND LOWER-INCOME HOUSEHOLDS' BUDGETS

In the last several years, France has adopted measures to reduce the negative impacts its climate policies generated across different dimensions of sustainable development. The French Court of Auditor recognized that GHG mitigation policies promoting the use of biomass as a renewable energy source and the purchase of fuel-efficient diesel vehicles had largely overlooked impacts on air quality (French Court of Auditors 2015). While average CO_2 emissions of new vehicles had decreased from 149 to 117 grams per km between 2007 and 2013, one of the lowest rates in the EU, the share of diesel vehicles had increased from 4 percent in 1980 to 63 percent in 2015, the highest rate in the Organization for Economic Cooperation and Development (OECD). In 2015, air pollution accounted for 5 percent of total deaths and cost up to US $113 billion per year (French Senate 2015). Subsequent efforts to improve policy coherence have included financial support for upgrading wood-burning appliances, a planned ban on gasoline and diesel vehicles by 2040, and a gradual equalization of gasoline and diesel tax rates.

Following the implementation of the Energy Transition Act, the new Ministry of Inclusive Ecological Transition also announced in 2017 the Climate Solidarity Package to promote an equitable low-carbon transition. The package includes measures that provide low-income households with financial support to enable them to benefit from opportunities generated by climate mitigation policies. Those measures include financial bonuses for energy efficiency retrofit work, which will also reduce energy bills, and for purchases of electric cars. Targeted allowances are also planned to mitigate the social impacts of a carbon tax.

Source: WRI author.

Aligning climate SDG targets with relevant NDC actions. The national commitments defined in the NDC and, in most cases, their 2030 timeline can be particularly useful in translating global SDGs at the national level, given that the SDG targets were initially only quantified at the global level or remain unspecific.[16] In some cases, NDC actions have been used by countries as national SDG targets but not systematically and often without the adequate level of specificity. For instance, Uganda's national SDG targets embedded in its second National Development Plan (NDP II) largely reflect NDC actions but often with less specific targets (Uganda 2016). The national SDG 15.2 target is unquantified (increase afforestation, reforestation, adaptation and mitigate deforestation for sustainable forestry) unlike the corresponding NDC action (reverse deforestation trend to increase forest cover to 21 percent in 2030, from approximately 14 percent in 2013).

Aligning all SDG targets with the Paris Agreement. A few countries, including Ethiopia, Finland, and Sweden, have embedded the Paris Agreement goals of climate resilience and carbon neutrality in their national SDG targets. The carbon neutrality goal is one of the two top priorities in Finland's National Implementation Plan for the 2030 Agenda.

Addressing sustainable development challenges highlighted in the NDCs. The formulation of national SDG targets is an opportunity to tackle sustainable development challenges that are identified in NDCs as a condition for moving climate action forward. For example, Uganda's NDC underscores that advancing SDG 7 will contribute to fulfilling the Paris Agreement because greater access to modern energy is needed for reducing reliance on wood fuel and decreasing deforestation. In turn, Uganda's national SDG targets reflected that emphasis on sustainable modern energy. SDG 7 on energy was translated in NDP II to a national target aimed at increasing electricity access from 14 to 30 percent of the population through the provision of renewable energies and liquefied petroleum gas that will replace firewood and charcoal in rural areas.

Aligning NDC and SDG targets priorities. Climate actions prioritized for the NDC implementation can

be included as top objectives to advance the SDGs. For instance, Togo's main sustainable development challenges – promoting renewable energy and combating sea level rise – correspond to its NDC mitigation and adaptation priorities (Togo 2016).

Prioritizing SDG targets where implementation on climate objectives is lagging behind. Some countries have assessed progress toward their climate commitments in their gap analysis conducted for identifying SDG priorities. Finland carried out a preliminary SDG gap analysis that included as reference points national climate targets and led to the selection for the 2030 Agenda implementation plan

of climate priorities where greater implementation efforts were needed (Box 6).

Alignment with NDCs does not involve overly focusing on national SDG targets on the intersection with climate action. Our analysis identified this risk especially in countries where environment ministries are lead institution for both agendas. For instance, France had developed strongly intertwined sustainable development, low-carbon, and energy transition strategies[17] but with too little consideration for their social dimension and other social goals. Forty SDG targets for which greater national ambition was needed mainly for social benefits were overlooked in

BOX 6: FINLAND'S ALIGNMENT OF SDG AND CLIMATE TARGETS AND PRIORITIES

Finland is one of the few countries that have aligned SDG targets and priorities with the Paris Agreement and the commitments in the European Union's NDC.

The national sustainable development strategy, *Society's Commitments to Sustainable Development: the Finland We Want by 2050*, was conceived in 2014 as both a long-term 2050 vision and a framework to engage Finnish society in building a carbon-neutral and inclusive society. The strategy was defined by the National Sustainable Development Commission through an inclusive, multistakeholder process to build a common understanding of national challenges. Chaired by the prime minister, this commission gathers representatives from 84 different bodies, including all ministries, municipalities and regions, business and labor unions, the Sami indigenous people and the autonomous Aland Islands, the science community, the church, and 49 civil society organizations representing various interests, including the environment, development, sports, youth, consumer, health, education, and immigrants. This process identified a set of eight top priorities for the country that capture the core objectives of both the climate and sustainable development agendas and were updated to reflect the SDGs in 2016: equal prospects for well-being; a participatory society for citizens; sustainable work; sustainable local communities; a carbon-neutral society; a resource-wise economy; lifestyles respectful of the carrying capacity of nature; decision-making respectful of nature.

The priorities in the 2030 Agenda implementation plan were identified through a comprehensive SDG gap analysis that also took into account progress toward national climate commitments. This analysis was conducted by the Sustainable Development Key Issues and Action Plan 2030 Project (Avain 2030), which was led by an inter-ministerial and multistakeholder group. Overall assessment of Finland's progress with implementing the 2030 Agenda was based on indicators selected for the preliminary sustainable development index prepared by the Sustainable Development Solutions Network (Sachs et al. 2016). This analysis identified goal 13 (climate) and goal 8 (decent work and economic growth) as those lagging farthest behind in 2016. Climate measures that needed to be scaled up included recycling and resource efficiency; transformation of the energy system toward renewable small-scale energy production; a shift in the industry sector toward low-carbon, high value-added products; and decarbonization of the transportation and construction sectors.

Source: WRI author.

the 2015 National Ecological Transition Strategy toward Sustainable Development and other related plans (Hege 2017). The government performed a full screening of national plans against the SDGs in 2017 to address this gap.

Aligning sustainable development strategies with long-term climate strategies

Some countries have also aligned their long-term 2030 and 2050 sustainable development strategies supporting the SDGs with the country's long-term carbon resilience and decarbonization pathway. The 2016 German Sustainable Development Strategy refers to the Climate Action Plan 2050 and integrates its 2050 targets for carbon neutrality, renewable energy, and energy efficiency. In 2017, the Office of the Presidency of Mexico also ensured alignment of the 2030 Agenda implementation strategy with its mid-century low-carbon strategy submitted at the UNFCCC.

While single long-term integrated strategies relevant for both agendas would make a lot of sense, ensuring synergies between the actions and milestones of those sustainable development and low-carbon strategies is essential to trigger structural changes needed to achieve both agendas and maximize the economic and social benefits from the low-carbon transition. Finland's energy and climate strategies 2030 and 2050, National Implementation Plan for the 2030 Agenda, and "Finland we want by 2050" provide examples of mutually supportive 2020, 2030, and 2050 targets that pave the way to meet both agendas. For instance, those milestones aim at gradually transforming the energy sector with mutual benefits for climate mitigation and competitiveness and at decarbonizing the building stock by 2050 (Box 6).

Addressing effects of nationally defined SDGs on climate action

The global SDGs have been conceived as indivisible, but misalignment between global and national SDG targets and across national SDG targets could involve greater risks of conflicts with NDCs. Rapid increase in the demand for energy, infrastructure, food, and goods can lead to a primarily economic-social lens for domesticating the SDGs (Machingura and Lally 2016). Several global SDG targets could generate negative effects on climate action if taken individually. For example, SDG target 8.1, to "sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 percent gross domestic product growth per annum in the least developed countries," is a target likely to drive increased carbon emissions, among other effects. On the other hand, SDG target 8.4, which calls for decoupling growth from environmental degradation could minimize this risk of increased emissions. A growing body of evidence addresses opportunities to effectively address those trade-offs for climate action (NCE 2015, 2016).

Ultimately, an integrated approach to long-term low-carbon and sustainable development strategies, NDCs, and national SDGs could enable countries to close the gap between national-level commitments and the ambition needed to achieve the two agendas. Long-term strategies can highlight misalignment between the decarbonization path needed and current climate actions (Fransen and Levin 2016; Climate Action Tracker 2017) and, more broadly, between a desirable sustainable development trajectory and national NDC and SDG targets.

4. JOINTLY MAINSTREAMING THE SDGs AND THE NDCs IN NATIONAL PLANNING

Aligning national SDG targets and climate commitments is an important step forward. However, to make tangible progress toward greater policy coherence, governments should seek to mainstream the two agendas jointly across national and local policy planning. Such an integrated planning approach would reduce transactions costs and foster win-win solutions. Yet, after two years of implementation, very countries are changing the ways their policies are defined to systematically address sustainable development and climate goals through a cross-sectoral approach (Box 7). Instead, in most countries, line ministries with siloed thinking still tend to cherry-pick sustainability and climate targets, sometimes to match sectoral goals that they have already identified. According to interviewees, the proliferation of different guidance for mainstreaming the SDGs, the NDC actions, and cross-cutting objectives such as gender equity and green growth also make planning processes more complex for sector policy planners.

This chapter analyzes the experiences of first mover countries that have taken steps to jointly embed the two agendas in policy planning. Typically, such efforts start with the formulation of guidelines for joint SDG-climate mainstreaming and the undertaking of policy reviews against the two agendas. An increasing number of initiatives aim at integrating both sets of goals at every governance level in a consistent way, from national long-term visions to sectoral and local development plans. A few countries have also started to follow up and evaluate joint SDG-NDC mainstreaming in planning.

Undertaking Policy and Legislative Reviews for the Two Agendas

Reviews of national policy and legislative frameworks to identify gaps and misalignment have often addressed the two agendas separately. Experiences of integrated approaches, often adopted in the context of the 2030 Agenda implementation, support a joined-up implementation.

Identifying convergence among NDC, the SDGs, and other national commitments. Such analyses intend to facilitate joint mainstreaming of those commitments into planning. This was the case for Peru's Planning for Climate Change (PlanCC) Project that highlighted in 2016 six priorities common to the NDC, SDGs, and OECD accession strategy to inform the revision of Peru's development plan by 2021, the Bicentennial Plan (Box 8).

Assessing alignment of existing policies and legislations with the two agendas. Comprehensive reviews can highlight potential for greater policy integration across the two agendas and development plans. For instance, in Togo, the Ministry for Planning and Development screened all sector policies against the SDGs, climate actions, and the Agenda 2063 so that the future NDP 2018–22 could foster greater alignment and synergies with and between those agendas. Upon request of the vice president in charge of SDGs, the European Commission also conducted a comprehensive review of European policies in 2016 that provides a basis for fostering climate-sustainable development linkages beyond the scope of the EU NDC focused on energy goals.

Providing Guidelines for SDG-NDC Joint Mainstreaming

In a growing number of countries, requirements for mainstreaming the SDGs and climate actions are included in guidelines defining core principles, objectives, and processes that must be respected in policy planning (UNDESA 2016). Those requirements have greater authority than they used to have because they are not only mentioned in dedicated climate and sustainable development strategies without legal basis anymore. However, the two agendas tend to be addressed separately, and the proliferation of guidelines adds a significant burden to planning processes. Countries usually request SDG mainstreaming in executive decrees and development planning guidelines issued by presidential or prime ministry offices or by planning ministries that are

BOX 7: VARYING DEGREES OF SDG-NDC INTEGRATION IN DEVELOPMENT PLANNING

Full integration of the SDGs and NDC in development planning can hardly happen overnight. This study has analyzed how the progression from siloed sector planning toward greater policy coherence identified in the literature on sustainable development and climate policy integration and mainstreaming (Persson 2004; Gupta and Van Der Grijp 2014; Bass et al. 2017) could apply to countries' efforts at building the SDGs and the NDC into their development plans. We observed six main degrees of SDG-NDC integration in the experience of the twelve countries studied in depth for this paper and members from the NDC Partnership in advancing both agendas.

- Environmental pillar. Sustainability and climate goals are primarily addressed under an environmental section of the development plan. In several countries studied, existing long-term and vision plans that are still applicable until 2020, 2030, or 2040 poorly mainstream the goals of both agendas.[18] Some are updated or complemented as mentioned in this chapter (p. 43).

- Safeguards. Environmental and social impact assessments of proposed policies, projects, and investments and their climate-proofing to build resilience to climate change focus on minimizing negative impacts and do not look for positive long-term synergies.[19]

- Ex-post matching. Linkages are traced between existing or pre-identified development objectives and the targets of both agendas. Such an approach can overlook gaps and inconsistencies and risks to not generate any change in implementation.[20]

- Partial consideration. Government bodies cherry-pick and integrate only a few selected NDC and SDG targets based on their own top priorities. They neglect other targets that are also relevant to their objectives and overlook potential policy conflicts and synergies.[21]

- SDG-NDC win-win solutions. Some government bodies systematically seek cost-efficiency and co-benefits for NDC and 2030 Agenda implementation in policy planning. The example of new agriculture strategies from France and Bangladesh, given in this chapter illustrate such approaches (Box 9).

- Full joint integration. Both agendas would be the core baseline for national planning and budgeting thanks to a rethinking of institutional culture and practices and a systemic change in policymaking. An integrated ex ante planning approach to both agendas would address policy interactions through an SDG-NDC lens and foster synergies among the two sets of objectives.[22]

Country analyses show that the first four approaches to SDG and NDC integration are common pitfalls. Only a few pioneers are at stage five, seeking for win-win solutions, and making progress toward full SDG-NDC joint integration. This ultimate degree of integration has not been identified in any country yet.

Source: Authors, adapted from Persson 2004; Gupta and Van Der Grijp 2014; Bass et al. 2017.

typical SDG lead institutions. Requests for climate action mainstreaming have been increasingly embedded in climate-change laws but rarely in general development planning guidelines.[23] As a result, policy planners have to navigate between guidelines for mainstreaming SDGs, climate action, and other cross-cutting issues, such as green growth and gender equality. Reducing the number of guidelines and making sure they address the SDGs, the NDC, and other cross-cutting objectives together and require appropriate environment, poverty, social, and sustainability impact assessments would support integrated planning.

Climate planning guidelines fostering climate-SDG synergies. In a growing number of countries, those guidelines not only require climate mainstreaming in development planning, but also put emphasis on benefits from climate actions for sustainable development and human rights. For instance, Kenya's 2016 Climate Change Act provides that national and county governments should mainstream climate change responses into development planning as well as the principles of sustainable development and intergenerational and gender equity into climate planning (Kenya 2016, Article 3). The act also requires that all institutions promote sustainable development under changing climatic conditions and ensure equity and social inclusion in allocation of effort, costs, and benefits. Some climate planning guidelines request the provision of specific sustainable development benefits. For instance, Mexico's 2012 Climate Change Act lists environmental, social, and economic benefits expected from climate adaptation, such as food security and the preservation of natural resources (Article 101), and from mitigation, including improved health, energy efficiency, and mass public transportation (Article 102).

Development planning guidelines supporting SDG and climate mainstreaming. General and sector planning guidelines can require that sector ministries embed both agendas in their policy instruments while undertaking both Poverty and Social Impact Assessments (PSIAs) evaluating the distributional effects of proposed actions and environment and climate-change impact assessments, as illustrated in Uganda's Sector Development Planning Guidelines

(Box 12). Among the best practices are requirements in Bangladesh's Seventh Five Year Plan for mainstreaming the poverty-environment-climate-disaster nexus in project design, budgetary, and monitoring processes. Mexico also revised its Planning Law and Climate Change Act, respectively, in 2017 and April 2018, to specifically request the alignment of NDPs with the SDGs and the Paris Agreement – including the goal of limiting the increase in the average temperature of the planet to less than 2°C, with efforts to limit it to 1.5°C. The guidelines for Kenya's local development plans, which are called County Integrated Development Plans, also refer to both the SDGs and climate action. In most examples identified to date, the NDC is still not specifically mentioned.

Green economy planning guidelines embracing both agendas. Identified in a few countries, those overarching guidelines require the mainstreaming of a set of national priorities aligned with the two agendas. For instance, the Green Planning and Budget Strategy for Indonesia's Sustainable Development 2015–2020, defined by the Finance Ministry, provides a new approach to sustainable development planning. An inter-ministerial team rated existing policies based on their contribution to 5 green economy dimensions aligned with the SDGs and NDC (environment, climate mitigation, adaptation, long-term growth, and social equity) and selected 21 priorities fostering climate-sustainable development synergies, including forest protection (NDC, SDG 15), climate change resilient crops (NDC, SDG 2) and renewable energy (NDC, SDG 7). The strategy has contributed to anchoring sustainability and climate concerns in planning and budget discussions.[24]

Those guidelines can also encourage ministries and agencies to use specific planning tools for mainstreaming the SDGs, NDCs, and other relevant cross-cutting issues (for example, gender and green growth) into policy planning. Those mainstreaming tools comprise practical how-to tools, such as handbooks and checklists, and more elaborated evaluation grids and scoring methodology. Those tools can be relevant for embedding the SDGs and NDCs in planning, especially when they are context- and sector-specific, but their proliferation may also become a disincentive for their effective use.

Comprehensive sustainable development analysis tools that are aligned with the SDGs enable users to assess the impact of proposed policy actions on relevant sustainable development goals across the economic, social, and environmental dimensions and climate action. For instance, the Sustainable Development Analysis Grid provided by University of Quebec has been used by Senegal and Togo to assess the alignment of their development plans with their SDGs and climate priorities (Riffon and Tremblay 2016; UNDESA 2015; Togo 2016).[25]

Aligning Long-Term National Visions with a Pathway Meeting Both Agendas

National vision documents have policy and social purposes that are essential for moving the two agendas forward. They typically provide a long-term framework for a series of medium-term national development plans, as illustrated by Kenya Vision 2030, Uganda Vision 2040, and Peru National Accord. These vision documents could support both agendas in forging national consensus around their objectives, giving long-term direction for their achievement, and engaging societies in their pursuit. They may also define a new frame of reference for changing aspirations and shifting investments over time. Many countries adopted long-term sustainable development visions before Rio+20 (UNDESA 2016), but those documents only partly capture the goals of the 2030 Agenda and Paris Agreement and have to be aligned with long-term decarbonization and sustainable development strategies. Countries can consider the following elements for vision building as best practices.

Leadership and inclusiveness. Oversight at the highest level and broad-based processes are essential for shifting the national development paradigm toward sustainability and carbon neutrality. Active involvement of presidents in domestic and international discussion has built momentum for both agendas across the countries studied. For example, the former president of Indonesia, Susilo Bambang Yudhoyono, promoted the switch from the "greedy" economy to the green economy in both the

global process on the SDGs and the national preparation of the 2015–2019 NDP. Mobilizing a wide range of constituencies and interests is also key to ensuring ownership and long-term durability. The definition of "Finland we want by 2050" (Box 6) and Peru's 2030 Vision (Box 8) illustrate inclusive approaches that aim to lay the foundations for large mobilization.

Alignment of the country's aspirations with both agendas. Long-term national visions are framework policy documents that can call for a turning point in a country's development patterns, a move away from an exclusive focus on economic growth. Uganda Vision 2040, for example, acknowledges that the environment, climate change, and gender inequalities have been neglected for decades and calls for behavior change to achieve balanced, sustainable, and equitable development. Those visions could also reconcile the complementary objectives of the two agendas. Ethiopia and Finland are among the few countries to have adopted visions that pursue economic sustainable development, equity, climate resilience, and carbon neutrality in an integrated way.

A compelling and positive narrative. A resonant narrative around the opportunities created by both agendas can be regarded as strong driver for changing mind-sets and scaling up action (Evans 2017). Ethiopia's Climate-Resilient Green Economy vision, for instance, highlights the economic and social losses that would generate a traditional high-carbon growth path as well as the great benefits that Ethiopia could reap as a sustainability and low-carbon leader. Emphasis is put on overall well-being, health, economic growth, energy security, cheaper and safer transportation, commercial gains, and natural resource conservation and fewer floods.

A trajectory consistent with long-term low-carbon and sustainable development strategies. There is understanding across study countries that the milestones set in those strategies should ultimately be reflected in national development visions. The Vision for Peru by 2050 proposed by PlanCC provides a good example of a transition pathway aligned with the two agendas. The vision (Box 8) provides key goals to be achieved by 2021, 2030, and 2050 for building a carbon-neutral, equitable, and sustainably developed country (Cigaran et al. 2016).

Embedding both Sets of Goals in National Development Plans

Aligning the multi-year NDPs or government programs in high-income countries with both agendas is a key step toward achieving joined-up implementation. NDPs, if adopted by parliaments, have legal force, and they are the baseline against which sectoral and local development plans are defined. For this reason, Bangladesh's NDC Implementation Roadmap states that NDC mainstreaming "will be easier if climate change is deeply embedded in the five-year planning process that is central to development," and Finland stresses in its 2016 VNR that the objectives of its sustainable development strategy should be included in future government programs. Given their economy-wide scope, NDPs can also be conceived as overarching frameworks for the two agendas.

NDPs can be aligned with the two agendas in different steps, depending on national planning cycles. Four approaches were observed across the study countries:

(1) Green growth strategies aligned with both agendas can complement NDPs. For instance, in 2015, Kenya adopted a Green Economy Strategy and Implementation Plan that reflects "the sustainable development paradigm shift" to complement the Mid-term Plan 2013–17 and pursue Vision 2030 in a sustainable manner (Kenya 2015). Similarly, Colombia plans a 2030 green growth policy in 2018 to advance the SDGs, the Paris Agreement, its peace agreement, and the OECD accession process in an integrated way. Green growth strategies owned by governments have proved to be stepping stones to advance sustainability in planning. Notably, Ethiopia's Climate Resilient Green Economy Strategy (CRGE) has guided multi-year growth plans since 2011 (Box 9).

(2) Some countries chose to review their long-term NDPs against both agendas that provides a framework for medium-term NDPs before their term expires. Peru undertook such a review of its 2021 Bicentennial Plan.

(3) Linkages can be traced between existing NDPs and the new agendas. Countries that do not have the opportunity to renew their NDPs in the short term

can assess the alignment of existing development targets and indicators with the NDC and SDGs. This enables governments to begin tracking progress and highlights needs for greater alignment at the sectoral strategy level.

(4) The preparation of new NDPs offers the chance to build the SDGs and the NDC into national development objectives and policies. This opportunity occurs when their term is up or sometimes after elections.

We identified different levels of SDG-NDC integration in NDPs from study countries, but a clear lesson is that the percentage of SDG targets addressed is less important than the extent to which consideration of both agendas has changed the way NDPs are defined. Indeed, SDG and NDC targets in line with some development priorities can be cherry-picked without overall coherence of the NDP with the two agendas. Full integration would suppose consistency across sectors with the whole sets of SDG and NDC targets and integrated solutions addressing policy interlinkages. The following planning steps and approaches have been drawn from best practices.

Awareness raising and trainings for stakeholders on the two agendas. Since the formulation of NDPs typically engages a wide range of governmental, parliamentary, and non-state actors, several study countries, including Ethiopia, Togo, Colombia, and Indonesia, used this planning process to build common understanding of the implications of both agendas for national development.

Defining the NDP as overarching framework for both agendas. NDP lead institutions can work to ensure that the SDGs and climate commitments are reconciled in the objectives of the NDP. The Strategy for the Development of Samoa 2016–20, "accelerating sustainable development and broadening opportunities for all," was prepared to precisely illustrate how planning and budgeting processes can mainstream gender, human rights, disaster resilience, the 2030 Agenda, and the Paris Agreement all together. The strategy's 14 outcomes were matched with SDG targets, the NDC mitigation target, and disaster and climate resilience objectives. The strategy was also formulated to embed the objective of LNB, with emphasis on sharing economic growth benefits;

BOX 8: FORMULATION OF PERU'S LONG-TERM VISION FOR A LOW-CARBON, SUSTAINABLE AND INCLUSIVE SOCIETY

Peru has adopted an integrated approach to long-term planning for the SDGs, the Paris Agreement, and the accession process to the OECD, partly through support from the project Planning for Climate Change (PlanCC) of the Mitigation Action Plans and Scenarios program.

In 2016, PlanCC identified six priorities common to the NDC, SDGs, and three top objectives for the accession to the OECD (improved connectivity, economic diversification, and reduction of informal labor): sustainable energy, the transportation system, agriculture, industry, the forestry sector, and waste management with co-benefits for human health and the environment. The study has informed the alignment of Peru's development plan by 2021, the Bicentennial Plan, with those agendas and the formulation of a proposal called Vision by 2050.

PlanCC developed this proposal based on modeling scenarios and through participative workshops that gathered 120 various stakeholders, including representatives from the planning institution, the National Center for Strategic Planning (CEPLAN), and the environment, economy and finance, and foreign affairs ministries. The document, illustrated by an online video, proposes milestones and key objectives to make Peru be a member of the OECD in 2021, achieve the SDGs in 2030, and become a low-carbon, resilient, sustainable, and equitable country by 2050.

In 2017, CEPLAN started to prepare the "Vision for Peru by 2030" to replace the 2021 Bicentennial plan and pave the way to the "Vision by 2050". An inclusive process was launched in the framework of the National Accord, a permanent multistakeholder forum created in 2002 to generate consensus on long-term public policies. At the National Accord, the president of CEPLAN, Javier Abugattás Fatule, insisted on the need to balance economic development and environmental and climate actions. The five overriding objectives of the first version of Vision 2030 presented in February 2017 aligns with the SDG and climate agendas: Enable all Peruvians to develop their potential; sustainably manage natural resources and take urgent climate actions; ensure prosperous lives and decent work for all in harmony with nature, as well as a peaceful, just, and inclusive society free from violence, corruption, and discrimination; and build partnerships for achieving sustainable development and human rights while leaving no one behind. Those objectives are underpinned by 29 indicators that are, when possible, matched with SDGs. To cite examples, indicators track reduction of CO_2 emissions and inequalities, with emphasis on gender issues and the poorest and marginalized populations (for example, reducing the proportion of the population living with an income that is 50 percent below the medium income). A series of broad-based consultations were organized in early 2018 to collect input from various segments of the society, including a national dialogue with young millennials on the fight against corruption and the SDGs.

Source: WRI author.

improving quality education, health, and access to essential services for people regardless of where they live; and strengthening adaptive capacity to climate change.

Providing directions to sector ministries on how to address the two agendas. Experience from the study countries highlights the need for strong oversight of the preparation of sector contributions to NDPs to prevent cherry-picking of SDG and NDC targets. As illustrated by Ethiopia's experience (Box 9), NDP lead institutions can build the SDGs and NDC into the outline of the NDP and assign their targets to relevant government bodies in collaboration with SDG and NDC lead institutions. Guidance is instrumental on the way to address those targets, select priorities based on co-benefits for the two agendas, and plan for any new regulation needed. That guidance can take the form of checklists, lists of criteria, or impact assessment guidelines.

Enabling cross-sectoral work on SDG-NDC linkages. The literature and country analyses suggest that the preparation of NDPs is rarely characterized by adequate cross-sectoral work. Sector contributions are largely prepared in silos, and NDP leads tend to focus on ensuring overall coherence and no major contradiction between them. However, NDPs that strongly integrate SDG and NDC targets build on their linkages within and across sectors to design win-win solutions. Colombia recommended such a cross-sectoral approach to define SDG targets because it radically changes the understanding of what is a sectoral interest and enables policy planners to address policy linkages among the economic, social, and environmental dimensions of sustainable development issues (Government of Colombia 2013). This approach was put into practice in Colombia's NDP 2014–18 and led to the development of five cross-sectoral strategies and an overarching green growth strategy.

Designing Sector Development Plans that Align with the SDGs and NDC

SDG-NDC mainstreaming in sector plans and projects is a core condition for starting to implement the two agendas. However, the risk of shallow and partial integration is high because line ministries, in

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BOX 9: ETHIOPIA'S INTEGRATION OF THE GREEN GROWTH STRATEGY AND THE SDGS INTO THE GROWTH AND TRANSFORMATION PLAN 2015–20.

Ethiopia is an early adopter of a low-carbon sustainable development path with the formulation of the CRGE strategy in 2011. The country has also asserted its leadership in implementing the NDC and the 2030 Agenda by integrating the CRGE and the SDGs into its second Growth and Transformation Plan (GTP II) 2015–20. The overall objectives of the plan align with the two agendas. GTP II aims to achieve a middle-income country status by 2025 while reducing GHG emissions by 35 percent and embarking on a carbon-neutral development pathway. The consultations conducted during the formulation of the plan with regional states, city administrations, representatives from pastoralist communities, youth and women associations, the private sector, academics, and NGOs contributed to build awareness on the climate and 2030 agendas.

The National Planning Commission (NPC) ensured the integration of the CRGE and SDGs in four main steps. NPC included CRGE and SDG targets into the macroeconomic and sectoral framework for GTP II. NPC also raised awareness on the SDGs across the government and asked the Ministry of Environment, Forest and Climate Change to draw checklists of actions from the CRGE and NDC for sector ministries. Then, the NPC reviewed the contributions from sector ministries against the two agendas. Finally, the commission included macroeconomic and sectoral indicators and targets relevant for the CRGE and SDGs in the GTP II policy matrix (Ferede 2015).[26]

As a result, the 10 priorities of GTP II match the SDGs, as highlighted in the 2017 VNR (Ethiopia 2017)[27] and mainstream adaptation and mitigation actions. The plan reflects the Program of Adaptation to Climate Change and CRGE's four priorities, which focus on sustainable economic opportunities: improving agricultural productivity while abating up to 85 Mt CO_2e, rehabilitating forests for their economic and ecosystem services, deploying renewable energies, and leapfrogging to energy-efficient technologies. GTP II also underscores the need for greater implementation capacities and promotion of green technologies.

Ethiopia also reported to the HLPF that the coordination mechanism set up to advance the GTP II and the SDGs comprises a "public wing," a platform for non-state actors and government institutions to discuss, carry out, and evaluate development plan preparation and performance.

Source: WRI author.

the experience of many countries, still have siloed thinking and uneven levels of awareness and ability to embrace both agendas. SDG and NDC lead institutions often have limited capacities to offer direct support. Good examples of sector strategies that truly integrate the two agendas, such as France and Bangladesh's agriculture policies (Box 10), show that some of the approaches used to mainstream SDG and

NDC goals in NDPs can also be applied and tailored to sectoral plans.

Providing sector ministries with capacities and tools to address the two sets of goals jointly. Interviewees from study countries highlight strong need for capacity building, sector guidance and practical tools that enable line ministries to own both

BOX 10: BANGLADESH AND FRANCE CRAFT TRANSFORMATIVE AGRICULTURAL STRATEGIES

Transformative actions in land use have been identified as top priorities to meet the objectives of both the 2030 and Paris agendas (NCE 2015). Despite different national contexts, the agriculture strategies of Bangladesh and France propose similar integrated solutions.

Bangladesh has prioritized productivity and adaptation. Half of the country's total employment is still in low-productivity agriculture,[a] and climate-change impacts could reduce agricultural GDP by 3.1 percent each year by 2050.[b] Environmental and health protection are at the core of France's Law for the Future of Agriculture, Food and Forests (LFAFF),[c] in line with the 2015 Low-Carbon Strategy. Agriculture is responsible for 19 percent of France's GHG emissions, 60 percent of its water consumption, and a high concentration of nitrate in water courses, while being increasingly vulnerable to climate change.[d] The LFAFF intends to cut GHG emissions by more than 12 percent by 2028 and by half by 2050.

The formulation of a climate-smart agriculture strategy in Bangladesh and the LFAFFF in France was informed by science-based evidence and wide consultations across the government and different interest groups, resulting in the following win-win solutions:

- Ecosystem-based approaches to preserve soils, watercourses, and biodiversity and close the nitrogen and carbon cycles while increasing productivity and reducing impacts on human health. Those solutions include diverting 50 percent of managed waste from landfill to composting (Bangladesh NDC); promoting leguminous crops (rich in nitrogen) instead of fertilizers, and pest management through living organisms (bio-control) rather than pesticides (French LFAFF).

- Resource-efficiency solutions leading to reduced costs, greater incomes, and climate benefits. Policies include use of solar panels in farms and precision agriculture to optimize inputs such as water and fertilizers (Bangladesh Seventh Five Year Plan, NDC); waste-to-energy solutions, carbon storage in biomass, and biogas (French LFAFF);

- Climate adaptive solutions generating greater yields. Measures include developing climate-resilient varieties (Bangladesh Seventh FYP, NDC); promoting seed diversity and non-ploughing techniques to reduce soil erosion (LFAFF).

Source: WRI author.

[a] Labour Force Survey 2013.

[b] Ministry of Environment and Forest 2015.

[c] France's 2014 Law for the Future of Agriculture, Food and Forests (LFAFF).

[d] Dameron 2015.

agendas and build their goals into their plans and strategies in an integrated way. A key challenge for those sector ministries is to map all NDC and SDG targets relevant for and affected by their actions, rather than focusing only on targets that directly address their own sector. Guidelines, as those prepared in Ethiopia (Box 9) can foster cross-sectoral considerations. Impact assessment, mainstreaming, and modeling tools mentioned in previous sections also help capture interactions and feedback loops between climate change and other sustainable development challenges. Requests from members of the NDC Partnership also include lists combining NDC actions and SDG targets to be considered by the different ministries because of their policy linkages.

Ensuring oversight from SDG-NDC institutions. Engagement of SDG and NDC lead institutions in the formulation of sectoral development plans, alongside planning and finance ministries, can support the adoption of integrated planning. For instance, Bangladesh's Ministry of Environment and Forests, overseeing NDC implementation, and the Planning Commission, having leadership for the SDGs, worked together to include climate goals in sectoral action plans underpinning the SDG-aligned Seventh Five Year Plan (Bangladesh Ministry of Environment and Forestry 2017).

Landing both Agendas in Local Policy Planning

The translation of the SDGs and NDCs at the local level, a process called localization or territoralization by governments, is a top priority for making tangible progress. While approaches to joint SDG-NDC mainstreaming in national and sector plans are also relevant for this effort, linking up the two agendas at the local level raises additional challenges related to the coordination with national-level planning.

There is recognition that a bottom-up approach, where local authorities choose their targets underpinning the SDG and the NDC based on local circumstances, needs to be balanced with top-down guidance for policy integration and equitable sharing of efforts across local authorities to achieve national

commitments. Yet, many local authorities have begun setting their own NDC and SDG actions separately and before, or in parallel with, the definition of national-level sector targets. Many context-specific factors, including national administrative structures, capacities of central governments, and local level political will, come into play. For instance, the Kenyan district Kisuvu set its own climate actions before the NDC sector analysis and the formulation of the National Climate Change Action Plan and Mid-Term Plan 2018–21. Early initiatives can help build momentum for implementation, but they can also lead to misalignment with national-level targets and partial integration of both agendas. Experience from the country studies shows that this challenge of coordination can be overcome through adequate oversight and support from central government and full consideration of both sets of goals at the local level.

Articulating national- and local-level definition of SDG and NDC targets. Very few countries have organized SDG and NDC localization processes so that they can build on the definition of national-level sector targets for both agendas and support each other. In Colombia, the planning ministry, in charge of the SDGs, and the environment ministry, NDC lead institution, have been working to ensure that SDG and NDC localization processes build on the identification of nationally relevant SDG priorities and the national-level unpacking of the NDC into sector targets (Box 11). This approach can enhance consistency and efficiency in implementation, and create opportunities for smart local SDG-NDC win-win solutions.

Enhancing vertical and horizontal coordination for implementation. A few countries have adopted coordination processes for linking up national and local implementation. For instance, the President's Office of Mexico has provided strong support establishment of local SDG committees. The Office of the Presidency and the Conference of the Governors oversees the development of local implementation plans and ensures coherence across those plans and with national priorities.

BOX 11: COLOMBIA ADOPTS AN INTEGRATED APPROACH TO LOCALIZATION

The Colombian government has been working with local authorities at the department and city levels to land the SDGs and the climate agenda into local planning and budgetary processes. Those efforts have fostered linkages between the two agendas and between their national- and local-level implementation, offering strong potential for greater efficiency and synergies.

An initial SDG alignment analysis of the development plans 2016–19 of the 32 departments (territorial development plans) and of their capital cities informed the NDC localization process. This analysis found that about one-third of those plans do not address SDGs 7, 12, 13, and 15, which correspond to top national mitigation priorities (energy, industry, waste and agriculture, forest and other land use). The planning tool for localizing national priorities for the SDGs, Kit Territorial, prepared in 2016, requests that 100 percent of departments and their capital cities mainstream SDGs, including climate actions, in local-level planning and adopt climate-change plans as required by the NDC and SDGs (targets 13.2 on climate policy mainstreaming and 11.b on the inclusion of climate action in municipal plans).

The creation of the National Climate Change System and its nine regional nodes also contributes to ensuring vertical and horizontal policy coherence in advancing the NDC and the SDGs. The government intends to articulate the definition of NDC sector strategies and their localization in departmental and city development plans, in coherence with the 2030 Agenda implementation. The objective is to ensure appropriate burden sharing and consistency across local implementation efforts. Once national-level sector mitigation and adaptation targets are defined, they will be disaggregated and differentiated across regions, taking into account local circumstances, needs, and capacities. Those climate targets will have to integrate local-level SDG implementation strategies and align with their respective priority SDG targets.

Source: WRI author.

Evaluating SDG-NDC Mainstreaming

Evaluating to what extent integration of both sets of goals into national and local planning is taking place is one of the more difficult challenges identified in our research. SDG and NDC lead institutions need to work with planning and budget ministries to develop consistent and effective incentives and accountability mechanisms for SDG and NDC mainstreaming. Some of the most promising options, listed below, enable governments to monitor and assess SDG-NDC mainstreaming while holding ministries and agencies accountable.

Review of SDG-NDC alignment. Planning and finance ministries and/or centers of governments often review sectoral and local development plans against NDPs, they can also assess their alignment with SDGs and the NDC. Use of certification process to verify SDG-NDC compliance could be a strong incentive, as suggested SDG and NDC implementation strategies in Uganda (Box 12).

NDP performance frameworks. To foster ownership and accountability, indicators for progress on the NDC and nationally relevant SDGs can be integrated in the NDP performance framework. The framework is a tool for systematic collection and reporting on implementation progress. Uganda and Ethiopia have used this approach.

Performance contracting systems. Performance contracting to enhance accountability of government institutions for service delivery can be an effective tool to move both agendas forward. For instance, in Kenya, SDGs have been mainstreamed in a performance contracting system. Government bodies are supposed to report to the Ministry of Planning on a quarterly basis regarding the alignment of their plans and policies with the SDGs, awareness-raising

efforts on SDGs among staff, and progress made in implementation. Such a system could be extended to the NDC.

Accountability to parliament. Obligations to report back to parliaments on SDG-NDC policy alignment can be included in relevant legislation. Such obligations exist in the 2015 Finnish Climate Change Act and Sweden's Policy for Global Development. Reports addressing both agendas would help government institutions link up their implementation. Submitting reports as part of budgetary processes can also enhance accountability and lead to budget adjustment against policy results, as further explored in Chapters 5 and 6.

BOX 12: UGANDA'S GUIDANCE AND COMPLIANCE CERTFICATE TO ENSURE SDG-NDC MAINSTREAMING

Uganda has adopted a legislative framework that supports SDG-NDC mainstreaming into climate and development planning.

NDP II requires the definition of climate actions in all planning processes and highlights the multiple benefits of a low-carbon development path "given the links between climate change action, job creation, poverty reduction, and economic competitiveness" (Uganda 2015, para.3.3.10). The 2018 Climate Change Bill provides for assessment of gender and human rights in preparing climate-change framework strategies, national action plans, and annual reports. The 2015 Sector Development Planning Guidelines recommend aligning both the SDGs and thematic guidelines on climate change and benchmarking performance against internationally agreed targets. The guidance also requires environmental analysis that considers climate change and sustainable consumption, as well as poverty and social impact assessments, with a focus on vulnerable groups.

In 2018, Uganda is also revising its system of certification of the sector development plans and annual budgets to track relevant policies and budget allocations for the NDC and the SDGs. The National Planning Authority wants to give special attention to NDC and SDG relevant actions in assessing alignment of sector planning and budgeting instruments with the national development plan (currently NDP II). Alignment with NDC and SDGs will be included in an elaborate scoring system and will weigh in the final score that determines the issuance of a certificate of compliance.

Source: WRI author. Interviews of officers from Uganda Water and Environment Ministry and National Planning Authority.[28]

5. OPTIMIZING BUDGETARY AND FINANCIAL FRAMEWORKS

Achieving carbon-neutral sustainable development will cost trillions of dollars, and the window for action is narrow. The need to optimize the mobilization and use of resources to advance both agendas is urgent. The Paris Agreement and the Addis Ababa Action Agenda, which provides the global framework for financing the 2030 Agenda, call for shifting the whole financial system toward low-carbon sustainable investments. Similar challenges for making this transition have been highlighted in VNRs on the SDGs, NDCs, and during high-level global climate finance discussions. Those challenges include conducting financing scenarios and gap analysis, integrating SDGs and NDCs into national budgets and thematic funds generating subnational revenue, designing SDG and NDC finance strategies and pipelines of bankable projects, leveraging public resources to attract private capital flows, creating a conducive regulatory environment, evolving the role of ODA, and tracking and measuring climate and SDG-related finance (von Haldenwang and Schiller 2016; Harmeling 2016; IATF 2016; GIZ 2017). This chapter is far from comprehensive and focuses on early experiences that promote a more integrated approach to climate and SDGs in addressing a few of those challenges.

National governments looking to integrate finance for climate actions and SDGs aim at aligning national budgeting frameworks with the two agendas, optimizing the work of specific funding institutions, and undertaking fiscal and regulatory reforms that support both agendas. Below, we highlight how case study countries have taken action in these areas. Options and examples mentioned provide elements for developing integrated climate and SDG finance strategies that include budgeting, financing, and fiscal and regulatory solutions maximizing benefits for both agendas.

Using Budget Frameworks to Advance and Monitor SDG-NDC Mainstreaming

Incorporating actions under NDCs and national SDG priorities into medium-term budget frameworks and annual budget plans is a top priority for countries. Two main issues make this objective challenging. In many countries, a lack of coordination between planning and budget processes, typically overseen by planning and finance ministries respectively, partly explains misalignment between new national goals and resource prioritization. Insufficient climate and SDG finance tagging and tracking is also a key issue because budget programs that are specifically dedicated to climate change and sustainable development are far from encompassing all policies and projects relevant for those two agendas. Sector budget programs usually do not present and count their policies relevant for the NDC and the SDGs as climate action and SDG-related outcomes. For example, irrigation initiatives do not necessarily account for climate-related investments and adaptation actions.

In enhancing SDG-NDC integration in budgeting, countries can build on recent progress made by a range of countries in climate finance mainstreaming and tracking. In particular, Climate Public Expenditure and Institutional Reviews, which typically analyze the exposure of national budgets to climate-related risks and assess how much is being spent on climate-related investments, have catalyzed new thinking on how to more effectively integrate and monitor climate-change finance into routine planning and budgeting processes (World Bank 2014; UNDP 2015). Beyond those reviews, a number of additional steps have been taken by countries studied for this paper to mainstream climate actions and the SDGs in effective and transparent ways.

Integrating NDC and SDG priorities into general budget objectives and instructions. An increasing number of countries have revised guidelines for budget formulation to mainstream climate change into budgeting processes. Finance ministries, together with NDC and SDG lead institutions, can also define priorities relevant to both agendas, integrating climate mitigation and resilience, poverty and inequality reduction, and gender equality, as strategic budget objectives to be mainstreamed in all budget programs. Kenya and Uganda have adopted guidelines for ensuring climate-change and gender-sensitive annual budgets. Another good example is Bangladesh's budget reform (Box 13). In addition, interviewees from survey countries highlight the need for sector-specific instructions that help line ministries identify, integrate, and tag NDC-SDG priorities into their budget programs.[29]

Setting expenditure targets fostering win-win investments. Countries can set expenditure targets that define the share of the total budget that should be allocated to SDG- and NDC- relevant priorities or the increase in expenditure needed to achieve those priorities. For instance, in its multi-annual budget

BOX 13: BANGLADESH BUDGET ALIGNMENT WITH CLIMATE AND SUSTAINABLE DEVELOPMENT GOALS

Bangladesh has undertaken a series of initiatives in the last several years to align its budgets with its climate and sustainable development goals.

Both agendas have been addressed in budget guidelines. First steps were taken after the 2012 Climate Public Expenditure and Institutional Review found that while the government spent 6–7 percent of the annual budget (in 2011–12) on climate activities, nearly half of those expenditures were not referenced in the budget framework's objectives. Different ministries did not identify their climate activities in their budget and performance frameworks because these activities were primarily driven by sectoral policy rather than the climate strategy. In response, the ministry of Finance and the Poverty Environment and Climate Mainstreaming Project of the Planning Commission developed a climate fiscal framework in 2014. This framework recommended inclusion of a description of the 6 thematic areas and 44 programs of the Climate Change Strategy and Action Plan (CCSAP) in the budget call guidelines. The Planning Commission revised the Annual Development Program guidelines accordingly to require climate mainstreaming in the budget. Those guidelines also foster linkages among the CCSAP, the SDGs, and the NDP (Five-Year Plan).

In addition, Bangladesh has adopted poverty, gender, and climate-change markers in the medium-term budget framework to monitor expenditures and provide solid evidence for policy analysis and estimation of long-term finance needs. The General Economics Division of the Planning Commission also assessed all programs and projects under each ministry responsible for SDG targets to find out whether they are relevant for SDGs and has produced a matrix showing the ministerial allocation for each goal. Wide variations have been noticed across ministries with regard to their SDG allocations, which highlights the need for sector-specific guidance.

The "SDGs Financing Strategy: Bangladesh Perspective," prepared by the Planning Commission in 2017, is also relevant for advancing the NDCs. This report provides an estimate of the annual resource gap for each SDG and recommendations to revise government financing strategies. SDG 13 is the second SDG after SDG 8 that requires the highest additional investment. Total additional investments for mitigation and adaptation are estimated at 2.3 percent of GDP each year for the fiscal year 2020–25 and 2.5 percent of GDP until 2030. The strategy maps out all potential domestic and international public and private sources for financing the SDGs, including the Green Climate Fund.

Source: WRI author.

framework 2014–20, the EU planned that 20 percent of total budget expenditures should support climate action. Consequently, several EU programs and funds adopted their own climate expenditure targets and developed a more integrated approach to climate action and the goals of the Europe 2020 Strategy for a green and inclusive economy. Discussion on the next multi-annual budget framework starting in 2018 will explore a potential increase of this target to accelerate progress toward carbon neutrality. To take another example, Indonesia's Green Planning and Budget Strategy calls for an increase by 100 percent of both public and private investments for NDC-SDG relevant top priorities by 2020, including forest protection and peatland rehabilitation, irrigation, energy efficiency and green energies, and corporate social responsibilities.

Using consistent coding systems to track expenditures supporting both agendas. A growing number of countries have adopted coding or marker systems to identify projects and programs contributing to certain objectives, such as poverty, gender, and climate action, as illustrated by the experience of Bangladesh (Box 13).[30] Consistent use of those markers for both agendas can support policy and finance integration. For instance, Nepal introduced a climate-change coding system and SDG codes for all national programs and projects in the national budget (Nepal 2017). These indicators can be used to trace expenditures to subnational levels and to link to performance frameworks, thus completing the cycle from budgeting to planning to implementation.

Assessing and certifying budget alignment with the NDC and SDGs. Systematic screening of annual budgets against the two agendas by finance ministries and lead institutions is a strong driver for greater integration. In Bangladesh and Indonesia, ministries are required to explain how their future budgets will meet relevant priority targets of the SDGs and the green economy, respectively. In Uganda, the revision of the certificate of compliance of annual budgets will enable NPA to assess alignment of national and sector budget programs with the NDC and SDGs (Box 12).

Mexico's Ministry of Finance also assessed the alignment of the 2018 budget with SDGs and climate action, using a methodology based on its Performance Evaluation System (Box 14). Such approaches could be considered by other countries.

Monitoring budget expenditure for SDGs and NDCs in implementation. Budget processes can also monitor how effectively the SDGs and NDC are implemented on an annual basis and enhance accountability. Performance frameworks can play a role in aligning national policies with NDC and SDG priorities by ensuring results-based and adequate budget allocation. Some countries, including Bangladesh and Norway, have anchored the submission of annual SDG and climate monitoring reports to budgetary processes, which also enables budget adjustment based on progress made. For example, Norway's 2030 Agenda implementation strategy and 2017 Climate Change Act provide for annual reports to Parliament. Annual budget discussions are used to ensure accountable, effective, and transparent implementation of actions. Norway assigned each of the 17 SDGs to specific lead and supporting ministries, which are required to submit accounts in their budget proposals on the status of implementation of their respective goals, in coordination with other ministries responsible for them. The Ministry of Finance sums up the main points in the annual national budget presented to Parliament. The extent to which members of the Parliament will use this opportunity for greater budget alignment will depend of other context-specific political factors, but such institutional arrangements have strong potential for ensuring policy coherence.

BOX 14: ALIGNING BUDGET FRAMEWORKS WITH CLIMATE ACTION AND THE SDGs IN MEXICO

Mexico's Ministry of Finance and Public Credit assessed the contribution of the 2018 federal budget proposal to the SDGs, in the framework of the SDG Specialized Technical Committee (UNDP 2017). All ministries, departments, and agencies were requested to match their budget programs with the global goals, based on the 400 indicators of the Performance Evaluation System used to assess alignment of budget proposals with the NDP. To refine the evaluation, the SDGs were further disaggregated into sub-goals and indirect contributions were also taken into account. This means that a budget program creating conditions conducive to achieving a goal is credited as contributing to that goal.

The results of the alignment analysis are included in the preamble to the budget bill. The analysis shows a fair alignment: 80 percent of the targets underpinning 16 out of 17 SDGs (the exception being SDG 10, reduce inequalities) were addressed by the budget programs and only 7.7 percent of these SDG targets could not be matched with any budget line (Figure B14.1). The study also breaks down the 517 budget programs per SDG (Figure B14.2). Only 16 budget programs, and primarily the budget line on Environment and Natural Resources, align with SDG 13, which is one of the lowest alignment identified. However, other programs contribute to climate action mainstreamed across the SDGs. This is arguably the case for the 54 budget programs matched with in SDG 12 on sustainable consumption and production. The formulation of the next NDP will be an important opportunity to maximize the use of this tool to integrate SDG and climate targets during the budget process.

Figure B14.1.: Percentage of SDG targets Linked to Any Budget Program

Figure B14.2.: Number of Budget Programs Linked to Each SDG
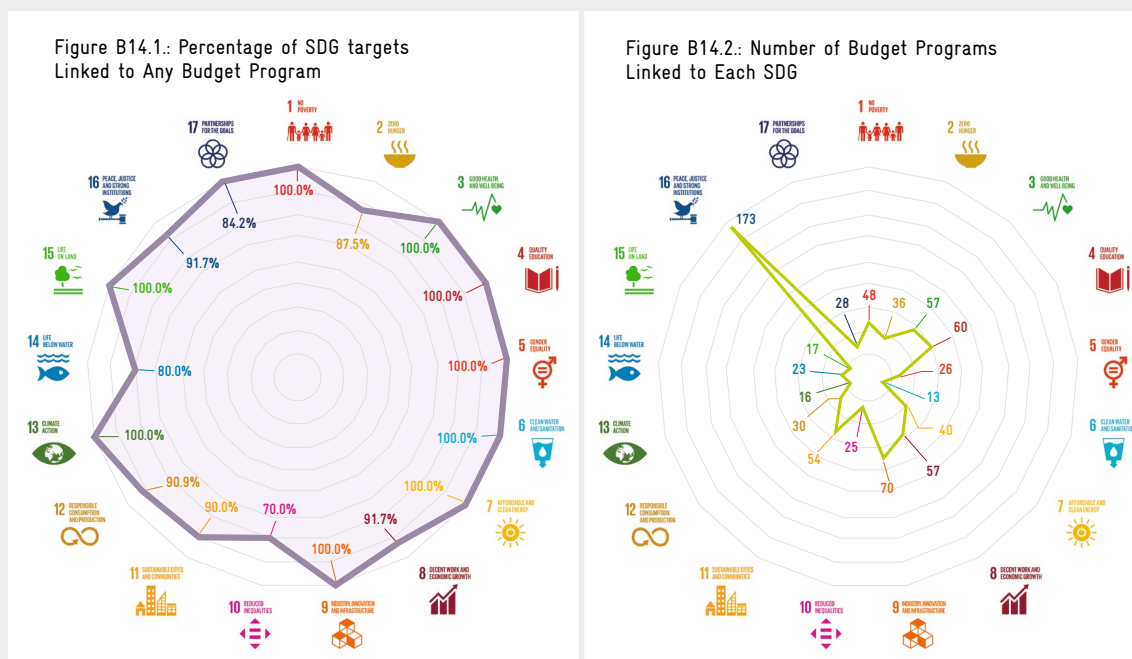
Source: Mexico 2016.

Fostering Integrated Approaches in National Funds and Banks

Synergies and integration between climate and sustainable development finance can be fostered in national funds and banks. Those experiences can provide elements for creating pipelines of projects and investments that support both the NDC and the SDGs.

Supporting joined-up implementation through national funds for climate change and sustainable development. A number of developing countries have established national climate-change funds in which climate projects have strong SDG co-benefits (Box 15). Many of these funds, such as Mexico's Climate Change Fund, specifically require consideration of sustainable development benefits. Sector-oriented domestic funding institutions accredited to the Adaptation Fund and/or the Green Climate Fund also have a good record of accomplishment in certain SDG-relevant areas. Examples are the Micronesia Conservation Trust, the Peruvian Trust Fund for National Parks and Protected Areas, and the Moroccan Agency for Agricultural Development (Dalberg 2015). There are also increased efforts to facilitate South-South learning among such institutions, for example, under the Adaptation Fund,[31] which also provides opportunities for sharing national experience with joined-up approaches. Sustainable development funds, such as those created in Colombia and Mozambique, can also explicitly aim at ensuring cost-efficient financing of climate action and the SDGs.

Promoting an integrated approach at national development banks. Banks can pursue a number of actions including orienting investment criteria in project planning and monitoring toward rapid emission-reduction pathways, establishing positive and negative lists of investment areas, and conducting risk and resilience assessments in project planning and for the entire portfolio (Shah 2015; UNCTAD 2016; Bingler et al. 2017). In Indonesia the government has developed green banking and green financing

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BOX 15: BANGLADESH, COLOMBIA, AND MOZAMBIQUE INTEGRATE NATIONAL CLIMATE-CHANGE AND SUSTAINABLE DEVELOPMENT FUNDS

Bangladesh's National Climate Change Trust Fund has been funding mitigation, adaptation, and low-carbon development (16 percent of investments between 2009 and 2013), including activities in water, housing, waste infrastructure (58 percent) and food security, social protection and health (18 percent) (Kamruzzaman 2015). This fund is also referenced in discussions about implementing actions supporting the SDGs but is now challenged by reduced levels of investment due to implementation and coordination challenges (Equity Bangladesh 2017).

The Sustainable Colombia Fund was launched in December 2015 to channel public, private, and international finance into the implementation of the SDGs, climate action, and peace-building efforts in rural regions that had been affected by national conflict. These rural areas account for 75 percent of Colombia's deforestation caused by illegal plantations and mining. Four sub-funds administered by the UN, the World Bank, the EU, and the Inter-American Development Bank support the peace agreement, energy and infrastructures projects, rural development, and climate action in an integrated way.

Mozambique established the National Sustainable Development Fund (FNDS in Portuguese) in 2016, replacing the Fund for Environment, according to news reports. It will be overseen by the Ministry of Land, Environment and Rural Development. The new fund is explicitly designed to harness the linkages between sustainable development and climate action and is linked to the National Sustainable Development Program and the Social and Economic Plan (World Bank 2016).

Source: Authors, Kamruzzaman 2015, and Frey 2016.

guidelines to support activities that are in line with sustainable development (Indonesia 2017). Mexico's *Nacional Financiera* has played an important role in implementing Mexico's low-carbon development strategy by leveraging investments and private capital for renewable energy (Studart and Gallagher 2017). Its Green Bond Scheme, the first domestic currency green bond in Latin America, raises private capital to finance the expansion of renewable energy, contributing to the achievement of SDG 7. Fiji recently launched a sovereign green bond, raising $50 million to support climate change mitigation and adaptation, with the expectation that the funds will also contribute to several SDGs. Building the capacity of these banks to perform such activities is essential to deliver on both agendas.

Fiscal and Regulatory Reforms Supporting both Agendas

Crafting and implementing equitable green tax reforms. Well-designed tax reforms can scale up domestic resources mobilization while shifting investment toward carbon-neutral, inclusive sustainable development. Integrated fiscal reforms are needed to introduce carbon pricing and green taxes while mitigating economic and distributional impact (CPLC 2017), and hence gather sufficient public and political support. In its 2016 report on green taxation within Europe, the European Environment Agency warns against a failure to achieve a breakthrough on environmental taxes, which are handicapped by persistent concerns over their potential regressive impact on the economy and vulnerable households. As encouraged by the 2030 Agenda (target 12.c), phase-out of fossil-fuel subsidies can also be combined with other measures to support and protect poor and vulnerable people, including investments in social sectors (Fay et al. 2015; Whitley and van der Burg 2015). Indonesia, for example, undertook a number of measures over the last several years to reduce consumer subsidies on petrol and diesel. The reduction of government subsidies in 2013 and 2014 freed up several billion dollars, which were spent on social programs for low-income households. In the

longer term, these reforms are expected to lead to savings of $15 billion (CPLC 2017).

Aligning public procurement with both agendas. Public institutions can lead by example. France's National Strategy for an Ecological Transition requires greater integration of social and environmental objectives in the investment criteria of both public and quasi-public institutions. The country's Energy Transition Act establishes new obligations to contribute to the achievement of the National Low Carbon Strategy.

Developing regulations to shift financial systems toward socially responsible and sustainable investments. Regulatory mechanisms play key role in setting standards, licenses, and restrictions for market activities. Countries can design regulations balancing social, economic, and environmental concerns. The EU has adopted such a comprehensive approach in preparing its strategy on sustainable finance that aims to align the financial system of the EU Capital Markets Union with policies in support of a low-carbon, climate-resilient, sustainable, and inclusive economy. Going a step further than international initiatives focus on voluntary disclosure,[32] countries can also mandate disclosure of information relevant for the three dimensions of sustainable development and climate action. For instance, France's 2015 Energy Transition Act requires institutional investors to disclose and include in their annual reports information showing how their investment policies pursue social, environmental, and governance objectives (Energy Transition for Green Growth Act, Article 173). This information has to span climate risks, GHG emissions associated with assets held for sale, contribution to global climate mitigation efforts, and the national energy and ecological transition. The effects of the act are visible as companies have acted on it. For example, the insurance company AXA disclosed its carbon footprint and committed to increase its green investments by up to €3 billion by 2020 and disclose other environmental, social, and governance information.

6. DEVELOPING MUTUALLY REINFORCING MONITORING, EVALUATION, AND REPORTING SYSTEMS

The Paris Agreement and the 2030 Agenda have distinct monitoring and reporting mechanisms. The UNFCCC system has evolved over decades and is more elaborate, including various reporting vehicles (for example, national communications and biennial reports) and detailed guidance for national Measurement, Reporting and Verification (MRV) systems agreed to by all Parties. The monitoring and reporting under the 2030 Agenda is voluntary, with relatively general guidance, but is supported by a globally agreed indicator framework developed by the UN Statistical Commission (IAEG 2017a). Given their breadth and complexity, both agendas raise immense data, monitoring, and reporting challenges. The Sustainable Development Solutions Network estimated in 2015 that $1 billion a year was needed to enhance statistical systems for monitoring progress toward the SDGs alone (SDSN 2015).

Recognition is growing among governments that making national monitoring, evaluation, and reporting systems for the SDGs and climate action as consistent and integrated as possible would promote efficiency and effectiveness. Countries are experimenting with different ways to align and integrate SDG and climate indicators and develop an integrated approach to related data challenges. There are also early efforts to connect the dots between the SDGs and NDCs in national and global reviews under the UNFCCC and HLPF. Reporting systems that inform each other could help build an arc of ambition that supports countries in ratcheting up national efforts to meet global goals.

Building Integrated Monitoring and Evaluation Frameworks

The processes of defining national Monitoring and Evaluation (M&E) frameworks to track the SDGs and the NDCs have generally been carried out independently, even though some of the challenges associated with implementation are similar. Aligning and integrating indicators and optimizing data collection and use can benefit both agendas. There is a particularly great potential for an integrated monitoring framework when national priorities defined to pursue the SDGs already align with national climate priorities.

Aligning national climate, SDG, and development indicators

Country studies highlight five different approaches to climate and SDG indicators that can support a joined-up implementation.

Using SDG indicators to monitor climate actions. The globally developed SDG indicators can be adjusted to be climate-relevant in national contexts. Because those global indicators include some mitigation and adaptation elements, some countries, such as the Philippines, Finland, and Kenya, have already tried to use them for tracking progress toward climate actions (Box 16). However, experience to date shows that global SDG indicators are limited in terms of their ability to measure NDC implementation. Beyond the fact they were conceived as measures of global progress and have to be translated at the national level (IAEG 2017b), many of them are too unspecific for tracking progress in NDC implementation. For examples, SDG indicators 13.1.1., 13.2.1, 11.b.1, and 11.b.2 focus on the

BOX 16: LESSONS LEARNED FROM COUNTRY EXPERIENCES IN APPLYING SDG INDICATORS TO CLIMATE ACTIONS

Several countries studied, including Finland, the Philippines, and Kenya, have planned or plan to use SDG indicators to measure progress toward climate actions. In general, they found poor correspondence between the global SDG climate-relevant indicators and existing national climate indicators.

Finland's report, "2030 Agenda in Finland: Key Questions and Indicators," commissioned by the Prime Minister's Office, underlines that none of the four main indicators of the Finland We Want strategy (energy consumption, share of renewable energy in energy consumption, GHG emissions, and GHG emissions/GDP) that are used to track progress toward a carbon-neutral society is addressed in the global SDG indicators.

As co-chair of the IAEG (International Association for Engineering Geology and the Environment) on SDGs, lead country in the ASEAN working group on SDG indicators, and chair of the executive committee of the Partnership in Statistics for Development in the 21st century (PARIS21), the Philippines has also taken the lead in connecting the dots between climate and SDG indicators. Its Climate Change Commission also found that only a few global SDG indicators aligned with existing climate indicators and were applicable to measure progress toward the priorities of the National Climate Change Action Plan (2011–28).

Those experiences demonstrated that global SDG indicators have to be significantly adjusted to measure national climate actions in an effective way. Finland's report recommends defining additional national SDG indicators or adjusting existing climate indicators to evaluate progress toward meeting SDG 13 and other climate-relevant targets. The Philippines defined 74 new SDG national indicators, including climate indicators (Philippines 2016). In Kenya, the Council of Governors plans to climate-proof SDG indicators for which the National Bureau of Statistics has data available for measuring counties' climate actions and inform the County Integrated Monitoring and Evaluation System.

Source: WRI author.

Table 1: Adjusting SDG Indicators to Account for Adaptation to Climate Change		
1.3. Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable.	1.3.1. Proportion of population covered by social protection floors/systems, by sex, distinguishing children, unemployed persons, older persons, persons with disabilities, pregnant women, newborns, work-injury victims, and the poor and the vulnerable	Percentage of population living in flood and/or drought-prone areas with access to social protection schemes, disaggregated by sex
1.5. By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social, and environmental shocks and disasters.	1.5.1. Number of deaths, missing persons, and persons affected by disaster per 100,000 people	Number of people permanently displaced from homes as a result of flood, drought, or sea-level rise (Kenya NCCAP)
	1.5.2. Direct disaster economic loss in relation to global gross domestic product (GDP)	Losses of GDP in percentage per year due to extreme rainfall (Mexico)

Source: Hammill and Price-Kelley 2017.

adoption and operationalization of climate plans and disaster risk-reduction strategies. However, such plans and strategies are climate-proof only if they take into account projected climate-change impacts and address them to the extent possible. Moreover, many countries could claim to have fulfilled those indicators simply because they are advancing climate plans, as Kenya did at the HLPF in 2017. Hammill and Price-Kelley (2017) underline that most climate-relevant SDG indicators require modification to make them climate-smart. The authors provide useful examples of "climate-proofed" SDG indicators at the national level, such as indicators for targets 1.3.1 and 1.5 (Table 1), and show that SDG indicators can be reformulated to measure direct impact from climate change or specific climate mitigation and adaptation outcomes.

Using existing climate indicators to monitor SDG targets. Countries have considered using already existing climate indicators primarily to track progress toward SDG 13, but those indicators are also relevant for many other climate-related SDG targets. For example, the detailed guidance on Reducing Emissions from Deforestation and Forest Degradation (REDD+) provides indicators for monitoring both NDC actions and SDG 15 (sustainably manage

forests). Table 2 shows that indicators used by Indonesia for underpinning its NDC mitigation actions in the agriculture and waste sectors could also monitor progress on corresponding SDG targets and are more specific than global SDG indicators. Those NDC indicators could be used to inform and nationalize global SDG indicators.

Developing new sets of integrated SDG-NDC indicators. Countries can also define new indicators relevant to both agendas. For instance, following recommendations from the report on SDG indicators, Finland's National Commission for Sustainable Development developed new national indicators for the eight objectives of the Finland We Want strategy. Different ministries coordinated cross-sectoral work on a basket of indicators for each objective. The Ministry of Economy and Energy, coordinating national climate efforts, led the working group on carbon neutrality. Those indicators will inform Finland's progress toward meeting both the SDGs and national climate objectives.

Adopting indicators to track SDG-NDC synergies and trade-offs. Monitoring positive and negative interactions among climate and sustainable development actions would provide helpful support to drive an integrated SDG-NDC implementation.

Table 2: Correspondence between Indonesia's NDC Indicators and SDG Global Indicators			
Indonesia's NDC Mitigation Actions	Mitigation Indicators	SDG Targets	SDG Global Indicators
In total, the use of land for low-emission crops is up to 926,000 hectares in 2030 Implementation of water efficiency is up to 820,000 hectares in 2030	Use of land for low-emission crops Hectares of agricultural land implementing water efficiency	2.4. By 2030, ensure sustainable food production systems and implement resilient agricultural practices	2.4.1 Proportion of agricultural area under productive and sustainable agriculture
22 percent of waste are used for composting and 3R (Reduce, Re-use, Recycle) approach by 2020, 30 percent by 2030 Up to 3 percent of waste and garbage is used in energy production in 2020, 5 percent in 2030	Percentage of waste utilization by composting and 3R Percentage of refuse-derived fuel implementation, compare to total waste	12.5. By 2030, substantially reduce waste generation through prevention, reduction, recycling, and reuse	12.5.1 National recycling rate, tons of material recycle

Source: Adapted from Indonesia's NDC.

Table 3: Examples of Indicators for Tracking SDG-NDC Interactions in Kenya			
Climate Action	Synergies and Trade-Offs Identified	Interaction	Indicators to be Monitored
Renewable lamps replacing kerosene lamps	This action can lead to a decrease in health risks associated with usage of kerosene lamps (mutagenic and carcinogenic effects and higher occurrences of respiratory infections).	Synergy with SDG 3 (health)	Incidences of respiratory disease in households using kerosene lamps and in households using renewable lamps
Improved passenger vehicle stock efficiency	Improved vehicles for passenger transportation could result in higher cost of public transportation if the costs of this are passed onto passengers.	Trade-off with SDG 11.2 (affordable transportation)	Average cost of public transportation per journey

Source: Adapted from Kenyan NCAAP's Performance and Benefit Measurement Framework (2012).

Such monitoring would inform both MRV systems for climate action and the M&E framework for the 2030 Agenda. Table 3 provides examples of indicators chosen to monitor the evolution of synergies and trade-offs associated with the implementation of Kenya's National Climate Change Action Plan (NCCAP) 2013–17 (Kenya 2012). Those indicators have insufficiently been used so far because of capacity constraints but were being updated in April 2018 through greater collaboration with sector ministries for the NCCAP 2018–22.

Aligning national development indicators with the SDG and climate agendas. The need to revise conventional development indicators and extend their scope beyond GDP has been strongly underscored over the past decade (Stiglitz et al. 2009; UN ECOSOC and United Nations Statistical Commission 2015). Broadening the economic metrics used by decision-makers and investors is central to shifting economies onto carbon-neutral and sustainable paths. The adoption of both agendas provides an opportunity to align national progress indicators with this transition. Countries have used two complementary approaches to ensure alignment. The first is to develop aggregated indicators like Green GDP and the EU summary indicators (part of the Beyond GDP initiative) capturing environmental sustainability, social inclusion, and quality of life. The second is to combine key social, environmental, climate, and economic indicators, as France has done with its 10 new wealth indicators. These wealth indicators measure employment rate, investments in research, public and private debt, life expectancy in good health, subjective well-being, income inequality, poverty, early interrupted education, carbon footprint, and land-use change (France Legifrance 2015).

Optimizing data collection and management

The implementation of the SDGs and the climate agenda raise similar data challenges. Those include strengthening national statistical systems, improving data availability, timeliness and interoperability, using new data sources, developing data literacy, and creating data infrastructures for data development and sharing. Those challenges required the data revolution that was first called for by the report of the High-Level Panel on the post-2015 global development agenda "to fully integrate statistics into decision-making, promote open access to, and use of, data and ensure increased support for statistical systems." (HLP Report, p. 23). The data revolution can significantly help join up SDG and NDC implementation. It can foster collaboration of various communities of actors and promote mechanisms for widespread use of data (Agrawal 2017). Given the immense data requirements of SDG and NDC monitoring, countries need integrated solutions to harness this data revolution in support of both agendas in cost-efficient ways.

Developing integrated data strategies. Countries can develop action plans that address data availability and generation issues in ways relevant for both the SDGs and NDCs. The SDG Data Roadmaps proposed by the Global Partnership for Sustainable Development Data provide useful instruments in that regard. Road maps developed in Colombia, Kenya, Mexico, and the Philippines tackle a wide range of challenges relevant to the SDGs and climate action. Colombia's road map, for instance, plans an SDG data gap assessment relevant for climate change monitoring, the strengthening of national statistics, smart data strategies fostering data interoperability and standardization, and multistakeholder partnerships to connect different data ecosystems.

Rationalizing data management. Greater efficiency in data collection and use could be achieved through more unified or coordinated monitoring systems for the SDGs and climate actions. Staff in government institutions who are responsible for data collection for the SDGs and NDCs could collaborate more closely to join up monitoring processes. Some countries have made national development monitoring systems relevant for measuring and reporting progress on the two agendas. For example, Kenya has started to align its national and local result-based monitoring frameworks, the National and County Integrated Monitoring and Evaluation Systems, with the SDG and climate agendas. Significant efforts have been undertaken to strengthen this multi-level statistical system and ensure data availability for monitoring the two agendas (Kenya 2017).

Designing open data portal gathering climate and sustainable development data ecosystems. Open data has become a key instrument for transparent, accountable, and inclusive governance. Open data can support the roles of non-state actors not only as watchdogs of progress made on the 2030 and climate agendas but also as contributors to a more integrated implementation. Nine of the countries studied committed to disclose key public data for both agendas as members the Open Government Partnership. For instance, South Korea and the Philippines' open data portals make available data on land use, agriculture, industry and employment, environment, forest, climate change, health, and food security and empower non-state actors on how to use

different data ecosystems in synergies for practical innovation. SDG data portals also have the potential to be made relevant for NDC monitoring and reporting. For example, Colombia SDG digital portal proposes different interactive tools to visualize data gaps and track the implementation of the SDGs and related climate actions with disaggregated data at the national and subnational levels. Mexico's open data platform Agenda 2030 allows users to monitor and report on climate actions underpinning the SDGs at the national and regional level. Similarly, the Pacific Islands developed an automated climate-change web portal as part of its 2030 Agenda strategy (Lui 2013; UNDESA 2016). This portal provides numerous data on climate change and climate-related sustainable development issues.

Linking up National SDG, Climate and Growth reviews

Reporting mechanisms aim to ensure transparency and accountability and provide the basis for defining next implementation steps. The global reporting mechanisms for the two agendas fulfill these functions in distinct ways. The 2030 Agenda voluntary "follow-up and review" bottom-up process is based on generic guidelines for the VNRs. The process has no fixed periodicity but encourages reporting at least twice before 2030. The increasing engagement of countries in reporting – 22 VNRs in 2016, 43 in 2017, 47 already announced for 2018 – is an important indicator of the benefits that countries can harness from the domestic preparation of the VNRs and their presentation at the global level. VNRs report that this global opportunity catalyzed substantive discussions on the way forward (Partners for Review 2016). In contrast, the UNFCCC MRV framework, underpinned by specific reporting procedures, guidance, and tools, is more rigorous and might be further strengthened under the Paris Agreement's Enhanced Transparency Framework. Reporting under the climate convention involves National Communications and BURs, so far primarily engaging climate experts.

More integrated reporting could yield a number of benefits, including greater insight into the challenges

and priorities of different stakeholders involved in the implementation of both agendas, more efficient data management and preparation of reports, and better informed and integrated policy planning (Black Sun PLC 2014).

Addressing SDG–climate linkages in VNRs

VNRs submitted at the first two HLPFs dealt with climate change issues very differently. Some hardly mention climate, whereas others highlight linkages between climate actions and actions to achieve the SDGs (France, Germany, Norway, Kenya, South Korea, Uganda, and Togo). Other VNRs also address climate finance from the viewpoint of donor countries (for example, Finland, France, and Germany in 2016) or of recipient countries (for example, Colombia and Montenegro) (Harmeling and Fuller 2017).

2018 will see the review of strongly climate-relevant SDGs under the HLPF, including SDG 7 on energy, 11 on settlements, 12 on production and consumption, and 15 on ecosystems. SDG 13 will be addressed in 2019. Countries can use these opportunities to report on climate action and increase their climate ambitions. Building on early experiences, the following elements can be considered for making the most use of VNRs to foster a joined-up implementation:

▪ Involving NDC lead institutions in preparing VNRs and promoting consultation with stakeholders involved in NDC implementation;

▪ Considering climate interactions across all goals to map and report synergies and potential trade-offs with NDC implementation;

▪ Reporting specifically on proven and estimated economic benefits from climate actions;

▪ Explaining how climate actions embed the principle of LNB and reporting proven and estimated benefits for poverty eradication and inequality reduction; and

▪ Sharing records and estimates on the impact of climate actions on jobs and explaining how to achieve a just transition.

Those efforts could also provide government institutions with greater understanding of the likely benefits and challenges of advancing climate action through the SDGs.

Addressing sustainable development benefits in reporting on climate action

Countries have the opportunity to structure their climate reporting in ways that inform and benefit their actions on the 2030 Agenda. UNFCCC guidance on climate reporting does not yet reflect strong integration of the SDGs, but co-benefits and sectoral considerations provide clear entry points for the systematic integration of the SDGs at the national level.

Some countries are showing the way. Mongolia mentions energy-related SDGs in its 2017 BUR (Mongolia 2017). China's second BUR, submitted to the UNFCCC in early 2017, elaborates on socioeconomic benefits relevant to reporting on the 2030 Agenda, such as actions related to sustainable production and consumption (SDG 12), increased energy efficiency (SDG 7), health (SDG 4), forest ecosystem stabilization (SDG 15), combatting desertification (SDG 15), and urban climate-change resilience (SDG 11).

Embedding NDC and SDG reporting in national economic surveys

At the national level, most countries conduct annual and multi-annual economic surveys in the framework of national budget and planning cycles. An effective joined-up implementation of the 2030 Agenda and the Paris Agreement requires the inclusion of reporting on the SDGs and the NDC in these reviews. This integration can ensure that information on national SDG-NDC indicators supports decision-making and the preparation of national and sectoral development plans. Integration can face political reluctance, as illustrated by the partial alignment achieved by the European Union (Box 17).

An increasing number of countries review progress toward sustainable development and climate goals annually as part of the budget process. In Bangladesh and Norway, ministries are required to monitor. A few countries have given legal status to sustainable

BOX 17: GREENING THE ANNUAL REVIEW OF ECONOMIC AND FISCAL POLICIES IN EUROPE

The European Union has been gradually greening the European Semester that is the annual cycle of EU economic and fiscal policy coordination. The semester provides a framework within which member states can ensure consistency between their budgetary and economic policies to implement the common Europe 2020 strategy for smart, sustainable, and inclusive growth. Every year, the European Commission prepares an annual growth survey and country-specific recommendations on member states' economic and fiscal policies. The European Council subsequently issues conclusions, which have included few environmental and climate issues and have partially considered progress toward a resource-efficient and circular economy.

A joint expert group on greening the semester has met twice a year since 2013. The objective has been to ensure that macroeconomic policies are sustainable, not only economically and socially but also environmentally. In February 2017, for the first time, the European Commission published common and country-specific recommendations to address the implementation gaps of EU environmental legislation. The Commission estimates that full implementation of EU environmental and climate legislation could save the EU €50 billion a year in health costs and direct costs related to environmental degradation. The EU waste management policy alone could create 400,000 jobs by 2020 (European Commission 2017).

The Communication accompanying the 2017 country-specific recommendations is of the opinion that these recommendations mean that the European Semester now fully integrates the SDGs. However, there is still no consensus among EU member states that environmental and climate issues should be given equal weight with social and economic issues and discussed by the Economic and Financial Affairs Council. The proposals put forward by the European Commission in 2014 to go in this direction and increase the role of environment ministries in the EU Semester were pushed back by the Environment Council itself, on the basis of common positions with economic and finance ministries. The main reason given for limiting consideration of environmental issues was that the European Semester should not be overloaded and should keep its primary objective of coordinating economic and fiscal policies, especially in a context of economic gloom.

Source: WRI author.

development indicators. Among the best practices identified is the French law on new wealth indicators (see p. 61), which requires that, together with the budget bill, the government submit an annual report to Parliament tracking progress on these indicators. The report must also assess the impacts of reforms undertaken in the past year and the potential impact of actions proposed in the new budget.

Ensuring Synergies between Reporting Cycles at the National and Global Levels

Mutually supportive action, reporting, and review of both agendas at the national and global levels could enable countries to build an arc of ambition (Figure 6). This arc would set a course for continually stepping up efforts on both agendas toward 2030 and 2050.

Coordinating reporting processes at the national level

Countries can set consistent timelines and procedures for their annual SDG and NDC reports. Governments can establish a synchronized annual reporting framework for SDGs and NDCs in which the two agendas support each other. Colombia, for example, has set up a plan to assess progress on key SDG indicators and information provided by 60 government institutions each year and to prepare four VNRs by 2030. Annual reports will be produced between January and April, aggregated in April, and assessed in June (Pachon 2017). This close follow-up can be complementary to the national climate-related MRV process, developed since 2013. The MRV system could also inform advancement toward the global SDGs given the strong mutual benefits identified between the country's priority climate mitigation and adaptation actions and the 2030 Agenda.

Synergies among five-year NDC reviews, VNRs, and national planning cycles could inform and support a joined-up implementation. Linking those review cycles would help build on progress achieved under both agendas to adjust implementation efforts and define new national development targets. Some countries studies, including Togo and Kenya, have used information and data collected for the VNR in preparing their new national development plans.

Enhancing synergies between global reporting frameworks

The need for joined-up implementation at national level requires to explore further how global reporting frameworks under the Paris Agreement and the High-Level Political Forum (HLPF) can be better articulated and mutually supportive. To date, those frameworks are only loosely connected, while their national and global inputs are growing in quantity and complexity with multiple preparatory processes, meetings, and events taking place in the lead-up to the main meetings. Two years after 2015, countries still need to decide on meaningful purposes and formats for high-level fora, which should be seen as evolving learning processes. In the case of the HLPF, a revision of its format was mandated and already discussed ahead of the 2019 heads-of-state HLPF. The following actions could be explored to identify linkages and foster synergies between the respective inputs and outputs of both COP/CMA and HLPF:

COP and HLPF should reflect a commitment to join up climate action and sustainable development. More cross-referencing between COP and HLPF declarations would require enhanced institutional coordination between distinct negotiation teams. Several study countries, including France, Mexico, and Peru, have started to promote such cross-references. In the near-term, the 2018 Talanoa Dialogue, plans for a UN leaders' summit on climate change in 2019, and the 2019 HLPF under the auspices of the general assembly could provide momentum to enhance ambition in an integrated manner. Countries are invited to submit mid-century, low-emission development strategies by 2020 and, potentially, improved and enhanced NDCs. This will require intense and forward-looking coordination and cooperation, with clear political leadership from all the key institutions involved. National-level policymakers and planners would benefit from this bigger picture perspective when designing their national approaches to monitoring and evaluating national actions in an integrated manner. COP 24, to be held in December 2018, and the HLPF 2019 could both mandate that UN entities strengthen linkages between global reporting mechanisms and spur countries to join up implementation of both agendas at the national levels.

Guidance and templates for national progress reports and reviews could ask governments to make connections between their communications on climate action and VNRs. As mentioned in the previous chapters, only a few countries mention benefits for the SDGs in their BRs. Even though some countries have already addressed climate change in their VNRs (see Chapter 5), the selection of a few SDGs to be annually reviewed at the HLPF spurs countries to deal with climate change only in 2019. UN entities could request that those national reports and reviews systematically address climate-sustainable development linkages and build on each other. Current reporting requirements could be updated to support these efforts.

Global reports could address linkages between the implementation of both agendas. Annual and in-depth four-year global sustainable development reports and five-year global stock takes for climate action could inform each other and take into account recommendations from IPCC's Assessment Report. These reports should cross-fertilize each other and address climate-sustainable development interactions at the global level. This will require far more extensive coordination among international organizations, between the UNFCCC Secretariat and ECOSOC/DESA, and at the level of working groups preparing global reports. The 2017 report of the UN Secretary-General on progress toward the SDGs mentions linkages with climate change only for ocean acidification and biodiversity loss (UN ECOSOC 2017a).There are near-term opportunities to enhance linkages among the facilitative dialogue known as the Talanoa Dialogue in 2018 and Global Sustainable Development Reports planned in 2019 and 2023.

Civil society, the private sector and academia can build bridges between both reporting processes.

Many non-state actors are active at both fora and provide inputs, such as shadow and spotlight reports on country processes, which can address both agendas as does Kenya's SDG Forum's VNR. As mentioned above, strong overlaps and synergies between the initiatives under the Global Action Agenda and those registered on the platform "Partnerships for SDGs" could lead non-state actors to present progress on those initiatives in both global governance frameworks. Non-state actors can become ambassadors of an integrated global agenda for an overall carbon-neutral, sustainable development transition. There is a need for initiatives that offer sufficient space, flexibility, and mandates that enable and spur non-state actors to report on their actions. Some interesting experiences are already available in the context of the G20 Development Agenda, the Global Partnership for Effective Development Cooperation (GPEDC), the UN Development Cooperation Forum, and the NAZCA at the UNFCCC Global Climate Action platform, among others.

Figure 6: Timeline for Increasing Ambition of the NDCs and SDGs
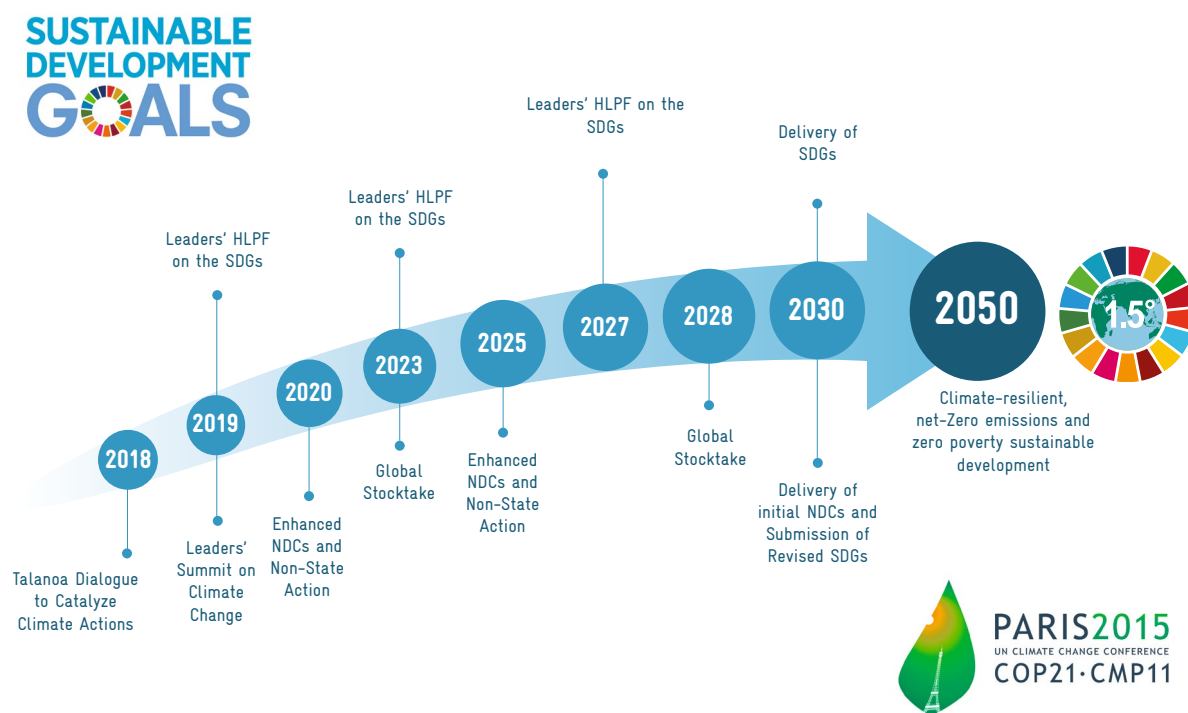
Source: WRI

7. JOINING UP THE TWO AGENDAS IN INTERNATIONAL DEVELOPMENT

National efforts to link the SDG and NDC implementation should be mirrored by a shift in approach to international development. Recent reports highlight that donors' engagement still insufficiently reflects an integrated approach to thematic development agendas. In 2017, the UN secretary general showcased a large series of shortcomings to deliver the interlinked 2030 Agenda, Paris Agreement, and Addis Ababa Action Agenda as one agenda. A lack of capacities to provide relevant country-level services and overly poverty-focused, "MDG-type" interventions are highlighted. The secretary general calls for stepping up efforts from member states and the UN system alike in providing an integrated response (UN ECOSOC 2017b).

This chapter examines some of the challenges and approaches involved in embedding climate and sustainability actions in donor policies, coordinating donor actions, and channeling financial resources.

Integrating Climate and Sustainable Development Goals in Donor Policies

Over the past decade, multilateral and bilateral donors have adopted stronger requirements for social, environmental, and climate-risk impact assessments and encouraged a sustainability approach in project planning. Some of them have committed to ensuring that a specific percentage of their projects provide climate co-benefits. For example, the World Bank Group targets 28 percent of its projects and the French Development Agency (AFD in French) 50 percent. Since 2015, donors have also been working on a number of initiatives to enhance alignment of their interventions with the 2030 Agenda and the Paris Agreement:

Mainstreaming climate and sustainability objectives across development strategies. A growing number of donors have endorsed the objective of mainstreaming the SDGs and climate change in their multi-annual general, country, and sector strategies (for example, the World Bank Group, the EU, the AFD, and the U.S. Agency for International Development). For instance, the New European Consensus on Development, which revised the common objectives of EU development policies in 2017, commits the 28 member states and the EU institutions to "implement the 2030 Agenda and the Paris Climate Change Agreement through coordinated and coherent action, and maximize synergies" and scale up finance for sustainable development, including for climate action. Strong emphasis is put on policy coherence for development. A few donors have also started to embed both climate action and SDGs into their reporting requirements (for example, the Inter-American Development Bank, South Korea, and the African Development Bank).

Aligning development projects with decarbonization and climate-resilience pathways. Donors' portfolio has to be consistent with the Paris Agreement, which requires alignment of all financial flows with its long-term goals (UNFCCC 2015, Article 2.1.c). The purpose is to avoid financing projects that lock in countries to carbon-intensive policies and technologies. This criterion means that all operations have to be aligned with national long-term transitions toward carbon neutrality and climate resilience. In practice, the criterion excludes from financing projects that are not climate-proofed and that carry a significant carbon footprint without being part of a low-carbon transition strategy (estimation of footprints still varies across donors' policies). The evaluation can be made against national long-term zero-emission development strategies, when available and credible; any other relevant national commitments; or donors' own estimates based on

available data. This commitment is included in AFD's climate and development strategy 2018–22 and future multi-annual plans (Box 18).

Grounding both agendas in project planning. Progress in integration at the strategy level is slowly reflected at the project level. Donors face some of the challenges commonly found in national policy planning, especially institutional silos and capacity constraints. Interviewees highlight that donor country offices seem to require more time than headquarters to adjust to the new agendas, which also makes progress toward greater integration in development projects challenging. When projects do not have climate and sustainability at the core of their priorities, those challenges remain essentially addressed through a do-no-harm approach to minimize environmental and social risks. Field officers face difficulties in shifting the discussion with counterparts from assessing risks to identifying opportunities. Constraints reported are lack of time and capacities in a context where country offices already have to comply with multiple procedures and guidelines and face significant pressure to meet their disbursement objectives. The absence or lack of grants is also a big barrier for including climate, environmental, and social objectives in project planning. As a result, climate and sustainable development objectives are often Replace by insufficiently addressed in the early identification phase of the projects. A few donors have undertaken recent initiatives to assess alignment gaps and overcome those challenges. For instance, GIZ assessed in 2016 the contribution of its projects in Latin American and the Caribbean to the city-level implementation of NDCs and SDGs, based on climate and SDG-relevant indicators for urban planning. In 2017 and 2018, the French AFD is also rationalizing requests to country offices, providing practical toolboxes on climate and sustainability goals focused on subsectors, and developing a guide for conducting dialogue with counterparts on opportunities associated with sustainability goals (Box 18).

Greater Coordination of Development Partners in Support of a Joined-Up Implementation

Donor support has tended to focus on climate action and the SDGs as relatively separate issues, but a number of initiatives are starting to link the two. They include the NDCP's scaling-up action and coordination for moving NDC implementation forward jointly with the 2030 Agenda (Box 19); UNDP's mainstreaming, acceleration and policy support (UNDP-MAPS) supporting national 2030 Agenda implementation with climate benefits; the 2030 implementation initiative implemented by GIZ on behalf of BMZ, which, for example, supports the Office of the President in Mexico (in charge of SDGs) in fostering a joined-up implementation with the Paris Agreement and Partners for Review, a transnational multistakeholder network for review of the 2030 Agenda financed by Germany (BMZ and the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, BMU). Some of the objectives of those initiatives have particularly strong potential to support national-level SDG and NDC joined-up implementation.

Engaging with both SDG and NDC lead institutions. Lack of coordination within governments and development partner institutions can lead to projects being conceived in silos with little consideration of national priorities for NDC and SDG implementation. This is why the NDCP, for instance, has focal points cooperating in different ministries, which are usually NDC and SDG lead institutions. The joint formulation of the letters of request to the NDCP by those lead institutions helps connect the dots between their challenges and propose integrated solutions (Box 19).

Capacity building for joined-up implementation at the sector and local levels. Integrated planning, budgeting, and monitoring for the SDGs and NDCs require adequate institutional arrangements, skills, tools, and data. Because SDG and NDC lead institutions are usually not core implementing ministries, there can be some mismatch between the support they request for moving either or both agendas forward, and the needs of sectoral institutions

BOX 18: THE FRENCH DEVELOPMENT AGENCY'S INTEGRATED CLIMATE AND SUSTAINABLE DEVELOPMENT STRATEGY

The AFD was among the first donors to take actions for reconciling climate and development. Its 2012 strategy set three forward-looking objectives: ensuring that at least half of the projects contribute to climate action, measuring the carbon footprint of all the projects, and selecting projects based on their contribution to climate action. An impact assessment tool was designed to support those objective. The new 2017–22 strategy takes on board the Paris Agreement and aims at ensuring full compatibility of the portfolio with low-carbon and climate-resilient development. The AFD has revised its analysis of the carbon footprint of the projects to impose higher requirements, especially for middle-income countries. Counterparts will have to explain how their projects are aligned with decarbonization pathways. To take a concrete example, gas power plant projects will have to be part of an energy transition strategy toward carbon-neutral solutions.

The AFD conceived a sustainable development analysis grid and opinion mechanism in 2014 and updated them based on the SDGs in 2016. The impact assessment categories and scoring grid refined in 2017 reflect progression in the transformative nature of the projects, the greatest score being allocated to projects with structural effects. An ex ante evaluation scores the projects against six sustainable development objectives, namely sustainable economic development, social inclusion, gender equality, biodiversity preservation, climate mitigation and adaptation, and good governance. In 2017 with support from WRI, the AFD also began to develop guidance for discussing climate and sustainability objectives of the projects with counterparts at the early identification and conception phases.

Source: WRI author.

and local authorities working at the project level. While local authorities are recognized as being at the frontline of implementation efforts, the bulk of donor support is still provided at the national level. Offering more integrated information, technical, and financial support to sector and local planners can address bottlenecks in delivering both agendas coherently.

Applying principles of aid effectiveness. Aid effectiveness has become a touchstone of global development policy through the 2005 Paris Declaration on Aid Effectiveness, the 2008 Accra Agenda for Action on Aid Effectiveness, and the 2011 GPEDC. Key principles include national ownership, a focus on results, inclusive development partnerships, and mutual transparency and accountability. These principles are fundamental to achieving joined-up implementation of the 2030 Agenda and the Paris Agreement. The GPEDC reports that the great majority of participating countries have a dedicated aid policy outlining principles and procedures and conduct regular forums or meetings to jointly review progress in development effectiveness. However, only

slow progress has been made to ensure effective and efficient climate finance mechanisms, while climate finance is rapidly expanding in scale and modalities. Aid effectiveness principles could guide joined-up planning and review of ODA and climate finance, bringing together the governments and providers of public finance flows directed to sustainable development and climate action.

Improving Coherence across International Development Financing

The 2030 Agenda and the Paris Agreement call for substantially increased financial resources to be invested at the country level. Respecting ODA and climate finance commitments is a core condition of scaling available resources in developing countries, but optimizing different sources of financing can also contribute to filling the gap between available and needed resources. Under the UNFCCC, the Green

Climate Fund (GCF), the Global Environment Facility, and the Adaptation Fund are key components of the financial mechanism, though much of climate finance today is still flowing through bilateral channels. Convergence between climate finance and ODA has been at the center of discussions during negotiations around the Paris Agreement and the Addis Ababa Action Agenda. A potential diversion of funds from development purposes has been a source of concern in the light of the growing share of ODA that has been dedicated to climate finance, especially climate mitigation in middle-income countries, and overall declining ODA to least developed countries (LDCs) and Small Island developing states (SIDS). Many developing countries have called for clear differentiation between the accounting of ODA and climate finance (new and additional to ODA). Yet opportunities exist for synergies between financial flows for climate and development. Global funds could be used to scale up impact, promote greater country ownership, improve efficiency, support equitable allocation, and increase accountability of operations.

BOX 19: THE NDC PARTNERSHIP'S SUPPORT FOR A JOINED-UP NDC AND SDG IMPLEMENTATION

Launched in 2016 at COP22 in Marrakesh, the global NDC Partnership is a coalition of countries and institutions whose mission is "to enhance cooperation so that countries have access to the technical knowledge and financial support they need to achieve large-scale climate and sustainable development goals as quickly and effectively as possible" (NDCP website). The NDC Partnership builds in-country capacity and increases knowledge sharing so that climate policies have meaningful and enduring impacts, and drive increasing global ambition over time. NDC Partnership supports identification of challenges and facilitates coordination of donor interventions based on governments' needs and priorities. Partnership plans are jointly defined between the government and development partners for three years. Early experience already shows that the development of NDCP activities can help enhance institutional coordination and achieve greater policy integration in advancing the NDC and the SDGs.

The nomination of several NDCP focal points across the government, usually based in NDC and SDG lead institutions – environment, planning, and finance ministries – has helped those institutions identify common needs and integrated solutions for moving both agendas forward. For example, the formulation of Uganda's NDCP Partnership Plan in early 2018 was an opportunity for the NDC lead, the Ministry of Environment; the SDG lead, the National Planning Administration (NPA); and the Treasury to discuss their respective challenges in advancing the NDC and SDGs, and formulate joint requests of support to embedding both sets of goals in policy planning and budgeting in an integrated way. Like Uganda, partners are submitting a growing number of requests for support for joint SDG-NDC mainstreaming in national, sector, and local development plans.

As of early 2018, several development partners, including UNDP, WRI, and GIZ, were defining common objectives and coordination modalities to provide countries with integrated support for joint SDG-NDC mainstreaming, SDG-NDC screening of existing development plans, and capacity building. For instance, WRI carried out an SDG impact assessment of Kenya's National Climate Change Action Plan 2018–22 in early 2018, and coordinates with UNDP and GIZ to provide support to SDG and NDC-aligned local development planning in Mali.

The NDCP also facilitates knowledge sharing across members and develops knowledge products to fill information gaps. This joint GIZ-WRI paper is a contribution to the NDCP. Several partners, including Mongolia, Uganda, Kenya, Mali and Mexico, have also expressed interest in sharing practices and ideas in a working group on SDG-NDC joined-up implementation.

Source: WRI author; NDC Partnership 2017.

This section highlights two potential means of fostering synergies between climate and development financial streams: developing criteria and standards that enhance consistency among international financing instruments and mechanisms, and leveraging the role of multilateral funds to deliver multiple sustainable development and climate benefits.

Developing criteria and standards to foster consistency among international financing instruments. Access to funds remains challenging for many countries. There is also persistent concern about the disproportionate share of multilateral funds going toward mitigation, rather than adaptation, although, according to data from the OECD Development Assistant Committee, bilateral climate-related development finance in 2015 was more balanced. Ongoing UNFCCC negotiations on climate finance and OECD discussions on ODA are trying to clarify criteria and standards and intend to manage the ongoing multiplication of financing mechanisms in an efficient manner. Options include, for example, improved coordination among funds and harmonization of their financing standards, accreditation requirements, and approval procedures.

Harnessing the potential of multilateral funds to support joined-up implementation. The existing climate fund architecture already allows for synergies between climate change and sustainable development action. The main goal of the GCF is to promote low-emission and climate-resilient development pathways "in the context of sustainable development." Although the GCF could deepen the use of specific allocation criteria related to the 2030 Agenda, one of its six investment criteria is a project's "sustainable development potential," defined as "expected environmental, social and health, and economic co-benefits" as well as its gender-sensitive development impact, as determined by economic analysis and quantitative indicators. The fund also helps national governments link SDGs and climate action in their proposals. Information on the GCF website about approved projects refers to the key SDG(s) addressed through the program. Projects financed by the Adaptation Fund or the LDC Fund also cut across areas of relevance to the SDGs, such as agriculture and food security, forests, disaster risk reduction, and rural and urban development. Some of the approved projects explicitly make the link to the SDGs, for example, a climate-resilience project in Tanzania (Box 20), although they fall short of fully joined-up implementation. In the future, the multilateral funds could provide frameworks and guidance to countries on how best to apply an SDG lens to their climate objectives and develop national financing strategies and frameworks for climate action and sustainable development.

BOX 20: GREEN CLIMATE FUND PROJECT IN TANZANIA: IDENTIFYING SDG BENEFITS

A large Tanzanian climate resilience project approved by the Green Climate Fund Board in 2017 describes expected benefits to various SDGs (SDGs 1–6, 8, 9, 11, 13, 15, 16). The project's main areas of action include reforming the government's institutional and regulatory framework, and improving the climate resilience of water supply infrastructure, sanitation services, and agricultural practices in the Simiyu Region. The focus is on enhancing the adaptive capacities of vulnerable urban and rural populations and the implementation capacities of local and central government. The project proposal addresses a number of priorities identified both for the NDC and SDGs (reflected in the five-year development plans). The proposal builds on the strong involvement of various ministries and institutions at both the regional and local level. Such a large-scale project provides an opportunity to address the identified institutional, financial, and technical barriers to joined-up implementation and to boost institutional learning.

Source: Authors.

8. CONCLUSIONS AND KEY RECOMMENDATIONS

Both the 2030 Agenda and the Paris Agreement require deep transformations in our economies, patterns of resource use, investment flows, and social justice to invent carbon-neutral, sustainable and equitable societies. The window of opportunity for avoiding the worst impact of climate change and inequality rise is short. There is no time left for incremental change. Implementing these two ambitious and transformative agendas in siloed fashion makes little sense given the pressing timeline and the ample opportunities the agendas present for beneficial synergies.

Countries will define transition pathways tailored to specific national circumstances and priorities, but they can learn from each other's approaches in advancing the 2030 Agenda and Paris Agreement jointly in policy planning, budgeting, and monitoring. Drawing on experience of first mover countries, this paper provides options, approaches, and concrete examples to foster integration.

This study shows that linking up the two agendas goes beyond identifying synergies and trade-offs. It also involves ensuring that the two sets of national goals align with each other and fully take into account their respective, complementary purposes. Policymakers should read both agendas as one and ask these questions: What do the 2030 Agenda, the principle of LNB, and our national SDG targets involve for our climate actions? What do the NDC and the national trajectory toward carbon neutrality and climate resilience mean for defining our national SDG targets and priorities? Those questions are equally relevant for changing the way development plans are defined. Aligning national SDG and climate goals will significantly help mainstreaming them in planning and budgeting jointly and consistently.

This paper also highlights that such an integrated approach offers greater leverage for advancing the two agendas and could enable governments to step up their ambition and impact. Distinct SDG and NDC lead institutions can overcome their weaknesses and build on their respective strengths for mobilizing government and society around both agendas in a

more effective way. Linking both agendas also helps improve people's understanding. While the NDCs can be regarded as evidence-based, robust targets by climate experts, they are still largely perceived as highly technical documents by sector ministries. The SDGs building on the MDGs are more easily associated with sustainable development gains but may be seen as a far-reaching, unspecific agenda. In the countries studied, cross-reference and integration have often helped to highlight benefits that various stakeholders could draw from these agendas and get greater buy-in for implementation. Linking climate actions to the SDGs and even anchoring the NDC implementation into the SDG framework is regarded in some study countries as a lever for climate mainstreaming. Similarly, considering NDC actions facilitates the nationalization of the global SDGs.

Common solutions in the planning, financing, monitoring, and reporting framework would also increase efficiency in implementation efforts. While the proliferation of guidelines for mainstreaming climate actions, the SDGs, green growth, gender, and other cross-cutting issues, tends to overload planning processes, guidance for joint SDG-NDC mainstreaming can make the task of policy officers easier. Common strategies and road maps for shifting financial flows toward low-carbon sustainable investments or for harnessing the data revolution make great sense. Consistent solutions for climate and SDG integration and coding in budget frameworks can be conducive to greater coherence and efficiency. Integrated approaches to the regulatory, fiscal, and financial incentives underpinning both agendas also widen the range of options and minimize negative effects on household budgets. Articulating and integrating, as far as possible, sets of SDG, climate and other development indicators, and reporting mechanisms have a strong potential to simplify data collection and use and better inform planning and budgeting processes. Those efforts should be supported by more integrated interventions from development partners and greater linkages between global processes.

Recommendations

The coming years provide a unique opportunity to develop an integrated and strategic approach to both agendas. The following recommendations are based on the main challenges faced by study countries and best practices that could support countries' efforts.

- Strong collaboration between institutions in charge of advancing the SDGs and the climate agenda is a core condition for a joined-up implementation. Steps taken in study countries include strategic dialogue on implementation road maps and annual work plans, participation in both national coordination frameworks, and common solutions for mainstreaming in planning and budgeting. However, SDG and NDC lead institutions don't often associate each other in the formulation of key policy plans, including national climate-change plans and long-term low-carbon and sustainable development strategies. Their own capacities and those from their focal points across sector ministries should also be enhanced to ensure adequate oversight, support, and contribution to sector and local planning processes.

- Bridging institutional processes as well as climate and development actors does not require additional coordination mechanisms. Efficient solutions can involve efforts to systematize information sharing and working jointly on common priorities between departments involved in SDG and NDC implementation. Multi-disciplinarity and broad-based representation, including from the most vulnerable, are other key elements for fostering discussion on SDG-climate policy linkages. Both agendas can also be addressed jointly in single SDG-climate focal units in line ministries; the same parliamentary committees; single local-level coordination frameworks; and umbrella NGO groups, action platforms, and national fora.

- Despite widespread recognition of linkages between both sets of goals, efforts at ensuring true mutual alignment have been undertaken in too few countries. However, consideration of SDGs can lead to conceiving and selecting climate actions differently. As first experiences show, this consideration may help come up with more

comprehensive impact assessment analysis and involve prioritizing both mitigation and adaptation actions that benefit top SDG targets, poverty and inequality reduction, and vulnerable and marginalized populations left behind. Consideration of the Paris Agreement would require aligning all national SDG targets with its goals of carbon neutrality and climate resilience.

- Designing one single national long-term strategy would make a lot of sense to define an overall vision for a carbon-neutral, sustainable, and inclusive country by 2050 and set a transition pathway that meets both agendas. Countries that will develop their long-term low-carbon strategies in the coming years should consider such an integrated approach. In a context of climate change, strong attention should be given to the evolution of climate-sustainable development linkages and the impact of proposed actions on extreme poverty and inequality reduction. To avoid conflicts over scarce water resources, across the world, countries have already started to revise their mitigation options relying on hydropower. An SDG lens could also help define a just transition of the workforce, which remains little mentioned in climate plans.

- We observed too few ongoing efforts to promote joint SDG-NDC mainstreaming in planning. Countries could more systematically take stock of their policy and legislative frameworks against both agendas. Early experience also underscores the need for strong oversight from planning ministries and SDG and NDC lead agencies and for unique, clear and simple guidance to spur line ministries to adopt an overall, cross-sectoral approach to both agendas, to go beyond "do-not-harm" and cherry-picking approaches, and design win-win solutions beneficial to both sets of goals. Efforts at using the SDGs as a guiding framework for planning could inspire other countries. Key levers for integrated planning are also the assignment of joint responsibilities to relevant ministries and agencies for NDC and SDG actions and strong monitoring of NDC-SDG mainstreaming.

- Articulating planning and budgeting processes is still a big challenge in many countries, which can

make joined-up implementation harder. Yet, their coordination is a powerful driver for greater integration. During annual budget processes, lines ministries can be requested to explain how their annual priority policies and budgets contribute to both agendas and to report back to parliament on progress made. Countries could make better use of multi-annual budget frameworks. Those instruments should mirror planning guidelines for joint SDG-NDC mainstreaming and provide consistent solutions for tracking SDG and climate financing.

- An integrated approach to fiscal reforms would also help countries adopt needed climate and environmental taxes and remove harmful subsidies while mitigating negative effects on jobs and households through targeted allowances and incentives. Progress on aligning the fiscal framework with the two agendas often lags behind because of perceived environmental and social trade-offs.

- Mutually reinforcing SDG and climate monitoring and reporting processes is needed in a context where countries are investing significant capacities to meet increased requirements under both tracks. This paper identifies different options for linking climate, SDG, and national indicators and respective reporting processes. Ultimately, countries should build on progress made for both agendas to step up implementation efforts and carve an arc of ambition.

- National-level implementation would also benefit from greater synergies between the HLPF and UNFCCC processes and their reporting guidelines and processes. The upcoming 2018 Talanoa Dialogue and HLPF, which will address climate-relevant SDGs, offer opportunities to build bridges between reviews of progress and updates of national ambition, and foster greater integration at the 2019 head of state and government-level HLPF and Climate Summit.

- Finally, national efforts at linking up implementation efforts should be supported by development partners taking an integrated approach to capacity building and project planning. Progress is made at the headquarters of bilateral and multilateral development banks and agencies, but the provision of training and support to sector operations and country offices is needed to land both agendas in the early discussions with counterparts on project identification. The NDC Partnership" provides a strong example of coordination efforts to address requests of support for implementation of the NDC and SDG agendas in an integrated way.

APPENDIX 1. SDG TARGETS AND INDICATORS DELIVERING CLIMATE MITIGATION AND ADAPTATION

	SDGs Targets with Outcomes Supportive of Climate Action
Climate Adaptation	▪ **1.5:** **Build the resilience** of the poor and those in vulnerable situations **–** indicators on number of deaths, missing persons, and directly affected persons (1.5.1): direct economic loss attributed to disasters in relation to GDP (1.5.2); number of countries implementing the Sendai Framework (1.5.3): proportion of local governments implementing local disaster-reduction strategies (1.5.4) ▪ **3.3:** **Combat waterborne diseases and other communicable diseases** ▪ **3.b:** Strengthen capacity of all countries for **early warning & health risk reduction & management.** ▪ **6.5:** Implement **integrated water resource management** ▪ **6.6:** By 2020, protect and restore **water-related ecosystems** ▪ **10.7:** Facilitate orderly, safe, regulated and responsible **migration** and mobility of people ▪ **11.4: Protect the world's cultural and natural heritage** ▪ **11.5:** By 2030, reduce the number of deaths and the number of people affected and decrease the direct economic losses cause by **disasters**, including water-related disasters ▪ **13.1:** Strengthen **resilience and adaptive capacity to climate-related hazards** and natural disasters – indicators on people affected by disasters (13.1.1); the number of countries implementing the Sendai Framework (13.1.2.); and local governments implementing local DRR strategies (13.1.3) ▪ **14.2:** Sustainably manage and **protect marine and coastal ecosystems** and strengthen their **resilience** ▪ **14.5:** By 2020, **conserve at least 10 percent of coastal and marine areas** ▪ **15.4:** Ensure the conservation of **mountain ecosystems** ▪ **15.5:** Reduce the **degradation of natural habitats; halt the loss of biodiversity**
Climate Mitigation	▪ **7.1:** By 2030, ensure universal access to affordable, reliable, and **modern energy services –** indicators on the proportion of population with primary reliance on **clean** fuels and technology (7.1.2) ▪ **7.2:** By 2030, increase substantially the share of **renewable energy** in the global energy mix – indicator on the RE share in the total energy consumption (7.2.1) ▪ **7.3:** By 2030, double the global rate of improvement of **energy efficiency –** indicator on energy intensity measured in terms of primary energy and GDP (7.3.1) ▪ **7.a:** Facilitate access to **clean energy research and technology,** including renewable energy, energy efficiency, **cleaner fossil-fuel technology** ▪ **7.b:** By 2030, expand infrastructure & upgrade technology for **SEfA in developing countries** ▪ **8.4: Improve global resource efficiency in consumption and production and decouple economic growth from environmental degradation –** indicators on the material footprint, material footprint per capita, and material footprint per GDP (8.4.1) and the domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP (8.4.2)

Climate Mitigation	**8.9**: Promote **sustainable tourism** **9.2**: Promote **sustainable industrialization** **11.3**: By 2030, enhance **sustainable urbanization** **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 **12.1**: Implement the 10-Y framework of programs on **sustainable consumption and production patterns (12.1)** – indicator counting countries with SCP national action plans or SCP main-streamed as a priority or a target into national policies (12.1.1.) **12.2**: By 2030, achieve the **sustainable management** and **efficient use of natural resources** **12.4**: By 2020, **achieve environmentally sound management of all wastes throughout their life cycle** **12.5**: By 2030, substantially **reduce waste generation** **12.c**: Support developing countries in strengthening **scientific and technological capacity to move toward more sustainable patterns of consumption and production** **12.c**: **Phase out harmful fossil-fuel subsidies** – indicator on the amount of fossil-fuel subsidies per unit of GDP (production and consumption) and as a proportion of total national expenditure on fossil fuels
Both Mitigation and Adaptation	**2.4**: **Employ sustainable food production systems and resilient agricultural practices** that **strengthen capacity for adaptation to climate change** – indicator on proportion of agricultural arear under productive and sustainable agriculture (2.4.1) **6.4**: By 2030, increase **water-use efficiency** and sustainable withdrawals and supply of freshwater to **address water scarcity** and substantially **reduce the number of people suffering from water scar-city** – indicators on change in water-use efficiency over time (6.4.1) and Level of **water stress**: freshwater withdrawal as a proportion of available freshwater resources (6.4.2) **9.1**: Develop **sustainable and resilient infrastructure** **9.4**: **Upgrade infrastructure and retrofit industries to make them sustainable,** with increased resource efficiency and greater adoption of clean and environmentally sound technologies and industrial processes – indicator "**CO_2 emission per unit of value added**" (9.4.1) **9.a**: Facilitate **sustainable and resilient infrastructure development** in developing countries **11.2**: Ensure universal access to **safe and sustainable transportation systems** **11.b**: By 2020, increase the **number of cities and human settlements** implementing **integrated policies and plans toward inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disaster,** in line with the Sendai framework for DRR 2015–30 **11.c**: Support LDCs, including through financial and technical assistance, in building sustainable and **resilient buildings** using local materials **12.3**: By 2030, halve per capita global **food waste** – indicator Global food loss index (12.3.1.) **12.8**: Ensure universal access to information and **awareness for sustainable development and life-styles in harmony with nature** – indicator on integration of education for sustainable development (including **climate-change education**) in national education polices, curricula, teacher education, and student assessment. (12.8.1) **13.2**: **Integrate climate change measures into national policies, strategies, and planning** – indicators on plans/strategies that foster low greenhouse gas emissions development (13.2.1); number of countries with relevant strategies (13.2.2) **13.3**: Improve **education, awareness raising, and human and institutional capacity on climate change mitigation, adaptation, impact reduction, and early warning** – indicators on integration of mitigation, adaptation, impact reduction, and early warning into primary, secondary, and tertiary curricula (13.3.1); number of countries that have communicated the strengthening of institutional, systemic and individual capacity building to implement adaptation, mitigation, and technology transfer and development actions (13.3.2) **13.a**: Mobilize $100 billion annually for **climate finance** – indicator on the amount of U.S. dollars mobilized per year between 2020 and 2025 accountable toward the $100 billion commitment

Both Mitigation and Adaptation	**13.b**: Increase capacity for effective **climate change-related planning and management** in LDCs and SIDs – indicator on the number of LDCs and SIDS that are receiving specialized support and amount of support, including finance, technology, and capacity building, for mechanisms for raising capacities **for effective climate change-related planning and management,** including focusing on women, youth, and local and marginalized communities **14.3**: Minimize and address the impacts of **ocean acidification** **15.1**: By 2020, ensure the conservation, restoration, and sustainable use of **territorial and inland freshwater ecosystems** **15.2**: By 2020, sustainably management all types of forest, halt deforestation **15.3**: By 2030, combat **desertification, restore degraded land and soil** to achieve a **land degradation-neutral world** – indicator on proportion of land that is degraded over total land area **15.a**: Mobilize resources to conserve and **sustainably use biodiversity and ecosystems** **15.b**: Mobilize resources for **sustainable forest management**

APPENDIX 2. TYPOLOGY OF SDG-NDC INTERACTIONS

This table provides a typology of SDG-NDC positive and negative interactions adapted from SEI scoring of SDG targets (Nilsson et al. 2016). The typology does not include potential identical climate actions in NDCs and national SDGs. Practically, national climate plans and SDG targets should reflect indivisible actions and strongly consider reinforcing and enabling actions. Although some constraining actions may be inevitable, counteracting and canceling actions involve whether to explore alternatives or to plan mitigating measures. Negative impacts associated with SDG targets considered individually (ODI 2016; International Council for Science 2017) could be minimized by considering the whole set of global SDG targets conceived as interdependent.

Table B1: Typology of SDG-NDC interactions		
Interactions	Impact of National SDGs on NDC Implementation	Impact of the NDC on the 2030 Agenda Implementation
Indivisible One SDG target is intrinsically linked to the achievement of one NDC action and vice versa	"Development of the electricity sector holds great mitigation potential for Uganda due to the potential offsetting of wood and charcoal burning, and the consequential deforestation" (Uganda NDC–NDP II–SDG 7)	"Promoting climate-resilient crops" (Côte d'Ivoire, Angola's NDC–SDG 2) is a condition for farming in climate-vulnerable regions.
Reinforcing One SDG target directly creates the conditions for achieving one NDC action and vice versa	"Women's participation in accessing and taking decisions regarding community resources" is a strong lever for promoting sustainable forest management and mitigating related GHG emissions (Bangladesh 7th FYP–SDG 5)	"A modal shift from road to rail will contribute to reduce congestion, improve air quality and traffic safety" (Bangladesh's NDC and 7th FYP–SDG 3 and 11)
Enabling One SDG target enables the achievement of one NDC action and vice versa	"Promotion of sustainable development education" is a strong enabler for shifting carbon-intensive consumption habits (French National Ecological Transition Strategy, SDG 3)	"Prevent illnesses that are exacerbated by climate change through an early warning system with epidemiologic information." (Mexico NDC–SDG 3)
Constraining One SDG targets sets a constraint to achieving an NDC action and vise and versa	Ensuring universal access to affordable energy can limit the range of low-carbon technological options (SDG 7)	Engaging on a low-carbon path reduces the range of possible energy sources (all NDCs)
Counteracting The pursuit of one SDG target can counteract the achievement of an NDC action and vice and versa	"Greater integration in regional and global markets" (Ethiopia's Growth Transformation Plan) will involve growing GHG emissions related to transportation and production.	"Increasing the production of sustainable biofuels" (Brazil NDC) can make it more difficult to address increasing food demand (SDG 2).
Canceling Progress toward an SDG target makes it impossible to achieve an NDC action and vice and versa	The set of global SDGs has been conceived to avoid any canceling effects across its targets, defined as indivisible. The domestication of the global SDGs could lead to greater trade-offs and potential canceling impacts though.	"Building additional dams and power stations" (Ethiopia's NDC) involves displacement of local communities and destruction of ecosystems (negative impact on several SDGs, including SDGs 1, 10, and 15).

Source: Authors, adapted from Nilsson et al. (2016) without considering neutral impact.

APPENDIX 3. LIST OF STAKEHOLDERS INTERVIEWED

Interviews were conducted from July 2016 to June 2018 with stakeholders from country studied for this paper and from countries where WRI provides technical assistance. Country experience and supplemental feedback on early drafts were also collected at a side event organized during COP23 in Bonn on 10 November 2017 and at the session on SDG-NDC linkages of the NDC Partnership Forum held on 12 November 2017.

National stakeholders

Bangladesh

- National Planning Commission
- Ministry of Environment, Forest and Climate Change
- Center for Policy Dialogue

Benin

- Ministry of Planning and Development
- Ministry of Living Environment and Sustainable Development

Colombia

- Technical Secretariat of the High-Level Commission for the Effective Implementation of Agenda 2030, National Planning Department
- Green Growth Mission, National Planning Department
- Ministry of Environment and Sustainable Development
- CEPEI

Ethiopia

- National Planning Commission
- Ministry of Environment, Forest and Climate change
- CRGE Facility, Ministry of Finance and Economic Cooperation
- The Federal Environmental Protection Authority
- Addis Ababa Planning Commission
- Ethiopian Development Research Institute
- GGGI Ethiopia

European Commission

- DG Better Regulation, Interinstitutional Relations, the Rule of Law and the Charter of Fundamental Rights
- DG Climate
- DG Development

Finland

- Prime minister's office
- Ministry of Environment
- Ministry of Foreign Affairs

France

- Ministry for an Ecological and Inclusive Transition
- Ministry of Foreign Affairs
- Members of the Parliament
- Mayor's Office of the City of Paris
- French Development Agency
- Coordination Sud
- IDDRI

Indonesia

- Office of the Presidency
- Ministry of National Development Planning (BAPPENAS)
- Ministry of Environment and Forestry
- Ministry of Health
- WRI Indonesia

Kenya

- National Treasury and Planning
- Ministry of Environment and Forestry
- Ministry of Energy
- Ministry of Health
- Council of Governors, SDGs and Climate Units
- Secretariat and board of SDG Kenya Forum

Mali

- Ministry of the Environment, Sanitation, and Sustainable Development,
- Environment and Sustainable Development Agency
- Ministry of Economy and Finance
- Association of Mali's Municipalities

Mexico

- Office of the Presidency
- Ministry of Environment and Natural Resources (SEMARNAT)
- Conference of Governors, Commission for the 2030 Agenda implementation
- My World Mexico
- GIZ 2030 Agenda Initiative
- WRI Mexico

Peru

- National Center for Strategic Planning (CEPLAN)
- Ministry of Environment
- Ministry of Development and Social Inclusion
- Ministry of Foreign Affairs

Uganda

- National Planning Authority
- Ministry of Water and Environment
- Climate Commission of the Parliament

Development Agencies, Banks and Funds

- African Development Bank
- Asia Development Bank
- GIZ
- Green Climate Fund
- Interamerican Development Bank
- UNDESA
- UNDP
- UNEP
- World Bank

Others

- DIE
- CAN International
- NDC Partnership Support Unit

REFERENCES

Akumu, G., A. Najam, L. Pinguelli, S. Rayner, W. Sachs, R. Sharma, and G. Yohe. 2001. "Setting the Stage: Climate Change and Sustainable Development." In *Climate Change 2001: Mitigation, Contribution of Working Group III to the Third Assessment Report of the Intergovernmental Panel on Climate Change*, edited by H. Opschoor, K. Parikh. Cambridge: UK: Cambridge University Press.

Araya, M. 2018."Increasing the Ownership of Long-term Climate Plans by Integrating Sustainable Development Goals" Expert perspective. http://www.wri.org/climate/expert-perspective/increasing-ownership-long-term-climate-plans-integrating-sustainable.

Arquitt S., M. Pedercini, A. Onasanya, and H. Herren. 2018. "Addressing Climate-Sustainable Development Linkages in Long-Term Low-Carbon Strategies: The Role of Millennium Institute's iSDG Model," Expert perspective. https://www.wri.org/climate/expert-perspective/addressing-climate-sustainable-development-linkages-long-term-low-carbon

Bingler, J., G. Hansen, V. von Rosenberg, and L. Weischer. 2017. *Die Rolle Multilateraler Entwicklungsbanken bei der Umsetzung des Paris-Abkommens. Handlungsoptionen und Empfehlungen an die G20.* Bonn, Germany: Germanwatch e.V.

Black Sun PLC. 2014. "Realizing the Benefits: The Impact of Integrated Reporting." http://integrated-reporting.org/wp-content/uploads/2014/09/IIRC.Black_.Sun_.Research.IR_.Impact.Single.pages.18.9.14.pdf.

CPLC (Carbon-Pricing Leadership Coalition). 2017. "Report of the High-Level Commission on Carbon Prices." https://static1.squarespace.com/static/54ff9c5ce4b0a53decccfb4c/t/59244eed17bffc0ac256cf16/1495551740633/CarbonPricing_Final_May29.pdf.

CARE (Cooperative for Assistance and Relief Everywhere), and WWF (World Wildlife Fund). 2016. "Twin Tracks—Developing Sustainably and Equitably in a Carbon-Constrained World." https://careclimatechange.org/wp-content/uploads/2016/04/CARE-WWF_Twin-Tracks-3rdEdition.pdf.

CVF (Climate Vulnerable Forum). 2016. "The Marrakech Communique", Outcome Documentation CVF High Level Meeting at COP22 https://thecvf.org/marrakech-communique/

CIEL (Center for International Environmental Law), IWGIA International Work Group for Indigenous Affairs, RFN (Rainforest foundation Norway), CARE (Cooperative for Assistance and Relief Everywhere), WEDO (Women's Environment & Development Organization), AIPP (Asia Indigenous Peoples Pact), and ITUC (International Trade Union Confederation). 2017. "Delivering on the Paris Promises. Combating Climate Change While Protecting Human Rights. Recommendations for the Negotiations of the Paris Rule Book." https://www.deliveringonparis.com/wp-content/uploads/2017/06/Delivering-On-Paris-Web.pdf.

Dalberg. 2015. "Evaluating the Resource Mobilisation Strategies and Sustainability of National Climate Change Funds." https://cdkn.org/wp-content/uploads/2015/08/CDKN-Dalberg-NCCF-Resource-Mobilization-Report_final.pdf.

Dameron, V. 2015. "Toward Policy Coherence: Minimizing Policy Trade-Offs, the French Agro-Ecological Project." Paper presented at the Coherent Policies for Climate Smart Agriculture Workshop, OECD, Jeju Island, Republic of Korea , June 17–18 2015.

Evans, Alex. 2017. *The Myth Gap: What Happens When Evidence and Arguments Aren't Enough.* London: Transworld Publishers.

Fay, M., S. Hallegatte, A. Vogt-Schilb, J. Rozenberg, U. Narloch, and T. Kerr. 2015. "Decarbonizing Development: Three Steps to a Zero-Carbon Future." Climate Change and Development Series. Washington, DC: World Bank. http://www.greengrowthknowledge.org/resource/decarbonizing-development-three-steps-zero-carbon-future.

Frey, A. 2016. "Mozambican Government Creates Sustainable Development Fund." http://clubofmozambique.com/news/mozambican-government-creates-sustainable-development-fund/. Accessed March 15, 2018.

GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit). 2017. "Financing Strategies: A Missing Link to Translate NDCs into Action. A Discussion of Building Blocks, In-Country Experiences and Lessons Learned." https://www.giz.de/fachexpertise/downloads/giz2017-en-climate-finance-strategies-ndcs.pdf.

Haldenwang, C., and A. von Schiller. 2016. "The Mobilisation of Sub-National Revenues Is a Decisive Factor in the Realisation of the 2030 Agenda." Briefing Paper 21-2016. Bonn, Germany: German Development Institute. http://www.die-gdi.de/en/briefing-paper/article/the-mobilisation-of-sub-national-revenues-is-a-decisive-factor-in-the-realisation-of-the-2030-agenda/.

Hallegatte, S., M. Bangalore, L. Bonzanigo, M. Fay, T. Kane, U. Narloch, J. Rozenberg, et al. 2016. Shock Waves: *Managing the Impacts of Climate Change on Poverty. Climate Change and Development.* Washington, DC: World Bank. https://openknowledge.worldbank.org/handle/10986/22787 License: CC BY 3.0 IGO.

Hammill, A., and H. Price-Kelly. 2017. "Using NDCs, NAPs and the SDGs to Advance Climate-Resilient Development. Expert Perspective for the NDC Partnership." http://www.ndcpartnership.org/sites/default/files/NDCP_Expert_Perspectives_NDC_NAP-SDG_full.pdf.

Harmeling, S. 2016. "Climate and Sustainable Development Finance – Twin Means of Implementation." Climate Finance Advisory Service (CFAS). http://www.cfas.info/sites/default/files/anhang/CFAS%20Fact%20Sheet%20Climate%20and%20Sustainable%20Development%20Finance%20%E2%80%93%20Twin%20Means%20of%20Implementation.pdf.

Harmeling, S., and R. Fuller. 2017. "Making SDG National Reporting Climate-Smart and Climate-Ambitious." Discussion Paper. http://interconnections2017.org/wp-content/uploads/2017/02/Harmeling-Fuller-SDG-CC-VNR-final.pdf.

HLP (High-Level Panel on the Post-2015 Agenda). 2013. A New Global Partnership: *Eradicate Poverty and Transform Economies through Sustainable Development.* New York: United Nations Publications.

HLPF (High-Level Political Forum). 2016. "Proposal for Voluntary Common Reporting Guidelines for Voluntary National Reviews at the High-Level Political Forum." https://sustainabledevelopment.un.org/content/documents/11819Voluntary_guidelines_VNRs.pdf.

IAEG (International Association for Engineering Geology and the Environment). 2017a. "Revised List of Global Sustainable Development Goal indicators." https://unstats.un.org/sdgs/indicators/Official%20Revised%20List%20of%20global%20SDG%20indicators.pdf.

IAEG. (International Association for Engineering Geology and the Environment). 2017b. "Tier Classification for Global SDG Indicators." https://unstats.un.org/sdgs/files/meetings/iaeg-sdgs-meeting-04/Tier%20Classification%20of%20SDG%20Indicators_21%20Dec%20for%20website.pdf.

IATF (International Agency Task Force). 2016. "Addis Ababa Action Agenda. Monitoring Commitments and Actions." http://www.un.org/esa/ffd/wp-content/uploads/2016/03/Report_IATF-2016-full.pdf.

Kamruzzaman, S. 2015. "National Climate Finance: Performance of Bangladesh Climate Change Trust Fund." Presentation published on Gobeshona (knowledge sharing platform for climate change research on Bangladesh). http://gobeshona.net/wp-content/uploads/2014/09/National-Climate-Finance-Performance-of-Bangladesh-Climate-Change-Trust-Fund.pdf. Accessed December 17, 2017.

Leblanc, D. 2015. "Toward Integration at Last? The Sustainable Development Goals as a Network of Targets." Working paper. Washington, DC: UNITED NATIONS Department of Economic and Social Affairs.

Lui, R. 2013. "Adaptation Committee Workshop on the M&E of Adaptation." Paper presented at the AC and M&E of adaptation work Workshop. http://unfccc.int/files/adaptation/cancun_adaptation_framework/adaptation_committee/application/pdf/r_lui_sprep.pdf.

Nachmany, M., and S. Frankhauser. 2015. The Global Climate Legislation Study. London, UK: Grantham Research Institute on Climate Change and the Environment.

NDC Partnership. 2017. "Partnership in Action: One Year on." http://ndcpartnership.org/sites/all/themes/ndcp_v2/docs/country-engagement/NDCP_PiA_LR.pdf.

New Climate, Ecofys, and Climate Analytics. 2016. "The Ten Most Important Short-Term Steps to Limit Warming to 1.5°C." http://climateactiontracker.org/assets/publications/publications/CAT_10_Steps_for_1o5.pdf.

Nilsson, M., D. Griggs, and M. Visbeck. 2016. "Map the Interactions of Sustainable Development Goals." Nature 534(7607):320-322.

Northrop, E., H. Biru, S. Lima, M. Bouye, and R. Song. 2016. "Examining the Alignment between the Intended Nationally Determined Contributions and Sustainable Development Goals." Working Paper. Washington, DC: World Resources Institute.

Machingura, F., and S. Lally. 2016. *The Sustainable Development Goals and their trade-offs.* London, UK: Overseas Development Institute (ODI). https://www.odi.org/sites/odi.org.uk/files/resource-documents/11329.pdf.

McGray. 2018. Adaptation and Long-term Emissions Reduction Strategies (LTS). Expert perspective. World Resources Institute. http://www.wri.org/climate/expert-perspective/adaptation-and-long-term-emissions-reduction-strategies-lts.

Michaelowa, A., and K. Michaelowa. 2007. "Does Climate Policy Promote Development?" Climate Change 84(1): 1–4.

Mission2020. 2017. "2020 – The Climate Turning Point." http://www.mission2020.global/2020%20The%20Climate%20Turning%20Point.pdf.

OECD (Organisation for Economic Co-operation and Development). 2012. *Sustainability in Impact Assessments, A Review of Impact Assessment Systems in Selected OECD Countries and the European Commission.* Paris, France: OECD.

Partners for Review. 2016. "A Transnational Multi-Stakeholder Network for a Robust Review Process of the 2030 Agenda for Sustainable Development." http://www.partners-for-review.de/assets/p4r-report-first-meeting-2017-03-22.pdf.

Pitron, G. 2018. La Guerre Des Métaux Rares, *La face Cachée de la Transition Energétique et Numérique (The War on Rare-Earth Metals, the Hidden Face of the Energy and Digital Transitions).* Paris, France: Les Liens qui Libèrent.

RRI (Rights and Resources Initiative), WHRC (Woods Hole Research Center), and WRI (World Resources Institute). 2016. *An Updated Analysis of Indigenous Peoples' and Local Communities' Contributions to Climate Change Mitigation.* Washington, DC: RRI, WHRC, and WRI.

Riffon, O., and D. Tremblay. 2016. "Sustainable Development Analysis Grid, University of Quebec and Francophone Institute for Sustainable Development". Québec, Canada: Université du Québec à Chicoutimi (UQAC) and Institut de la Francophonie pour le développement durable (IFDD).

Ross, K., and T. Fransen. 2017. "Early Insights on Long-Term Climate Strategies." Working Paper.

Washington, DC: World Resources Institute. http://www.wri.org/publication/early-insights.

Shah, A. 2015. "Development Banking for Sustainability" (Blog). December 14. https://www.devex.com/news/development-banking-for-sustainability-87333.

Studart, R., and K.P. Gallagher. 2017. "Infrastructure for Sustainable Development: The Role of National Development Banks." Global Economic Governance initiative. https://www.bu.edu/pardeeschool/files/2016/08/Infrastructure.Sustainable.Final_1.pdf.

Stiglitz, E., A. Sen, and J-P Fitoussi. 2009. "Report by the Commission on the Measurement of Economic Performance and Social Progress." Paris, France: Institut National de la Statistique et des Etudes Economiques.

SDSN (Sustainable Development Solution Network). 2015. "Indicators and a Monitoring Framework for the Sustainable Development Goals, Launching a data revolution for the SDGs". A report by the Leadership Council of the Sustainable Development Solutions Network. http://unsdsn.org/wp-content/uploads/2015/03/150320-SDSN-Indicator-Report.pdf

Swart, R., and F. Raes. 2007. "Making Integration of Adaptation and Mitigation Work: Mainstreaming into Sustainable Development Policies?" *Climate Policy* 7(4): 288–303.

UNCTAD (United Nations Conference on Trade and Development). 2016. "The Role of Development Banks in Promoting Growth and Sustainable Development in the South." http://unctad.org/en/PublicationsLibrary/gdsecidc2016d1_en.pdf.

UNDESA (United Nations Department of Economic and Social Affairs) and UNDP (United Nations Development Programme). 2012. "Synthesis of National Reports for RIO+20." https://sustainabledevelopment.un.org/content/documents/742RIO+20_Synthesis_Report_Final.pdf

UNDESA. 2015. "Integrated Approaches to Sustainable Development Planning and Implementation." Report for the Capacity Building Workshop and Expert Group Meeting. New York, May 27–29. https://sustainabledevelopment.un.org/content/documents/8506IASD%20Workshop%20Report%2020150703.pdf.

UNDESA. 2016. "Synthesis of Voluntary National Reviews." https://sustainabledevelopment.un.org/content/documents/127761701030E_2016_VNR_Synthesis_Report_ver3.pdf.

UNDP (United Nations Development Programme). 2015. "Budgeting for Climate Change: How Governments Have Used National Budgets to Articulate a Response to Climate Change." https://www.climatefinance-developmenteffectiveness.org/sites/default/files/documents/27_08_15/1%20Budgeting%20for%20Climate%20Change_August%202015.pdf.

UNDP (United Nations Development Programme) and WRI (World Resources Institute). 2016. *NDC Implementation Checklist.*

UNDP. 2017. *Institutional and Coordination Mechanisms, Guidance Note on Facilitating Integration and Coherence for SDG Implementation.* New York: UNDP.

UN ECOSOC (United Nations Economic and Social Council) and United Nations Statistical Commission. 2015. "Report of the Friends of the Chair Group on Broader Measures of Progress: Note by the Secretary-General." E/CN.3/2015/2. New York, United States: UN ECOSOC.

UN ECOSOC. 2017a. "Progress Towards the Sustainable Development Goals, Report of the Secretary-General". E/2017/66. New York: United Nations.

UN ECOSOC. 2017b. "Repositioning the UN development system to deliver on the 2030 Agenda – Ensuring a Better Future for All, Report of the Secretary-General", A/72/124-E. http://undocs.org/A/72/124

UNGA (United Nations General Assembly). 2015. "Transforming our world: the 2030 Agenda for Sustainable Development", A/RES/70/1, 21 October 2015 https://sustainabledevelopment.un.org/post2015/transformingourworld

UNFCCC (United Nations Framework Convention on Climate Change). 2012. "National Adaptation Plans. Technical Guidelines for the National Adaptation Plan Process." http://unfccc.int/files/adaptation/cancun_adaptation_framework/application/pdf/naptechguidelines_eng_high__res.pdf.

UNFCCC (United Nations Framework Convention on Climate Change). 2015. *The Paris Agreement.*

UNFCCC (United Nations Framework Convention on Climate Change). 2016. "Updated Synthesis Report on the Aggregate Effect of INDCs." http://unfccc.int/resource/docs/2016/cop22/eng/02.pdf [chapter 4 reference].

Whitley, S., and L. van der Burg. 2015. "Fossil Fuel Subsidy Reform: From Rhetoric to Reality." http://newclimateeconomy.report/2015/wp-content/uploads/sites/3/2015/11/Fossil-fuel-subsidy-reform_from-rhetoric-to-reality.pdf.

World Bank. 2014. *Climate Change Public Expenditure and Institutional Review Sourcebook.* http://www.greengrowthknowledge.org/sites/default/files/downloads/resource/World_Bank_CCPEIR_Sourcebook_0.pdf.

World Bank. 2016. "Terms of Reference. Organizational support to Mozambique MITADER's National Sustainable Development Fund."

WRI (World Resources Institute), and NDC Partnership (NDCP). 2017. *Climate Watch.* http://www.climatewatchdata.org. Accessed May 4, 2018.

Policy Documents and Studies Related to Survey Countries

Bangladesh, Ministry of Environment and Forest. 2017. *Bangladesh NDC Implementation Roadmap.* Dhaka, Bangladesh: Ministry of Environment and Forest.

General Economics Division (GED). 2016. *A handbook mapping of Ministries by Targets in the implementation of SDGs aligning with 7th Five Year Plan (2016-20).* Dhaka, Bangladesh: National Planing Commission.

Bangladesh, Planning Commission. 2017. *Data Gap Analysis of Sustainable Development Goals (SDGs).* Bangladesh Perspective. Bangladesh Planning Commission, General Economics Division. http://www.plancomm.gov.bd/wp-content/uploads/2017/01/SDG-DATA-Gap-Final-Draft.pdf.

CDKN (Climate and Development Knowledge Network). 2016. "Opinion: After Paris–A Shift in Colombia's Climate Change Conversation." Opinion. April 7: https://cdkn.org/2016/04/opinion-paris-shift-colombias-climate-change-conversation/?loclang=en_gb.

Colombia, Ministry of Foreign Affairs. 2013. *The Integrating Approach: A Concept Paper from the Government of Colombia to Assist in Defining the Architecture of the SDG Framework.* Bogota: Ministry of Foreign Affairs.

Colombia, National Planning Department. 2016. "Macro-Economic Impacts of Colombia's NDC." Presentation at the Paving the Way for NDC Implementation: Analyzing Policy Options and Modeling Carbon Pricing Workshop, Colombia National Planning Department, San Jose, Costa Rica, December 6–9, 2016.

Colombia, National Planning Department. 2017. "Progress and Challenges in Following up the SDGs in Colombia." Presentation by Felipe Castro Pachon at the First Andean Workshop on SDG data, Colombia National Planning Department, March 25–26, 2017.

Colombia, Presidency of the Republic. 2016. *Decree N°298 Establishing the Organization and the Functioning of the National Climate Change System,* February 24, 2016.

EEA (European Environment Agency). 2016. *Environmental Taxation and EU Environmental Policies*, Luxembourg: Publications Office of the European Union.

Equity BD (Equity and Justice Working Group Bangladesh). 2017. "SDGs and Country Process in Bangladesh: The Missing Links and Where Assistance is an Obligation of International Community Especially in Climate Compensation and Stopping Illicit Flow." https://www.globaltaxjustice.org/sites/default/files/SDG-and-Country-Process-in-Bangladesh_EquityBD-Campaign-Paper.pdf.

Ferede, Tadele. 2015. "Mainstreaming Sustainable Development at the National Level: The Ethiopian Experience." Presentation at the 2015 Sustainable Development Transition Forum, Ethiopia, Environment and Climate Research Center, Incheon, Korea, November 17–19, 2015.

European Commission. 2016. *The EU Environmental Implementation Review: Common Challenges and How to Combine Efforts to Deliver Better Results.* Brussels: European Commission.

Greenpeace. 2015. *The High Cost of Coal Power: Internalizing Health Impacts and Cost from Coal-Fired Power Plants in Indonesia.*

France Court of Auditors. 2015. *Les Politiques Publiques de Lutte contre la Pollution de l'Air (Clean Air Public Policies).* Paris: Cours des Comptes.

France, Legifrance. 2015. *Act N° 2015-411, 13 April 2015 Aimed at Taking into Account New Wealth Indicators in the Definition of Public Policies* (visant à la prise en compte des nouveaux indicateurs de richesse dans la définition des politiques publiques).

France, Ministry of Environment. 2014. *Améliorer la Qualité de l'Air, Agir dans Tous les Secteurs (Improving Air Quality, Acting in All Sectors)*. Paris : Ministry of Environment.

France, Senate. 2017. *"Allowances for Purchase of Clean Vehicles and the Energy Transition (Aide à l'Acquisition de Véhicules Propres et Transition Energétique)."* Special report submitted by J.F. Husson for the Mission Ecologie, Development and Sustainable Mobility. Finance Bill 2017. November 2016.

Government of Sweden. 2017. "Toward Achieving the 2030 Agenda and the Sustainable Development Goals." Report to the Financing for Development Forum, New York, NY, May 22–25, 2017.

Di Gregorio M., D. Ridho Nurrochmat, L. Fatorelli, E. Pramova, I. Maya Sari , B. Locatelli, and M. Brockhaus. 2015. "Integrating Mitigation and Adaptation in Climate and Land Use Policies in Indonesia: A Policy Document Analysis." Sustainability Research Institute Paper No. 90, University of Leeds, November 2015.

Indonesia, Ministry of Finance. 2014. *Green Planning and Budgeting Strategy for Indonesia's Sustainable Development, 2015-2020*. Jakarta: Ministry of Finance, Centre for Climate Change Financing and Multilateral Policy, Fiscal Policy Agency. http://www. kemenkeu.go.id/sites/default/files/gpb-strategy.pdf.

Indonesia. 2017. "Eradicating Poverty and Promoting Prosperity in a Changing World." Voluntary National Review.

Indonesia, Ministry of Finance. 2015. *"Green Planning and Budgeting Strategy, Update Report 2015."* Jakarta: Ministry of Finance, Centre for Climate Change Financing and Multilateral Policy, Fiscal Policy Agency.

Kenya. 2016. Climate Change Act. May 6, 2016.

Kenya. 2017. "Implementation of the Agenda 2030 for sustainable Development in Kenya." Voluntary National Review.

Kenya, Ministry of Environment, Natural Resources. 2016. *Kenya Green Economy Strategy and Implementation Plan (GESIP). A Low Carbon, Resource Efficient, Equitable and Inclusive Socio-Economic Transformation.* Nairobi: Ministry of Environment, Natural Resources. http://www.environment.go.ke/ wp-content/uploads/2017/07/GESIP_ Final23032017.pdf.

Mexico. 2016. *Implementing the 2030 Agenda and the Sustainable Development Goals in Mexico.* Mexico City: Office of the President of Mexico. https:// sustainabledevelopment.un.org/content/ documents/10762Brochure%20on%20SDGs%20 implementation%20in%20Mexico.pdf.

Mexico, SEMARNAT (Ministry of Environment and Natural Resources) and NECC (National Institute of Ecology and Climate Change). 2016. *Mexico's Climate Change Mid-Century Strategy.* Mexico City: SEMARNAT and INECC. http://unfccc.int/files/ focus/long-term_strategies/application/pdf/mexico_ mcs_final_cop22nov16_red.pdf.

Mongolia. 2017. "Mongolia's Initial Biennial Update Report." http://unfccc.int/files/national_reports/non- annex_i_parties/biennial_update_reports/application/ pdf/mongolia_bur1_resubmission_and_annexnir.pdf.

Nepal. 2017. "National Review of Sustainable Development Goals." https://sustainabledevelopment. un.org/content/documents/16513Nepal.pdf.

Korea, Republic of. 2016. "Year One of Implementing the SDGs in the Republic of Korea: From a Model of Development Success to a Vision for Sustainable Development." Voluntary National Review. https://sustainabledevelopment.un.org/ content/documents/10632National%20 Voluntary%20Review%20Report%20(rev_final).pdf.

The Philippines. 2015. "Intended Nationally Determined Contributions." Communicated to the UNFCCC in October 2015. http://www4.unfccc.int/ Submissions/INDC/Published%20Documents/ Philippines/1/Philippines%20-%20Final%20 INDC%20submission.pdf.

The Philippines. 2016. "Voluntary National Review at the 2016 High-Level Political Forum on the Sustainable Development Goals (SDGs)." https://sustainabledevelopment.un.org/content/documents/10765PH%20VoluntaryNationalReview_FINAL.pdf.

The Philippines. 2017. "Enhancing the National Climate Change Action Plan 2011–2028 based on the NAP Process." Presentation at the Targeted Topic Forum, Global NAP Network, Lilongwe, Malawi, February 7–9, 2017. http://napglobalnetwork.org/2017/02/targeted-topics-forum-monitoring-evaluation-nap-process/#2E.

Togo. 2015. "Intended Nationally Determined Contribution (INDC) within the Framework of the UNFCCC." September 2015. Submitted as NDC on June 28, 2017. http://www4.unfccc.int/ndcregistry/PublishedDocuments/Togo%20First/INDC%20Togo_english%20version.pdf.

Togo. 2016. "Rapport sur l'Etat d'Avancement de l'Integration des Odd dans les Instruments Nationaux de Planification du Développement" Togo Full report HLPF 2016. https://sustainabledevelopment.un.org/content/documents/10503togorapport.pdf.

Uganda. 2015. "Uganda's Intended Nationally Determined Contribution." http://www4.unfccc.int/ndcregistry/PublishedDocuments/Uganda First/INDC Uganda final 14 October 2015.pdf.

Uganda. 2015. "Sector Development Planning Guidelines." http://npa.ug/wp-content/uploads/SDP-GUIDELINES.pdf.

Uganda. 2016. "Uganda, 2016: Review Report on Uganda's Readiness for Implementation of the 2030 Agenda." https://sustainabledevelopment.un.org/content/documents/10689Uganda%20Review%20Report_CDs1.pdf.

ENDNOTES

[1] Agenda 21 primarily explores links among natural resources, poverty eradication, human development, and participatory policymaking. Despite its far-reaching scope, Agenda 21 addresses linkages between climate change and other sustainable development issues in the chapters on the protection of atmosphere (9), the oceans (17), and water resources (18) and considers synergies with the UNFCCC in chapters on financial resources (33) and capacity building (37).

[2] The 2030 Agenda is the result of a conceptual convergence between the UN sustainable development agenda, developed at the 1972 Conference on the Human Environment and the 1992 Earth Summit, and the UN development agenda, crystallized by the Millennium Summit and the subsequent MDGs.

[3] Evaluations of those impacts have evolved in the past decade from a focus on avoided environmental pollution, economic growth, and additional net employment to a broader approach capturing impacts on human development, poverty eradication, and quality of life (IPCC 2001, OECD 2003, NAMA Facility 2015). The concept of NAMAs was agreed to in 2007on the condition that they contribute to sustainable development and poverty eradication. Those benefits feature strongly in proposals submitted to the NAMA Facility (NAMA Facility 2015): Sustainable development co-benefits in the NAMA Facility. http://www.nama-facility.org/fileadmin/user_upload/160112_giz_nama_ff_co-benefits_en_rz_02_web.pdf The Clean Development Mechanism (CDM) had the same requirement but primarily focused on the mitigation potential of the projects.

[4] The terms resilience, adaptation, mitigation, and fossil fuel are explicitly mentioned in only 16 targets or their indicators across 8 goals: 1.5, 2.4, 7.a, 9.1, 9.4, 9.a, 11.8, 11.c, 12.c, 12.8, and 14.2, and the 5 targets of SDG 13. Yet, the 49 targets identified are considered as climate mitigation and adaptation.

[5] The Intergovernmental Panel on Climate Change (IPCC) underscores that differences in climate vulnerability arise from "multidimensional inequalities often produced by uneven development processes" and that high climate vulnerability is "the product of intersecting social processes that result in inequalities in socio-economic status and income, as well as in exposure. Such social processes include, for example, discrimination on the basis of gender, class, ethnicity, age and (dis)ability"(IPCC 2007, part 1.5).

[6] The 1992 Rio Summit, which launched the UN Framework Convention on Climate Change (UNFCCC) and Agenda 21, called for "fundamental reshaping of decision-making" to mainstream sustainable development across sectors. Agenda 21, 8.2.

[7] The involvement of an independent body can avoid a politicization of the implementation and ensure continuity at the arrival of a new administration. For instance, while the president of Mexico chairs the National Council for the 2030 Agenda, his office underlines the value of also attaching the implementation process to the Institute of National Statistics and Geography (INEGI), which ensured sustained efforts on the MGDs.

[8] Interviewees from the Finnish Ministry of Environment explained that they had advocated for this handover to the prime minister's office to help advance the SDGs across the government. In-person interview with the secretary-general of the Finnish National Commission for Sustainable Development, July 14, 2016. Notable exceptions in which oversight for climate policy was shifted have been the transfer of authority in Kenya to the president as chair of Kenya's National Climate Change Council and the creation of a climate change unit in the president's office of Honduras.

9 Those constraints have been extensively described for Indonesia's National Steering Committee on Climate Change established by mere ministerial decree, given its "legal status and limited authority under one sectoral Ministry" (Indonesia Ministry of Finance 2015).

10 Following the 2013 Institutional review that pointed to very limited capacities from Peru's Center for Policy Planning (CEPLAN in Spanish) to ensure policy coherence across sector planning, this institution has gradually gained in capacities and authority. Indonesia's BAPENNA, co-leading the SDG and NDC implementation, also received a ministerial rank under the presidency office in 2015.

11 The Ministry for Ecology, Sustainable Development and Energy and the prime minister have formally shared authority over the commissioner-general for sustainable development in charge of the SDGs, but the involvement of the prime minister and the role of this commissioner-general have only gradually developed. The renamed Ministry for an Inclusive Ecological Transition received greater authority in June 2017. In-person interviewees with policy officers from the Inter-ministerial Commissariat for Sustainable Development, December 14, 2016, and July 26, 2017, and from the Ministry of Foreign Affairs, January 20, 2016, and September 20, 2017.

12 More information on this seminar can be found on the website of the National Assembly Research Service: /front/new/201706/headline/headline_1_english.html

13 The gold standard for the global goals is designed to quantify, certify, and maximise the impacts of climate and development initiatives toward climate security and sustainable development. More information can be retrieved on the platform's website: https://www.goldstandard.org/

14 The selection process of representatives from marginalized communities has been criticized for lack of transparency, conflicts of interest, and misrepresentation of the Masai people. Interviews with the board of the SDG Kenya Forum, January 25, 2018, Nairobi, and Transparency International Kenya, January 26, 2018, Nairobi.

15 Phone Interview, officer from Indonesia's BAPPENAS, Climate Department, October 4, 2017; in-person interview, Office of the Presidency of Mexico, July 18, 2017; phone interview, officer from Mexico's Ministry of Environment SEMARNATT, October 9, 2017; in-person interview, Energy Ministry, Uganda, January 31, 2018; in-person interviews, Climate Change Department, Kenya, January 12, 2018; in-person interview, Ministry of Energy, March 26, 2018; in-person interview, Health Ministry, March 27, 2018; in-person interviews, SDG unit, Ministry of Planning, Kenya, April 29, 2018.

16 Four types of targets can be identified in the light of their indications for the level of national ambition: (1) absolute targets require the greatest ambition for all (1.1: eradicate extreme poverty); (2) quantified targets can indicate a clear floor for national ambitions (3.2.: "all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births"; (3) targets quantified only at the global level let countries quantify national equivalents (3.6: "halve the number of global deaths and injuries from road traffic accidents"); (4) vague targets give little indications for their national translation (target 7.2. "by 2030, increase substantially the share of renewable energy in the global energy mix," and target 13.1 "strengthen resilience and adaptive capacity to climate-related hazards and natural disasters").

17 The 2015 Energy Transition for Green Growth Act sets targets in the building, transportation, waste, and energy sectors to cut GHG emissions by 40 percent by 2030 compared to 1990, reduce energy bills, and boost a green growth. The National Ecological Transition Strategy toward Sustainable Development 2015–20 tackles climate change, biodiversity loss, resources scarcity, and environmental health risks through nine objectives, including a circular and low-carbon economy; environmental equality; and sustainable production, trade, and consumption patterns. Both strongly support the National Low Carbon Strategy, underpinning the EU NDC.

[18] For instance, Indonesia's Long-Term Development Plan (RPJPN) 2005–25 that stablishes the vision and framework for medium-term planning focuses on building a country that is developed and self-reliant, just and democratic, and peaceful and united. The plan gives little consideration to climate action and no mention of climate mainstreaming (Gregorio et al. 2015). Mention of sustainable natural resource management is presented as an environmental challenge. The medium-term plan 2015–19 reflects a paradigm change and promotes a green growth.

[19] Interviewees from Colombia, Kenya, Uganda, and Indonesia's planning ministries noticed that some sector ministries, especially industry, fossil-fuels and infrastructure , still had this minimal approach to sustainability-climate integration. Efforts focus on limiting major negative effects on the two agendas, but there is no deep understanding and ownership of the transformative changes they require.

[20] Several countries, including Peru and Kenya, have mapped linkages between their existing long- and medium-term development visions and plans and the new sets of goals, while acknowledging the need to update them during the next planning cycles.

[21] Partial consideration of SDG and NDC targets leaves inconsistencies unresolved. Many trade-offs are observed across national and sector development plans from countries studied. For instance, Indonesia's master plan, the Acceleration and Expansion of Indonesia's Economic Development 2025, targets expansion of palm oil, mining, and plantations in Kalimantan despite the forest moratorium in line with SDG 15.2. Half the forest loss that occurred in 2015 happened on this island (Global Forest Watch). The Mid-Term Plan 2015–19 also aims at preserving Borneo's forest but also promotes development of commodity-based industries. This situation jeopardizes progress to SDG 16, since violent conflicts over natural resources increased by 26 percent between 2010 and 2014 (Indonesia National Violence Monitoring System).

[22] To take an example, "Europe 2020, a Strategy for Smart, Sustainable and Inclusive Growth," conceived at the European Union level and endorsed by all the EU member states in 2010, integrates the three economic, social, and environmental dimensions of sustainable development and climate commitments. It pursues three mutually reinforcing priorities: smart growth based on knowledge and innovation; sustainable growth promoting a resource-efficient, green, and competitive economy; and inclusive growth fostering a high-employment economy delivering social cohesion. The strategy's five headline targets address employment, investment in research and development, climate-energy mitigation actions, education, and poverty reduction. However, the translation of the strategy in EU member states' national policies and their implementation have been very uneven. The EU will certainly meet its climate-energy targets, but is far from significantly reducing unemployment, and poverty has increased since 2008.

[23] The 2017 Update, "Global Trends in Climate Change Legislation and Litigation," shows that the number of climate change laws has almost doubled every five years since 1997. The passage of similar laws elsewhere significantly influences the propensity to legislate on climate and sustainable development (Frankauser et al. 2014).

[24] Interviews with Indonesia's Presidency Office, 2017.

[25] Based on impact assessments conducted with this Sustainable Development Analysis Grid, Senegal reviewed its Emerging Senegal Plan in 2015 (UNDESA 2015), and Togo revised in 2016 its National Sustainable Development Strategy, Strategy for Accelerated Growth and Employment Promotion, and National Programme for Capacity-Building and Modernization of the State (Togo 2016).

[26] Tadele Ferede. 2015, "Mainstreaming Sustainable Development at the National Level: The Ethiopian Experience." Presentation prepared for the 2015 Sustainable Development Transition Forum, Incheon, Republic of Korea, November17–19, 2015.

[27] (1) Accelerating economic development (SDGs 1, 2, 6, 8, 9, 10, 12, 13, 14, 15, 17); (2) achieving full economic production capacity; increasing efficiency, productivity, quality and competitiveness to sustain growth (SDGs 1, 2, 4, 6, 8, 9, 10, 12, 17); (3) ensuring that domestic investors are competent development actors (SDGs 1, 2, 4, 7, 8, 9, 12, 15, 17); (4) fostering the development of the construction sector (SDGs 8, 10, 12, 17); (5) managing rapid urbanization to harness its contribution to growth (SDGs 8, 9, 11, 12, 17); (6) accelerating the development of human and technological capacity (SDGs 6, 9, 11, 13, 15, 17); (7) building the implementation capacity of the government and increasing the participation of the people to create democratic good governance (SDGs 8, 9, 12, 17); (8) ensuring participation and benefits of women and youth (SDGs 3, 4, 5, 6, 8, 10, 12 and 17); (9) Building a climate-resilient green economy (SDGs 2, 6, 7, 9, 11, 13, 14, 15 and 17); (10) eliminating rent-seeking behaviors (SDGs 1, 5, 10, 16 and 17).

[28] Interviews with officers from the Uganda Climate Change Department of the Ministry of Water and Environment (February 5 and June 25, 2018) and from the National Planning Authority (January 31, February 1, and June 26, 2018).

[29] Interviews with officers from the Uganda National Planning Agency and National Treasury, February 1 and 2, 2018; Interviews with officers from the Climate Change Department from Kenya Ministry of Environment and Forestry, Nairobi, March 21, 2018.

[30] The OECD Development Assistance Committee has been using markers to monitor aid targeting the objectives of the Rio Convention, including climate-change mitigation markers in cooperation with the UNFCCC, since 1998, and climate change adaptation markers, since 2011. These markers or coding systems track both international and national climate-change finance and countries' priorities.

[31] For example, South-South cooperation grants have been created under the Adaptation Fund. See https://www.adaptation-fund.org/readiness/readiness-grants/south-south-cooperation-grants/.

[32] In June 2017, the G20 Task Force on Climate-Related Financial Disclosures proposed a voluntary framework for companies to disclose the financial impact of climate-related risks and opportunities, drawing support from more than 100 companies with $11 trillion of assets.

[33] This platform, named "agenda2030.mx," provides data from the different Mexican regions for the SDG indicators (http://143.137.108.139/).

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