Back to Take on Tomorrow series

Climate Change

Private–public infrastructure partnerships can spur a green recovery

Economic stimulus plans that support clean energy and decarbonisation through innovative partnerships will create new models for sustainable growth.

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The world begins 2021 with a COVID-19 vaccine and the hope of physical recovery from the virus. Now, as we work towards social, economic and fiscal recovery, we can’t forget a crisis

we faced even before the pandemic took centre stage—a crisis for which there is no immediate solution. Climate change, manifesting itself in fires, storms, floods and droughts, has continued to trouble leaders of governments and businesses as they've worked to address the pandemic. The **economic impact** alone from climate change is estimated to reach almost US$8tn by 2050, with a disproportionate impact on low-income and vulnerable countries.

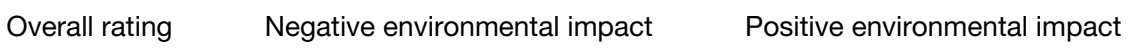
"Build back better" has been used recently by various entities and political figures as a recovery slogan for these and other critical situations. But rather than simply look back and try to create a better version of the past, we can also look forward, taking new approaches to solving the twin challenges of economic recovery and climate change, so we can create a better, more sustainable tomorrow. A new **United Nations report** indicates that if broadly adopted, green recovery

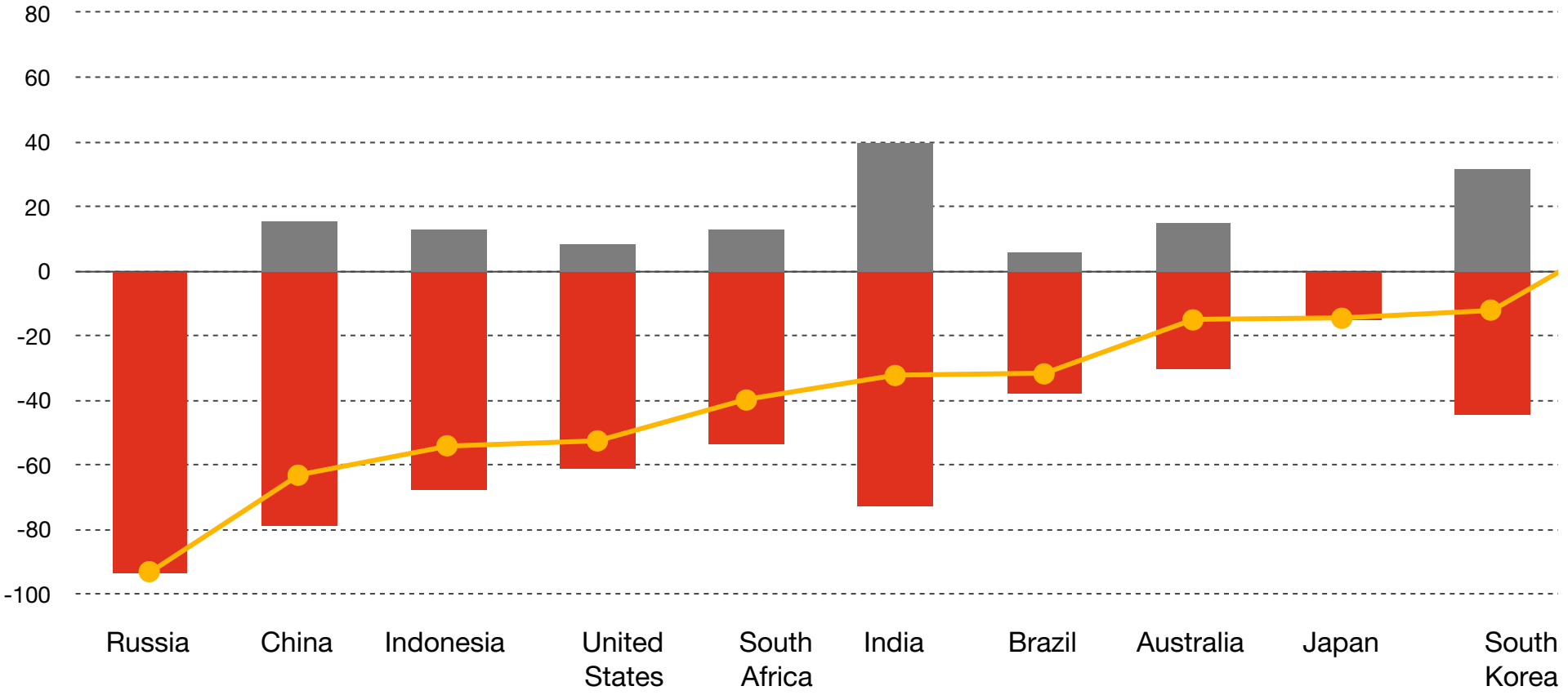
programmes could reduce expected emissions by up to 25% by 2030 and increase the chance of keeping the rise in temperature to 2 degrees Celsius.

Several governments have made infrastructure investment a key part of their recovery plans. A **report by the Economic Policy Institute** estimates that such investments are an economic multiplier, with each US$100bn put into infrastructure yielding as many as 1 million full-time jobs, in addition to the benefit of the infrastructure itself. But about 70% of greenhouse gas emissions **come from infrastructure**, meaning investments in infrastructure today have a significant impact on our ability to achieve the Paris Agreement's net-zero targets in the future. To build a better tomorrow, any infrastructure-related stimulus should therefore be focused on clean energy—decarbonising power, heat and transportation—and business and government will have to work together to achieve these goals.

Over the first three quarters of 2020, many countries with advanced economies produced stimulus packages that were potentially damaging to the environment.

Environmental impact of stimulus packages, indexed[1]





[1]Greenness of Stimulus Index by Vivid Economics, December 2020 update. A range of sources was used to calculate the overall rating, including monetary size, nature of the national policy context, recipient sectors, individual measures and expert analysis of environmental impact.

Source: Vivid Economics and Finance for Biodiversity Initiative

Some governments have made substantial commitments to a

green recovery, but many continue to focus on traditional sectors without putting in place environmental protection measures or incentives.

International financial institutions such as the World Bank can help to catalyse green investment by providing concessionary financing and/or loan guarantees for projects anchored to sustainable growth. For instance, the European Investment Bank **committed** €4.7bn in December 2020 to support clean energy and sustainable transport. Financial institutions already lead on developing the ESG standards and frameworks required for sustainable project identification, selection and monitoring, and other investors are now catching on.

The private sector is also poised to further the momentum on green recovery. **Capital providers** are in search of bankable projects that are aligned to their ESG targets and net-zero commitments.

Infrastructure is often delivered through collaboration between the public and private sector, whether through design, construction, operations, maintenance or finance, and this partnership is more important now than ever. Here are five key actions governments can take, in partnership with private businesses, to activate a green recovery through infrastructure.

Identify opportunities to maximise both economic and environmental impact. To accelerate economic and environmental recovery, spending should take place sooner rather than later. It should also concentrate on supporting clean technologies such as electric vehicles and charging, hydrogen as a fuel, carbon capture and storage, and renewable power coupled with grid storage at scale. But in some cases, environmental progress will have an economic cost. For instance, most European duties and taxes, such as fuel taxes, are currently based on the principle of “polluter

pays," but as electric vehicles eventually proliferate, governments will lose funds from those traditional sources. Managing this revenue transition will require a more sophisticated distance-based system of charges for road users. Public and private players can look to innovate together, embracing the latest technology, such as GPS-enabled smartphone and in-vehicle technology, to create a system for planning and charging for transport that reflects the full external impact of a journey and thus encourages low-carbon travel choices.

Use policy as an enabler. Many current procurement processes take a long time and can be expensive and inflexible. Additionally, partnership agreements initiated by governments are frequently evaluated based on financial metrics rather than using a blend of financial, social and environmental metrics. The legal and policy frameworks that governments put in place—procurement and partnership

evaluation rules, efficiency standards, carbon taxes and so forth—should support faster expansion of green partnerships and instil confidence in the private sector. Many countries need more vehicle-charging stations, for example, but they are difficult to build quickly. Governments can use policy to address this issue. In India, the government has recently launched the second phase of its **Faster Adoption and Manufacturing of Electric Vehicles (FAME) plan**, which extends capital grants to private organisations to build and operate electric vehicle–charging infrastructure on 18 major highways.

Balance risk and return. The allocation of risk is a recurring challenge in large-scale partnerships. Ideally, the party best placed to manage a specific risk should do so. The reality, however, is that competing objectives, varying risk appetites, asymmetry of negotiating skills and the long-term time frame of projects makes “optimally allocated risk” a theoretical

concept. The government of New South Wales in Australia has committed to working with private industry on balancing risk and return, making the second point in its **10-point commitment to the construction industry** about adopting partnership-based approaches to risk allocation. Some of the actions it supports are developing standard contractual risk-sharing mechanisms that incentivise both parties and avoid endangering the contractor's viability, and working together to manage and reduce utility-related risks.

Consider flexible partnerships. There is no one-size-fits-all partnership model that can ensure value for money, budget certainty, affordability and sustainable long-term outcomes. This will become even more true as technologies play a larger role in decarbonising the environment and supporting infrastructure delivery and operations. For instance, newer, better sensor-enabled **wind turbines** have the potential to perform much better than older wind turbines, leading some

governments to reconsider their supplier relationships. In other cases, unproven technologies might not work out as expected, necessitating re-evaluation of a partnership. Long, locked-in time horizons and fixed financial arrangements for partnerships are therefore not compatible with innovative, untested solutions. It will be beneficial for both parties in a partnership to be more agile and to reassess the partnership on a regular basis.

Approach data as a collaborative tool. People are overwhelmingly embracing digital means to manage their own personal infrastructure, using apps to do things such as plan journeys, raise personal awareness of their consumption behaviours, or turn their heating on and off. People can also rapidly escalate dissatisfaction through social media and through service providers' own apps and websites, which has eased the burden on governments and regulators, who otherwise would have to intervene. Open data initiatives

should be encouraged to allow future infrastructure collaboration to be tripartite among government, the private sector and citizens. For instance, in compliance with the city of Madrid's open government data initiative, **Red Eléctrica de España** created an open data platform to discern power supply usage across Spain. The organisation's latest smartphone app shows users real-time graphs of electricity demand, the production technologies required to meet it and the CO_2 emissions of those sources, and thus allows them to follow the evolution of the energy transition in Spain.

No time to waste

The race to develop a COVID-19 vaccine in the face of the global pandemic has demonstrated how effectively countries, companies, governments, financiers and citizens can **solve seemingly impossible challenges** when they work together.

Problems related to climate change are similar in criticality and in the need for aligned partnerships. The translation of political commitments into delivery of the right kind of projects will determine the speed and depth of recovery and shape the longer-term health of our economies and our communities.

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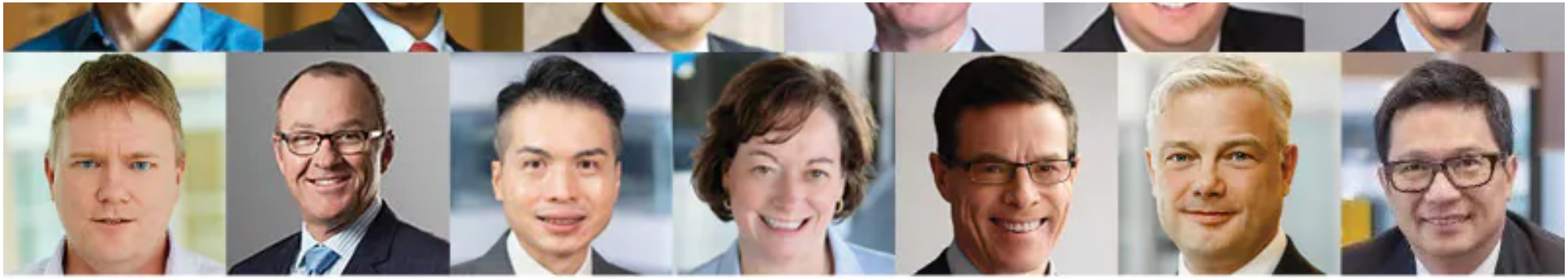

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