Uganda’s Post-COVID Recovery Strategy & NDC Implementation

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About CoMPRA

The COVID-19 Macroeconomic Policy Response in Africa (CoMPRA) project was developed following a call for rapid response policy research into the COVID-19 pandemic by the IDRC. The project’s overall goal is to inform macroeconomic policy development in response to the COVID-19 pandemic by low and middle-income countries (LMICs) and development partners that results in more inclusive, climate-resilient, effective and gender-responsive measures through evidence-based research. This will help to mitigate COVID-19’s social and economic impact, promote recovery from the pandemic in the short term and position LMICs in the longer term for a more climate-resilient, sustainable and stable future. The CoMPRA project will focus broadly on African countries and specifically on six countries (Benin, Senegal, Tanzania, Uganda, Nigeria and South Africa). SAIIA and CSEA, as the lead implementing partners for this project, also work with think tank partners in these countries.

Our Donor

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Abstract

This paper analyses the climate friendliness of Uganda’s post-COVID-19 recovery strategy and, specifically, its alignment with the country’s targets in its Nationally Determined Contributions (NDCs). The recovery strategy has the potential to provide effective climate change response and meet the NDCs. However, there are several gaps related to the marginalisation of climate action in the economic recovery resource-allocation process, the ability of macroeconomic recovery strategies to advance a genuinely green and resilient economy, and limited fiscal space to invest in a climate-sensitive recovery. These gaps notwithstanding, the economic stimulus and
growth strategy is an unparalleled opportunity to align COVID-19 recovery with environmental fiscal reform goals. For instance, the post-COVID draft NDC shows greater ambition through a higher emission-reduction target of 24.7% below the business-as-usual trajectory by 2030, up from the 22% of the 2015 NDC. Its mitigation component has also been broadened through the addition of transport, waste and industrial processes, and productive-use sectors. In the stimulus packages, there are several opportunities to align climate action with the NDC’s commitments. These are: prioritising green enterprises and expanding green industries and access to markets by fostering inclusive green procurement for public bodies and supporting sustainable supply chains. The paper concludes with policy recommendations on encouraging a robust economic recovery through actions that champion Uganda’s NDC commitments.

Introduction

The government of Uganda hopes to maintain macroeconomic stability to provide an enabling environment for rapid economic growth and socio-economic transformation. The strategy is to enhance the impact of public investment on growth by implementing policies that foster efficiency in public investments, increase domestic revenue mobilisation efforts and maintain price stability.¹

While there have been a few instances of instability, mainly driven by climate-change and external shocks, Uganda has generally enjoyed macroeconomic stability, which has created a solid foundation for rapid economic growth and development. The country’s economic growth outlook is 4.6% in 2022, accelerating to 6.4% in the 2023 fiscal year (FY), as domestic demand conditions improve and global recovery continues amid the rollout of COVID-19 vaccines.²

However, this growth has largely been achieved by liquidating natural capital assets such as forests, wetlands, fish stocks, biodiversity, soil and land. Uganda’s continuing loss of these resources is, in some cases, among the highest in Africa.³ Indeed, the third National Development Plan (NDP III) 2020/21–2024/25 acknowledges the challenges posed by a severe reduction in forest cover, wetland degradation and encroachment, leading to increased vulnerability to climate change. The plan further notes the need for risk-informed development and identifies natural hazards and disasters, and the effects of climate change as among the risks to be mitigated.

Impact of COVID-19 on the Agenda for Climate Action

The year 2020 was to be pivotal in addressing climate change, protecting biodiversity and advancing the Sustainable Development Goals (SDGs), as nations were expected to submit new or revised national climate action plans that were much more ambitious than before.\(^4\) Concrete action and fulfilment of the promise of the Paris Agreement was anticipated, with world leaders and climate activists declaring 2020 a ‘super year for nature’.\(^5\) The COVID-19 crisis upset this momentum, putting environmental diplomacy on hold with the postponement of the 26th annual UN Climate Change Conference (COP26) to 2021. The Convention on Biological Diversity, which would have established new international rules to protect wildlife and plants from climate change and other threats, was also postponed. Other affected events included the 2020 UN Ocean Conference and a meeting to finalise the High Seas Treaty.\(^6\) These delays caused many countries, including Uganda, to shift their focus away from the environment, most notably manifesting through delayed submissions of revised Nationally Determined Contributions (NDCs).\(^7\) Such delays tended to constrain resource mobilisation and so undermined planned climate action.

Amid COVID-19 and the consequent lockdowns, several reports pointed to positive effects on climate, including improved air and water quality and less human travel.\(^8\) The results of air-quality studies indicated that the lockdowns in Kampala and Nairobi led to reductions in nitrogen dioxide (NO\(_2\)) emissions of 6.0% and 8.91% respectively, while the

\(^7\) Only in October 2021 did Uganda submit an Interim Nationally Determined Contribution.
Absorbing Aerosol Index (AAI) decreased by about 1.91% for 2020.\textsuperscript{9} By comparison, Dar es Salaam, which did not impose restrictions, recorded a 1.16% increase in NO\textsubscript{2} emissions, while the AAI remained almost constant in 2020.\textsuperscript{10} However, these positive effects were not sustainable, and rebound effects are already apparent.

**Coping with multiple crises: Effects of climate change and the pandemic**

Meanwhile, the negative impacts of climate change continued to affect the world’s most vulnerable populations.\textsuperscript{11} During the pandemic, East Africa (including Uganda) faced multiple environmental crises, including a locust invasion and floods. The water levels of Lake Victoria reached their highest point in 120 years, displacing thousands of people and flooding infrastructure in the process.\textsuperscript{12} The pandemic also decelerated the economy to its slowest pace in three decades,\textsuperscript{13} from a projected 6\% to 3\% in FY 2019/20.\textsuperscript{14} To cope with the multiple crises amid reduced economic activity and constrained household incomes, many people turned to natural resources. This put these resources under additional strain, given that they were already stretched owing to rapid population growth, urbanisation, a refugee influx and the drive for industrialisation.\textsuperscript{15} These coping mechanisms and responses to the pandemic have heightened the urgency to enhance the sustainable use of natural resources so as to build the resilience of both communities and the economy. Many lessons and opportunities also resulted from the intersecting crises of the pandemic and climate-related disasters. It is now apparent that crises do not happen in silos and therefore cannot be dealt with singly.

It is also apparent that this is an opportunity to incorporate resilience into the heart of macroeconomic policy and so advance a genuinely green and resilient economy.\textsuperscript{16} However, an analysis of Uganda’s COVID-19 stimulus package, which is more focused on health and economic goals, indicates that these opportunities have largely not been exploited.

Using a range of fiscal mechanisms, Uganda adopted a two-fold response to COVID-19: dealing with the emergency of the pandemic and addressing the short- to medium-term recovery of

\textsuperscript{10} Angom, Angiro and Omara, Air Quality Improvement.
\textsuperscript{13} World Bank, *The Uganda Economic Update*.
\textsuperscript{15} World Bank, *The Uganda Economic Update*.
\textsuperscript{16} Adriana Quevedo, Katie Peters and Yue Cao, “The Impact of COVID-19 on Climate Change and Disaster Resilience Funding: Trends and Signals” (Briefing, Overseas Development Institute, London, 2020).
the economy. The stimulus package focused on addressing health-related expenditures; restoring household incomes and safeguarding jobs; providing emergency social protection; providing tax relief to businesses; and reigniting the business community. A quick analysis of the economic recovery package shows that the government’s main focus was to strengthen healthcare systems, while environmental and climate issues were relegated to the back burner. This was evident in Uganda’s fiscal response, which (in part) targeted accelerating the development of industrial and business parks whose climate effects are projected to be negative.¹⁷

The recovery measures thus did not focus on green issues; in fact, the reliance on heavy borrowing has direct and indirect negative effects on the country’s transition to a green economy.

The mid-term review of the second National Development Plan (NDP II) 2015/16–2019/20 partly attributed the failure to achieve the plan’s targets to climate change, which had been integrated into development planning but not addressed via appropriate budgets. For instance, the budgetary allocations for FY 2020/21 show that the Climate Change Programme’s projected allocation of UGX¹⁸ 593.61 billion ($16.5 million) in the National Budget Framework Paper FY 2021/22 represented only a quarter of the programme’s resource requirements under the NDP III.¹⁹

Compounding the resource challenge is the fact that international sources of financing have been adversely affected as well. It is therefore likely that climate action during and after the pandemic will continue to be sidelined in terms of resource allocation, and that any progress on climate change will depend on the policy choices adopted for

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“The recovery measures thus did not focus on green issues; in fact, the reliance on heavy borrowing has direct and indirect negative effects on the country’s transition to a green economy”

¹⁸ Currency code for the Ugandan shilling.
economic recovery. Ensuring that a climate change response is included in key strategic policy frameworks, fiscal frameworks and country assistance frameworks is no longer an option but rather the only reasonable route towards effective climate action and sustainable development. The NDCs are a good entry point, as they present an opportunity to advance both economic growth and climate action. It is against this backdrop that this paper analyses the climate friendliness of Uganda’s post-COVID-19 recovery strategy, specifically its alignment with the country’s NDC commitments and targets, and proposes policy recommendations.

**Overview of Uganda’s NDC commitments**

Uganda signed the Paris Agreement in October 2015 and submitted its Intended NDC (INDC) in the same year. The submitted INDC became the country’s first NDC under the Paris Agreement. The NDC highlighted adaptation as the priority response to climate change in the context of continuing efforts to reduce vulnerability and address adaptation in agriculture, forestry, infrastructure, water, energy, health and disaster risk management. The NDC also defined a series of policies and measures in the energy supply, forestry and wetlands sectors. Although, in a global context, its contribution to global emissions is estimated at only about 0.0002%,

Uganda committed to reduce its emissions by 22% by 2030 compared to the business-as-usual (BAU) scenario. However, this commitment was subject to its receiving international support (70%) to complement domestic efforts (30%), as espoused in the National Climate Change Policy 2015 (NCCP).

In addition, the NDC Rapid Situational Assessment on the implementation of the 2015 NDC highlights various issues. There are no defined reference periods (no share of sector greenhouse gas [GHG] emissions in reference to the 22% reduction by 2030); unclear methodological approaches for estimating and accounting for anthropogenic GHG emissions; no adaptation targets and indicators; limited scope in terms of sectors (tourism, extractives and industry, among others, are missing); a lack of detailed financing arrangements for implementation; and a lack of a functional monitoring, reporting and verification (MRV) system and accompanying data management system.

Uganda generally prioritises adaptation with a focus on agriculture and livestock, forestry, infrastructure (human settlements, social infrastructure and transport), water, energy, health

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and disaster risk management.\textsuperscript{23} As for mitigation aspects, the focus is on energy (power supply, demand and transport), forestry and wetlands. However, the NDCs are silent on the oil and gas industry – an emerging sector with a potential to for transformation of the country if well managed. The government’s position is to use these oil and gas resources to help eradicate poverty and so create lasting value to society.\textsuperscript{24} To reconcile this sector with the fight against climate change, one of the objectives of the National Oil and Gas Policy is to ensure that activities (exploration, development and production) are undertaken in a manner that conserves the environment and biodiversity. It also advocates for the implementation of relevant health, safety and environmental regulations. The impact of oil and gas development on the environment so far has mainly been through vegetation clearing for infrastructure construction, eg, roads, power lines and the airport.\textsuperscript{25} These developments have also created employment opportunities, and led to an increase in income and business opportunities in the relevant areas.\textsuperscript{26} Norway, which is a key partner in building Uganda’s capacity in the sustainable development of oil and gas through the Oil for Development Programme, has demonstrated that the sector has immense potential to generate resources for investments in green projects, sustainable industrialisation, and the creation of green jobs and incomes.

It is important to note that Uganda’s main climate change concerns have changed owing to several issues since the country submitted its first NDC in 2015. The policy and institutional landscape has also changed significantly with:

- the introduction of the Uganda Green Growth Development Strategy 2017/18–2030/31, which defines the

\textsuperscript{23} Irish Aid, Uganda’s INDC.
\textsuperscript{26} NEMA, National State of the Environment.
country’s strategic direction and commitment to transition to an inclusive green economy by 2030 (the process has started, though slowly);

- the Uganda NDC Partnership Plan 2018–2020 (for mobilisation of financial and technical support for climate response and implementation);

- the NDP III, which is more encompassing owing to its programme-based planning, as opposed to a sector-based approach;

- the National Climate Change Act 2021; and

- the ongoing development of Uganda’s Long-term Climate Strategy 2050, among others.

These policies, plans and strategies have had some impact, but have mostly been hobbled by budget constraints. The Uganda Green Growth Public Expenditure Review Report,27 for instance, shows that public expenditure on green growth can be described as average, with some work ongoing, although at a pace that will not deliver a green economy by 2030.

Uganda has also carried out several climate risk and vulnerability assessments, which are regularly updated in accordance with new evidence. Examples include the Climate Change Assessment for Kampala28, Uganda Country Climate Risk Assessment Report 2018, District Hazard Risk and Vulnerability Profiles, Annual State of Disaster reports, National Urban Climate Change Profile and, more recently, the Uganda National Risk and Vulnerability Atlas 2021. In line with growing demand for evidence-based planning, budgeting and policymaking, these risks and vulnerability assessments have been pivotal in informing NDC commitments. For instance, the new updated NDC provides for greater scope with the inclusion of new priority areas/sectors and more ambitious climate change response sector-based indicators and targets (including a higher emission reduction target). All these emanate from the lessons learnt and the emerging issues and gaps identified in the first NDC.

As highlighted above and in line with Article 4.9 of the Paris Agreement, which requires five-yearly NDC updates, Uganda began updating its NDCs in April 2019 to ensure greater ambition towards a low-carbon green development pathway and climate-resilient economy. At the same time, the government is also developing its long-term strategy on climate change. This is in response to the Paris Agreement’s invitation to countries to communicate mid-century long-term low-GHG emission development strategies by 2020, considering their common but differentiated responsibilities and capabilities. Developing the revised NDC and long-term strategy simultaneously raises ambition, enhances adaptive capacity, and strengthens resilience and

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28 UN Habitat 2010, *Climate Change Assessment for Kampala, Uganda* (Cities and Climate Change Initiative)
low-emission development. The Ugandan government committed to complete the two documents by the end of June 2022 and, so far, the revised NDC has been completed and submitted.

**Table 1  NDC mitigation coverage: enhancement from the 2015 NDC**

<table>
<thead>
<tr>
<th>Sectors</th>
<th>2015 NDC</th>
<th>Updated NDC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Agriculture, forestry and other land use:</strong> The main mitigation actions are mostly from REDD+ activities, based on the National REDD+ Strategy and Action Plan published in 2017, primarily implemented through the annual “40 million trees a day” programme of the Ministry of Water and Environment</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Energy sector (excluding transport):</strong> Included in both the 2015 and updated NDC</td>
<td></td>
<td></td>
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<tr>
<td><strong>Transport sector:</strong> Not included in 2015 NDC, included under “additional measures”</td>
<td></td>
<td></td>
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<tr>
<td><strong>Waste sector:</strong> Not included in 2015 NDC, focus is on Green Cities, where both solid waste and wastewater management follow the waste hierarchy</td>
<td></td>
<td></td>
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<tr>
<td><strong>Industrial processes &amp; product use sector:</strong> Not included in 2015 NDC, included in additional actions</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend/colour coding
- Included
- Included under additional measures
- Not included


The post-COVID-19 updated NDC is promising greater ambition through a higher emission reduction target of 24.7% below the BAU trajectory by 2030, up from 22%. The mitigation component has also been broadened through the addition of transport, waste and industrial processes and product use, in which workshops, youth and civil society consultations were instrumental. A comparison of the priority sectors for adaption in the original NDC with the recommended priority sectors for adaptation in the updated NDC is given in Table 2.

Uganda’s position as one of the five pioneer countries in the Task Force on Access to Climate Finance is a unique financing opportunity that, if harnessed properly, can fast-track implementation of NDCs. COP26 renewed ambitions to attain NDC targets, as demonstrated during a multi-stakeholder meeting convened by Uganda’s Ministry of Water and Environment.

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to discuss the implications of COP26 outcomes for the country’s policy and practice. The discussions centred on how the key outcomes on adaptation, technology and finance would be integrated into planning priorities, the country’s NDCs, and the need to develop a framework for monitoring their implementation. The meeting emphasised the integration of capacity building, gender mainstreaming, youth issues and people with disabilities in climate action. However, much as COP26 boosted NDC targets and other macro policy frameworks, the country still lacks the required means of implementation for effective climate action.

Table 2  Updated priority sectors for adaptation

<table>
<thead>
<tr>
<th>S/N</th>
<th>Priority sectors in NDC 2015</th>
<th>Priority sectors in updated NDC 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Agriculture</td>
<td>Agriculture</td>
</tr>
<tr>
<td>2</td>
<td>Forestry</td>
<td>Forestry</td>
</tr>
<tr>
<td>3</td>
<td>Water</td>
<td>Water and sanitation</td>
</tr>
<tr>
<td>4</td>
<td>Infrastructure</td>
<td>Transport</td>
</tr>
<tr>
<td>5</td>
<td>Energy</td>
<td>Energy</td>
</tr>
<tr>
<td>6</td>
<td>Health</td>
<td>Health</td>
</tr>
<tr>
<td>7</td>
<td>Risk management</td>
<td>Disaster risk reduction</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>Ecosystems (wetlands, biodiversity and mountains)</td>
</tr>
<tr>
<td>9</td>
<td>Fisheries</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>Manufacturing, industrial processes and mining</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td>Cities and the built environment</td>
</tr>
<tr>
<td>12</td>
<td></td>
<td>Tourism</td>
</tr>
<tr>
<td>13</td>
<td></td>
<td>Education</td>
</tr>
<tr>
<td>14</td>
<td></td>
<td>Mining</td>
</tr>
</tbody>
</table>

Source: Uganda’s Updated Nationally Determined Contribution (NDC), (Kampala: MWE, September 2022)

Action on NDC commitments

Policy, legal and regulatory frameworks guiding the implementation of the NDCs

At national level, the 1995 Ugandan constitution (as amended) sets the stage for climate change governance under the National Objectives and Directive Principles of State Policy XXIII focused on natural disasters and clean and safe water (XXI). The constitution also expressly provides for the

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right to a clean and healthy environment under Article 39, citizen participation in development, and the right to own, and compensation for loss of, property.\textsuperscript{31} Until 14 August 2021, when the Climate Change Act was signed into law, Uganda had no legal mandate to enforce climate action. This meant that the implementation of the Paris Agreement had neither force of law nor legal provision for monitoring, reporting on and verifying the implementation of the NDCs. The act is therefore a milestone in Uganda’s climate change mitigation and adaptation strategies. It provides a framework for financing climate change-responsive projects, including building the country’s resilience and reducing GHG emissions. However, the act is yet to be operationalised, as it is awaiting the development of a Framework Strategy for Climate Action and a National Climate Change Action Plan, slated for FY 2022/23.

Uganda’s macro policy framework, to a large extent, provides an enabling environment for the implementation of NDC commitments. The National Climate Change Act 2021 allows for the implementation of NDCs, climate change mechanisms (including compliance), emission-trading mechanisms, measurement and reduction of GHG, and financing for climate change, among others. The NDP III recognises that effective climate change response is critical to raising household incomes and improving Ugandans’ quality of life. Accordingly, it has mainstreamed climate change, gender considerations and disaster risk reduction in all programmes, strategic plans, budgets and reporting frameworks, while all sectors and local governments are implored to do so as well. The mainstreaming of crosscutting issues is facilitated through effective engagement, capacity building, performance monitoring and annual compliance assessments of budgets.

In addition to mainstreaming climate change in all programmes, the NDP III has a fully-fledged programme (Programme 9) earmarked for natural resources, environment, climate change, and land and water management. Other NDC-supportive components include the development of a national GHG Inventory and an MRV system. Although the 2020/21, 2021/22 and 2022/23 budget compliance assessment reports by the NPA indicate steady progress on mainstreaming climate change as a crosscutting issue at planning level, non-compliance at budgeting and execution levels is still evident.

Climate change response and the principle of sustainable development run through Uganda’s development agenda, especially the Uganda Vision 2040 and NDP III. In addition, the AU’s Agenda 2063 and the East African Community’s Vision 2050 both respond to climate change, and promotion of the green economy is a tenet of Uganda’s socio-economic transformation and its Vision 2040.

The NCCP seeks to ensure a harmonised and coordinated approach towards a climate-resilient and low-carbon development pathway for sustainable development in Uganda. Its overarching objective of is ‘to ensure that all stakeholders address climate change impact through appropriate measures while promoting sustainable development and a green economy’. The policy provides direction for key sectors likely to be affected by climate change. It mandates these sectors and local governments to mainstream climate change concerns in their policies, plans, strategies, programmes and budgets. However, a number of sectors are yet to comply. With respect to mitigation potential, the NCCP notes that the discovery of oil and gas in Uganda will, as extraction begins, impact the energy mix. This mix is currently dominated by biomass-based energy sources and could greatly affect GHG emissions if not properly managed. It is not clear how this will be addressed by the NDCs. The consolation is that all preparatory measures, including enabling policy, legal and institutional frameworks, and capacity building for sustainable oil and gas development, are in place. So far, these frameworks and other environment and social safeguards have been effectively enforced and there are no contrary reports to that effect.

Uganda has since 2015 made tremendous progress in implementing actions geared to the attainment of its NDC targets. While, in the BAU scenario, emissions in 2030 are projected to be 77.3 million tonnes of CO₂ equivalent per year, in 2019 emissions were estimated at only 6.2 million tonnes (falling to 5.4 million tonnes in 2020 owing to COVID-19).

“In addition to mainstreaming climate change in all programmes, the NDP III has a fully-fledged programme (Programme 9) earmarked for natural resources, environment, climate change, and land and water management”
In 2018, Uganda became the first country in Africa to develop an NDC Partnership Plan. The plan has attracted substantial funding and technical support from members of the partnership. For instance, since 2018, 21 NDC partnership members have committed $24 million to turn the plan into action.36 Through the NDC Partnership, the World Bank supported Uganda to develop a budget tagging tool to code and track climate change-related public expenditure. Climate budget tagging was introduced in 2018, with a manual developed and piloted in four ministries and four local governments. The Ministry of Finance, Planning, and Economic Development has directed all government bodies, down to the local level, to produce budgets for the environment, biodiversity and climate change.37 The budget tagging tool is expected to be tested and rolled out in FY 2022/23 and will complement the current climate change data-generation tools.

### Table 3 Development frameworks pertinent to climate change and their implementation status

<table>
<thead>
<tr>
<th>S/N</th>
<th>Development frameworks</th>
<th>Key issues/objectives</th>
<th>State of implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Uganda Green Growth Development Strategy 2017/18–2030/31</td>
<td>High economic growth amid vulnerability to climate change, widespread poverty, unemployment, biodiversity loss, income inequalities.</td>
<td>Transition to a green economy has started but is very slow and unlikely to be fully attained by 2030/31.</td>
</tr>
<tr>
<td>2</td>
<td>National Disaster Preparedness and Management Policy, 2010</td>
<td>Multiplicity of natural and human-induced disasters, limited budget and capacity to meet the increasing disasters.</td>
<td>Institutional frameworks for disaster management established but preparedness still low, the country continues to suffer from natural and human-induced disasters.</td>
</tr>
<tr>
<td>3</td>
<td>Renewable Energy Policy, 2007</td>
<td>The goal is to meet the energy needs of Uganda’s population for social and economic development in an environmentally sustainable manner.</td>
<td>Renewable energy is a government priority, improving energy mix (eg, use of solar energy, on-going development of HEP dams, energy-efficiency initiatives, rural electrification), but there is still over-reliance on biomass energy and limited access to electricity due to high costs. Hydroelectric power (HEP) and solar are vulnerable to climate change.</td>
</tr>
<tr>
<td>4</td>
<td>National Forestry Policy, 2001</td>
<td>On-going loss of forest cover (natural forests), especially on private land.</td>
<td>Development of private forest plantations is gaining momentum and increasing forest cover. However, continuous loss of natural forest cover and high poverty levels in communities neighbouring forest reserves remain an issue.</td>
</tr>
</tbody>
</table>

| 5 | **National Irrigation Policy, 2017** | The ratio of cultivated area under irrigation to irrigation potential is only 0.5% – the lowest in the region. It is crucial to emphasise the need for irrigation and drainage and establish the process through which it can be realised. | Rehabilitated and established medium- and large-scale irrigation schemes. The private sector, eg, sugar and rice growers, has embraced irrigation. Micro and small-scale irrigation by smallholder farmers with low and sometimes inappropriate technology still exists. Irrigation master plan to fully operationalise the policy is yet to be completed. |
| 6 | **National Oil and Gas Policy, 2008** | Limited local capacity in oil and gas management. | Environment and social safeguards developed and being implemented, exploration and development phase successfully completed, on-going development of local capacity. Preparation for production and utilisation phase in gear, but it is yet to be seen whether the bigger environmental and social issues will be effectively managed. |
| 7 | **National Adaptation Programmes of Action of Action (NAPA)** | Low preparedness for climate-induced risks and disasters, low resilience and high vulnerability to the effects of climate change. | Increasing public sector investment in climate change adaptation, eg, irrigation schemes. New financial products and services, eg, agricultural risk insurance, developed with private sector participation. Country is still vulnerable to climate change. |
| 8 | **Nationally Appropriate Mitigation Actions** | Dominance of renewable energy (biomass and HEP) in the mitigation profile, deteriorating urban air quality. | Improving energy mix, on-going CDM initiatives, but slow pace on mass transportation, bus rapid transport and use of electric vehicles. |
| 9 | **Guidelines for mainstreaming climate change** | Vulnerability to the impacts of climate change. | Climate change mainstreamed in strategic planning frameworks. Weak mainstreaming in budgeting and reporting frameworks. |

Source: Compiled by authors from review of various national and sector strategic plans, policies, legal frameworks and performance assessment reports; Government of Uganda, Ministry of Agriculture, Animal Industry and Fisheries and MWE, *National Irrigation Policy* (MWE, Kampala, 2017)

To further augment the Green Growth Development Strategy and to address the post-COVID-19 recovery, the country is working on integrating climate-resilient and low-carbon-emission measures into the government’s economic recovery packages.38

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38 This is part of the NDC Partnership Economic Advisory Initiative launched in 2020.
Adequacy of action for achieving NDCs

Although official statistics of estimated flows over time have not yet been determined, Uganda benefits from both domestic and global climate finance sources, with global financial flows more significant than domestic sources. The Ministry of Water and Environment estimates that the total cost of implementing adaptation, mitigation, coordination, monitoring, and reporting of the updated NDC is $28.1 billion. Uganda commits to mobilise $4.1 billion which is equivalent to 15% of the total cost of the updated NDC. This shows that the financial gap remains substantial.

Most of Uganda’s international climate finance is presently being sourced from climate funds, as well as multilateral and bilateral donors, development banks and partners. The updated NDC indicates that implementation will primarily be carried out as part of the NDP III (up to 2025) and NDP IV (up to 2030). While alignment with the NDP III is a good entry point, there are likely and predictable shortfalls in funding, especially amid other competing development priorities. As pointed out above, over 70% of the resources required to implement the NDC will have to come from external sources, which may not be fully guaranteed owing to greater economic and political pressures on world economies that may result in a shift in resource prioritisation.

A compliance assessment has been done of the alignment of the FY 2021/22 annual budget with climate change interventions in the NDP III, using an assessment tool developed by the NPA. This indicated that compliance is moderately satisfactory at 64.7% – an improvement on FY 2020/21, where the budget alignment with such interventions was an unsatisfactory 35%. Allocations to these interventions are thus limited and unable to generate the desired transformative change.

An assessment of the funding requirements for adaptation based on the Costed Adaptation Strategy determined that, from 2016–2021, the cost would be about $406 million (about 5% of net official assistance received by the country and 3.2% of total government revenues, excluding grants). This would rise to $644 million for 2021–2025 and $596 million for 2026–2030. In comparison to other estimates, the cost of implementing the country’s first NDC was estimated at $5.5 billion, of which $3.1 billion (equivalent to 56% of total implementation costs) was related

40 Government of Uganda, Ministry of Water and Environment (MWE), Updated NDC.
41 MWE, Updated NDC.
43 MWE, Updated NDC.
44 MWE, Updated NDC.
to adaptation.\textsuperscript{45} It is therefore projected that adaptation budgets are likely to rise, especially in the energy sector in the short term and for infrastructure in the medium to long term.\textsuperscript{46} This is demonstrated by the government’s current focus on industrialisation for inclusive growth, employment and wealth creation, which has implications for infrastructure development.

Although Uganda’s is a natural resource-based economy, government expenditure on environment protection is very low compared to its contribution to the attainment of its development goals and objectives. Underfunding thus remains a major challenge. The budget allocation in the Medium-Term Expenditure Framework is far below the projected funding to achieve the outcomes and implement the interventions outlined in NDP III. Figure 1 shows government expenditure on environmental protection measures as a percentage of Uganda’s gross domestic product (GDP).

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure1.png}
\caption{Public expenditure on environmental protection}
\end{figure}

Source: International Monetary Fund, “\textit{Government Finance Statistics}”, November 11, 2022


\textsuperscript{46} MWE, \textit{Updated NDC}
In terms of financing the implementation of identified interventions, the NDP III proposes that 67% comes from public sector spending. This includes tax revenues; development assistance grants such as the Green Climate Fund and Global Environment Facility; oil and oil-related revenues; South-South cooperation; and public debt acquisition. It is envisaged that the private sector will contribute 33% to finance interventions and activities in the NDP III through domestic private investments. The latter includes private savings, cooperatives, savings and credit cooperative organisations and retirement funds; blended finance; foreign direct investment; private remittance and diaspora resources; non-governmental and civil society organisations; and philanthropy. It should be noted that there are limited incentives to leverage private sector finance, and generally there is no dedicated national strategy on climate finance. The situation is worsened by the limited in-country capacity to develop competitive, bankable project proposals to tap into international climate financing sources.

It remains to be seen if these commitments will be met amid high debt levels resulting from the pandemic. A 2021 World Bank report projected that public debt in Uganda, which previously had been considered as being at low risk of debt distress, would exceed 50% of GDP in FY 2022. It is likely that debt servicing now and in the future will obstruct decisive crisis responses and negatively impact development prospects. Uganda is spending as much as 97% of its domestic revenue to service debt and 28–30% of its GDP debt service. This implies that the Ugandan government, instead of enhancing its ability to support its people to weather the crisis and invest in a sustainable and climate-sensitive recovery, will be required to repay its creditors. This will

“Although Uganda’s is a natural resource-based economy, government expenditure on environment protection is very low compared to its contribution to the attainment of its development goals and objectives”

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47 MWE, *Updated NDC*.


inevitably have a detrimental effect on the debt-to-export ratio and the debt-to-tax/revenue ratio, and consequently the flow of sustainable finance for climate action.

Against this background of limited funding, the government is foregoing substantial revenues to pursue social and environmental objectives. This is demonstrated by its subsidies, for example, on energy for rural transformation, tax breaks and consumer subsidies on solar energy, the biogas programme and the distribution of free tree seedlings for planting. However, there are also subsidies on fossil fuel exploration and development. For instance, in April 2015 the Ugandan government waived the 18% VAT on upstream investments in capital equipment in the oil and gas sector made during exploration and development.51

In the wake of recent oil discoveries, the Ugandan government has made efforts to reduce tax breaks as a form of subsidy for the production of fossil fuels. It has also reformed tax regulations and pursued unpaid taxes linked to oil production.52 Uganda’s Income Tax Act was amended in 2010, and now explicitly obliges firms to pay capital gains tax on the sale of exploration rights, in effect removing the fossil fuel subsidy in the form of forgone capital gains tax revenues and forgone revenues on certain untaxed and under-taxed exploration activities.53

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52 Whitley and Van der Burg, Fossil Fuel Subsidy Reform.
53 Whitley and Van der Burg, Fossil Fuel Subsidy Reform.
In light of the constrained public budget and reduced international finance flows, the government is considering leveraging innovative climate financing instruments. These include green and sustainability bonds, blue bonds, blended finance, credit mechanisms, insurance microfinance, carbon markets and debt-for-nature swaps. Indeed, under the NDC Partnership Plan, the country intends to develop procedures and institutional arrangements for carbon financing.

**Missed opportunity from COVID-19**

The FY 2020/2021 and FY 2021/2022 national budgets had little focus on climate change and environment sustainability. Under the theme ‘Stimulating the economy to safeguard livelihoods, jobs, businesses, and industrial recovery’, the FY 2020/2021 budget focused on restoring household incomes and safeguarding jobs; reigniting business activity; pursuing monetary policy interventions; providing tax relief to businesses; providing emergency social protection; and growing health-related expenditure. The FY 2021/22 budget, themed on ‘Industrialisation for inclusive growth, employment and wealth creation’, focused on improving the wellbeing of Ugandans, boosting economic transformation and promoting peace and security and good governance. COVID-19 coincided with Uganda’s medium-term planning, presenting an opportunity to integrate the COVID-19 response into the NDP III. The response has therefore been part of the mainstream annual national budgeting as opposed to a standalone recovery plan, with the two budgets for FY 2020/21 and FY 2021/22 considered COVID-19 recovery budgets.

While the government prioritised people’s health by increasing health spending and strengthening healthcare systems, environmental and climate issues were relegated to the back burner. It is important to note that the economic stimulus and growth strategy is an unparalleled opportunity to align COVID-19 recovery with environmental fiscal reform goals. Such reforms are already enshrined in the Uganda Green Growth Development Strategy. Looking at the FY 2020/21 budgetary allocations aimed at the environment and climate change action, including funding to enhance resilience to climate change, restoration of degraded and protected ecosystems, and forest conservation, the allocated resources are inadequate and focus on BAU activities. There is little consideration of environmental sustainability in the long run.

For instance, the total allocation for the programme for FY 2020/21 was UGX 804.24 billion ($219.09 million) against the NDP III annual requirement of UGX 895.14 billion ($243.87 million) representing 90% of funding. Climate change and the environment got the minimum allocation despite their major contribution to the attainment of programme goals and objectives.

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54 This is part of the prioritised outcomes of the NDC Partnership Economic Advisory Initiative: Climate Financing.
Uganda’s post-COVID recovery strategy and NDC implementation

Uganda’s Green Growth Development Strategy is intended to operationalise the broad green growth principles highlighted in the Uganda Vision 2040 and NDP III to support accelerated transition to middle-income status. The country’s development model has hitherto emphasised GDP growth, per capita income and poverty reduction as measures of progress, with little regard for resource-use efficiency, maintenance and national accounting of natural capital depreciation. While the initial costs associated with a green transition, such as increased investment and the resultant trade-offs, are high, especially in the short term, the long-term benefits outweigh these. It has been observed that if the identified green growth interventions had been implemented fully, they could have provided a boost to economic activity of around 10% of GDP by 2040, delivered employment of up to 4 million jobs and reduced future GHG emissions by 28%. This implies that implementing green growth interventions is in effect more transformative than traditional routes, and raises emission reductions to above the NDC target of 22%. The Green Growth Development Strategy seeks to create a low-carbon development pathway. The updated NDC has taken into consideration the strategy’s priority actions, among other plans and frameworks.

In the post-COVID-19 stimulus package, however, green measures are relatively few and shallow. There are pledges to invest in a small number of solar-powered irrigation/water supply schemes, but no broader consideration of renewables in the energy or transport sectors; a generic commitment to enforce existing environmental protection legislation; and some support for green jobs and inclusivity through seed capital to women and youth, as well as government’s public works programme. However, it remains unclear what industries and sectors the funds will prioritise. In general, the stimulus package supports BAU activities and lacks alignment with green recovery and more ambitious structural transition as set out in the Green Growth Development Strategy and the NDCs. Suffice to note that the stimulus package takes on more of a rescue approach (which is quick and addresses immediate ‘life and death’ issues) than a green recovery approach with a long-term view. Harnessing green nature-based solutions and best practices, and building on knowledge gained (including behavioural change), would provide low-cost options, but are not given priority in the recovery strategy.

As highlighted above, the updated NDC post-COVID-19 promises greater ambition through a higher emission reduction target of 24.7% below the BAU trajectory in 2030, in comparison to the 22% of the INDC. However, the earmarked financing for the NDC may not be enough, owing to the impact of the pandemic. While the EU has reserved 30% of its recovery budget for low-carbon activities, many developing countries, including Uganda, lack the necessary funds.

60 Ntambirweki, “Uganda’s COVID Recovery”.

21 Uganda’s post-COVID recovery strategy and NDC implementation
to address this. This makes international funding critical in closing the gaps.\textsuperscript{61} To leverage public financing, as illustrated in Table 4, Uganda has strategically aligned the NDC with the NDP III, which is a good starting point. Further, it is important for green recovery and climate change-aligned plans, especially the NDC, to be convincing, ambitious and aligned with the SDGs as a strategy to attract funders and development partners. It is crucial to complete the NDC, as it is critical in facilitating resource mobilisation.

Table 4  \hspace{1cm} Alignment of NDC with NDP III: Agriculture, forestry and fisheries

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Indicators</th>
<th>Baseline (2020)</th>
<th>2030 target</th>
<th>Target aligned with</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reforestation</td>
<td>Forest cover (percentage of total land area)</td>
<td>Approximately 12.5%</td>
<td>21% (18% by 2025)</td>
<td>NDP III</td>
</tr>
<tr>
<td>Climate-smart agriculture practices</td>
<td>Land under sustainable land management &amp; agroforestry practices (ha)</td>
<td>1 650 000ha (45% of farming households)</td>
<td>3 600 000ha (100% of farming households)</td>
<td>REDD+ Strategy</td>
</tr>
<tr>
<td></td>
<td>Agricultural land equipped with rainwater harvesting (ha)</td>
<td>Unknown</td>
<td>1 950 000ha</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Land used for greenhouse cultivation of vegetables (ha)</td>
<td>Unknown</td>
<td>10.4ha</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Soil and water conservation bunds/terraces (km)</td>
<td>Unknown</td>
<td>1 000km</td>
<td></td>
</tr>
<tr>
<td>Early warning</td>
<td>Automatic weather stations (number of districts covered)</td>
<td>30</td>
<td>121</td>
<td>NDP III</td>
</tr>
<tr>
<td>Irrigation and water security</td>
<td>Irrigated area (%)</td>
<td>0.49%</td>
<td>4%</td>
<td>WESIP</td>
</tr>
<tr>
<td></td>
<td>Water storage capacity</td>
<td>38.87</td>
<td>163.67 (76.86 by 2025)</td>
<td></td>
</tr>
</tbody>
</table>


**Building on the COVID-19 response to achieve NDCs**

In implementing the recovery plan, there are a number of opportunities to integrate climate action and align with the NDCs. ‘Reigniting business activity’, for example, needs to apply green and social conditionality to lending. By the close of 2021, the government released the modalities for the disbursement of the COVID-19 relief package worth UGX 200 billion ($53 million) for

\textsuperscript{61} LEDS Global Partnership, “Green Recovery for All: How Developing Countries Can Build Forward Better”, March 17, 2021.
small enterprises.\textsuperscript{62} In line with a green recovery and the NDCs, it is important to: prioritise green enterprises, including local green enterprises; invest in making existing and new buildings more resilient; promote the use of renewable energy in industrial and business parks; climate-proof investments in the electricity sector; expand planning capacity for green industrial policy and pipelines of green infrastructure projects; expand green industries and access to markets through government purchasing; foster inclusive green procurement for public bodies; and support sustainable supply chains.

In restoring household incomes, there should be deliberate support for public works programmes in green sectors by, for example, promoting intensified and sustained forest restoration efforts (afforestation and reforestation programmes, including in urban areas) and urban agriculture in high-value crops. Other potential interventions to green the recovery package include: managing water resource systems, including wetlands, particularly in cities, in such a way that floods are prevented and existing resources conserved; enhancing disaster management and early warning/alert systems; investing in making existing and new buildings more resilient; expanding electricity, especially the use of an off-grid solar system to support water supply for agriculture; and investing in innovations for recycling to address, among others, plastic waste (eg, masks as a result of COVID-19). Table 5 illustrates the potential linkages of some of Uganda’s stimulus or recovery packages with its NDC for a green economic recovery.\textsuperscript{63}

The pandemic has strengthened the case for a macroeconomic recovery strategy that integrates climate action measures to spur green, resilient and inclusive growth. The economic downturn has created a favourable environment for resource mobilisation, new opportunities

\begin{quote}
“In restoring household incomes, there should be deliberate support for public works programmes in green sectors by, for example, promoting intensified and sustained forest restoration efforts (afforestation and reforestation programmes, including in urban areas) and urban agriculture in high-value crops”
\end{quote}

\textsuperscript{62} “Gov’t Ready to Disburse UGX200Bn Relief Fund for Small Enterprises”, \textit{The Independent} (Uganda), November 24, 2021.

and greater ambition. The government of Uganda should capitalise on this momentum with intentional investment in and action on resource mobilisation and implementation.

Table 5  The linkages between the stimulus packages and the NDCs

<table>
<thead>
<tr>
<th>Stimulus package</th>
<th>NDC/greening entry point</th>
<th>Short term</th>
<th>Mid term</th>
<th>Long term</th>
</tr>
</thead>
</table>
| **Restoring household incomes and safeguarding jobs** | • Enhance the provision of improved agricultural inputs  
  • Offer credit to poor agricultural households at affordable rates  
  • Provide technical and advisory support on post-harvest handling, produce storage, value addition  
  • Procure and replace affected/lost livestock, damaged beehives, livestock feed, poultry chicks  
  • Support construction and repair of damaged fish ponds, stocking and providing fish feed | • Construct silos for communities to increase food security  
  • Construct small-scale irrigation schemes  
  • Strengthen the provision of extension services and popularise government livelihood programmes such as Operation Wealth Creation, Northern Uganda Social Action Fund III, Youth Livelihood Fund | • Establish demonstration sites, eg, vegetable nurseries, use of solar-pumped water  
  • Encourage pasture management: train pastoralists in pasture conservation and management, and making hay |                                                                                                                                                                                                 |
<table>
<thead>
<tr>
<th>Re-ignite business activities</th>
<th>Short term</th>
<th>Mid term</th>
<th>Long term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apply green and social conditionality on lending</td>
<td>· Form and adopt ‘exclusion lists’ of high-carbon projects and programs</td>
<td>· Update mandate of local development banks to support a green recovery</td>
<td></td>
</tr>
<tr>
<td>Promote use of renewable energy in industrial and business parks</td>
<td>· Encourage the tourism sector to promote low-carbon initiatives</td>
<td>· Ensure that land-use plans and building codes reflect the need to make public and private buildings more climate-resilient</td>
<td></td>
</tr>
<tr>
<td>Climate-proof investments in electricity sector</td>
<td>· Invest in making existing and new buildings more resilient</td>
<td>· Update transport codes and regulations and implement measures to ensure compliance with them</td>
<td></td>
</tr>
<tr>
<td>Invest in making existing and new buildings more resilient</td>
<td>· Expand green industries and markets through government purchasing</td>
<td>· Form and adopt ‘exclusion lists’ of high-carbon projects and programs</td>
<td></td>
</tr>
<tr>
<td>Expand green industries and markets through government purchasing</td>
<td>· Foster green procurement for public bodies, supporting sustainable supply chains</td>
<td>· Create fiscal space for system transformation</td>
<td></td>
</tr>
<tr>
<td>Foster green procurement for public bodies, supporting sustainable supply chains</td>
<td>· Consider digital currencies that enable microfinancing of green and social solutions</td>
<td>· Set capital ratios, with higher ratios for holding high-carbon assets</td>
<td></td>
</tr>
<tr>
<td>Consider digital currencies that enable microfinancing of green and social solutions</td>
<td></td>
<td>· Consider digital currencies that enable microfinancing of green and social solutions</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Monetary policy interventions</th>
<th>Short term</th>
<th>Mid term</th>
<th>Long term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Include climate change in mandate for economic stability</td>
<td>· Stress-test all portfolios against climate risks</td>
<td>· Launch green bonds and gilts, considering SDG-linked sovereign debt</td>
<td></td>
</tr>
<tr>
<td>Ensure asset-purchase programmes exclude carbon-intensive assets</td>
<td>· Cap lending for fossil fuels, end lending to companies without just transition strategies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create fiscal space for system transformation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Set capital ratios, with higher ratios for holding high-carbon assets</td>
<td></td>
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<tr>
<td>Consider digital currencies that enable microfinancing of green and social solutions</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Compiled by authors

Policy recommendations

Considering the above discussions and in line with the approaches for greening the recovery strategy (including through the NDCs), some policy measures are proposed. First, to enhance the alignment of recovery strategies and the NDC within the existing policy and planning frameworks, The government should: develop an action plan and regulations to guide the implementation of the provisions in the climate change act’s; leverage nature-based solutions in address climate change and pursuing green growth; and develop green tools for fiscal, monetary and other macroeconomic policies.

Secondly, the government must improve monetary and fiscal governance to enhance efficiency and returns from climate change-responsive public investments and create incentives for crowding in private capital for climate action. To deliver this, it is key to ensure the implementation of the Public Financial Management Act 2015 and pertinent regulations alongside programme-based budgeting, as guided by the NDP III. This will also ensure that climate action through the NDCs receive appropriate funding.

Another policy intervention is for the government to embrace green procurement. The urgent need during the pandemic to deliver essential services to citizens put a spotlight on public procurement processes and policies. While this is an administrative function, there is still an opportunity to ensure that public procurement drives innovation, inclusivity and sustainability, and thus morph into a strategic government function. Leveraging sustainable public procurement as part of COVID-19 response packages can reduce environmental footprints, limit negative social impacts, contribute to market transformations and support hard-hit green micro, small and medium enterprises.

The government also needs to maintain adequate fiscal policy space as coping with COVID-19 and climate change requires having the capacity to respond with adequate fiscal (and monetary) measures. The government has rationalised public expenditure with a 40% budget cut, revenue mobilisation reforms and debt management, and yet public debt is approaching unsustainable levels.

It should also be recognised that environmental protection and addressing climate change requires concerted efforts by the government and non-state actors such as the private sector to gazette wetlands, forests and other areas through effective implementation of regulatory, market-based and other economic policy instruments. For instance, in line with the ‘polluter pays’ principle, polluting firms should be charged a tax that could be used to subsidise green or climate-friendly enterprises. Furthermore, there is an opportunity for banks to prioritise green enterprises and ensure greener lending. Additionally, government can work with the oil and gas sector to address environmental and climate change. Apart from a direct contribution to the environmental sector through public spending, some oil companies have adopted a diversification strategy within which are renewable energies. This presents great potential for financing climate action and NDCs, and greening the recovery.

Another recommendation is for the government to practice sustainable urban development. Urbanisation has the potential to promote green recovery, but this depends on the form that the...
urbanisation process takes. Focus should be placed on newly created cities across the country to ensure that climate action is integrated in their design, policy and planning frameworks.

The government should also encourage regional cooperation and financing. Regional COVID recovery strategies should be harmonised across East African Community member countries with their NDCs and regional climate policies. It is also important to ensure market opportunities for green products, especially those produced within the region. Similarly, there is a need to align with the AU Green Recovery Action Plan 2021–2027 so as to leverage opportunities within the region and continent. Lastly, the government should leverage the mobilisation potential of the NDC Partnership to pool various international financial, technology, capacity-building and technical resources to support NDC implementation and ensure a climate change-responsive economic recovery.
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Cover image: Tehapachi, California: Students gather under a wind turbine before their first climb on to a wind turbine in the Cerro Coso community College Wind Turbine Technician Class in 2009