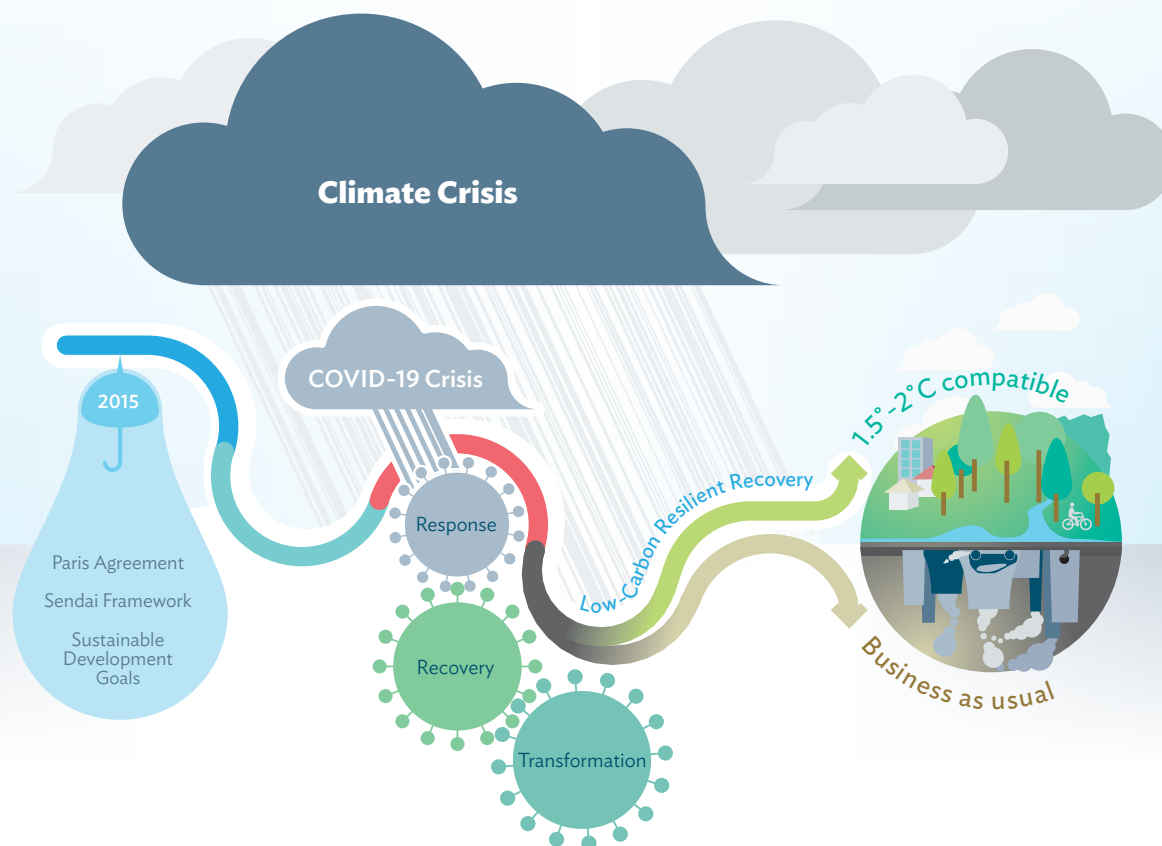


COVID-19 RECOVERY

A Pathway to a Low-Carbon and Resilient Future



The coronavirus disease (COVID-19) pandemic is an unprecedented and tragic global health crisis. To contain COVID-19, governments have implemented strict lockdowns and curbed mobility, stalling economies and leading to a potential global economic and financial crisis. The Asian Development Bank (ADB) estimates that the global economy could suffer between \$5.8 trillion and \$8.8 trillion in losses—equivalent to 6.4% to 9.7% of global gross domestic product.¹ Policy makers are grappling with the often-competing interests of managing the public health risk and limiting the scale of the economic damage.

Implementing the emergency response to COVID-19 has rightly taken priority. However, as developing member countries (DMCs) begin to emerge from the lockdowns and plan their recovery, attention must return to addressing the climate crisis and building resilience. We do not have the time or the financing to deal with each crisis separately. The impact of climate change is already being felt, and is becoming more severe every year. Pre-COVID-19 analysis

showed that climate change could push an additional 100 million people into poverty by 2030. By 2050, it could depress growth in global agriculture yields by up to 30%, and result in additional costs to coastal urban areas of more than \$1 trillion each year.² Current global emission reduction commitments under the Paris Agreement are also insufficient, and would lead to a temperature rise of 3.2°C this century—well over the 1.5°C target.³ Compounding this predicament, COVID-19 has exposed gaps in social protection systems and wider policies for delivering public goods, and has highlighted the underlying drivers of vulnerability—poverty, inequality, limited social safety nets, weak health systems, and structural gender inequality, among others. It has also heightened awareness of all types of risks, and made a strong case for adopting risk-informed decision making. There is an urgent need to address vulnerabilities and mainstream resilience to manage future shocks, including increasing climate- and disaster-related shocks.

¹ Asian Development Bank (ADB). 2020. *An Updated Assessment of the Economic Impact of COVID-19*. Manila. <https://www.adb.org/publications/updated-assessment-economic-impact-covid-19>.

² Global Commission on Adaptation. 2019. *Adapt Now: A Global Call for Leadership on Climate Resilience*. Washington DC. <https://gca.org/global-commission-on-adaptation/report>.

³ United Nations Environment Programme. 2019. *Emissions Gap Report 2019*. Nairobi. <https://www.unenvironment.org/interactive/emissions-gap-report/2019/>.

Countries have an unprecedented opportunity to use the required state interventions and accompanying stimulus to support a sustainable, inclusive, and resilient future; tackle the climate crisis; and lay the foundation for long-term prosperity. Governments can recalibrate their priorities in the context of changing perceptions of risks, including climate and disaster risk, and improve systems, raise standards, and pursue innovative solutions. With a clear vision, countries can use the recovery to drive investments and behavioral changes that will reorient their economies toward a more strategic low-carbon trajectory, while simultaneously addressing underlying vulnerabilities and strengthening resilience. Adopting a low-carbon and resilient recovery can generate economic benefits, create employment, increase food and energy security, and have strong health co-benefits.

Beyond the emergency COVID-19 response, countries need to plan for the medium-term recovery phase, including economic stimulus measures, and possibly wider accompanying reforms; and a longer-term transformation phase that could see wide-ranging changes to systems, institutions, and policies. Countries face an enormous challenge in designing and financing this recovery. Low- and middle-income countries have limited fiscal space to respond, and many will need substantial international support (in addition to support already received), with implications for debt and fiscal positions. Recovery packages also need to be flexible to accommodate the uncertainty around the future of the pandemic, the potential for future “waves,” and the timeline for developing a vaccine. In this context, countries may find it challenging to consider long-term benefits over short-term payoffs.

Governments and international finance institutions are set to mobilize unprecedented funding—at least \$10 trillion—to tackle and recover from the COVID-19 crisis,⁴ and decisions made now on how this money is spent will influence systems and institutions, create assets, and define development directions that will last well into the future. Although governments are under intense pressure to embark on the recovery, they must learn from the lessons COVID-19 has already delivered, and avoid favoring business-as-usual approaches, or worse, rolling back existing environmental standards. This approach could lock in decades of high-carbon and

unsustainable development, deepening existing inequalities. Instead, governments should use the recovery to recalibrate their development pathways. The experiences gained from dealing with COVID-19 strengthen the case for scaling up actions to deal with other imminent crises, such as climate change and disasters.

SIGNIFICANT BENEFITS FROM A LOW-CARBON AND RESILIENT RECOVERY

Adopting a low-carbon and resilient recovery does not demand economic compromise and does not necessarily require an increase in total investment (beyond what would otherwise have occurred). There is a long list of possible COVID-19 recovery interventions that support low-carbon development and build climate and disaster resilience. Among these are direct investment, policy reform, and capacity building (i.e., hard and soft measures) (see examples in Box 1). Very few of these interventions are new; some are already being implemented in a number of countries, and others may have been assessed and turned down or delayed. However, when considered in the context of the COVID-19 recovery, perceptions of risk and the importance of managing it may change, or the way in which the intervention would be implemented may itself be affected. There are new drivers for these actions, as many recovery interventions that are desirable in the context of COVID-19 recovery can also



Strong climate action has the potential to:

GENERATE over 65 million new low-carbon jobs by 2030

DELIVER at least \$26 trillion in net global economic benefits

AVOID 700,000 premature deaths from air pollution

^a Global Commission on the Economy and Climate. 2018. *The New Climate Economy. The New Growth Agenda*. Washington DC. <https://newclimateeconomy.report/2018/the-new-growth-agenda/>

⁴ The Global Commission on the Economy and Climate. 2020. *NCE Key Messages Pack: Special Edition on COVID-19*. Washington DC.

improve climate and disaster resilience or drive low-carbon development, thus delivering economic and social benefits in addition to climate and resilience benefits. Designing a low-carbon and resilient COVID-19 recovery will also help ADB's DMCs implement their commitments under key global agreements including the Paris Agreement, the Sendai Framework for Disaster Risk Reduction 2015–2030, and the 2030 Agenda for Sustainable Development.

NEED TO IDENTIFY MEDIUM-TERM RECOVERY AND LONG-TERM TRANSFORMATION INTERVENTIONS

Some recovery interventions may do well in the short term, but not be sustainable in the long term unless accompanied by policy or institutional changes. Experience from the

Global Financial Crisis of 2008 provides important context. Only around 16% of the global fiscal stimulus in 2008–2009 was dedicated to “green” measures and almost all of this was in G20 countries.⁵ Most of these measures achieved short-term goals such as generating jobs, boosting renewable energy and energy efficiency investment, or restoring natural environments. However, many countries did not introduce market reforms, develop complementary policy, or remove prevailing economic incentives that encouraged emission generation and environmental degradation; for example removing fossil fuel subsidies, or introducing carbon and environmental taxation. As a result, the stimulus packages, once withdrawn, did not have a lasting impact. Countries should adopt a holistic approach to designing robust recovery plans that focus on sustainable economic recovery, and make the systemic changes required to avoid experiencing similar losses in future crises (see Box 2).

Given the scale of the crises, and the different phases of recovery, countries will need to implement a package of recovery interventions that not only collectively provide the required stimulus but also address underlying barriers to ensure that changes are sustained. Countries must identify appropriate low-carbon and resilient interventions, potential sources of financing, and the supporting policy and institutional changes required for long-term transformation and sustainability of recovery measures.

Box 1: Examples of Low-Carbon and Resilience-Building Recovery Interventions

Low-carbon and resilient recovery interventions may involve direct investments, policy reform, or capacity building, or a combination of these. Among these measures are the following:

- labor market programs to protect natural assets and green infrastructure;
- health projects promoting disaster preparedness planning (e.g., long-term improvements in post-disaster disease surveillance systems);
- construction of health facilities to disaster and climate resilience standards;
- technical and vocational education projects to promote low-carbon industries and resilient livelihoods;
- energy efficiency schemes, including support for retrofits (e.g., low-interest loans), construction of low-energy buildings, and skill development;
- improvements in regional cooperation for a more sustainable food supply;
- financial incentives, preferential loans, and grants for low-carbon and resilience-building programs, e.g., energy-efficient roofing and residences, low-cost housing, circular economy;
- capacity building of grassroots women’s groups to prepare them for disasters and emergencies;
- rural green infrastructure projects, such as grid expansion and off-grid rural electrification;
- rural low-carbon household programs, such as clean cooking programs (biogas capture, efficient wood-burning stoves) and solar lighting; and
- improvements in climate-friendly agriculture value chains and sustainable food supply management programs.

Source: Asian Development Bank.

⁵ Barbier, E. 2010. Green Stimulus Is Not Sufficient for a Global Green Recovery. *VoxEU.org*. London: Centre for Economic Policy Research. <https://voxeu.org/article/urgently-needed-global-green-new-deal>.

Box 2. A Stepwise Approach to Designing a Low-Carbon and Resilient Recovery

STEP 1: Define a clear vision for a recovery that leads to a climate- and disaster-resilient future.

A clear vision will build confidence, ensure a unified approach to the recovery, and allow the definition of medium-term and long-term objectives. With this vision, countries can define principles to guide the recovery, such as the following:

- putting people and their health first, to ensure that no one is left behind;
- taking a “build back better” approach to stabilizing the economy, promoting equitable growth and investments that benefit all, and strengthening supply chains;
- promoting a transformational shift to a low-carbon and resilient development pathway (and long-term “net zero”) and supporting a Just Transition, where benefits are shared equally;
- supporting investments that contribute to the productive asset base for the future; and
- committing to policy reforms, institutional change, and capacity building to sustain the results of building back better and adopting transformational change.

STEP 2: Understand the drivers for integrating low-carbon and resilience considerations into recovery.

Countries should have a clear understanding of how and why a low-carbon and resilient recovery will help them achieve the vision they defined in Step 1. This includes a better understanding of negative drivers, such as how COVID-19 has made a difference in their current and future exposure and vulnerability to climate and disaster risks; affected different groups, sectors, and regions; exposed underlying drivers of vulnerability, which could worsen when combined with climate and disaster shocks and stresses; and possibly altered their decarbonization pathway and disrupted the process of updating their Nationally Determined Contributions (NDCs). Countries should also identify positive drivers, such as the potential economic, social, and environmental benefits that could flow from adopting low-carbon and resilience-building recovery measures, and the opportunity to use the required state interventions combined with significant levels of investment to accelerate progress toward their long-term vision.

STEP 3: Identify opportunities for national and subnational policies and plans to support a low-carbon and resilient recovery.

The recovery process can leverage existing policies and plans to align recovery packages with existing climate and disaster investment priorities identified in the countries’ NDCs (including the current updating process), National Adaptation Plans, and National Disaster Risk Reduction Plans. Associated national or subnational climate and disaster risk reduction plans, as well as climate investment plans and pipelines, can be analyzed to identify activities and investments that could potentially be brought forward or expanded as part of the stimulus package (e.g., those related to mitigation, adaptation, disaster risk management, and equity issues). There may also be scope for matching existing commitment focal areas with recovery package components.

STEP 4: Develop an assessment framework for identifying and prioritizing a package of interventions that support recovery while promoting low-carbon and resilient development.

Countries can develop an assessment framework to ensure a structured and comprehensive process of evaluating selected recovery interventions that promote low-carbon and resilient development against their defined characteristics for a “good recovery.” The framework will differ from country to country, depending on the specific circumstances in a developing member country and on the country’s objectives and approach to recovery.

STEP 5: Consider conditionality stipulations in cases where “brown”^a recovery interventions are supported.

Investments in “brown” measures may be necessary to provide short-term relief or to meet medium-term objectives. In these circumstances, countries should design conditionalities to ensure that the investments transition toward “green,” and that the support aligns with the long-term vision they defined in Step 1. Conditionalities that could be applied include commitments to reduce emissions, or plan for net zero; and measures to ensure that funds support workers and the creation of good-quality jobs, that recipients invest in skill development for a low-carbon and resilient future, and that funds are also used to build more resilient and lower-carbon supply chains.

^a i.e., those that support emission-intensive sectors or activities, would lead to an eventual increase in emissions, are potentially damaging to nature, or do not take climate and disaster risk into account.

continued

continued

STEP 6: Identify potential sources of financing for low-carbon and resilient interventions.

Countries must determine how they will finance the recovery and incentivize the uptake of identified low-carbon and resilience measures. Options to be explored include domestic revenue raising, e.g., by removing existing subsidies (such as fossil-fuel or damaging agricultural subsidies), or over the longer term, by introducing carbon pricing or environmental taxes, mobilizing private sector finance (including public-private partnerships), bringing in innovative and “green” financial products such as green or climate bonds, and leveraging international climate finance sources.

STEP 7: Identify supporting policy and institutional changes that will sustain low-carbon and resilient development.

To support long-term transformation and sustainability of recovery measures, countries need to implement the right supporting policies, backed by strong institutions, that

provide long-term economic incentives, and the right market signals, beyond the period where stimulus will be available. Countries may also have to dismantle existing policies that discourage low-carbon and resilient development, by

- introducing economic incentives for low-carbon products or sectors, and removing existing disincentives (e.g., import duties on solar panels);
- making policy changes, such as introducing carbon pricing or tax regimes, or electric vehicle policies;
- introducing new standards or regulations, such as climate and disaster-proofing standards for infrastructure;
- mainstreaming climate and disaster risk into national development planning and budgeting; and
- providing strategic support for research and development (e.g., development of climate-resilient crops) and pilot projects (e.g., green infrastructure for flood risk management).

Source: Asian Development Bank

FRAMEWORK FOR ASSESSING LOW-CARBON AND RESILIENT RECOVERY INTERVENTIONS

ADB has developed an assessment framework (see Table) to assist its DMCs in evaluating potential low-carbon and climate- and disaster-resilient recovery interventions. The framework provides a systematic process and visual aid for evaluating, and comparing, the potential of climate and resilience recovery interventions to achieve recovery objectives by assessing the interventions against a set of key requirements for COVID-19 recovery—or the characteristics of a “good recovery.” The framework can support decision makers in selecting and prioritizing a package of interventions

that will collectively achieve their recovery objectives and promote climate resilience through their medium-term recovery and longer-term transformation efforts. It can also help decision makers understand the potential negative implications of certain interventions.

Different countries will adopt different, or more nuanced, definitions of what the “good recovery” characteristics are, depending on their specific objectives and the circumstances in that country, in terms of COVID-19 impact as well as broader issues such as economic sectors and climate and disaster risk profile. However, many countries implementing recovery measures are looking for similar outcomes—usually focused on generating jobs and stimulating the economy.



The Global Commission on Adaptation has estimated that **investing \$1.8 trillion globally from 2020 to 2030 in resilience-building measures could generate \$7.1 trillion** in total new benefits. As an example, analysis by the commission shows that early warning systems save lives and assets worth at least ten times their cost, and spending \$800 million on such systems in developing countries would avoid losses of \$3–\$16 billion per year.

^a Global Commission on Adaptation. 2019. *Adapt Now: A Global Call for Leadership on Climate Resilience*. Washington DC. https://cdn.gca.org/assets/2019-09/GlobalCommission_Report_FINAL.pdf.

Framework for Assessing Low-Carbon and Resilient Recovery Interventions

Recovery Measures	Climate and Resilience Results and Benefits	Type of Measure	Requirements of COVID-19 Recovery Measures							
			Short Implementation Timeline	High Employment Intensity	Skills Development	Strong Supply Chain	High Economic Multiplier	Contribution to the Productive Asset Base	Support for Long-Term Transformation	Positive Environmental and Social Outcomes
Low-Carbon Development										
Investment in low-carbon (renewable) energy production and energy storage infrastructure		DI	Medium	High	High	Medium	High	High	High	High
Extension and modernization of the grid to support higher renewable penetration		DI	Medium	High	High	Medium	High	High	High	High
Public procurement program for purchase and installation of energy-efficient appliances, lighting, and digital devices for public buildings		DI	High	High	High	High	Medium	High	High	High
Incentives for home renovations and retrofits, including low- and zero-energy measures, in affected regions		P&R	High	High	High	Medium	Medium	Medium	High	High
Introduction of green tax regimes, e.g., carbon taxes, carbon price floor (for industry)		P&R	Low	Low	High	Medium	High	Medium	High	High
Planning of urban green redevelopment/regeneration and sustainable spaces (smart cities)		T	Low	Low	High	Medium	High	High	High	High
Development and scale-up of radical transport (universal and comprehensive public transport/car-free movement)		T	Low	Low	High	Medium	High	High	High	High
Climate and Disaster Resilience										
Reorientation of labor market programs to support resilience-building measures (e.g., water resource conservation, reforestation)		DI	High	High	Medium	Low	Medium	Medium	High	High
Development of climate-resilient agricultural value chains		DI	Medium	High	High	High	High	High	High	High
Investment in protective infrastructure to strengthen resilience (eg. coastal protection, flood defense)		DI	Medium	Medium	Medium	Medium	Medium	Medium	High	High
Active labor market policies and economic stimulus to support job creation in resilience sectors		P&R	Medium	High	High	Medium	High	Medium	High	High
Introduction of policy reforms to enhance resilience (e.g. payment for ecosystem service schemes)		P&R	Medium	Medium	Low	Medium	Medium	High	High	High
Transformation of rural food and land use-systems, including to shift a sustainable and resilient production		T	Low	Medium	High	High	High	High	High	High
Risk-sensitive land-use management		T	High	Low	High	Medium	Medium	Medium	High	High

* Note: Assessment will vary by country, or even by region. Assessment is for illustrative purposes only.

Climate and Resilience Results and Benefits

- Addresses vulnerabilities
- Targets COVID-19 impacted sectors or populations
- Targets disadvantaged groups (e.g., regional, women)
- Builds long-term resilience
- Supports development of high level technology (e.g., low-carbon)
- Supports long-term decarbonization
- Consistent with national policies and plans

Type of Measure

- DI = direct investment
- P&R = policy and regulatory
- T = transformative

Potential to achieve recovery objectives

- Low
- Medium
- High

These can include: a short implementation timeline; job generation or labor intensity (particularly in the early stages); skill development; minimized supply chain risk; and high economic multipliers. In the longer term, governments may look for measures that contribute to the productive asset base and promote positive transformation, while also delivering environmental and social outcomes. COVID-19 has also led to asymmetric socioeconomic impact across sectors, and within and between countries; for this reason, recovery interventions should also target the most affected groups or regions, where possible. This is particularly critical with regard to addressing the gender-related implications for women and girls, especially those belonging to vulnerable groups.

The framework should be tailored to reflect the specific circumstances and objectives of the country (the framework presented in the Table provides a selection of recovery measures). The framework can be used for a rapid initial assessment of potential interventions based on a qualitative assessment of measures (as shown below), or developed further for deeper analysis, including, for example, making a separate assessment for each phase of recovery, or using a quantitative assessment of the performance of measures. The steps involved in this assessment include the following:

- Defining the requirements, or “good recovery” characteristics, for the COVID-19 recovery. These will reflect the priorities for recovery, such as job creation and speed of implementation. The assessment can also be disaggregated at a lower level, and criteria can be defined for specific phases, regions, or sectors.
- Defining how the performance of each measure against the criteria will be assessed. In the example presented in the Table, a qualitative “high”/“medium”/“low” assessment was used. This approach supports a more rapid assessment. A more detailed analysis could be done—by assigning weights or scores to certain criteria, for example.
- Defining the criteria for assessing climate and resilience benefits, such as building resilience and contributing to long-term decarbonization.
- Identifying a long list of potential low-carbon and resilient recovery interventions to be assessed (including

considering goals set in existing NDCs and disaster risk management strategies), and organizing these into relevant groups (e.g., direct investment, policy and regulatory changes, institutional strengthening, and capacity development).

ADB SUPPORT FOR ITS DEVELOPING MEMBER COUNTRIES

ADB is supporting its DMCs through a \$20 billion assistance package to help counter the severe macroeconomic and health impacts caused by COVID-19.⁶ As the DMCs move to the medium- and long-term recovery phases, they will need additional support, including support for the private sector.⁷

ADB can play a critical role in promoting the integration of low-carbon development and climate and disaster resilience into the COVID-19 recovery plans of its DMCs, in line with the vision articulated in ADB’s Strategy 2030⁸—to achieve a prosperous, inclusive, resilient, and sustainable Asia and the Pacific—and ADB’s commitment to helping its DMCs meet their targets under the Paris Agreement. ADB is committed to achieving its climate targets, ensuring that at least 75% of its projects focus on climate change mitigation and adaptation, while providing \$80 billion in climate finance cumulatively by 2030.

ADB will continue to facilitate access to global climate funds, such as the Climate Investment Funds and the Green Climate Fund, and support its DMCs through existing climate and disaster programs and initiatives:

- the **NDC Advance Platform**, which is helping to boost the capacity of the DMCs to meet their climate objectives by translating their NDCs into climate investment plans, giving the DMCs better access to external public and private climate finance, and developing methods and tools for monitoring progress on climate action;
- the **Community Resilience Partnership Program**, which is designed to support the DMCs in scaling up investments in local resilience that explicitly address the nexus between poverty, gender, and climate and disaster risk;

⁶ ADB has approved a number of technical assistance and Asia Pacific Disaster Response Fund grants, as well as various non-sovereign operations, and worked with its DMCs to develop solutions, including emergency assistance loans and grants, to ease the immediate impact of the crisis. On 18 March 2020, ADB announced a \$6.5 billion package to address the immediate needs of its DMCs as they respond to the COVID-19 pandemic. On 13 April 2020, ADB expanded its response to a total of \$20 billion by making available up to \$13 billion in additional regular ordinary capital resources to finance countercyclical expenditures, and additional grant and technical assistance resources.

⁷ ADB. 2020. *ADB’s Comprehensive Response to the COVID-19 Pandemic: Policy Paper*. Manila. <https://www.adb.org/documents/adb-comprehensive-response-covid-19-pandemic-policy-paper>.

⁸ ADB. 2018. *Strategy 2030: Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific*. Manila. <https://www.adb.org/documents/strategy-2030-prosperous-inclusive-resilient-sustainable-asia-pacific>.

- the **Urban Platform for Climate Finance**, which will assist cities in implementing climate-resilient and low-carbon investment plans;
- the **Article 6 Support Facility**, which is providing technical capacity-building and policy development support to the DMCs to improve their capacity and preparedness to gain access to new carbon markets envisaged within the Article 6 framework;
- the **Asia Pacific Climate Finance Fund**, which was established to support the development and implementation of financial risk management products that can help unlock capital for climate investments and improve resilience; and
- the **Urban Climate Change Resilience Trust Fund**, which is aimed at supporting fast-growing cities in Asia in reducing the risks to poor and vulnerable people from floods, storms, or droughts, by making them better able to plan and design infrastructure projects to cushion the impact.

ADB's Southeast Asia Department Innovative Finance hub and the ADB-managed **ASEAN Catalytic Green Finance Facility** are helping DMCs to incorporate green finance approaches and mechanisms into their recovery strategies including through the preparation of country-specific green finance recovery proposals, knowledge events on green capital markets and green recovery planning, and knowledge products including the upcoming publication *Green Finance Strategies for Post COVID-19 Economic Recovery in Southeast Asia*.

ADB is also exploring opportunities to provide explicit support to its DMCs in integrating climate and disaster resilience and low-carbon development considerations into the COVID-19 recovery through technical assistance, help in planning institutional and policy reforms and setting these in motion, as well as the integration of these considerations into country partnership strategies.



Global estimates show that while \$1 million spending in fossil fuels would create 2.7 full-time equivalent jobs, that same spending would create **7.5 full-time equivalent jobs in renewable energy and 7.7 full-time equivalent jobs in energy efficiency**.^a Thus each \$1 million shifted from fossil fuels to clean energy would create a net increase of five jobs. Additionally, nature-based solution investments typically create an estimated 39.7 full-time equivalent jobs per \$1 million invested, or over 10 times the job creation rate of investments in fossil fuels.^b

^a H. Garrett-Peltier. 2017. Green versus brown: Comparing the employment impacts of energy efficiency, renewable energy, and fossil fuels using an input-output model. *Economic Modelling*. 61. pp. 439-447.

^b P Edwards, A.E. Sutton-Grier and G.E. Coyle. 2013. Investing in nature: Restoring coastal habitat blue infrastructure and green job creation. *Marine Policy*. 38 (C). pp. 65-71.

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Note: In this publication, "\$" refers to United States dollars.



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