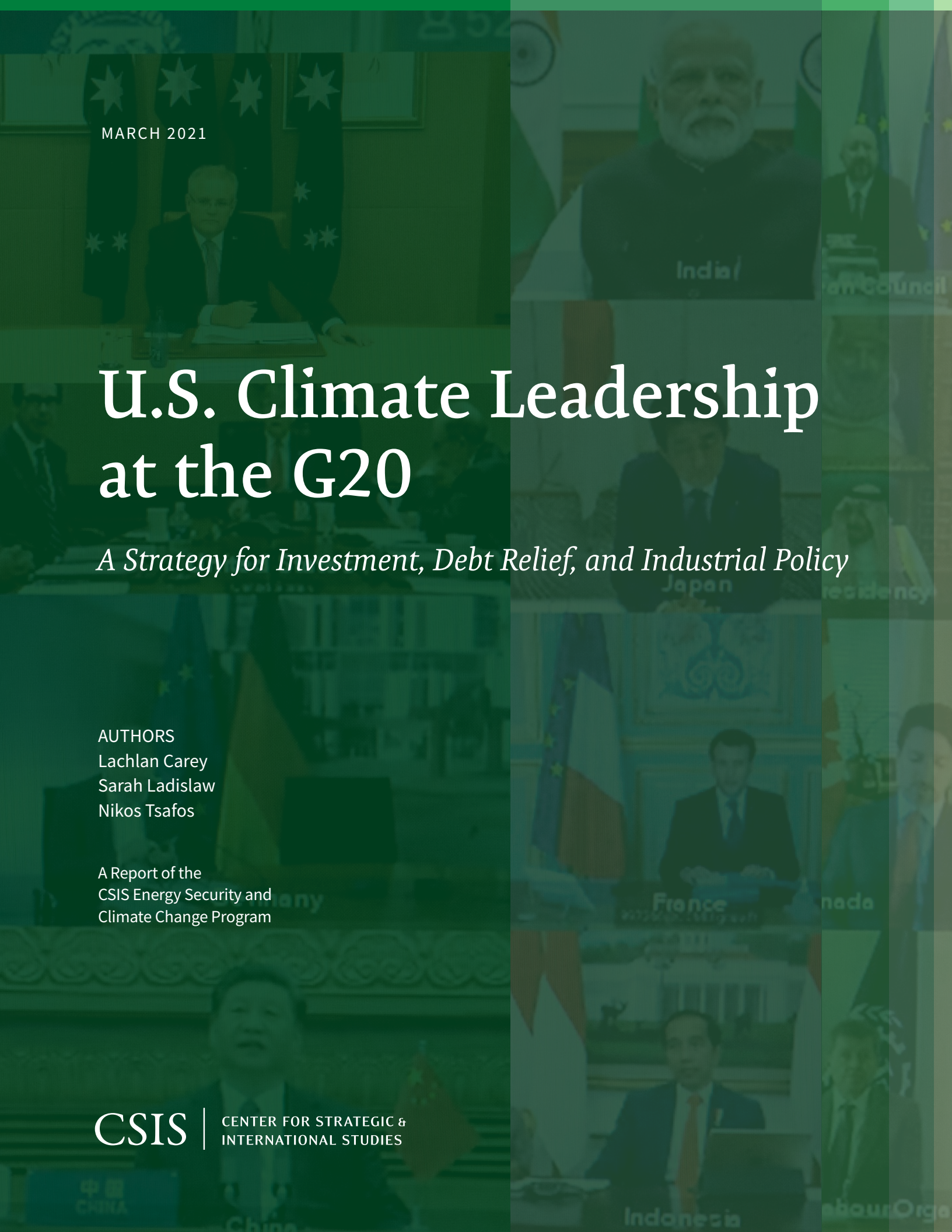

MARCH 2021

U.S. Climate Leadership at the G20

A Strategy for Investment, Debt Relief, and Industrial Policy

AUTHORS
Lachlan Carey
Sarah Ladislaw
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A Report of the
CSIS Energy Security and
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Contents

Executive Summary

Climate change is a formidable global challenge. Left unmanaged, the consequences of a changing climate will have significant negative impacts on health, economics, politics, security, and ecology. Today, the world remains far from meeting its agreed-upon climate targets and is not on a sustainable pathway for reaching them.

The Biden administration has come into office looking for opportunities to use U.S. leadership and multilateral engagement to catalyze more ambitious policies to tackle climate change. Encouraging greater action is a difficult task made more onerous by the economic pressures resulting from Covid-19. Working with other countries is also fraught with the tension between countries and the stresses and strains that exist throughout the multilateral system.

The current moment of economic and geopolitical turmoil does, however, afford some near-term opportunities at the nexus of economic policy, development, and trade. This report proposes three G20 initiatives that could help the Biden administration meet its goals: the mobilization of green investment, the enablement of green debt relief, and the promotion of green industrial policy.

Each proposal targets an opportunity created, or exaggerated, by the Covid-19 crisis. Each takes advantage of existing momentum within the G20. Each requires U.S. leadership and collaboration with other like-minded countries to advance. Most importantly, each would deliver tangible progress toward shared climate and development goals, moving beyond empty promises and unaccountable targets and toward tangible reforms.

Green Development Network

First, the Biden administration can inject much-needed momentum into the green recovery agenda through coordinated investment in renewable energy across the developing world. An expanded role for government spending on green industries should be the centerpiece of global cooperation. While richer nations can fund this investment through deficits and debt, developing countries need more help.

To focus green public investment, the United States should lead a **Green Development Network** in a 30/30/30 challenge. This network would help 30 countries reach 30 percent non-hydro renewable energy generation by 2030. Functionally, the network would:

- Streamline and focus existing institutions, initiatives, and innovations toward a targeted goal which is measured in real-world outputs;
- Mobilize the suppliers of finance, such as export credit agencies, development finance institutions, and multilateral development banks;
- Agree on standards that projects have to meet in order to qualify for funding;
- Create a pool of recipient countries; and

- Develop targeted strategies (or covenants) for each country, apportioning responsibilities between institutions as appropriate.

Green Recovery Facility

Beyond providing the technical and financial resources for greater green investment, G20 nations can help countries make recovery-oriented climate investments of their own through green debt relief. Many developing countries are caught in a historic debt crisis, with insufficient budgetary capacity to address their immediate health and economic needs, let alone to adequately invest in climate mitigation and adaptation strategies.

The G20 should help developing countries pursue climate mitigation, adaptation, and growth-enhancing policies by establishing a **Green Recovery Facility** to collectively negotiate green debt relief deals. By leveraging the balance sheets of participating developed economies and the technical expertise of multilateral institutions, the facility would work with public and private creditors to provide debt relief in exchange for more aggressive climate and nature actions. The facility would:

- Provide a systemic and coordinated approach to negotiating green debt relief deals between creditors and debtor nations;
- Use its financial and technical resources to offer a range of green debt relief options, including debt recapitalization and debt-for-climate swaps;
- Immediately run short-term pilot projects to demonstrate early proof-of-concept to debtors and creditors;
- Expand eligibility criteria for debt relief and apportion relief prioritized by economic, climate, and biodiversity metrics;
- Negotiate climate and biodiversity conditions in exchange for debt relief that are flexible according to economic conditions, standardized across countries, and additional to existing climate actions; and
- Link debtors' conditions to creditors' private and public commitments, incentivizing greater participation.

Green Industrial Policy Dialogue

Finally, as countries look to ramp up their climate ambitions, the global trade regime needs to play an accommodating role. Free trade expansion and globalization have been the orthodoxy of the international order for decades. However, countries are reconsidering the shortcomings of this approach. As more countries craft clean energy industrial policies, the global trade agenda will have to adjust to accommodate, and ideally encourage, even more aggressive climate action.

To provide greater sovereignty and independence in countries' pursuit of green recovery efforts, G20 nations should institute a **Green Industrial Policy Dialogue**. The dialogue would be the first step toward acknowledging that climate ambition, rather than free trade, should be the driving objective of global trade reform. The dialogue would:

- Create a standing G20 agenda item on green industrial policy and trade;
- Provide guidance on how and when to apply trade remedies to climate-related policy action and mitigate the damage of doing so;
- Negotiate a temporary climate waiver within the World Trade Organization (WTO), exempting actions taken to achieve climate targets from normal trade rules;
- Officially complement and protect countries' Nationally Determined Contributions (NDCs) under global trade rules;
- Include ongoing sector- and technology-based dialogues to explore the potential for clean energy supply chain alliances; and
- Agree to acceptable approaches to subsidies and incentives, local content requirements, and deployment efforts on a sectoral basis.

1

A U.S.-Led Strategy for Plurilateral Climate Action

The gap between global climate ambitions and progress toward those goals grows larger every day.

The world is likely to exceed a 1.5 degrees Celsius temperature rise within the next decade, and 2020 was the hottest year on record.[1] According to the United Nations Framework Convention on Climate Change (UNFCCC), emissions need to decrease by about 25 percent from 2010 levels by 2030, and reach net-zero by around 2070, to meet the Paris Agreement target of limiting global warming to well below 2°C. However, the combined emissions reduction of all countries' existing climate change pledges is just 2.1 percent by 2030.[2]

These shortcomings indicate a need to pursue different tactics than the ones that got us to this point.

The world has changed since the Paris Agreement, as has the understanding of how to meet climate ambitions. Climate change will not be solved through carefully negotiated, legally binding international treaties. It will be resolved by climate leaders solving specific problems in key industries through targeted, coordinated actions. Some of these solutions will be policies, others will be low-carbon technologies. The ones already known need to be spread around the world. The ones still to be discovered need to be tested and scaled as soon as possible.

While the effects of climate change will be felt in every corner of the globe, responsibility for leadership lies at the feet of only a few countries and a handful of industries. Since 2010, just four emitters (China, the United States, the EU27 + the United Kingdom, and India) have contributed over half of all greenhouse gases (GHGs). The power, transport, and industrial sectors together account for nearly two-thirds of emissions. There is not one low-carbon transition, but many; there will not be one right answer politically, but a multitude.[3]

It is of course encouraging that a growing number of these countries, as well as many industry associations, have announced net-zero goals. However, reliance on the targets and timetable that defined the last 30 years of climate negotiations will not suffice for the next 30. With most progress to date being achieved through targeted investments in low-carbon technologies, it is time to coordinate global efforts around green investment, reduce investment barriers in developing countries, and begin both high-level and sectoral dialogues on what such an approach means for global trade and investment rules.

There is not one low-carbon transition, but many; there will not be one right answer politically, but a multitude.

Green Recovery

Covid-19 could represent a structural break with the climate policies of the past. On the one hand, the pandemic has exacerbated the economic and political constraints that have held back progress to date. On the other, however, it has forced policymakers to grapple with new possibilities in our approach to systemic and persistent challenges—chief among them climate change.

In 2020, many countries experienced the largest decline in economic output since the Great Depression. Thankfully, aggressive monetary and fiscal policies helped avoid complete collapse. But the global economy is not out of the woods. Where most fiscal support to date has been emergency or relief spending, there is now a need for "green stimulus."[4] Particularly crucial is green investment in clean energy technologies and sustainable infrastructure.[5]

Despite widespread calls for green stimulus, governments have largely failed to incorporate climate or biodiversity considerations into their recovery plans. Only the European Union has committed a significant share of its stimulus—around 15 percent—to green measures. Other large emitters, such as the United States, China, and India, have allocated less than 1 percent each.[6] This only adds to the existing gap between investment needs and committed climate mitigation funds. The Intergovernmental Panel on Climate Change estimates that the world need six times the current annual investment in low-carbon energy technologies to avoid the worst effects of climate change.[7]

The problem is even worse for developing economies. Where developed economies have been able to take advantage of historically low interest rates to fund recovery plans, the rest of the world has not been so fortunate. Total fiscal measures have reached 12 percent of GDP in advanced economies, compared to just 3.6 percent in emerging markets and 1.6 percent in low-income countries.[8] The combination of capital outflows, cratering exports (particularly tourism), and rising debt sustainability concerns has prompted fears of another "lost decade" in economic development.[9] Clearly, "degrowth" is not a feasible climate mitigation strategy for these countries.[10]

Moreover, as developed economies discuss how to "build back better" after Covid-19, developing economies were already struggling to just keep up with population and urbanization growth. As these countries invest in the energy infrastructure necessary to support economic growth, it will be critical to the climate fight that they avoid locking in carbon-intensive energy sources for decades to come.[11]

Despite widespread calls for green stimulus, governments have largely failed to incorporate climate or biodiversity considerations into their recovery plans.

Recent calls for green stimulus come on the heels of a decade of rising competition between countries to dominate clean energy manufacturing and trade flows.[12] In the years since the global financial crisis introduced the world to the concept of a green stimulus, countries have increasingly tied climate policy to industrial outcomes such as job creation and productivity growth.[13] However, this "green race" was constrained over the 2010s, as austerity won out over green stimulus and trade wars beat back some of the more ambitious green industrial policies.[14]

Global leaders and multilateral institutions are likely to commit to yet more ambitious green industrial policies in the years ahead, as domestic political pressures rise and concerns over import dependence and supply chain resilience increase.[15] Institutions such as the International Monetary Fund (IMF) and the WTO—traditionally committed to free market principles as their highest priority—will have to accommodate countries favoring specific sectors and technologies that help meet global climate goals. As countries look to reshore manufacturing capacity, diversify supply chains, and dominate clean energy trade flows, there exists no consensus on what this means for the rules and norms of globalization.

Geopolitical Dynamics

For all the intellectual momentum behind a green recovery, the geopolitical constraints are daunting. There is a sense that the G20 should act aggressively to return conditions to the pre-crisis normal in a manner reminiscent of the 2009 crisis. But much has happened in the intervening decade. For one, the reputation of the United States as the champion of liberal internationalism is in tatters after the decidedly nationalist turn under the "America First" policies of the Trump administration.[16] Indeed, democracy, free trade, and globalization are in retreat worldwide in the face of rising authoritarianism and ethno-nationalist populism.[17]

Perhaps most significantly, the last decade has seen China emerge as a credible strategic competitor to U.S. global leadership. As China's economy has grown, so too have its ambitions. China has moved beyond its "responsible stakeholder" status to one of demanding new rules and institutions consistent with its state capitalist model.[18] In particular, its Belt and Road Initiative has raised concerns that China is conducting "debt trap diplomacy" to secure resources and influence throughout the Global South. Furthermore, much of this investment locks developing countries into China's own carbon-intensive growth model.[19]

However, China must be part of a shared solution. As the world's two largest GHG emitters, cooperation of some kind between the United States and China will be an essential part of any progress toward mitigating climate change.[20] The Biden administration cannot turn back the clock on China's geopolitical and economic rise any more than it can reverse the accumulation of carbon in the atmosphere. Nor should it antagonize a country that justifiably wishes to see its large share of the global population and economy reflected in international institutions.

The United States and its allies should therefore hold Xi Jinping to his word.[21] His speech this year at the Davos forum, "Let the Torch of Multilateralism Light Up Humanity's Way Forward," was an overture toward economic cooperation. Further, his pledge at the 2020 UN General Assembly to reach carbon-neutrality by 2060 signaled a diplomatic opportunity to ramp up climate ambition.[22]

In 2014, the U.S.-China joint agreement on climate change created the necessary conditions for the COP21 framework of NDCs and the historic Paris Agreement. In 2021, these two great powers must similarly agree to set the stage for COP26. However, a mere framework is no longer sufficient, and COP26 is already too late. Real action needs to take place immediately. It needs to move beyond targets and timetables and be embedded within the multilateral forums equipped to move global initiatives forward.

It is not just China that will need to be convinced, however, with many allies likely to think twice before relying on leadership from the United States after the last four years. Restoring U.S. credibility toward global climate policies will take decisive collaborative action. It will take realized initiatives within institutions and forums that are uniquely positioned to resolve multiple crises at once. In particular, the G20 is an important multilateral organization for advancing new ideas and initiatives designed to safeguard the shared interests of the global economy. It is also unencumbered with the large number of countries and onerous procedures that are commonplace in the UNFCCC and the WTO.

A PLURILATERAL APPROACH

The Biden administration can waste no time in addressing these issues. It will have its first opportunity to set an ambitious agenda at the upcoming Earth Day "Leaders' Summit" on April 22. At the summit, Biden has promised to pursue "green recovery efforts" and "initiatives to advance the clean energy transition."[23] It would be a mistake to simply use this summit to encourage more aggressive targets in updated NDCs. While more ambitious targets are important, they should be coupled with complementary efforts to catalyze near-term action by countries through plurilateral means. Fulfilling this promise will require leveraging existing momentum, mobilizing a focused coalition, and implementing targeted initiatives across at minimum three areas.

The remainder of this report details three proposed initiatives that meet these requirements and take advantage of these possible opportunities. Though each has immediate merits of its own, the three initiatives are complementary. No single initiative is sufficient for a green recovery or to bridge the emissions gap on its own. Rather, these proposals are logical places to start within existing constraints—opportunities for a bold new approach to climate action.

While more ambitious targets are important, they should be coupled with complementary efforts to catalyze near-term action by countries through plurilateral means.

2

Green Development Network

The financing needs for climate mitigation and adaptation remain enormous. There is a big gap between the supply of green finance—the pools of capital that could be available for green projects, broadly understood—and the demand for such finance in the form of projects that could plausibly attract this capital. The United States should rally G20 countries, financial institutions, and developing economies around a new goal that can partially fill this gap: to help 30 countries meet 30 percent of their electricity needs from non-hydro renewable electricity by 2030.

This "30-30-30" challenge is about fusing existing initiatives and programs, creating focus, and building political momentum. It is not about reinventing the wheel, since there is already a strong understanding of how to deploy renewable energy in many markets around the world. Many of the suppliers of renewable energy finance in developing countries—multilateral development banks, development finance institutions, export credit agencies, and so on—already have mandates to support renewables or promote climate finance. This initiative would coordinate those efforts by focusing on a specific target, one that can be measured in output (electricity generated) rather than inputs (outlays).

For recipient countries, this is largely about inviting ambition and showing that there is a serious commitment to supporting countries in their efforts to expand renewable energy investments. It is also about ensuring that countries think of renewable energy as they draw their short-, medium-, and long-term responses to the Covid-19 crisis. Importantly, it would also secure investments in industries that can deliver economic growth and jobs without adding to GHG emissions. Of course, this means nudging countries that could receive this investment into accelerating their own efforts: building internal capacity, passing market-friendly reforms, investing in related infrastructure, and developing financial products that could make it easier to pool resources. The "30-30-30" challenge is about rewarding such efforts with a pool of capital that is significant as well as diversified and coordinated among financiers.

The United States should rally G20 countries, financial institutions, and developing economies around a new goal that can partially fill this gap: to help 30 countries meet 30 percent of their electricity needs from non-hydro renewable electricity by 2030.

For the Biden administration, this would fulfil a campaign promise to "prioritize partnerships with countries that make high climate ambition commitments under Paris and provide low-cost financing to these countries for American clean energy exports."[24] Further, if navigated carefully, this "30-30-30" challenge could fulfil another promise to "offer Belt and Road Initiative countries alternative sources of development financing for lower-carbon energy investments," without antagonizing China—perhaps even co-opting the benefits of China's initiative.[25]

Context

The International Energy Agency (IEA) forecasts that the world needs to spend $68 trillion dollars between 2020 and 2040 to meet its climate targets under the Paris Agreement—a 66 percent increase in the rate of investment versus the annual average from 2015 to 2019.[26] This financing imperative presents both supply and demand challenges: the world needs capital that can be deployed in the energy sector, and projects that could absorb that capital and yield a reasonable return on investment. The world has created two Sustainable Development Goals (SDGs) to measure progress on this front; so far, the data shows there is still a long way to go.[27]

SDG Target 7.2 aims to "increase substantially the share of renewable energy in the global energy mix" by 2030, although it attaches no specific figure to the goal by 2030.[28] In 2017, 17.3 percent of the world's final energy was met by renewable energy sources, up from 16.3 percent in 2010—although 40 percent of this energy is met by traditional biomass, which is renewable but not necessarily sustainable.[29] When looking at the share of modern renewables alone, the figures tend to be much lower—often in the single digits.[30]

This lack of progress can be seen in other numbers, too. Solar and wind capacity is concentrated in a select number of major economies. Among the 54 countries in Africa, for example, only 4 had over 200 MW of installed capacity in solar power, and only 6 countries had over 200 MW of wind power in 2019.[31] In practical terms, there is no established path for deploying solar or wind capacity in these places—rather, investors need to establish new regimes for renewable energy investment, and this need to break new ground hampers development.

Public finance can help develop markets for renewable energy, but flows are still modest, even if they are increasing. International financial flows from public institutions for renewable energy were $21.7 billion in 2017, up 13 percent from 2016 and double the level in 2010. This is also an SDG target without a quantitative goal, but as the United Nations notes, just 12 percent of that total went to least developed countries, and 46 percent of the funds went to hydro projects.[32]

Not only is the world failing to make enough progress toward these two targets, but in pressing ahead on another target—ensuring universal access to modern energy services—it has often undermined progress toward clean energy. This challenge has become more acute in light of China's Belt and Road Initiative, which has led to a sharp uptick in China's overseas investments, including for coal-fired power projects.[33] For countries looking to increase electricity supply, the choice has often been between Chinese financing or no financing at all—so countries have welcomed China despite any reservations they may have over project quality (e.g., non-transparent procurement, limited community engagement, no efforts to mitigate environmental harms, and economic terms biased toward China).

Existing Initiatives

There are already a number of initiatives designed to channel finance to developing economies to meet their energy and climate needs. The world's major multilateral development institutions spent $61.6 billion in 2019 for climate finance, and that number has risen recently (these figures exclude the Asian Infrastructure Investment Bank, whose climate spending was $1.7 billion in 2019).[34] Several institutions also have individual climate targets: for example, the World Bank committed 35 percent of its financing over the next five years to projects that have climate co-benefits, up from a target of 28 percent for 2020; the European Investment Bank (EIB) intends to increase its financing related to "climate action and environmental sustainability" to reach 50 percent by 2025; and other institutions have similar goals.[35]

These initiatives exist alongside other efforts. To begin with, there is a multiyear and multistakeholder undertaking to improve the quality of climate projects. This includes concerted efforts to ensure that projects are awarded based on transparent and fair processes; that there are meaningful efforts to consult with local populations; that undue environmental impacts have been minimized; and that the terms are fair to the host country. Some of these initiatives might be national, such as "Power Africa," led by the United States Agency for International Development.[36] Others might be multilateral and target a specific sector, such as the World Bank's "Scaling Solar" initiative.[37] Others still might be driven by like-minded states, such as the "Blue Dot Network," which seeks to evaluate and reward projects that adopt best practices.[38] These efforts all have a common goal: to create a deeper pipeline of quality projects that can attract finance.

Our progress, however, remains slow. Deploying renewable energy technologies still relies on government support: almost all the capacity globally for utility-scale solar PV over the past five years has been enabled by some form of revenue guarantee, often by governments.[39] In such an environment, government institutions and creditworthiness play a big role in shaping project outcomes. The IEA, for instance, estimates that the required return on equity for solar PV projects in India is twice as high as that in developed economies, reflecting country-level challenges and idiosyncrasies.[40] It is not enough to lower the cost of a technology in the abstract; until there are country-specific solutions and favorable institutions, these technologies will never be deployed at scale. This could explain why so much capital flows to hydroelectric projects, which have a different cost structure, greater technical maturity, and fewer regulatory hurdles for integration into an existing electricity system.

But there is hope. Bold government initiatives are rewarded. Vietnam, for instance, instituted a generous feed-in tariff for solar and was instantly greeted with an overwhelming response from

capital markets.[41] Other developing economies in Southeast Asia have seen a similar experience, with the right institutional environment unlocking significant investment.[42] Seen in this light, our lack of progress should be understood as merely reflecting the slowness with which best practices are spread and adopted around the world, along with the reality that each market may require minor tweaks to transpose the global experience to its peculiar circumstances.

Proposed Strategy

The United States should resuscitate these "overlooked" SDGs and make them a priority for the new administration—that is, commit to helping increase the supply of renewable energy in developing economies and to increasing the flow of public funds to support renewable energy. This strategy will have four steps.

First, mobilize suppliers of finance.

These include export credit agencies, development finance institutions, and multilateral development banks. For the United States, that mobilization effort is sometimes clear and straightforward—for example, mandating that institutions such as the International Development Finance Corporation and the Export Import Bank of the United States do more on renewable energy. Other times, this effort will require that the United States use its "voice and vote" to influence institutions where the United States is a member. And lastly, this will sometimes require an element of diplomacy, as the United States invites others to join this effort and make their own commitments. The objective would be for the suppliers of finance to commit to a target of deploying sufficient non-hydro renewable electricity capacity as to cover 30 percent of a target country's electricity needs by 2030. These targets are likely to exist alongside existing initiatives, but they would be more focused and firmer.[43] More importantly, as part of a new, high-profile initiative, they might enjoy more energy and dynamism, thus overcoming some of the bureaucratic inertia that inevitably afflicts major institutions.

Agree on certain standards that projects have to meet in order to qualify for funding.

This would ensure that money is spent responsibly while demonstrating to recipient countries that there is no trade-off between securing finance and ensuring a high-quality project. This would largely build on existing initiatives but might be tailored to allow for a certain flexibility to meet local conditions without compromising the overall objective of investing only in high-quality projects.[44] There is no reason why Chinese financing institutions could not join the network if an agreement can be reached with them. In fact, ensuring Chinese participation should be a central goal, as long as China is willing to invest in good projects that meet certain standards—the screening criterion should be project quality, not the nationality of the sponsor, contractor, or financer. That said, it is likely that the nucleus of this initiative will be among like-minded financiers that have already committed to such standards.

Create a pool of recipient countries.

Focus is a core element of this initiative, and so it will be important that this is not a worldwide mandate but one targeting specific places. The goal will be to create a race to the top among recipient countries—to show that there is a sufficiently large prize within this network that the reforms and efforts required to join are worth the hassle. There are different ways to select countries: one could aim for ambition (who sets an audacious target); one could aim for building a new industry (helping

countries that truly lack non-hydro capacity to develop it); or one could aim for scale (identifying countries with large populations that are expected to register significant growth in energy use). In this part of the initiative, the philanthropic community can play a key role in developing local capacity and in funding planning and other feasibility studies that can kick off a national effort. Coordination with private investors will also be critical where such participation makes sense. The goal is to gather all the relevant institutions to articulate and carry out such an ambitious plan.

Develop targeted strategies, or covenants, for each country, apportioning responsibilities between institutions as appropriate.

These efforts would be designed to be synergistic rather than duplicative. For example, country-level development finance institutions might have a regional focus; export credit agencies would naturally be drawn to sectors where their domestic industries have a competitive advantage and export base; and multilateral institutions would think about how this goal aligns with their existing country-level and regional strategies. These efforts would culminate in covenants—something more than a memorandum of understanding but less than a definite agreement. These covenants would spell out a country-level target (e.g., to deploy 3 GW of onshore wind by 2030) and include commitments by various financial agencies to support this target up to a certain dollar amount.

Discussion

If executed correctly, this effort will deliver not just renewable energy projects but also serve as the basis for a virtuous circle where success breeds success. There are plenty of examples around the world where the first project takes years to complete but each subsequent project takes less time at a lower cost. For many developing countries, renewable energy is still a novelty—risky, unknown, and expensive. The only way to demonstrate otherwise is to work with countries to show that these kinds of projects can deliver energy, economic growth, and quality jobs. For years, developing economies have been promised big sums of money; this is a moment to fully realize that pledge and commit to meet country-level ambitions with serious support from those countries that can supply finance.

This strategy aligns well with the European Commitment to turn the European Investment Bank into a "Climate Bank," along with the European effort to channel more capital into climate through the efforts to create a Taxonomy for Sustainable Finance. Multilateral development banks already have existing targets for climate, and this push would merely channel their ongoing efforts into something more targeted. For many developed countries, this too should reinforce their ambition to support renewable energy projects and renewable energy exports. And for China, which has been sharply criticized for building carbon-intensive energy projects around the world, this is an effort to join a multilateral effort that is part of the solution, rather than part of the problem—even if it requires that China cede some of the control that comes from taking a purely bilateral approach to investment.

3

Green Recovery Facility

As the Biden administration gears up for a green recovery plan at home, developing economies remain caught in the grip of a debt crisis. Both the IMF and the United Nations Conference on Trade and Development (UNCTAD) have estimated that developing countries need at least $2.5 trillion for a rescue package, including $1 trillion in debt cancellations.[45] Yet unlike in 2009, the G20 has failed to forcefully respond to this crisis.[46] In sharp contrast to the "Global Plan for Recovery and Reform," there have been no major reforms to the international financial architecture, few coordinated relief efforts for developing countries, and scarce linkages to averting or preparing for our climate and biodiversity crises.[47]

In his campaign platform, Biden promised to provide "green debt relief" as part of global recovery efforts and to work with international financial institutions in doing so.[48] As such, the United States should lead an effort, alongside G20 nations, to establish a "Green Recovery Facility" (GRF) capable of providing, coordinating, and incentivizing billions of dollars a year in debt relief, debt-for-climate swaps, and sustainable, green recovery loans to fiscally constrained countries. The GRF would draw off the balance sheets of participating G20 countries—along with the technical expertise of the IMF, World Bank, and others—to create a practical mechanism to address the debt crisis in ways that facilitate a green, inclusive recovery.

This would immediately alleviate the fiscal pressure of debt repayments, allowing developing nations to pursue economic recovery and health efforts. This would serve to boost global recovery, address the global pandemic, and avert future financial stability concerns. A GRF would generate long-term stable streams of revenue for climate mitigation, adaptation, and conservation projects in countries that have been inadequately supported by the Global North. Further, it would help build capacity in these countries for managing climate-related projects, gradually averting the need for burdensome and often inefficient multilateral climate funds.

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Context

Even before the Covid-19 crisis, developing countries had reached record levels of indebtedness, and many now fear that their shaky economic environment could trigger a wave of credit rating downgrades, capital flight, and debt defaults.[49] Developing country debt has reached upwards of 180 percent of GDP, and in 2020, there were more sovereign credit rating downgrades than in any previous crisis.[50] Six countries—Argentina, Ecuador, Belize, Lebanon, Suriname, and Zambia—have defaulted on their debts. Unfortunately, little of the accumulated debt since the IMF's Heavily Indebted Poor Countries Initiative and Multilateral Debt Relief Initiative were established has been spent on productive investment, making the need for tying debt relief to economic recovery all the greater.[51]

Furthermore, the makeup of this debt has changed dramatically over the last 10 years, complicating debt relief efforts. At the beginning of 2020, only a third of developing country debt was owed to international financial institutions—another third was owed to private bondholders, 28 percent was held by bilateral creditors, and the remaining share was owed to commercial banks.[52] Significantly, developing countries owe some $370 billion to China, roughly 50 percent more than they do to all 22 so-called "Paris Club" governments—a group major creditor nations.[53] For the most indebted recipients of Chinese lending, the average stock of debt is over 15 percent of debtor country GDP, significantly increasing the debt-servicing burden in these countries. Significantly, China has been a leading player in debt relief efforts so far, and its top leaders have expressed a willingness to go further.

The G20 and IMF implemented a series of critical stopgap measures over the course of 2020 but were impeded by a lack of U.S. leadership in the former and the need for overdue reforms in the latter.[54] G20 nations agreed in early 2020 to establish a Debt Service Suspension Initiative (DSSI), which provides a temporary suspension of debt-service payments owed to bilateral creditors. To date, 40 of the 73 eligible countries have been granted a total of $5 billion in debt relief, about half of which has come from China.[55] In late 2020, G20 leaders also agreed to the "Common Framework for Debt Treatments," which informally expands the group of lenders known as the "Paris Club" to all the G20 that are willing to offer common terms and full disclosure of the debts they are owed—an important but limited step.

The DSSI, however, provides only temporary liquidity relief, and the Common Framework for Debt Treatmens is insufficient for the parallel crises at hand. The expanded framework is an important step, as it now includes key lending countries such as China, India, Korea, and Russia. However, participation remains limited to the 73 low-income countries that are eligible for the DSSI, and there has been little private sector participation. Further, at just 0.5 percent of estimates of required

debt relief, these efforts have fallen short. Reasons for this include their narrow eligibility criteria, missing mechanisms for private sector involvement, and failure to align with shared climate and development goals.[56]

Existing Proposals

From the Pope's most recent encyclical on "Fraternity and Social Friendship," to reports from at least 10 different advocacy groups and academic institutions, proposals to address these overlapping crises of climate and debt have been coming thick and fast.[57] The IMF and World Bank, alongside several European counterparts, have set up a working group to study the issue and are expected to make recommendations to the G20 and others this year. The United Kingdom has also made green debt relief a priority in COP26 and will host a Climate and Development Ministerial that will look at debt relief as one of three key issues.[58] Italy has also signaled that the issue will be a priority in its G20 agenda throughout 2021.

Debt-for-climate swaps have emerged as the most popular mechanism for green debt relief in these proposals, though certainly not the only one. A debt-for-climate swap is an agreement between a debtor country and one or more creditors to restructure, reduce, or buy a portion of outstanding debt in exchange for a percentage of the proceeds (in local currency) to finance climate mitigation and adaptation efforts, usually by a third party. Though swaps in exchange for climate action are a recent innovation, over $1 billion worth of debt-for-nature swaps have been used by almost 30 countries since the early-1980s. Most recently, swaps were used as part of a 2018 deal between the Paris Club, the Seychelles, and Nature Conservancy acting as third party, swapping $30 million of debt to create 440,000 square-kilometer of protected marine area off the coast of South Africa.[59]

As successful as these past examples have been, debt-for-climate swaps have yet to be used at scale, and it seems likely that other mechanisms will be needed to implement sufficient green debt relief to meet both the debt and climate crises. Recent studies have found that previous efforts have lacked standardization, been implemented in an ad hoc fashion, were unable to incentivize meaningful private sector engagement, and had high transaction costs.

As such, some groups have emphasized the potential scalability of state-contingent and performance-linked financial instruments in debt relief. The Finance for Biodiversity Initiative proposed a Nature and Climate Sovereign Bond Facility, for example, which would recapitalize sovereign debt using innovative financial instruments, such as "Nature Performance Bonds."[60] These bonds incentivize climate and biodiversity policy action through direct financial returns, with reductions to the principal or interest payments based on evidence of actions taken or outcomes achieved. Further, these bonds could contain standardized protocols and features, allowing them to be traded in secondary markets and to scale rapidly.

Another issue is that while the IMF's contractual framework for sovereign debt resolution has been a marked improvement over previous periods, it may not be adequate for a systemic sovereign debt crisis requiring multiple restructurings at once.[61] A G20 facility could not only take some of the pressure off this system, but also build toward a "Sovereign Debt Restructuring Mechanism," as recommended by the IMF some two decades ago.[62]

Proposed Strategy

Build a systemic and coordinated approach to green debt relief.

Rather than the country-by-country or ad hoc project approaches of past debt-for-climate swap and debt relief efforts, the GRF would be a structured and coordinated effort. The GRF would be launched by the G20 with key technical assistance provided by member countries, as well as by the World Bank and IMF. Though the IMF's core capacities lie outside the climate and nature remit of a GRF, it should play a central role due to its convening functions in debt relief negotiations, which can help overcome collective action problems and lower transaction costs.[63] A multilateral and coordinated approach led by key creditors—especially the IMF, the United States, and China—is the critical step, and with time, the GRF could grow in resources and experience to operate at a scale commensurate with both our debt and climate challenges.

Lead the way through short-term pilot projects.

To demonstrate proof-of-concept to debtors and creditors alike, the United States and G20 allies should provide the initial financial and technical resources for a small number of pilot deals as part of existing G20 debt relief talks. The United States would have the authority to offer immediate resources through the Tropical Forest and Conservation Act, and there is legal precedent for the president to issue an Executive Order to encourage private sector participation if it is in the national security and foreign policy interests of the United States.[64] These founding members of the GRF would make firm financial commitments that existing initiatives and countries could bid to access in a flexibly-negotiated "green debt relief" deal. For example, the first pilot could be used to anchor the Economic Commission for Latin America and the Caribbean's "debt for climate adaptation swap initiative," where several countries have taken the necessary technical steps to initiate negotiations for debt swaps.[65] Leveraging an existing initiative would provide much-needed experience for the facility while demonstrating its benefits to hesitant debtors and creditors.

Develop prioritized and expanded eligibility criteria.

The GRF would go beyond the world's 74 poorest countries currently covered in G20 debt relief talks. It would include an expanded definition of debt sustainability, particularly considering the risks of future climate impacts, thus incorporating several middle-income countries and small island states that should be eligible for relief. Country access to the GRF would be prioritized based on climate vulnerability, biodiversity richness, indebtedness, creditworthiness, governance quality, and other indicators that would balance the needs of countries and potential benefits of relief. Several reports have offered possible quantitative metrics for such prioritization.[66] Importantly, these metrics would distinguish between countries at risk of insolvency—where "greening" debt relief may slow down critical interventions or provide costly conditions on a country in a state of genuine economic crisis—and countries with high debt burdens that may not threaten economic collapse but do inhibit a government's ability to make green recovery investments.

Strengthen financial and technical capabilities to offer a range of green relief options.

It is clear there is no one-size-fits-all solution to debt relief or climate action, and the GRF would reflect that reality. In some instances, debt-for-climate swaps may be the preferred solution, while in others, the GRF would have the capacity to issue innovative financial instruments—such as performance-linked "Green Recovery Bonds"—or restructure and recapitalize existing debts.[67] The GRF

would leverage the balance sheets of its members—both public and private, and possibly through an initial equity injection—to capitalize concessional and "blended finance" solutions. This flexibility would encourage debtor participation, while credit enhancements would reduce the financial risks for creditors. If handled appropriately as part of the G20 debt relief talks, these "Green Recovery Bonds" could operate in a similar fashion to the Brady Bonds that accompanied debt relief to Latin America in the 1980s, with creditors able to choose between a menu of options on debt relief, and debtors able to choose between a range of climate-related actions.[68]

Implement flexible, standardized, additional, and accountable conditionality.

Unlike previous swap efforts, the GRF approach would allow a developing country the freedom to pursue appropriate green recovery actions through its own budgetary process, rather than through a third-party NGO. This would support greater country ownership and sovereignty, which both is a more effective intervention strategy and helps countries build long-term institutional capacities. As the GRF takes off, its performance metrics are likely to be designed on a case-by-case basis, but as the product develops and the GRF gains experience, it could introduce increasing standardization. Performance indicators would be set according to principles of additionality, such that countries are rewarded financially for undertaking actions that would not have occurred without the debt restructuring. The definition of "Green Recovery" would be broad enough to account for mitigation, biodiversity, and adaptation actions, with the action required as part of a specific restructuring effort determined according to a debtor's unique needs. A third party, such as the World Bank or Green Climate Fund, would be responsible for monitoring and verifying debtors' performance, assuring creditors that they are paying for agreed-upon outcomes.

Link climate conditions to private and public creditors' commitments.

Negotiations could also take place around how private holders of sovereign debt could receive recognized carbon offsets in exchange for restructuring. These could then be used for the private debt holder's own climate commitments or traded in a secondary market. Further, green debt relief could be included in countries' NDCs under the UNFCCC process. This will provide a greater incentive for creditors' involvement and contribute to efforts both to scale voluntary offset markets and to heighten the ambition of NDCs. The incorporation of clear standards and principles would also improve the quality of available carbon offsets for investors and corporations with net-zero climate pledges.[69]

Discussion

There is significant momentum behind a green debt relief initiative, such as a Green Recovery Facility. The Biden administration has committed to "working with other nations to support the most vulnerable to the impact of climate change" and living up to its campaign promises, including that of "green debt relief."[70] Under Italy's 2021 presidency, the G20 has promised to focus on the three interconnected pillars of "People, Planet, and Prosperity," implying a link between ongoing debt relief efforts and global climate, health, and development goals.[71] Finally, the academic and advocacy communities have put together a treasure trove of ideas on debt-for-climate swaps and green debt relief initiatives, many of which have been picked up by key international financial and development institutions, including the IMF and the World Bank.

This is not to say there are not any obstacles, particularly among key creditors. China has historically opposed multilateral debt relief programs, particularly those that include principal reductions. Instead,

it prefers to negotiate on a case-by-case or bilateral basis.[72] Yet with Beijing trying to assuage concerns that its flagship Belt and Road Initiative is a predatory lending mechanism, while also attempting to assume more of a leadership role in global climate talks, there is a strategic opportunity for the United States and its allies to secure Chinese involvement in such a facility. Relatedly, private creditors are typically hesitant to join multilateral debt relief initiatives, both for reasons of fiduciary duty to investors and to "free ride" on any negotiation.[73] Here, it will be critical to have the IMF involved to ensure a reasonable threat of default, but also to find ways to link any green debt relief to net-zero commitments, voluntary carbon offset markets, and other forms of private-sector climate action.

4

Green Industrial Policy Dialogue

Climate change policy and the global free trade regime are on a possible collision course. A growing number of the world's major economies are pledging to reduce emissions to net-zero by 2050 and proposing more stringent regulations, direct government investment, and larger incentives to meet that goal. Many of these domestic climate policies are increasingly being justified not only on the basis of solving the global climate crisis, but also for securing domestic manufacturing, job creation, and economic opportunity.

The theory behind this green industrial policy approach is that if governments provide more direct domestic economic benefits from clean energy development, citizens are more likely to support aggressive climate policy.[74] In the past, green industrial policy has led to technology- or sector-specific trade disputes. Previous disputes have had limited impact on the growth of clean energy, but the potential for harmful trade conflicts could be much greater in a world where countries are taking stronger climate action. And yet, from a climate perspective, if green industrial policy spurs more ambitious clean energy development and deployment, it should be encouraged regardless of its adherence to trade rules.

The G20 should establish a green industrial policy and trade dialogue in order to begin the negotiations on how to avoid and resolve trade disputes over clean energy-oriented climate policy.[75] This dialogue could also agree to the terms of a WTO climate waiver, allowing countries to support local clean energy industries without fear of new trade disputes. The group should also discuss creating supply chain alliances for clean energy, so as to expedite the deployment of emerging clean energy technologies. In general, the dialogue should seek to advance a common understanding of how to craft effective and productive industrial strategy, facilitating competition between countries that support their local industries rather than sparking trade wars that pull down the industries of others.

The Biden administration can use this dialogue as an opportunity to fulfil its promise to center climate change in the recovery and rebuilding of the G20. The dialogue also provides a venue to consult other major economies and trading partners about elements of the Biden agenda that are already raising concerns, such as its supply chain review, Buy America executive order, and focus on reshoring domestic manufacturing. It would also advance key international climate goals, such as global collaboration to accelerate the deployment of clean energy technologies and the phasing out of support for fossil fuel subsidies.

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Context

If the world is going to meet its global climate change goals, governments will have to create policies, regulations, and investments that not only deploy clean energy technologies at the margin but replace or retrofit almost the entirety of their energy systems. Mobilizing this type of effort on an expedited timescale will require a combination of policies and investments that capture more benefit for domestic workers and constituencies but also save on costs via collaboration and investment across borders. There is also a perceived need to deliver such benefits in a bid to politically justify stronger climate measures. While this approach appears to be having greater success politically, it has led to rising trade conflict and protectionism.

For many years, climate policymakers were able to work around the potential conflicts between trade and climate policy by trying to create climate policies and systems that were trade compliant, such as globally linked cap and trade programs. Environment and trade disputes that did arise were predominantly issues of market access based on environmental regulation.[76] To settle these disputes, the WTO used a "balancing test" to judge whether a country's right to enforce an environmental regulation outweighed the need to avoid protectionist action that could hinder trade. These disputes mostly reinforced the principle outlined in the WTO's General Agreement on Tariffs and Trade Article XX that countries could establish trade measures to protect the environment so long as they were found not to be overly or unnecessarily protectionist.

In recent years, however, trade disputes over subsidies, local content rules, and export restrictions have become more prevalent.[77] Trade officials have tried to remove barriers to climate-positive commerce where possible, seeking to negotiate an Environmental Goods and Services Agreement to reduce or eliminate trade barriers to energy-efficient or clean energy technologies and services. However, low-level trade conflicts persisted, with several countries erecting trade barriers to protect nascent markets or seeking recourse through the WTO for the use of perceived unfair subsidies. Many, but not all, of these cases have been against China and its heavy support for solar PV manufacturing, or were launched by China in retaliation for these disputes.

By and large, these trade conflicts have not hampered the development of climate-friendly energy technologies overall, but they have damaged certain companies—and perhaps stymied efforts by some countries to accelerate the development of nascent clean energy industries, particularly solar PV manufacturing.[78] More often than not, supply chains simply shifted to avoid trade barriers, and the overall market for these technologies continued to grow. However, tariffs and other trade remedies have effectively increased the cost of certain clean energy technologies and decreased the likelihood of their adoption.

The situation is likely to get worse given changes in global trade architecture, country preferences for protectionism, and the need to ramp up climate ambition. China, the target of many of the punitive trade measures, is now a dominant manufacturer and exporter of clean energy technologies such as solar PV, wind, and battery technologies. It has included clean energy as one of its 10 "emerging strategic industries" in its upcoming Five-Year Plan, suggesting it is not going to relinquish its dominance in clean energy supply chains without a fight.[79]

Meanwhile, major economies such as Europe, Japan, India, and the United States have pledged much more aggressive emissions reduction pathways that will also deliver concrete domestic economic co-benefits. For example, several countries, including the United States and India, are considering (or have already implemented) domestic purchasing requirements for clean energy technology—an area where the two countries have already gone to the WTO's trade dispute mechanism.[80] Another potential area of trade conflict is on border adjustments that account for carbon content. The European Union has proposed a border carbon adjustment mechanism to protect its domestic industry from trade exposure to countries without stringent climate policies. It is now increasingly likely that countries with stringent climate policies will seek to protect their economies using such trade measures.

The global trading system represented by the WTO is also under significant pressure due to fundamental disagreements among some of its largest members, the exacerbation of those conflicts over the course of the Trump administration, and a general re-evaluation of the trade-offs between free trade and resilience in the wake of Covid-19. Successful broad-based reform to modernize the WTO and address these more existential concerns seems unlikely under the incoming Biden administration. This means that alleviating trade tensions with potentially negative consequences may have to happen through incremental reform efforts or alternative forums. The UNFCCC, the most obvious place to deal with climate policy, has also not proven a fruitful venue thus far for clarifying the relationship between trade and climate-related measures.

Existing Initiatives

Many existing climate-related trade initiatives within the WTO have failed to make sufficient progress over the years. Most are oriented around removing barriers to trade, facilitating exchanges between the WTO and the entities responsible for multilateral environmental agreement such as the UNFCCC, and addressing technical barriers to trade.

The most notable example is the Environmental Goods Agreement, proposed in 2007 by the European Union and the United States to remove trade barriers to goods and services that were deemed to have environmental benefits. The negotiations collapsed due to a ballooning list of goods that countries wanted to include on the list. Some progress was made in 2011, when Asia-Pacific Economic

Cooperation (APEC) countries agreed to negotiate a list of environmental goods and services for which they would remove tariffs. The agreed-upon list was finalized in 2016.[81] There could be some value in extending those negotiations based on the agreement achieved by APEC.

Another proposal within the WTO is the Agreement on Climate Change Trade and Sustainability. Led by New Zealand, Norway, Fiji, Iceland, and Costa Rica, the agreement seeks to remove tariffs on clean energy goods and services, eliminate all fossil fuel subsidies, and promote environmental labelling of products.[82] Negotiations were set to get underway in 2020, but no major economies have joined the effort so far.

The Standing Committee on Environment under the WTO is also advancing work and technical discussion on trade and the circular economy—an issue which includes climate change considerations alongside other important environmental concerns. This work is still at the stage of mapping out the intersections of circular economy issues and trade, trying to build a common approach to pursuing circular economy-oriented policies that are compliant with the global trade architecture.

Outside the WTO, the European Union has proposed a carbon border adjustment mechanism (CBAM) to protect domestic industry from cheaper competitors originating from countries without strict emissions reduction policies. The proposal, expected to be adopted in June 2021, has raised concerns over green protectionism, despite assurances from Europe that the CBAM will be crafted with the express intention of discoursing carbon leakage, being trade compliant, and encouraging better environmental performance in other countries.[83] While not the first time the international community has encountered a carbon border tariff proposal, Europe's CBAM has spurred conversations about how other countries will react by either coordinating with or combatting the proposal.

Finally, there are a myriad of technology- and sector-specific policies in forums such as Mission Innovation, the Clean Energy Ministerial, and international organizations such as the International Civil Aviation Organization (ICAO) and the International Maritime Organization (IMO). These seek to increase support for the development and deployment of clean energy technologies by working throughout the innovation value chain. These forums operate from a variety of perspectives (e.g., policy, technology, finance, and standards) and bring together public and private sector interests to share insights and experiences.

Proposed Strategy

Propose a G20 agenda item to advance a dialogue on clean energy industrial policy and trade. Its dual aims should be: (1) to provide direction on how to resolve potential trade conflicts arising from clean energy subsidies and tariffs, and (2) to propose a clean energy supply chain partnership structure to advance deployment of clean energy technologies among companies and countries that adhere to lead environmental standards. The IEA could be an official partner and lend its counsel and expertise on technology readiness and policy measures to help guide the conversation on which technologies are most in need of additional support. The dialogue would likely receive support from the United Kingdom, Korea, Japan, Canada, and perhaps China and India—all countries that have committed to some level of clean energy industrial policy and share concerns that supply chain scrutiny could lead to trade disputes. The proposals arising from this dialogue could inform the subsequent actions and agendas of organizations such as the WTO, UNFCCC, and others.

Provide guidance on how and when to apply trade remedies to climate-related policy action and how to mitigate the damage of doing so.

Possible examples include an agreement to have a sliding scale of allowable subsidy levels based on the overall level of technology readiness to be commercially deployed.[84] Clean energy technologies that have reached a cost-competitive stage of development could be afforded less latitude for direct subsidy and protection, whereas technologies at earlier stages of development could be allowed more protection. When it comes to promoting domestic industries or local content, there could be some quota levels established to ensure that green protectionism allows for some domestic capacity, both for economic opportunity and supply chain resilience—but also that these measures do not fully block market access. Finally, countries could agree that some of the revenue generated by the tariffs be recycled into clean energy incentives even when trade remedies are levied, thereby at least partially negating the potentially negative impact on clean energy promotion caused by the hiring prices resulting from the tariffs.[85]

Operationalize recommendations through a temporary climate waiver within the WTO.

This would establish some general principles for how to balance the domestic economic benefits of climate change policy while still striving to foster global cooperation and cost reduction. Waivers, within the context of the WTO, are used to provide specific countries and activities exemption from normal trade preference rules. While waivers are normally applied to just one country, in extraordinary circumstances and for only a one-year timeframe, there is precedent for larger and broader applications of a waiver, such as removing intellectual property rights for the purposes of making certain medicines more broadly available.[86] In this case, a climate waiver could exempt actions taken to achieve climate-related targets from normal trade rules. This could open the door to more aggressive subsidies, domestic purchasing, and domestic industry support, all ideas that countries with ambitious plans to decarbonize their energy sectors by 2050 are likely to promote. In theory, a climate waiver could also clarify the trade rules around carbon pricing, border carbon adjustments, and punitive trade measures against actions that are contrary to international climate objectives. It may be politically infeasible for the waiver to include all these dimensions at first, but even a more limited waiver would represent an important entry-point into broader areas of clarification, and ultimately into reform of the trade rules.

Complement and protect countries' NDCs through the climate waiver.

That is, trade rules would be removed from national measures that are designed to preference the use of energy sources or industrial processes that lower emissions and that are not found to be arbitrarily protectionist.[87] This means that most of the activity included in a country's NDC (i.e., their climate plan submitted to the UNFCCC for the purposes of joining the Paris Climate Agreement) also subject to trade rules would be allowed, so long as it did not constitute unjustifiable discrimination or was not motivated by climate needs.

Include ongoing sector- and technology-based dialogues to explore the potential for clean energy supply chain alliances.

There are already nascent sector dialogues on clean energy partnership throughout a range of technical associations and trade organizations. These alliances could help provide specific recommendations, guidelines, and advice for how countries can take the principles established in the industrial policy dialogue and apply them within the context of the climate waiver. As noted earlier, there are

already broad multilateral groupings, such as Mission Innovation and the Clean Energy Ministerial process, that work with sectors and supply chains on pathways to reduce emissions through policies, investments, and innovation. These groupings should be brought together to discuss how to accelerate the development and deployment of clean energy technologies in order to protect members of the supply chain from the competitive pressures of less environmentally ambitious firms and countries.

Create supply chain alliances based on agreed approaches to subsidies and incentives, local content requirements, and deployment efforts.

This discussion could include a way to reconcile the carbon border adjustment mechanism idea currently being promoted by the European Union. For example, not all countries will get equal treatment through regulation or carbon pricing of their emissions-intensive industries. Many countries will, however, have firms that choose to act in environmentally stringent ways, be it to gain access to markets with more stringent policies or to partner with companies in the clean energy supply chain with high environmental or quality standards. These partnerships can also work by encouraging governments and consuming industries to establish Buy Clean policies or consumer agreements to help them scale their operations even faster. The steel sector is one possible example: to pioneer lower-carbon steel before it is cost-competitive, producers will need systematic support from governments, access to markets and purchasing agreements, and protection from less expensive but more emissions-intensive competitors. Advancing the development of these technologies will likely require a degree of coordination and cooperation throughout the supply chain for steel and steel-related products all the way to end markets.[88]

Discussion

It should be noted that many countries may find this approach concerning. Proponents of a free trade agenda will see it as a slippery slope to green protectionism and may consider it damaging to the broader WTO reform agenda. Indeed, the United States, the European Union, and Japan have been working on a proposal through the WTO that aims to constrain the state-economy-led practices of China; they have put forward proposals to restrain China's approach to subsidies, state-owned-enterprises, forced technology transfer, and more. These efforts are a source of tension between those three countries and China. Promoting the above strategy may have two desired effects: (1) it may allow China to claim a small victory with its model of state support when it comes to climate action, and (2) it may allow the United States, the European Union, and Japan to focus their reform arguments on other sectors of the Chinese economy by offering a legitimate reason to make an exception for the climate sector.

As the single largest trading relationship in the world, any reform to the rules of global trade has to include the United States and China. It is clearly in both countries' interests to rewrite the rules of the WTO in such a way that further damage from trade disputes can be avoided. While the bilateral trade relationship is strained by years of such disputes, there may be scope for climate-friendly trade reform in a multilateral setting where neither side is perceived to be making direct concessions to the other. In general, China should be very open to a dialogue that seemingly validates its approach to clean energy industrial policy but also seeks to ensure that more ambitious policies do not lead to higher prices for energy technologies that would benefit developing countries. There will be considerable pressure on the Biden administration to pick up where the Trans-Pacific Partnership left off, the threat

of which may be enough to bring China to the table. The issue of climate change offers a possible fulcrum around which such discussion can take place, replacing "free trade" as the moral and narrative driver of reform.

It is also important to persuade developing countries that this type of "green protectionism" will not adversely impact their interests. It will be important to make the case that the trade environment for clean energy goods could still be relatively open despite allowing more ambitious domestic climate policy—particularly if countries are not fighting trade battles with one another—and that if markets expand quickly, the cost of clean energy technology could drop.

6

Conclusion

This report has offered three practical yet ambitious policies the Biden administration can lead on as part of a plurilateral strategy of heightened climate action. These ideas all leverage existing momentum in multilateral forums, particularly the G20, and therefore are more likely to gain traction in the path-dependent process of international climate negotiations. Each policy takes the gap in existing climate ambition seriously, as well as the resulting need to try a fresh yet familiar approach. While the targeted and sectoral approach has been pushed in intellectual discourse for some time, it has yet to be seriously tested or tried. The calls for heightened ambition in the wake of Covid-19, and the desire to lead on these issues by both the Biden administration and many of its allies such as the United Kingdom and Italy, have opened a unique window of opportunity for action.

Importantly, these ideas were not landed upon in isolation, nor should they be implemented each separate from the other. The Green Development Network would complement the Green Recovery Facility, for example, with international financing for renewable energy projects potentially providing credit enhancements for local budgetary outlays newly made available through green debt relief. Further, the Green Industrial Policy Dialogue would provide the space for countries to ramp up support for local clean energy industries, thereby taking full advantage of any newfound fiscal space or financing opportunities. Tactically, developing countries who may be suspicious of developed countries erecting trade protection barriers after decades of espousing free trade fundamentalism may be assuaged by green debt relief and financing incentives.

Nor are these policy options by any means sufficient action. There is a clear and present need for heightened R&D collaboration on clean energy innovation, for example. Decarbonization of so-called "hard-to-abate" sectors, such as petrochemicals, shipping, or aviation, is another area where the United States and its allies should lead through ambitious plurilateralism. Perhaps the most salient

purpose of this report is to simply press upon the Biden administration the necessity of action over negotiations, of problem-solving over target-setting, of pragmatic commitments over idealistic discourse. Neither this strategy, nor any one of these ideas, guarantee success, but in what is perhaps the most important decade in our history for saving this planet, we have very little to lose by giving it a shot.

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