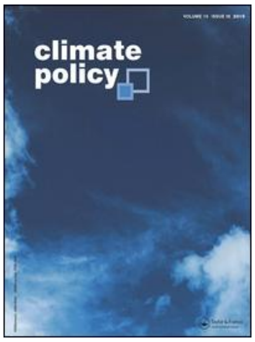

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OUTLOOK ARTICLE

Harnessing international climate governance to drive a sustainable recovery from the COVID-19 pandemic

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ABSTRACT
The impacts of the COVID-19 crisis and the global response to it will co-determine the future of climate policy. The recovery packages responding to the impacts of the pandemic may either help to chart a new sustainable course, or they will further cement existing high-emission pathways and thwart the achievement of the Paris Agreement objectives. This article discusses how international climate governance may help align the recovery packages with the climate agenda. For this purpose, the article investigates five key governance functions through which international institutions may contribute: send guidance and signals, establish rules and standards, provide transparency and accountability, organize the provision of means of implementation, and promote collective learning. Reflecting on these functions, the article finds that the process under the United Nations Framework Convention on Climate Change (UNFCCC), together with other international institutions, could promote sustainable recovery in several ways.

Key policy insights:

- The incoming UK presidency of the Conference of the Parties (COP) should urge Parties to present transformative sustainable stimulus packages alongside more ambitious nationally determined contributions (NDCs) at the postponed Glasgow Climate Conference (COP 26).
- Specific principles and criteria for sustainable recovery should be adopted. A coalition of interested governments should work through institutions such as G20 to enable swift action even before COP 26.
- The Glasgow Conference should establish a process to review the consistency of recovery packages with the Paris Agreement and their implementation, to support their sustainability and promote policy learning.
- Developed countries and international financial institutions should renew their climate finance commitments, and work towards an increased long-term finance objective in the context of greening recovery packages.
- At COP 26 governments could take stock of the 'Paris-compatibility' of international recovery support and adopt further guidance as necessary.

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Paris Agreement; UNFCCC; COP 26; COVID-19; Corona crisis; sustainable recovery

Introduction

2020 was supposed to be the year of climate ambition. The Nationally Determined Contributions (NDCs) countries have so far put forward under the Paris Agreement fall far short of what would be required to achieve the Agreement's long-term objectives of keeping the rise in the global mean temperature since the start of industrialization 'well below' 2 degrees Celsius, and to pursue a more ambitious goal of 1.5 degrees

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Celsius. In addition, the implementation of several NDCs has been lagging (Roelfsema et al., 2020; UNEP, 2019). The Paris Agreement and its accompanying decision, however, provide for the periodic strengthening of NDCs, with the first main staging post in 2020. The 26th Conference of the Parties (COP 26) to the United Nations Framework Convention on Climate Change (UNFCCC) in Glasgow in November 2020 was therefore supposed to be the culmination point of an intensive diplomatic process on ratcheting up climate ambition (Obergassel et al., 2020). Instead, due to the COVID-19 pandemic, the Glasgow Conference has been postponed to November 2021 and climate policy development has come under pressure.

While COP 26 has been postponed, the impacts of the pandemic and how governments respond to it will shape key parameters for future climate policy. The pandemic has triggered a massive global economic crisis and governments across the world have responded with extensive economic relief and recovery packages (Hale et al., 2020). The fiscal impacts of both the crisis and the relief and recovery measures will leave countries with enormous budget deficits. At the same time, monumental investments are required to achieve the objectives of the Paris Agreement. In the power sector alone, investments in the order of USD 20 trillion need to be shifted from fossil fuel infrastructure to renewables and energy efficiency by 2050, and an additional USD 27 trillion needs to be attracted compared to current levels of investment (IRENA, 2018). The recovery packages are an opportunity to mobilize this funding. Conversely, if this is missed, there may be little further opportunity to raise public finance for climate protection in the following years.

While the full picture is still emerging, early indications of the immediate crisis response have been worrying. The Energy Policy Tracker[1], a joint initiative of six leading international environmental think tanks, has estimated that G20 countries alone intend to funnel at least USD 160 billion to fossil fuel industries, reinforcing and locking in old structures.

The world is therefore at a crucial crossroads. The measures taken so far by governments were mostly emergency relief to prevent economic collapse. The recovery packages that are being developed and implemented now will have a long-lasting impact. They will either be used to chart a new sustainable course or further cement existing high-emission pathways, putting the Paris Agreement objectives out of reach. It is therefore imperative to explicitly gear the recovery packages to supporting the long-term transformations that are necessary to achieve these objectives (Schneidewind & Fischedick, 2020).

While the recovery packages are being developed nationally, international climate policy has various means at its disposal to influence national policy-making. This article therefore aims to explore what the UNFCCC process, together with other international institutions, can do to promote climate mainstreaming in the global response to the pandemic. The article begins by introducing five general governance functions that international institutions can perform to address a certain problem. On this basis, the article then investigates how the UNFCCC and other international institutions may activate these governance functions to help achieve a sustainable recovery from the COVID-19 pandemic. The article concludes by synthesizing its key recommendations.

Functions of international governance

International governance can be understood as the steering of actors' behaviour towards a common or shared goal. This can be achieved through the setting of rules, standards and guidelines, or through targeted support (Roger et al., 2017). Measures to combat climate change do not necessarily require such international governance. Nonetheless, international governance can facilitate and accelerate action and is therefore widely seen as an essential element of addressing climate change adequately (IPCC, 2014).

Drawing on the rich literature on the functions and effects of international governance (Bulkeley et al., 2014; De Búrca et al., 2014; Loorbach, 2010; Simmons & Martin, 2002; Stokke, 2012; Young, 1999), Oberthür et al. (in press) lay out five key functions that circumscribe the potential of international institutions to help address a certain problem, such as achieving a sustainable recovery to the COVID-19 pandemic. While other categorisations exist (e.g. Young & Levy, 1999), we believe that the following captures the main functions of international institutions as identified in the literature.

Guidance and signal: International institutions can signal the resolve of their members to pursue a certain course of action such as decarbonization. If countries credibly agree on long-term visions and goals, this may enhance political certainty and alter the expectations of international and national investors thereby affecting their investment decisions of today (see also Kanie & Biermann, 2017; Morseletto et al., 2016). For instance, the objectives of the Paris Agreement have provided an important (though imperfect) signal to business and others to pursue low- or zero-carbon development (Falkner, 2016). By formulating such objectives, international institutions can provide signals that establish expectations regarding national policy and may lend crucial support to domestic pro-compliance stakeholders (Dai, 2010).

Rules and standards: In addition to signalling the desired direction of travel, international institutions can also require certain actions from countries and other actors in order to achieve the common objectives, albeit within the limitations of the anarchy of international politics (Waltz, 1979). Rules may vary in form, ranging from self-enforcing standards for simple coordination problems to coordinated target setting with implicit or explicit burden sharing agreements for collective action problems with strong interdependencies (Jordan et al., 2011).[2]

Transparency and accountability: International institutions may enhance the transparency and accountability of their members' actions. Data on implementation may be collected by treaty secretariats or be submitted by the Parties themselves. Subsequently, the institution may review the data and substantive implementation (Gupta & van Asselt, 2019). Finally, international agreements may provide for compliance procedures to hold Parties to account for any identified implementation deficits. Consequences for non-implementation of commitments may be facilitative, including international support for the Party concerned, or more forceful, imposing penalties. In addition, international transparency can empower domestic pro-compliance stakeholders by providing them with key information (Dai, 2010). However, developing and implementing adequate transparency provisions requires substantial capacity at international and national levels; countries with little domestic capacity may require international support.

Means of implementation: International institutions may facilitate the provision of capacity building, technology transfer, and financial resources among members, including coordination efforts for effective allocation, pooling of resources and burden-sharing among donors (Chayes & Chayes, 1993).

Knowledge and learning: International institutions may create and diffuse scientific, economic, technical and policy-related knowledge about the problem and possible solutions as well as platforms for individual and social learning. A key contribution from international governance is the collective appraisal of knowledge to increase acceptance and advance international political discussions (Gehring, 2008; Mitchell et al., 2006).

We use these key governance functions to structure and guide our analysis of the scope for activating the potential of the UNFCCC process and other key international institutions to ensure that the economic recovery packages rolled out to alleviate the COVID-19 crisis also contribute to, and ideally strengthen, the international response to climate change.

Options for promoting a sustainable recovery

Guidance and signal

Governments are mobilizing unprecedented amounts of resources to respond to the economic impacts of the pandemic. International institutions could help to 'green' these recovery packages by sending signals on the urgency of doing so and by providing guidance on what this should mean in detail.

In contrast to the major global economic crisis in 2008/2009, relevant guidance for the design of economic recovery packages is already contained in the Paris Agreement and the UN Sustainable Development Goals. Specifically, Article 2.1c of the Paris Agreement stipulates 'making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development' as a major objective.

International institutions could undertake to strengthen these signals and some have already taken steps in this direction. For instance, the Finance Ministers of the G20 have called for an 'environmentally sustainable and inclusive recovery' (G20, 2020). Japan hosted an online ministerial meeting on sustainable recovery in September 2012 and established the 'Redesign 2020' online platform. The platform is an invitation to governments to showcase information on their policies and actions to achieve a sustainable and resilient recovery from COVID-19 (Platform for Redesign 2020, 2020)

In addition, UN Secretary-General Guterres has repeatedly called on countries to use the opportunity to 'build back better' (United Nations, 2020a) and recently announced a 'landmark global event' to mark the fifth anniversary of the Paris Agreement on 12 December 2020 to be co-hosted together with UK Prime Minister Johnson. At this event, governments will be invited to present more ambitious climate plans as well as COVID-19 recovery plans (United Nations, 2020c).

In our view, the UNFCCC process should take further steps to reinforce these signals. Admittedly, the timing is a challenge as the recovery packages are being designed in 2020 while the Glasgow Conference has been postponed to November 2021. Nonetheless, utilizing the ongoing preparatory process for the Glasgow Conference would allow exploiting the high public profile of the COPs. For example, the incoming UK presidency could build on the Paris anniversary initiative and immediately announce that it will make sustainable recovery a key theme of the Glasgow Conference and call on Parties to bring not only improved NDCs, but also transformative sustainable stimulus packages to COP 26. The UK could also announce that it will organize high-profile formats like ministerial roundtables on sustainable recovery during COP 26's high-level segment.

Such an initiative could encourage and incentivise governments to design recovery packages that are 'Paris-compatible', to be able to deliver something respectable in Glasgow. In doing so, it could also support pro-climate stakeholders in the respective domestic discussions on shaping recovery packages. Moreover, if Parties aligned their initiatives towards sustainable recovery in response to such a call, they could reinforce each other's efforts, for example by helping create and enlarge relevant markets.

Rules and standards

Given the vast amount of resources that are going to be spent to recover from the pandemic, one might wish for clear rules on how this government spending can boost - rather than undermine - the achievement of the Paris objectives. However, international institutions are unlikely to be able to agree firm rules on a sustainable recovery from the COVID-19 crisis, given the urgency of such a recovery. Nonetheless, they could define a kind of 'gold standard', a legally non-binding list of principles and criteria, 'dos and don'ts' for how to design sustainable stimulus packages. Agreement on such principles and criteria could exert pressure on all Parties to develop their recovery packages accordingly. Providing further support to domestic pro-climate stakeholders to this end, such principles and criteria could reinforce a general call for sustainable recovery and help align countries' efforts.

There is an on-going debate across academia, national governments and international institutions on how to design sustainable recovery packages (e.g. Hepburn et al., 2020; OECD, 2020). The main theme in the growing literature is to focus recovery packages on low-emission investments and away from high-emission infrastructure such as fossil fuel power plants. Furthermore, the literature has emphasized that currently low fossil fuel prices may provide an opportunity to remove fossil fuel subsidies, or even introduce carbon pricing (Mintz-Woo et al., 2020; Moerenhout & Urpelainen, 2020; Pezzini & Halland, 2020).

Already, several international institutions have developed relevant guidelines. For instance, the World Bank (2020), International Monetary Fund (IMF) (2020), the International Energy Agency (IEA) (2020) and the International Renewable Energy Agency (IRENA) (2020) all have developed some form of recommendations for sustainable recovery programmes. Moreover, a 'Menu of Policy Options' has been developed by the United Nation's Initiative on Financing for Development in the Era of COVID-19 and Beyond (United Nations, 2020b). But all of these documents have in common that they are not officially negotiated texts but rather technical staff documents without political backing.

Again, timing is particularly challenging as principles and criteria for sustainable recovery should become effective before the design of relevant programmes is finalized. In our view, interested governments should therefore work through platforms that enable quick action, prior to COP 26. To this end, a coalition of interested governments could promulgate principles and criteria through a political declaration. Such a declaration would have less legal standing than guidance officially adopted by an international institution, but it could still help solidify an international standard of best practice. It could also pave the way to, and be complemented by, international institutions such as the World Bank, the IEA or IRENA officially adopting relevant guidance on the basis of their existing documents. While the anti-climate stance of the current US administration may hinder such action, the US could join the bandwagon if Democrat candidate Joe Biden won the US presidential election in November 2020.

The Glasgow Conference and the UNFCCC process running up to it could then build on and reinforce this work. A COP decision could reaffirm the will of the international community to make all recovery measures consistent with the goals of the Paris Agreement – thereby providing additional support for the further development and unfolding implementation of recovery programmes.

Transparency and accountability

International institutions could support the 'greening' of COVID-19 recovery packages by collecting and analysing data on how their members are designing and implementing their recovery packages and to what extent the packages are consistent with the Paris Agreement. Early agreement on such an international review could help motivate governments to design and implement recovery packages consistently with the Paris Agreement in order to avoid the negative attention that would be generated if the international review found that the recovery packages were harmful to climate change objectives. The information generated by such reviews could also be used by domestic stakeholders to put pressure on their governments.

In our view, the Glasgow Conference and the public attention it will generate provides a particularly valuable opportunity for 'faming and shaming' – to celebrate countries that are using their recovery packages to accelerate a sustainable trajectory, and point the finger at those that do not. To this end, the incoming UK presidency could make sustainable recovery a topic for ministers during the COP's high-level segment, as suggested above. COP 26 could also establish an official process for considering sustainable recovery programmes and their implementation, for example, in dedicated thematic sessions that could start at Glasgow and continue at future COPs.

As part of such thematic sessions, the UNFCCC could also organize a process of voluntary peer review of stimulus packages and their implementation, taking inspiration from the Voluntary National Reviews on how countries are implementing the Sustainable Development Goals (Huang, 2018). This would be an important advance over the 2008/09 financial and economic crisis, when several ex-ante assessments of the 'green' credentials of the various economic stimulus packages (Barbier, 2010; Bowen et al., 2009; Höhne et al., 2009; Robins et al., 2009; Schepelmann et al., 2009) were not followed up (Schepelmann & Fischedick, 2020).

Means of implementation

An essential enabler of international cooperation, means of implementation – including climate finance and technology transfer - have consistently been a most contentious negotiation issue (Obergassel et al., 2020). In 2009/10, developed country Parties pledged to 'mobilize' climate finance for developing countries of USD 100 billion annually by 2020 (UNFCCC, 2011, para. 98f). In Paris, Parties agreed to extend this target to 2025 and to begin discussing an increased long-term finance objective for the period thereafter (UNFCCC, 2016, Decision 1/CP21, para 53).

However, given the unfolding economic crisis and the increasing debt burden brought on by the COVID-19 pandemic, it will become ever more difficult for developed countries to commit adequate financial means of implementation. At the same time, the pandemic and the ensuing economic crisis will increase the need for financial resources, as they will drain the resources available for climate protection in developing countries. In the ongoing process of NDC revision, many developing countries may therefore be reluctant to increase their unconditional climate action pledges, and instead focus on the NDC component that is conditional on receiving international support.

Countries that are highly dependent on income from tourism and travel deserve particular attention, given that this sector has been hardest hit by restrictions imposed to limit the spread of COVID-19. These countries also tend to be highly vulnerable to the impacts of climate change. According to the World Travel & Tourism Council (WTTC, 2020), 30 out of 185 countries covered in their database accrued more than 20% of their GDP from travel and tourism – 17 of these are small island developing states. For the countries at the top of the list – the Seychelles, the Maldives and St. Kitts and Nevis –

tourism contributes around two-thirds of their GDP. The pandemic could strip these countries of resources for desperately needed adaptation (and mitigation) measures. COP 26 should recognize and seek to address this issue, not least through increasing and prioritizing climate finance for affected countries. As part of this, the COP could establish a work programme on sustainable tourism aimed at supporting heavily dependent countries in reinstating tourism more sustainably, while also diversifying economically to increase resilience.

In our view, developed countries should therefore confirm and renew their collective and individual commitments to the USD 100 billion target, and consider an increased long-term finance objective in the context of greening recovery packages. Given the postponement of the Glasgow Conference, this reconfirmation should ideally come sooner, for example in the context of the G20 or the OECD. In addition, international financial institutions could resolve to provide support targeted specifically at leveraging the greening of recovery packages. Such support should be aligned with general guidance on how to design sustainable recovery packages, as discussed in section 3.2.

Governments could then formally reconfirm the climate finance commitments at the Glasgow Conference. In addition, the COP could take stock of the extent to which international recovery support has been 'Paris-compatible', and as necessary request international financial institutions to ensure the Paris consistency of their support activities.

Knowledge and learning

While there is plenty of experience with policies to stimulate demand, the COVID-19 crisis is unprecedented because it results from a joint demand and supply shock. At the same time, the environmental and sustainability implications of economic recovery measures have not been studied systematically (see above). Doing so would likely yield important lessons on how to implement sustainable recovery packages most effectively. While some policy assessment and reflection of lessons learned regarding economic and environmental effects can be expected in forums such as the G20 or the OECD, the aforementioned UNFCCC review process and thematic sessions may also serve to advance policy learning. It could identify what aspects of recovery policies have best advanced the climate transition and thereby promote mutual learning. Such a process could be particularly useful for smaller and less developed states, where institutional capacity for in-depth analysis may be more limited.

Conclusions

The above review of five key governance functions of international institutions has enabled us to identify ways in which international climate governance could promote sustainable recovery from the COVID-19 crisis. Timing is a challenge, as recovery packages are being developed already in 2020, while the Glasgow Conference will take place only in November 2021. Nonetheless, with its high public profile, the UNFCCC process could still make several important contributions, in particular if the on-going preparatory process for the Glasgow Conference were utilized swiftly, for example building on the five-year anniversary event to be co-hosted by the UK and the UN Secretary-General in December 2020. In addition, other relevant fora, such as the G20, or coalitions of interested governments should be used for elements that are time critical, in particular for the development of principles and criteria for sustainable recovery, and for giving direction to the provision of means of implementation. The Glasgow Conference could then reaffirm such standards and promote effective implementation by establishing a process for review and collective learning from the experience gained.

We propose four specific lines of action for how the UNFCCC, together with other international institutions, could promote climate mainstreaming of recovery measures. First, to enhance the guidance and signals already sent by various international institutions, the incoming UK presidency could immediately announce that it will make sustainable recovery a key theme of the Glasgow Conference and organize formats to discuss the contents of Parties' recovery packages. Such an initiative could have an immediate effect ahead of COP 26 as it would put governments on notice that they will need to have something respectable to present in Glasgow.

Second, specific principles and criteria for sustainable recovery are needed as soon as possible. Such guidance would be helpful not only to inform national discussions but also to inform the provision of means of implementation for recovery packages. Developed countries and international financial institutions should confirm and renew their collective and individual climate finance commitments and commit to align and increase long-term finance in the context of greening recovery packages. Interested governments should therefore form a coalition to promulgate principles and criteria for recovery packages as well as financial commitments through a political declaration and work through other institutions such as the G20 to officially adopt relevant guidance prior to COP 26.

Third, the Glasgow Conference should establish a process to review the 'Paris-compatibility' of recovery packages and their implementation, including both national implementation and the international provision of means of implementation, in order to enhance Parties' accountability, promote policy learning and advance implementation on the basis of lessons learned.

COP 26 should also establish a work programme on climate change and sustainable tourism, aimed at supporting highly vulnerable and highly tourism dependent countries. The work programme should seek ways to address the immediate hardship of those countries caused by the COVID-19 crisis, support the return of tourism in a sustainable manner, and help advance economic diversification and address the structural changes resulting from the collapse of tourism.

In the immediate response to the COVID-19 pandemic, multilateralism has been somewhat upstaged by nationalistic reflexes. However, international governance in general and the UNFCCC and COP 26 in particular have an important role to play in ensuring that governments grasp the exceptional opportunity to use the COVID-19 crisis response for advancing the climate transition. We believe that the lines of action proposed above can help promote the mainstreaming of climate change mitigation and adaptation in the global response to the pandemic and hence demonstrate the value of multilateralism in these challenging times.

Notes

1. energypolicytracker.org, 2020
2. This can also include international policy instruments such as international carbon markets. The adoption of modalities and guidelines for international cooperation in accordance with Article 6 of the Paris Agreement is one of the key tasks at COP 26.

Disclosure statement

No potential conflict of interest was reported by the authors.

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References

Barbier, E. B. (2010). *A global green new deal: Rethinking the economic recovery (Vol. 1–1 online resource)*. Cambridge University Press.

Bowen, A., Fankhauser, S., Stern, N., & Zenghells, D. (2009). *An outline of the case for a 'green' stimulus (pp. 1–11)*. Grantham Research Institute on Climate Change and the Environment, Centre for Climate Change Economics and Policy.

Bulkeley, H., Andonova, L. B., Betsill, M. M., Compagnon, D., Hale, T., Hoffmann, M. J., Newell, P., Paterson, M., Roger, C., & Vandeveer, S. D. (2014). *Transnational climate change governance*. Cambridge University Press.

Chayes, A., & Chayes, A. (1993). On compliance. *International Organization*, *47*(2), 175–205. https://doi.org/10.1017/s0020818300027910

Dai, X. (2010). Global regime and national change. *Climate Policy*, *10*(6), 622–637. https://doi.org/10.3763/cpol.2010.0146

De Búrca, G., Keohane, R. O., & Sabel, C. (2014). Global experimentalist governance. *British Journal of Political Science*, *44*(3), 477–486. https://doi.org/10.1017/S0007123414000076

energypolicytracker.org. (2020, July 22). G20 analysis. *Energy Policy Tracker*, https://energypolicytracker.org/region/g20/

Falkner, R. (2016). The Paris Agreement and the new logic of international climate politics. *International Affairs*, *92*(5), 1107–1125. https://doi.org/10.1111/1468-2346.12708

G20. (2020). *Communiqué of the G20 Finance Ministers and Central Bank Governors Meeting 15 April* 2020. https://g20.org/en/media/Documents/G20_FMCBG_Communiqué_EN%20(2).pdf

Gehring, T. (2008). Treaty-making and treaty evolution. In *The Oxford handbook of international environmental law* (pp. 467–497). Oxford University Press.

Gupta, A., & van Asselt, H. (2019). Transparency in multilateral climate politics: Furthering (or distracting from) accountability?: Transparency in climate politics. *Regulation & Governance*, *13*(1), 18–34. https://doi.org/10.1111/rego.12159

Hale, T., Webster, S., Petherick, A., Phillips, T., & Kira, B. (2020). *Oxford COVID-19 Coronavirus government response tracker*. Blavatnik School of Government, Univeristy of Oxford. https://www.bsg.ox.ac.uk/research/research-projects/coronavirus-government-response-tracker

Hepburn, C., O'Callaghan, B., Stern, N., Stiglitz, J., & Zenghelis, D. (2020). Will COVID-19 fiscal recovery packages accelerate or retard progress on climate change? *Oxford Review of Economic Policy*, *36*(Supplement_1), S359–S381. https://doi.org/10.1093/oxrep/graa015

Höhne, N., Burck, J., Eisbrenner, K., van der Straeten, L., & Phylipsen, D. (2009). *Economic/climate recovery scorecards. How climate friendly are the economic recovery packages?* E3G, WWF. https://www.e3g.org/docs/E3G-WWF_Economic_Climate_recovery_scorecards.pdf

Huang, J. (2018). What can the Paris Agreement's global Stocktake learn from the sustainable development goals? *Carbon & Climate Law Review*, *12*(3), 218–228. https://doi.org/10.21552/cclr/2018/3/8

IEA. (2020). *Sustainable recovery*. International Energy Agency. https://www.iea.org/reports/sustainable-recovery

IMF. (2020). *Greening the recovery (Special Series on fiscal policies to respond to COVID-19)*. International Monetary Fund. https://www.imf.org/~/media/Files/Publications/covid19-special-notes/en-special-series-on-covid-19-greening-the-recovery.ashx

IPCC. (2014). Chapter 13 - international cooperation: Agreements and Instruments. In *Climate change 2014: Mitigation of climate change. Contribution of Working Group III to the fifth assessment report of the intergovernmental panel on climate change* (pp. 1001–1082). Cambridge University Press.

IRENA. (2018). *Global energy transformation: A roadmap to 2050 (p. 76)*. International Renewable Energy Agency. http://irena.org/publications/2018/Apr/Global-Energy-Transition-A-Roadmap-to-2050

IRENA. (2020). *The post-COVID recovery: An agenda for resilience, development and equality*. International Renewable Energy Agency. https://irena.org/publications/2020/Jun/Post-COVID-Recovery

Jordan, A., Benson, D., Wurzel, R., & Zito, A. (2011). Policy instruments in practice. In J. S. Dryzek, R. B. Norgaard, & D. Schlosberg (Eds.), *The oxford handbook of climate change and society*. Oxford University Press.

Kanie, N., & Biermann, F. (2017). *Governing through goals: Sustainable development goals as governance innovation*. MIT Press.

Loorbach, D. A. (2010). Transition Management for sustainable development: A Prescriptive, Complexity-Based governance Framework. *Governance*, *23*(1), 161–183. https://doi.org/10.1111/j.1468-0491.2009.01471.x

Mintz-Woo, K., Dennig, F., Liu, H., & Schinko, T. (2020). Carbon pricing and COVID-19. *Climate Policy*.

Mitchell, R. B., Clark, W. C., Cash, D. W., & Dickson, N. M. (eds.). (2006). *Global environmental assessments: Information and influence*. MIT Press.

Moerenhout, T., & Urpelainen, J. (2020, May 13). A sustainable economic recovery from COVID-19: The G-20 must End fossil fuel subsidies now | global policy journal. *Global Policy Opinion*, https://www.globalpolicyjournal.com/blog/13/05/2020/sustainable-economic-recovery-covid-19-g-20-must-end-fossil-fuel-subsidies-now

Morseletto, P., Biermann, F., & Pattberg, P. (2016). Governing by targets: Reductio ad unum and evolution of the two-degree climate target. *International Environmental Agreements: Politics, Law and Economics*, *17*(5), 655–676. https://doi.org/10.1007/s10784-016-9336-7

Obergassel, W., Arens, C., Beuermann, C., Hermwille, L., Kreibich, N., Ott, H. E., & Spitzner, M. (2020). *COP25 in search of lost time for action – An assessment of COP25 in Madrid*. Wuppertal Institute for Climate, Environment and Energy. https://wupperinst.org/en/a/wi/a/s/ad/4998/

Oberthür, S., Hermwille, L., & Rayner, T. (in press). A sectoral perspective on international climate governance: Analytical foundation. *Earth System Governance*.

OECD. (2020). *What policies for greening the crisis response and economic recovery?: Lessons learned from past green stimulus measures and implications for the COVID-19 crisis* (OECD Environment Working Papers No. 164). Organisation for Economic Co-operation and Development. https://doi.org/10.1787/c50f186f-en

Pezzini, M., & Halland, H. (2020, June 9). How COVID-19 could help eliminate fossil fuel subsidies. *OECD Development Matters*. https://oecd-development-matters.org/2020/06/09/how-covid-19-could-help-eliminate-fossil-fuel-subsidies/

Platform for Redesign 2020. (2020). *PLATFORM for REDESIGN 2020*. https://platform2020redesign.org/

Robins, N., Clover, R., & Singh, C. (2009). *A climate for recovery (pp. 1–48)*. HSBC Global Research.

Roelfsema, M., van Soest, H. L., Harmsen, M., van Vuuren, D. P., Bertram, C., den Elzen, M., Höhne, N., Iacobuta, G., Krey, V., Kriegler, E., Luderer, G., Riahi, K., Ueckerdt, F., Després, J., Drouet, L., Emmerling, J., Frank, S., Fricko, O., Gidden, M., … Vishwanathan, S. S. (2020). Taking stock of national climate policies to evaluate implementation of the Paris Agreement. *Nature Communications*, *11*(1), 1–12. https://doi.org/10.1038/s41467-020-15414-6

Roger, C., Hale, T., & Andonova, L. (2017). The comparative politics of transnational climate governance. *International Interactions*, *43*(1), 1–25. https://doi.org/10.1080/03050629.2017.1252248

Schepelmann, P., & Fischedick, M. (2020). *Perspektiven des 'European Green Deal' in Zeiten der Corona-Pandemie (p. 6)*. Wuppertal Institute for Climate, Environment and Energy. https://wupperinst.org/fa/redaktion/downloads/publications/Perspektiven_Green_Deal.pdf

Schepelmann, P., Stock, M., Koska, T., & Reutter, D. O. (2009). *A green new deal for Europe – towards green modernization in the face of crisis (p. 90)*. Green European Foundation | The Greens - EFA. http://archive.gef.eu/publication/a-green-new-deal-for-europe-towards-green-modernization-in-the-face-of-crisis/

Schneidewind, U., & Fischedick, M. (2020). *The corona crisis and climate protection – keeping long-term goals in mind*. Wuppertal Institute for Climate, Environment and Energy. https://wupperinst.org/en/a/wi/a/s/ad/5020/

Simmons, B. A., & Martin, L. L. (2002). International organizations and institutions. In W. Carlsnaes (Ed.), *The handbook of international relations* (2nd ed., pp. 195–196). Sage Publications.

Stokke, O. S. (2012). *Disaggregating international regimes. A new approach to evaluation and comparison*. MIT Press.

UNEP. (2019). *The emissions Gap Report 2018*. United Nations Environment Programme (UNEP). http://www.unenvironment.org/emissionsgap

UNFCCC. (2011). *Decision 1/CP.16, The Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention, FCCC/CP/2010/7/Add.1*, *15 March* 2012.

UNFCCC. (2016). *Report of the Conference of the Parties on its twenty-first session, held in Paris from 30 November to 13 December 2015 (FCCC/CP/2015/10/Add.1)*. United Nations Convention on Climate Change (UNFCCC). http://unfccc.int/resource/docs/2015/cop21/eng/10a01.pdf

United Nations. (2020a). *Climate change and COVID-19: UN urges nations to 'recover better'*. https://www.un.org/en/un-coronavirus-communications-team/un-urges-countries-%E2%80%98build-back-better%E2%80%99

United Nations. (2020b). *Financing for Development in the Era of COVID-19 and Beyond – Menu of Options for the Consideration of Heads of State and Government – Part II*. https://www.un.org/sites/un2.un.org/files/financing_for_development_covid19_part_ii_hosg.pdf

United Nations. (2020c, September 24). *UN chief and UK premier announce December climate summit*. UN News. https://news.un.org/en/story/2020/09/1073392

Waltz, K. N. (1979). *Theory of international politics*. Addison-Wesley Publishing.

World Bank. (2020). *Sustainability Checklist for Assessing Economic Recovery Investments* [Discussion Paper]. The World Bank. http://pubdocs.worldbank.org/en/223671586803837686/Sustainability-Checklist-for-Assessing-Economic-Recovery-Investments-April-2020.pdf

WTTC. (2020). *Economic Impact of Travel and Tourism*. https://wttc.org/en-us/Research/Economic-Impact

Young, O. R. (ed.). (1999). *The effectiveness of international environmental regimes: Causal connections and behavioral mechanisms*. MIT Press.

Young, O. R., & Levy, M. A. (1999). The effectiveness of international environmental regimes. In O. R. Young (Ed.), *The effectiveness of international environmental regimes: Causal connections and behavioural mechanisms* (pp. 1–32). MIT Press.