



A JUST GREEN RECOVERY FROM COVID-19

Just Transition Initiative

About the Authors

This publication was produced by the Just Transition Initiative team, a collaboration between the Center for Strategic and International Studies (CSIS) and Climate Investment Funds (CIF). Lead authors for this study are Ben Cahill (CSIS), Hugh Searight (CIF), Mary Margaret Allen (CSIS), and Rahul Madhusudanan (CIF).

Acknowledgments

This study and framework were made possible with strategic input from Nikos Tsafos (CSIS), Mafalda Duarte (CIF), Neha Sharma (CIF), Sandeep Pai (CSIS), Aaron Atteridge (CIF), Mike Ward (CIF), Joseph Dickman (CIF), and Abhishek Bhaskar (CIF).

This report is produced by the Center for Strategic and International Studies (CSIS). CSIS is a private, tax- exempt institution focusing on international public policy issues. Its research is nonpartisan and nonproprietary. CSIS does not take specific policy positions. Accordingly, all views, positions, and conclusions expressed in this publication should be understood to be solely those of the author(s).

This report is made possible by support from the Climate Investment Funds; however, the views expressed do not necessarily represent those of the CIF or the World Bank. While reasonable efforts have been made to ensure that the contents of this publication are factually correct, the CIF and the World Bank do not take responsibility for the accuracy or completeness of its contents, and shall not be liable for loss or damage that may be occasioned directly or indirectly through the use of, or reliance on, the contents of this publication.

© CSIS and CIF 2021. All rights reserved.

csis.org | climateinvestmentfunds.org

CIF encourages the use, reproduction and dissemination of this text for use in non-commercial products or services, provided that appropriate acknowledgment of CSIS/CIF as the source and copyright holder is given.

© CSIS and CIF, 2021.



The Case for a Just Green Recovery

The world is responding to an unprecedented health, social, and economic emergency. At the time of publication, over three million lives have been lost due to the coronavirus pandemic.¹ Societies have been severely disrupted—both from the health impacts and the pandemic-induced recession. The International Monetary Fund (IMF) estimates that global output declined about three times as much as in the 2007–08 global financial crisis, in half the time.² The World Bank estimates that Covid-19 could push up to 100 million people into extreme poverty.³

In response, governments have rolled out emergency measures to bolster health systems and create supportive conditions to maintain livelihoods and jobs for those hit hardest. The IMF reports that as of March 2021, governments around the world had introduced fiscal measures and liquidity support totaling more than \$16 trillion.⁴ The majority of these fiscal responses have been emergency measures and stabilization spending, as opposed to recovery spending that has a longer-term impact.⁵

However, the Covid-19 recovery window offers a rare opportunity to structurally transform economies and accelerate the green transition. There is renewed openness to large-scale public investment as governments seek to rebuild their economies and boost long-term growth potential. At the same time, the Covid-19 crisis has revealed the depth of inequality within and among countries, suggesting the need for policies that can create new sources of growth while also advancing equity and justice.

There is a risk that if the lessons from previous crises are not applied, history will repeat itself and recovery spending will neither accelerate decarbonization nor tackle inequality. Some estimates suggest that around 16 percent of global stimulus measures following the 2007–08 financial crisis supported green initiatives.⁶ While there was a 1.4 percent decrease in global emissions that was

observed in 2009 as a result of the economic downturn, the global stimulus contributed to a 5.1 percent rebound in global emissions in 2010—more than offsetting the original decrease.⁷ Then-record levels of public spending also failed to avert or remedy persistent structural inequalities.

Recovery spending patterns over the past year raise similar concerns, as most recovery packages are failing to sufficiently emphasize decarbonization. The United Nations Environment Program (UNEP) estimates that of the spending announced across the fifty largest countries in 2020, 13 percent of overall spending was directed toward long-term recovery type measures, of which only 18 percent was directed toward green recovery initiatives, mostly in a small group of wealthy countries.⁸

The stakes are high, and the opportunities are significant for delivering a green recovery from Covid-19 that addresses underlying injustices and builds resilience amongst vulnerable groups for future transitions and shocks. There is a mounting body of evidence that suggests that investments in clean, sustainable infrastructure can be one of the most effective ways to boost short-term employment and sustain long-term socio-economic activities while creating quality jobs.⁹ Conversely, directing recovery funds to high-carbon businesses and fossil fuels risks locking in harmful emissions and will inevitably make such investments more expensive and disruptive to reverse and replace. This sentiment is encapsulated in government commitments to “Green Recoveries” and “Building Back Better.”

A short-term focus on policies that support health care spending and targeted support to affected households and firms is critical. Following the immediate response effort, it is imperative that focus shifts to rebuilding in ways that deliver greater justice and social equity alongside accelerated decarbonization. Some of the options available to governments include investing in green infrastructure to help mitigate climate change, strengthening social assistance and social insurance to arrest rising inequality, introducing initiatives to boost productive capacity, and resolving debt overhangs.¹⁰

This paper focuses on whether green recovery measures are also supporting a just transition, or at least the elements of a just transition. We provide an analytical framework to examine green stimulus measures from a just transition perspective. We apply the framework to interventions in different countries and offer initial insights on how recovery measures can accelerate decarbonization while enhancing equity.

“Following the immediate response effort, it is imperative that focus shifts to rebuilding in ways that deliver greater justice and social equity alongside accelerated decarbonization.”

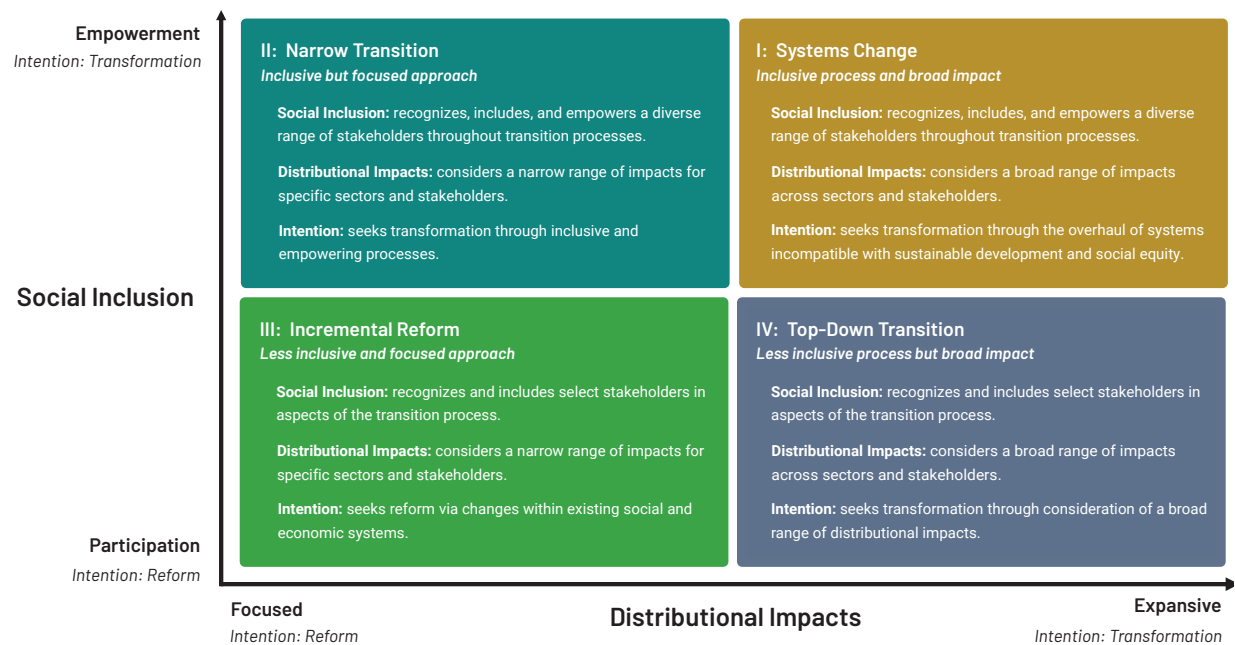
Elements of a Just Green Recovery

Examining green recovery interventions through the lens of a just transition can help assess whether systemic inequalities are being addressed, and which recovery policies can best mitigate losses and distribute gains fairly.

The Just Transition Initiative has developed a framework to help analyze the key dimensions of just transitions and support more transformative and inclusive approaches to addressing climate change.¹¹ The framework emphasizes the importance of **distributional impacts** of climate action or the fair allocation of the benefits and harms associated with transitions, as well as **social inclusion**, or the recognition of marginalized groups through their participation and influence in decisionmaking processes.

A deep and complex transformation is required to achieve both distributive justice and social inclusion goals in responding to the urgent challenges of climate change. This may require fundamental changes to existing social and economic systems that are potentially incompatible with sustainable development and social equity. As such, the framework also emphasizes a cross-cutting element of **transformative intent**, or the ambition to address structural inequality and reshape the social and economic status quo to achieve a just transition.

A Framework for Just Transitions



The two dimensions in the framework, namely distributional impacts and social inclusion, along with the cross-cutting element of transformative intent, can guide the policymaking process to advance a just green recovery from Covid-19. For example, speed is of the essence when designing recovery plans. But when policymakers have a singular focus on rapid action, there is a risk that recovery plans will create uneven benefits and costs, exclude important voices from the decisionmaking process, or lack a transformative approach and ambitions. We highlight some examples of how the three principles of a just transition presented in our framework are evident in global Covid-19 green recovery spending.

“When policymakers have a singular focus on rapid action, there is a risk that recovery plans will create uneven benefits and costs, exclude important voices from the decisionmaking process, or lack a transformative approach and ambitions.”

Distributional Impacts

While the gains from the transition to a green economy may be widely distributed, acute losses from the transition can sometimes be concentrated geographically. In these situations, **place-based investment**—or investment in regions as opposed to people or individual businesses to promote economic growth—has an important role to play as a means of channeling capital to areas impacted the most.

Some countries are prioritizing place-based investment in their green recovery efforts, such as the United Kingdom (Table 1), which is channeling funds toward certain regions to boost manufacturing capacity and tying these plans to its renewable energy targets. Its *Ten Point Plan for a Green Industrial Revolution*, announced in November 2020, aims to channel green recovery spending toward areas that have experienced de-industrialization and employment challenges for decades.¹² It will offer direct investments and incentives to expand clean energy manufacturing and battery production, prioritizing regions such as Scotland, the North East, and Teesside. These regions are the United Kingdom’s traditional oil and gas and industrial heartlands and have been in economic decline for decades. The government plans £160 million (\$194 million) in investment in ports and infrastructure in northern communities to support its offshore wind production target and to enable a local content requirement of 60 percent in future offshore wind projects.¹³ It plans to invest up to £1 billion (\$1.2 billion) to establish carbon capture, utilization, and storage (CCUS) in industrial clusters in targeted areas.¹⁴

Generating employment has been a major focus of recovery and stimulus to date as it is clear that green recovery measures also need to prioritize jobs. However, these measures will need to carefully consider distributional impacts, including the potential outsized impacts on certain industries and regions of accelerated decarbonization, skills transferability, gender dynamics in the labor market, and quality of jobs (underpinned by provisions for safe work, fair wages, respect for workers' rights, and social protection).¹⁵

There are examples of green recovery measures with a focus on jobs in various sectors, including interventions that provide environmental, social, and economic benefits such as carbon sequestration and ecosystem resilience. Pakistan's successful Billion Tree Tsunami campaign, which was originally launched in 2014 to develop sustainable forestry, generate green jobs, and advance gender empowerment, was expanded as the 10 Billion Tree Tsunami in 2018, with a total outlay of Rs125 billion (approximately \$760 million). Pakistan's prime minister exempted the program from lockdown measures in April 2020 and used this program as a short-term employment response to the pandemic. Given the large rural migration of unemployed workers from locked-down cities, many of the new jobs are being created in rural areas, with a focus on hiring women and migrant daily workers. The program is expected to create at least 63,000 jobs, including for setting up nurseries, planting saplings, and serving as forest protection guards or forest firefighters.¹⁶ About 30 million indigenous saplings have been planted in the province of Punjab since the program expansion, and the five-year program is expected to hit 50 million trees planted this year.¹⁷ The program effectively absorbs a short-term labor surplus in settings with relatively limited disease transmission, addresses migration caused by urban job losses, and should enhance climate resilience.

However, it will not necessarily address longer-term employment prospects for the workers who take on these typically low-skill, low-wage jobs.

Inadequate access to energy services is an area of great inequity globally. **Access to sustainable energy services** is critical to health, education, poverty reduction, building resilience to climate change, and generating growth. Recovery efforts are an opportunity to boost investment in clean energy access initiatives.

Nigeria, where an estimated 85 million people lack electricity access and 176 million do not have access to clean cooking fuels or technologies, is increasing equitable access as part of its recovery plan.¹⁸ In July 2020, Nigeria approved the 23 trillion Naira (\$5.9 billion) Nigerian Economic Sustainability Plan, which includes one of the largest renewable energy components in stimulus packages from middle- or low-income countries.¹⁹ This involves a commitment of \$619 million to its Solar Homes Systems Project to connect up to five million households and 25 million Nigerians who lack access to the national grid.²⁰ As part of this plan, the Lagos State government developed a data-driven process to target certain households for free home solar units. Beneficiaries were selected based on household wealth, population density,

and the proportion of households in the area living off-grid. To help identify households, the government worked with community leaders, church officials, imams, and local pharmacists.²¹

Social Inclusion

An expansive approach to social inclusion recognizes, includes, and empowers a diverse range of stakeholders throughout recovery or transition processes. This implies, at a minimum, that the interests and values of groups vulnerable to impacts are recognized and that such groups are allowed meaningful participation in the decisionmaking process. While there are some examples of inclusive strategies, particularly in developed countries where the just transition discourse is relatively well developed, there is limited evidence overall that policymakers designed green recovery plans with an eye toward greater inclusiveness. This is understandable, given the urgency of emergency responses and stimulus spending. Still, there are useful examples of inclusive processes and principles that are helping to shape recovery plans with a slightly longer time horizon.

Canada plans to engage in stakeholder consultations as it implements its recovery plans and has emphasized the importance of co-development with Indigenous peoples on the infrastructure- and health-related projects outlined in its Fall Economic Statement.²² While the details surrounding these processes are still taking shape, Canada has begun to outline its commitment for stakeholder engagement in its first-ever national infrastructure assessment, *Building the Canada We Want for 2050*. The assessment aims to identify needs and priorities of the built environment for a net-zero emissions future and is largely based on input from the public, Indigenous peoples, provinces, territories, municipalities, and other stakeholders. The government is seeking input on the following three priorities before determining next steps: Canada's infrastructure needs and long-term vision; coordination among infrastructure owners and funders; and best ways to fund and finance infrastructure.

There are other examples of initiatives with strong elements of social inclusion that support the recovery process. The *European Green Deal*, together with *NextGenerationEU* recovery fund, has a strong focus on social inclusion as part of a green recovery. The *Climate Pact* in the *European Green Deal* looks to build on existing citizens' dialogues and citizens' assemblies across the EU while supporting member countries' work to empower regional and local communities, including energy communities.²³ Similarly, promising steps have been taken in the United States, which is emphasizing an inclusive recovery and a low-carbon transition. A January 27 White House executive order on climate policy established a task force to support consultations with a broad stakeholder base on climate related matters.²⁴ The current administration also aims to support the revitalization of fossil fuel reliant communities in a consultative manner by seeking the "views of State, local, and Tribal officials; unions; environmental justice organizations; community groups" and others.²⁵ The Interagency Working Group on

Coal and Power Plant Communities and Economic Revitalization has also promised to hold a series of town hall meetings to improve community engagement and gather local ideas for economic development and planning.²⁶

While it will take time to reflect on how effective these policies and programs were in incorporating input in an inclusive manner, we suggest that a well-executed program to solicit citizen input could gather valuable advice from workers and communities in vulnerable areas and garner more support for ambitious climate policies down the line.

Transformative Intent

We find limited evidence of transformative recovery approaches or efforts to accelerate decarbonization through deep and fundamental systemic change while supporting socially inclusive and fair outcomes that address preexisting structural inequalities. The impulse to “build back better” from Covid-19 has yet to catalyze the large-scale responses needed to meet the climate challenge and address the objectives outlined above. By and large, policymakers are missing an opportunity to make progress toward fundamentally reshaping climate priorities and inclusive social development.

“A well-executed program to solicit citizen input could gather valuable advice from workers and communities in vulnerable areas and garner more support for ambitious climate policies down the line.”

It is, however, important to note that defining a “transformative just transition” is highly dependent on each country’s respective environmental, social, and economic context—including the low-carbon transition context. A comparison of the just transition elements in the United Kingdom and South Korea recovery packages shows how differing contexts shape the nature of responses (Tables 1 and 2).

As a highly urbanized state with a strong industrial base, South Korea’s notion of green recovery centers around preparing its workforce for green and digital jobs of the future and expanding social protections to preemptively address challenges of a changing labor market. South Korea is highly dependent on fossil fuels but has limited domestic production and employment, and there are fewer workers and communities at risk in a clean energy transition compared with the United Kingdom.²⁷ The just transition challenges in the United Kingdom are multifaceted. The deindustrialization that has been underway for

decades has left many regions of the country struggling with lagging economies and underemployment, and the shift away from fossil fuels also has the potential to harm certain regions and industries. The social implications of the transition are higher for the United Kingdom's Covid-19 recovery plans.

Assessments of a just green recovery must recognize the wide variation in capacity among countries coping with the pandemic. Governments vary in their macroeconomic conditions, fiscal space, and capacity to incorporate climate considerations in fiscal stimulus or to adjust preexisting stimulus packages. Their climate ambitions and other policy objectives also vary.²⁸ In the next section, we examine how some of these constraints increase the complexity of the response in developing countries.

Table 1. United Kingdom: Just Recovery Spending

The United Kingdom has recorded one of the world's largest fiscal responses to Covid-19, and in November 2020, it announced a significant package of green recovery funds. The *Ten Point Plan for a Green Industrial Revolution* includes £12 billion (\$16.5 billion) in direct government investment meant to unlock £36 billion (\$49.6 billion) in private investment. The government believes the plan could help to create up to 250,000 jobs and will position the country to meet its 2050 net-zero target.

The United Kingdom is beginning to implement **place-based investment strategies** alongside its green recovery targets, including efforts to build manufacturing capacity in renewable energy and batteries in economically struggling regions, such as former industrial or fossil fuel heartlands. It plans £160 million (\$225 million) in investment in ports and infrastructure in northern communities to support offshore wind expansion, enabling up to 60 percent local content requirement for offshore wind. The government is also launching a Green Jobs Taskforce to work with labor unions, universities, and other actors to develop training and **skills development** plans. To **encourage decarbonization**, the Industrial Decarbonization fund is allocating £171 million (\$241 million) to decarbonize industry in areas including Scotland, the North West, and the Humber and Teesside regions (including the H2H Saltend scheme, part of the Zero Carbon Humber plans). In terms of **mobilizing climate finance**, the government plans to issue its first sovereign green bond in 2021. The Green Finance Institute convenes expert roundtables and dialogue to promote sector-specific solutions and financial innovations.

The United Kingdom has also made some innovative moves in **stakeholder engagement**, such as "citizens' climate juries" to garner views on climate priorities, jobs and fairness, and nature and land use. At least nine smaller citizens' assemblies have been held across the country, although the direct link between citizen input and government strategies is debatable in some cases. There is a clear effort to do more stakeholder engagement and public outreach on climate policy and locally targeted green recovery programs. In land use, the Nature Recovery Network is an effort to bring together conservationists, government agencies, and businesses to restore protected sites to favorable conditions and create or restore new wildlife habitats and woodlands.

Table 2. South Korea: Just Recovery Spending

The *Korean New Deal: National Strategy for a Great Transformation*, introduced in July 2020, aims to support South Korea's recovery from the pandemic and its transition toward a digital and green economy, as well as its 2050 carbon neutrality pledge. It includes a Digital New Deal to leverage South Korea's competitive edge in information and communication technology, as well as a Green New Deal to "green" infrastructure and restore ecosystems, promote low-carbon and decentralized energy, and foster innovation in green industries. Korea also aims to enhance social safety systems, with \$20.1 billion from the treasury to provide protection against economic shocks and changes resulting from the transition to a digital and green economy. These investments will **expand employment insurance** and worker's compensation, as well as **basic livelihood security benefits**.

There is a significant emphasis on **capacity building and skills development** across Korea's three-pronged strategy. The treasury will invest \$3.6 billion in human resources to nurture talent, provide employment opportunities in the digital and green economy, and reduce the "digital gap" in society. The government will establish a "future-oriented job training system," support institutions that provide **professional training** within relevant fields, and improve the Job Search Promotion Scheme to better help those not covered by employment insurance as they seek new opportunities. Various investments under the Digital New Deal will strengthen the online education capacity of universities and job training institutions, as well as the **digital capacity** of SMEs and microbusiness, many of which are struggling with the accelerated transition to a digital economy. While some consideration is given to the accessibility of these services and investments, these measures do not appear especially targeted.

In recognition of the importance of a just transition, the *Korean New Deal* briefly states that "a fair transition will be ensured for those regions that foresee difficulties coming from a reduced use of coal power and other traditional sources of energy by supporting their adjustment to the renewable energy sector (e.g., green mobility, digital management of renewable energy, platform for offshore wind farm)." There is a brief mention of feasibility studies for offshore wind farm locations, but it is not apparent whether these locations are being strategically targeted for reasons beyond their natural resource potential.

Challenges Facing Developing Countries

The pandemic has been particularly devastating for developing countries. Global poverty is on the rise for the first time since the 1998 Asian financial crisis.²⁹ GDP per capita in the poorest 63 countries declined 3.5 percent in 2020, erasing three to four years of progress in poverty reduction.

In addition to the health crisis, emerging markets and developing countries are being hit by a deteriorating trade and financial environment. For instance, between January and March 2020, portfolio outflows from emerging markets were about US\$100 billion—more than three times larger than for the same period of the global financial crisis.³⁰ Currency depreciations, a signifi-

cant rise in spread, a potential 40 percent drop in foreign direct investment, and increased in the risk of debt distress highlight that many countries are likely to have a challenging time ahead.³¹

“Governments vary in their macroeconomic conditions, fiscal space, and capacity to incorporate climate considerations in fiscal stimulus or to adjust pre-existing stimulus packages.”

Similar to developed economies, most developing countries quickly adopted fiscal packages to deal with the health emergency, prop up vulnerable households through cash-transfers and in-kind support, and support affected businesses through a variety of measures.³² Countries also aimed to support their most exposed sectors such as transportation, tourism, and agriculture.

The key difference between the responses has been the comparatively limited size of the packages that developing country governments have been able to commit. The International Labor Organization (ILO) estimates that the global fiscal stimulus was at \$10 trillion by May 2020, of which 88 percent was in high-income countries, around 9.5 percent in upper-middle-income countries, and only 2.5 percent for all lower-middle-income and low-income countries.³³

The pandemic has laid bare the differentiated impacts caused by inequality, both between nations and within them. The high unemployment, food insecurity, lost schooling, and degraded health outcomes have disproportionately affected women, children, and other vulnerable segments of the population.³⁴ The greatest long-term risk to development is a worsening of inequality and vulnerabilities—even after a vaccine is available globally and is compounded further by the highly uneven nature of global vaccine distribution.³⁵ The disproportionate impacts and the expected long tail for the recovery in developing countries make it even more important that equity and justice considerations are fully integrated into recovery planning.

The integration of just transition approaches is challenging on multiple fronts. With a large percentage of workers engaged in the informal sector, institutional capacity constraints, and incomplete registries of citizens, reaching the most vulnerable and integrating just transition approaches can be challenging on multiple fronts. An estimated two billion people rely on the informal economy for livelihoods, and their share in the workforce is even higher in the developing countries.³⁶ In South Asia, eighty percent of workers engage in informal activities, and more than ninety percent of the region’s businesses are informal.³⁷ Informality often means a

lack of social protection including unemployment insurance, rights at work and decent working conditions, and lack of access to finance.³⁸

To effectively address the various complexities facing developing nations, it is imperative to adopt a balanced approach that considers recovery, poverty reduction, and an inclusive low-carbon future. It is important to acknowledge that the baseline conditions of developing and developed countries are very different, and thus, their respective response measures can be contrasting. We have also found that the extent of public discourse related to green transitions in developing countries is comparatively limited, and more work is needed in this area.

Failure by national policymakers to take a coordinated approach could create setbacks that will adversely impact the implementation of key global agreements such as the 2030 Agenda for Sustainable Development and the Paris Agreement.³⁹ International support, including from multilateral institutions, NGOs, and civil society participants, can help support programs that prioritize social justice and inclusivity.

Policy Insights for a Just Green Recovery

Below are some brief insights which can help ensure that green recovery spending can deliver more just and equitable outcomes.

1. At a minimum, **avoid investments and incentives that lock in fossil fuel dependency**, thereby creating transition challenges for communities down the road. Many green recovery pathways offer similar if not better growth and employment prospects and can likely be structured to meet individual country environmental, social, and economic targets.
2. Structure responses that **address ecological, social, and economic issues as integrated opportunities** that have multiple benefits, rather than as separate priorities. Integrated measures should drive ambitious, socially inclusive and equitable interventions that seek to address structural inequality and support workers and communities, especially those who are vulnerable to climate change and any adverse effects of green transitions.
3. Plan, maintain, and fund a **pipeline of place-based sustainable infrastructure projects along with reskilling efforts** to support their implementation. This needs to be done in close coordination with relevant ministries and local and regional governments (including those that deal with public health and social welfare). This can improve a country's ability to deploy labor surplus into productive work in the future, especially if worker and employer associations work with governments to align reskilling programs with investment and innovation plans for longer-term employment in a sustainable economy. Working with local stakeholders can help to provide more accurate skills and education assessments, and governments can leverage existing tools to model potential job creation from investment in various low-carbon sectors.⁴⁰

4. Governments can **draw on and integrate just transition principles into existing climate and development plans**, channeling recovery funds toward existing targets and priority areas. Applying the just transition framework to the existing list of priorities enshrined in various global compacts and corresponding national commitments, such as the Paris Agreement, the Sendai Framework, Aichi targets, and the 2030 Agenda for Sustainable Development provide good entry points.⁴¹ By drawing on existing plans, governments can better ensure that recovery initiatives are timely, inclusive, and fair—but also aligned with ambitious long-term climate targets.
5. **Strengthen social safety nets** through inclusive, consultative processes to support those most vulnerable to future shocks, including ones related to climate change. Stronger social safety nets and social infrastructure will increase community-level resilience, help reduce the need for targeted interventions in future crises and make it easier for governments to provide support to those in the informal sector, especially in developing country contexts. In developing countries, where fiscal and capacity constraints are acute, bilateral and multilateral institutions, NGOs, and civil society participants have a critical role to play in supporting social protection programs that are designed with fairness, inclusivity, and distributional justice in mind.
6. Invest in **developing a future-oriented workforce** to recover from the social and economic impacts of the pandemic *and* better prepare for structural changes and economic shocks related to climate change and the actions taken to respond to it. Acknowledging that green transitions are likely to create distributional impacts to jobs and communities, develop programs that proactively engage communities likely to be affected to understand their needs and help displaced workers access advisory services, formal training, or additional education as they seek to acquire skills and qualifications to enter new sectors and industries.
7. **Ensure job quality, labor standards, and rights for workers** in the green recovery. The ILO suggests that social dialogue between unions, employers, and government, as well as collective bargaining rights are some of the key guiding principles for a just transition.⁴² These essential workers' rights can help to ensure greater social inclusion and distributional justice. Policymakers can fall into the trap of focusing on quantity rather than quality and duration of jobs.
8. **Prioritize stakeholder engagement** to make stimulus decisionmaking more equitable and transparent. Governments can leverage their convening power to organize expert roundtables, citizen dialogues, and networks to receive input and communicate green recovery plans. Inviting citizen input could gather valuable advice from workers and communities in vulnerable areas and garner more support for ambitious climate actions that are to be accelerated through green recovery measures.

Endnotes

1 “Coronavirus (COVID-19) Dashboard,” World Health Organization, accessed April 19, 2021, <https://covid19.who.int/>.

2 International Monetary Fund, *World Economic Outlook: The Great Lockdown* (Washington, DC: International Monetary Fund, April 2020), <https://www.imf.org/en/Publications/WEO/Issues/2020/04/14/weo-april-2020>.

3 World Bank, *Global Economic Prospects* (Washington, DC: The World Bank, June 2020), <https://openknowledge.worldbank.org/handle/10986/33748>.

4 International Monetary Fund, *Fiscal Monitor Database of Country Fiscal Measures in Response to the COVID-19 Pandemic* (Washington, DC: International Monetary Fund, April 2021), <https://www.imf.org/en/Topics/imf-and-covid19/Fiscal-Policies-Database-in-Response-to-COVID-19>.

5 Brian J. O’Callaghan and Em Murdock, *Are We Building Back Better? Evidence from 2020 and Pathways to Inclusive Green Recovery Spending* (United Nations Environment Program, 2021), https://wedocs.unep.org/bitstream/handle/20.500.11822/35282/AWBBB_ES.pdf.

6 Edward B. Barbier, “Toward a Global Green Recovery: The G20 and the Asia Pacific Region,” *The Asia Pacific Journal* 8, no. 28 (July 12, 2010), <https://apjff.org/-Edward-B.-Barbier/3383/article.html>.

7 Glen Peters, “This Pandemic Might Actually Help Us Tackle Climate Change. Here’s How,” *Science Alert*, March 21, 2020, <https://www.sciencealert.com/the-pandemic-might-actually-help-us-tackle-climate-change-here-s-how>.

8 O’Callaghan and Murdock, *Are We Building Back Better*.

9 Yamide Dagnet and Joel Jaeger, “Not Enough Climate Action in Stimulus Plans,” World Resources Institute, September 15, 2020, <https://www.wri.org/insights/not-enough-climate-action-stimulus-plans>.

10 International Monetary Fund, *World Economic Outlook: Managing Divergent Recoveries* (Washington, DC: International Monetary Fund, April 2021), <https://www.imf.org/en/Publications/WEO/Issues/2021/03/23/world-economic-outlook-april-2021>.

11 Just Transition Initiative, *A Framework for Just Transitions* (Washington, DC: CSIS/CIF, January 27, 2021), https://justtransitioninitiative.org/wp-content/uploads/2021/01/Framework-for-Just-Transitions_Download.pdf.

12 UK Government, *The Ten Point Plan for a Green Industrial Revolution* (London: UK government, November 2020), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/936567/10_POINT_PLAN_BOOKLET.pdf.

13 Ibid.

14 Christina Brooks, “UK Industrial Emissions Plan to Create CCUS, Hydrogen Customers,” IHS Markit,

March 26, 2021, <https://ihsmarkit.com/research-analysis/--uk-industrial-emissions-plan-to-create-ccus-hydrogen-custome.html>.

15 International Trade Union Confederation, *Growing Green and Decent Jobs* (Brussels: International Trade Union Confederation, April 2012), https://www.ituc-csi.org/IMG/pdf/ituc_green_jobs_summary_en_final.pdf; Organization for Economic Co-operation and Development, *Making the Green Recovery Work for Jobs, Income, and Growth*, October 6, 2020, <https://www.oecd.org/coronavirus/policy-responses/making-the-green-recovery-work-for-jobs-income-and-growth-a505f3e7/>.

16 Rina Saeed Khan, "As a 'Green Stimulus' Pakistan Sets Idled to Work Planting Trees," Reuters, April 28, 2020, <https://www.reuters.com/article/us-health-coronavirus-pakistan-trees-fea/as-a-green-stimulus-pakistan-sets-virus-idled-to-work-planting-trees-idUSKCN22A369>.

17 Diaa Hadid, "With Glaciers Melting and Temps Soaring, Pakistan Pursues Big Action on Climate Change," NPR, September 29, 2020, <https://www.npr.org/2020/09/29/916878679/with-glaciers-melting-and-temps-soaring-pakistan-pursues-big-action-on-climate-c>.

18 Damilola Ogunbiyi, "How Nigeria is using the pandemic to build a sustainable energy future," Sustainable Energy for All, September 16, 2020, <https://www.seforall.org/news/damilola-ogunbiyi-how-nigeria-is-using-the-pandemic>.

19 "Nigeria Moves Toward a Sustainable COVID-19 Recovery," World Resources Institute, January 14, 2021, <https://www.wri.org/insights/nigeria-moves-toward-sustainable-covid-19-recovery>.

20 Rural Electrification Agency, "FG Launches 'Solar Project Naija' a Five Million Solar Connection Program to Off Grid Communities," December 2, 2020, <https://rea.gov.ng/fg-launches-solar-power-naija-5-million-solar-connection-programme-off-grid-communities/>.

21 "Putting Nigeria's Vulnerable on the Map: Harnessing Geospatial Data for Covid-19 Relief," Power Africa, September 14, 2020, <https://powerafrica.medium.com/putting-nigerias-vulnerable-on-the-map-harnessing-geospatial-data-for-covid-19-relief-fb5eafccc2c2>.

22 "Supporting Canadians and Fighting Covid-19: Fall Economic Statement 2020," Government of Canada, November 2020, <https://www.budget.gc.ca/fes-eea/2020/home-accueil-en.html>.

23 European Commission, *Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions: The European Green Deal* (Brussels: European Commission, December, 2019), https://ec.europa.eu/info/sites/default/files/european-green-deal-communication_en.pdf.

24 "Fact Sheet: President Biden Takes Executive Actions to Tackle the Climate Crisis at Home and Abroad," The White House, January 27, 2021, <https://www.whitehouse.gov/briefing-room/statements-releases/2021/01/27/fact-sheet-president-biden-takes-executive-actions-to-tackle-the-climate-crisis-at-home-and-abroad-create-jobs-and-restore-scientific-integrity-across-federal-government/>.

25 “Executive Order on Tackling the Climate Crisis at Home and Abroad,” The White House, January 27, 2021, <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-the-climate-crisis-at-home-and-abroad/>.

26 Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization, *Initial Report to the President on Empowering Workers Through Revitalizing Energy Communities* (Washington, DC: Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization, April 2021), https://netl.doe.gov/sites/default/files/2021-04/Initial%20Report%20on%20Energy%20Communities_Apr2021.pdf.

27 International Energy Agency, *Korea 2020: Energy Policy Review* (Paris: IEA, November 2020), <https://www.iea.org/reports/korea-2020>.

28 “Special Series on COVID-19,” International Monetary Fund, April 29, 2021, <https://www.imf.org/en/Publications/SPROLLS/covid19-special-notes>.

29 “UNCTAD Presents Policy Pathway to COVID-19 Recovery,” UN Conference on Trade and Development, December 9, 2020, <https://unctad.org/news/unctad-presents-policy-pathway-covid-19-recovery>.

30 Kristalina Georgieva, “Confronting the Crisis: Priorities for the Global Economy,” The International Monetary Fund, April 9, 2020, <https://www.imf.org/en/News/Articles/2020/04/07/sp040920-SMs2020-Curtain-Raiser>.

31 UN Conference on Trade and Development, *Investment Trends Monitor: Impact of the Coronavirus Outbreak on Global FDI* (Washington, DC: UNCTAD, March 2020), https://unctad.org/system/files/information-document/diae_gitm34_coronavirus_8march2020.pdf; “UN/DESA Policy Brief: Corona Crisis Causes Turmoil in Financial Markets,” UN Department of Economic and Social Affairs, April 1, 2020, <https://www.un.org/development/desa/dpad/publication/un-desa-policy-brief-59-corona-crisis-causes-turmoil-in-financial-markets/>.

32 International Labour Organization, *COVID-19: Tackling the Jobs Crisis in the Least Developed Countries* (Geneva: International Labour Organization, January 2021), https://www.un.org/ohrlls/sites/www.un.org.ohrlls/files/covid-19_tackling_the_jobs_crisis_in_the_ldcs.pdf.

33 “ILO Monitor: Covid-19 and the World of Work, 5th edition,” International Labour Organization, June 2020, https://www.ilo.org/global/topics/coronavirus/impacts-and-responses/WCMS_749399/lang-en/index.htm.

34 Ayhan Kose and Akihiko Nishio, “Covid-19 Could Leave Lasting Economic Scars in the Poorest Countries,” The World Bank, February 4, 2021, <https://blogs.worldbank.org/voices/covid-19-could-leave-lasting-economic-scars-poorest-countries-its-everyones-best-interest>.

35 UN Conference on Trade and Development, *The Impact of the Covid-19 Pandemic on Trade and Development: Transitioning to a New Normal*, (Geneva: United Nations, November 19, 2020), https://unctad.org/system/files/official-document/osg2020d1_en.pdf.

36 International Labour Organization, *Women and Men in the Informal Economy: A Statistical Picture, Third Edition* (Geneva: International Labour Organization, April 30, 2018), https://www.ilo.org/global/publications/books/WCMS_626831/lang-en/index.htm.

37 Maurizio Bussolo, Siddharth Sharma, and Hans Timmer, "Covid-19 Has Worsened the Woes of South Asia's Informal Sector," The World Bank, December 7, 2020, <https://blogs.worldbank.org/endpovertyin-southasia/covid-19-has-worsened-woes-south-asias-informal-sector>.

38 International Labour Organization, *Women and Men in the Informal Economy*.

39 United Nations, Shared Responsibility, *Global Solidarity: Responding to the socio-economic Impacts of Covid-19* (New York: United Nations, March 2020), <https://unsdg.un.org/sites/default/files/2020-03/SG-Report-Socio-Economic-Impact-of-Covid19.pdf>.

40 Ben Cahill and Mary Margaret Allen, *Pathways for Just Transitions: Gender Responsive Policies and Place-based Investment* (Washington, DC: CSIS/CIF, February 2021), https://justtransitioninitiative.org/wp-content/uploads/2021/02/JTI_Pathways_Report_WEB.pdf.

41 UN Office for Disaster Risk Reduction, *Sendai Framework for Disaster Risk Reduction 2015-2030* (New York: UN Office for Disaster Risk Reduction, 2015), <https://www.undrr.org/publication/sendai-framework-disaster-risk-reduction-2015-2030>; Convention on Biological Diversity, *Strategic Plan for Biodiversity 2011-2020, Including Aichi Diversity Targets* (Rio de Janeiro, Convention on Biological Diversity, January 21, 2020), <https://www.cbd.int/sp/>; UN Department of Economic and Social Affairs, *Transforming Our World: The 2030 Agenda for Sustainable Development* (New York: UN Department of Economic and Social Affairs, 2015), <https://sdgs.un.org/2030agenda>.

42 International Labour Organization, *Guidelines for a Just Transition Towards Environmentally Sustainable Economies and Societies for All* (Geneva: International Labour Organization, February 2, 2016), https://www.ilo.org/global/topics/green-jobs/publications/WCMS_432859/lang-en/index.htm.