

# UNITED NATIONS ENVIRONMENTAL ASSEMBLY



## BACKGROUND STUDY GUIDE

# ODMUN 2020

## **LETTER FROM THE EXECUTIVE BOARD**

Delegates,

It is with great pleasure that we welcome you to the simulation of the United Nations Environmental Assembly, at ODMMUN'20. Throughout this conference, you shall have the privilege of being a part of a challenging and yet fascinating council. We live in troubling times yet somewhere this spirit of cooperation rekindles hope and strength.

This document is to give you a complete insight into the agenda. It is by no means exhaustive or enough. We need you to carefully assess every aspect of your country's economy and trade portfolios before stepping into council. The simulation is essentially diplomatic and therefore proper understanding of foreign policy would be expected. Please do not treat MUNs as elocution or chit-passing competitions. They are by every means a realisable diplomatic institution. All proceeding and Rules of Procedure shall be briefed on Day 1 of committee.

We sincerely hope that you put in your best for this conference and bring to us debates that are thought-provoking for everyone involved in this committee. We value three things above everything else, however; integrity, diplomacy and honesty. Please do not feel that you can drool your way through the committee, because all members of the executive board shall be well informed and attentive. Please do not come with the motive to win an award but learn, sincerely. Marking shall be done for all delegates, diligently, hence have some faith in our experience. Please be punctual in the proceedings. Please do not engage in making personal comments which might offend someone should be made. Any engagement in such verbal spats shall lead to disqualification. Above all, please be empathetic towards one another for in genuine empathy lies humility.

Thank You.

Rudra Bhattacharya

Co-Chairperson

Ahan Chackraborty

Co-Chairperson

## MANDATE

The United Nations Environment Assembly is the world's highest-level decision-making body on the environment, with a universal membership of all 193 Member States. The Assembly meets biennially in Nairobi, Kenya, to set priorities for global environmental policies and develop international environmental law. Through its ministerial declaration and resolutions, the Assembly provides leadership, catalyses intergovernmental action on the environment, and contributes to the implementation of the UN 2030 Agenda for Sustainable Development. The UN Environment Assembly is also the governing body of the UN Environment Programme. It has had four sessions starting in 2014, and was preceded by the Governing Council of the UN Environment Programme, which was composed of 58 member States. The next meeting of the Assembly (UNEA 5) takes place on 22-26 February 2021.

### **What Did UNEA-4 Do for the Environment?**

The UN Environment Assembly (UNEA) was created in 2012 by decisions of the Rio+20 conference and the UN General Assembly (UNGA). It was envisaged, in the words of former UN Environment Programme (UNEP) Executive Director, Achim Steiner, to be “the world’s parliament on the environment.” This Policy Brief presents an overview and commentary on decisions taken at the fourth session of UNEA (UNEA-4), and concludes with a few thoughts on the implications for the world’s environment.

UNEA-4 convened in Nairobi, Kenya, from 11-15 March 2019. The Assembly adopted a Ministerial Declaration, 23 resolutions and three decisions. The drafts were negotiated during the Open-Ended Committee of Permanent Representatives (OECPR), which took place in the week before UNEA-4 opened, from 4-8 March 2019. Further negotiations, as needed, took place in the UNEA Committee of the Whole from 11-13 March, ahead of the final two days of ministerial-level meetings. Negotiations were initially conducted in five thematic Working Groups, and this Policy Brief discusses the resolutions by those themes.

UNEA resolutions are not legally binding, and the content may be repetitive from one session to the next. Nevertheless, they represent the joint aspirations of the international community, frame consensus around actions to be taken, and help coordinate development aid and technical assistance.

Innovative Solutions for Environmental Challenges and Sustainable Consumption and Production (SCP): The five resolutions in this group were all adopted. They address SCP, food loss and waste, sustainable mobility, sustainable business, and sustainable infrastructure.

The SCP resolution (UNEP/EA.4/L.2) relates closely to SDG 12 (responsible consumption and production), including target 12.1 on implementing the 10-Year Framework of Programmes on SCP (10YFP), target 12.3 on halving per capita global food waste and reducing food losses, and target 12.7 on promoting sustainable public procurement practices. The resolution requests UNEP to establish a time-limited task group, comprising the International Resource Panel and the One Planet Network, to report on possible pathways to implementing SCP, for consideration at UNEA-5. It also requests UNEP to provide an overview report and recommendations on best practices in sustainable product design and services, and, separately, to report on the potential of current sustainable economic models for achieving SCP in sectors such as plastics, textiles, and construction. Member States are asked to promote the formation of communities of practice that will cooperate with the One Planet Network and 10YFP focal points.

Other resolutions with implications for the SDGs include the resolution on curbing food loss and waste (UNEP/EA.4/L.3), which supports calls in other fora to move towards sustainable food systems – including that of the ministerial declaration from the 2018 High-level Political Forum on Sustainable Development (HLPF), and SDG target 2.4 on sustainable food production systems. The resolution on sustainable mobility ((UNEP/EA.4/L.4) refers to a sustainable cities approach (SDG 11), involving, where appropriate, full life-cycle assessment of various mobility options.

Resource Efficiency, Chemicals and Waste: UNEA-4 adopted resolutions on strengthening global governance on marine plastic litter and microplastics (UNEP/EA.4/L.7), solid waste management (UNEP/EA.4/L.8), sound management of chemicals and waste (UNEP/EA.4/L.9), addressing single-use plastics pollution (UNEP/EA.4/L.10), and sustainable nitrogen management (UNEP/EA.4/L.16).

The plastics resolutions required protracted negotiations as some countries opposed setting targets for phasing out single-use plastics, while others were ready to adopt national bans. On marine litter, some countries would have preferred stronger language; nevertheless, the resolution allows for scientific review, expert meetings, and stakeholder engagement on the issue.

Disappointingly for some, UNEA did not establish an Open-ended Working Group but only renewed the mandate of the Ad Hoc Expert Group on Marine Litter, a temporary entity.

While not attracting the level of attention as the chemicals, waste and plastics resolutions, the text on sustainable nitrogen management was adopted with little fanfare. Yet some noted it as a win on a neglected but important issue for agriculture and water quality worldwide.

**Biodiversity and Ecosystems:** This group of eight resolutions achieved quick consensus on issue areas in which international programmes or initiatives are already well developed. The resolution on protection of the marine environment from land-based activities (UNEP/EA.4/L.12), for example, builds on work done by the long-standing Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA), and lays a foundation for future work that the EU has expressed willingness to support. Resolutions on mangroves (UNEP/EA.4/L.13), sustainable coral reefs management (UNEP/EA.4/L.14) and peatlands (UNEP/EA.4/L.19) were agreed by the end of the first week of discussion, and on rangelands and pastoralism (UNEP/EA.4/L.17) shortly afterwards.

A draft resolution on deforestation and agricultural commodity supply chains (UNEP/EA.4/L.15) was strongly opposed by some developing countries that felt unfairly targeted in the mention of specific products, such as palm oil and soy. They stressed that agriculture is not the sole driver of deforestation, and highlighted the role of their countries in producing food for the world. Some commented that opposition on this was “diplomatic payback” for the treatment of palm oil under recent EU biofuels legislation, while others noted that arguments against this resolution were disingenuous, failing to acknowledge the presence of vested commercial interests in deforestation.

The wide-ranging resolution on biodiversity and land degradation (UNEP/EA.4/L.11) gives a boost to the Aichi Biodiversity Targets under the Convention on Biological Diversity (CBD) and to the land degradation neutrality (LDN) target in the UN Convention to Combat Desertification (UNCCD), also highlighting the need for Member States to engage in developing a strong post-2020 global biodiversity framework. The resolution requests UNEA to take action on many issues that are also addressed in SDG 14 (life under water) and SDG 15 (life on land), though without referencing specific SDG targets. Specifically, it requests UNEP to support Member States in strengthening ecosystem resilience, and to develop and build on sustainable

wildlife-based economies, explore “innovative financing” for ecosystem restoration and conservation, and address sand and dust storms through a range of means.

**Environmental Governance:** A resolution on gender equality, human rights and the empowerment of women and girls in environmental governance (UNEP/EA.4/L.21) requests UNEP to facilitate the collection of disaggregated data on progress made in achieving gender equality in environmental policies and programmes, and to report back to UNEA-5. It also invites Member States to strengthen and implement policies aimed at increasing the participation and leadership of women in environmental decision making and to recognize their role as managers of natural resources and agents of change in safeguarding the environment – aims that are relevant to SDG 5 (gender equality), especially its target 5.5 on women’s participation and equal opportunities for leadership, and target 5.A on women’s access to ownership and control over land and natural resources.

Other resolutions in this cluster cover the poverty-environment nexus (UNEP/EA.4/L.22), mineral resource governance (UNEP/EA.4/L.23), and the Montevideo V Programme on environmental law (UNEP/EA.4/L.24). A draft resolution on the governance of geoengineering (UNEP/EA.4/L.20) was finally withdrawn in the face of opposition from one country, but the proponents of the resolution, a coalition of 11 developed and developing countries, led by Switzerland, pledged to raise the issue again at UNEA and other multilateral fora.

**UNEP Programme of Work and Budget, and Other Administrative and Budgetary Issues:** Negotiation of the draft decision on a provisional agenda, date and venue of UNEA-5 (UNEP/EA.4/L.29) met unexpected resistance as the exercise brought the question of UNEA’s intersessional process to a head. Some favoured convening the OECPR back-to-back with UNEA in order to save on travel costs as well as to introduce the element of time pressure to negotiations without which, they felt, less would be achieved. Others preferred convening the OECPR some weeks or months before UNEA, feeling that delegations were already overloaded at this meeting, and that a significant portion of drafting and agreements should be accomplished beforehand. The decision that was finally adopted by UNEA requests draft decisions to be submitted at least eight weeks in advance of OECPR-5. It also requests the Chair of the Nairobi-based Committee of Permanent Representatives (CPR), in close consultation with the UNEA President, to present a consensual CPR-based

review process to improve the efficiency and effectiveness of UNEA and its subsidiary bodies. The resolution further requests UNEP to submit an action plan to implement sub-paragraphs (a)-(h) of paragraph 88 of the Rio+20 Outcome, which outlines various actions on strengthening the role of UNEP, including the consolidation of its headquarters functions in Nairobi – a point that was stressed by the African Group.

Other resolutions and decisions adopted in this cluster are: the implementation plan ‘Towards a Pollution-free Planet’ (UNEP/EA.4/L.25); implementation and follow-up of UNEA resolutions and related activities (UNEP/EA.4/L.26); endorsement of the Global Environment Outlook (UNEP/EA.4/L.27); the proposed programme of work and budget for the 2020-2021 biennium (UNEP/EA.4/L.28); and management of trust funds and earmarked contributions (UNEP/EA.4/L.30).

Ministerial Declaration: UNEA-4 adopted a Ministerial Declaration(UNEP/EA.4/L.1), which was developed in three open consultations convened by UNEA-4 President Siim Kiisler (Estonia). The original draft put forward during the meeting contained several targets to be met by 2025, including setting national targets for sound waste management, phasing out the most problematic single-use plastic products, and supporting global efforts to develop sustainability and circularity guidelines for products. None of these targets survived in the final version that was adopted. Some delegations expressed uncertainty over their ability to meet such targets, while others considered it reasonable to commit to these as a milestone toward the 2030 deadline of the SDGs. The Declaration that was adopted seeks to “significantly reduce” single-use plastic products by 2030. It also commits to work towards comparable international environmental data, agreeing to support UNEP to develop a global environmental data strategy by 2025, in cooperation with other relevant UN bodies.

By any measure, UNEA-4 was an extremely busy meeting, with more than 30 draft resolutions put forward initially, some of which were eventually merged with others. In many cases, the adopted resolutions help to strengthen the international framework or mandate of UNEP to take action, in collaboration with others. However, while UNEA-4 somewhat advanced a policy agenda in areas where global governance is still lacking, such as on marine plastics and geoengineering, it did not achieve the necessary consensus for action. On many resolutions, some countries preferred not to refer explicitly to SDG targets,

while others warned against backsliding from commitments to achieve the SDGs.

Despite these issues, UNEA has tremendous convening power, demonstrated by the continued presence of the world's environment ministers and by the proliferation of parallel meetings, side events and exhibitions held in its margins. As the Assembly matures into a truly Member State-driven process, it is increasingly up to Member States themselves to prioritize common and emerging issues, rather than seek to serve narrowly-defined national interests.

## **COVID-19 and the Environment**

The COVID-19 pandemic is a crisis that affects everyone. Various articles have been published in the past weeks on the environmental causes and the environmental impacts of the COVID-19 pandemic.

As mentioned by the UN Secretary General in his call for solidarity, “We are facing a global health crisis unlike any in the 75-year history of the United Nations — one that is spreading human suffering, infecting the global economy and upending people’s lives.” He also added “We must ensure that lessons are learned and that this crisis provides a watershed moment for health emergency preparedness and for investment in critical 21st century public services and the effective delivery of global public goods. We have a framework for action – the 2030 Agenda for Sustainable Development and the Paris Agreement on Climate Change. We must keep our promises for people and planet.”

For general reliable information on COVID-19, please consult:

- [WHO updates on COVID-19](#)
- [United Nations COVID-19 Information Portal](#)
- [Geneva State Council recommendations & information on COVID-19](#)
- [Update by the Geneva Cantonal Doctor](#)
- [Swiss Confederation updates on COVID-19 in Switzerland](#)
- [International Geneva resource pages on COVID-19](#)
- [CAGI Covid-19 Resource Centre](#)

United to end the pandemic, get information from additional reliable sources:

- [UN Response to COVID-19](#)

- [UN report on socio-economic impacts of COVID-19](#)
- [Launch of \\$2 billion global humanitarian response plan to fund the fight against COVID-19 in the world's most fragile countries](#) (25 March 2020)
- [OHCHR: COVID-19 and its human rights dimensions](#)
- [ILO: COVID-19 and the world of work](#)
- [UNECE: Observatory on Border Crossings Status due to COVID-19 | Platform for National Statistical offices \(NSOs\) | Food Outlook | Data Sources on Coronavirus impact on Transport](#)
- [UNCTAD | monitoring the effects of the COVID-19 pandemic on manufacturing, trade, foreign direct investment and economic growth](#)
- [UN Statistics | How Covid-19 is changing the world – a statistical perspective](#) (13 May 2020)
- [WTO | COVID-19 and the world of trade](#)
- [ITU | Policy and Regulatory experiences and best practices that can improve COVID-19 responses](#)
- [IOM | Migration and COVID-19](#)
- [IPU | Parliaments in a time of pandemic](#)
- [Global Initiative Against Transnational Organised Crime | #CovidCrimeWatch -the weekly newsletter exploring existing and emerging interactions between COVID-19 and the illicit economy](#)
- [WBCSD | How business is responding to COVID-19](#)
- [UNEP & TED-Ed | “Earth School” launches to keep students connected to nature in the time of COVID-19](#)

## **COVID-19 and the Environment**

Various articles have been published in the past weeks on the environmental causes and the environmental impacts of the COVID-19 pandemic. This page aims at listing relevant information, research, data and/or press releases issued by our partners in Geneva and other institutions around the world.

Other resource pages on COVID-19 and the environment:

- [UNEP | Resource page on COVID-19](#)
- [Environmental Emergencies Centre \(UNEP/OCHA Joint Unit\) | Resource page on COVID-19 and its impact on the humanitarian response system and environment](#)

- [UN Cooperation in the UNECE region | COVID-19, the environment and climate change](#)
- [IOM | The COVID-19 Pandemic, Migration and the Environment](#)
- [WHO Manifesto for a healthy recovery from COVID-19](#)
- [WMO | COVID-19 dedicated webpage](#)
- [IUCN Resources on COVID-19](#)
- [PAGE COVID-19 Observatory](#)
- [IISD Sustainable Recovery 2020](#)
- [Energy Policy Tracker database](#) (latest information about COVID-19 government policy responses from a climate and energy perspective)
- [Platform for Redesign 2020](#) (Ministry of the Environment Japan, UNFCCC, Institute for Global Environmental Strategies)
- [Geneva Environment Dialogues' series on the Impacts of COVID-19 on the Global Environmental Agenda](#)

Perspectives on the Economics of the Environment in the Shadow of Coronavirus

## 1. COVID-19 and Its Implications for Environmental Economics

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The Environmental and Resource Economics special issue “Economics of the Environment in the Shadow of Coronavirus” comes at a hugely critical time for environmental economists and policy makers alike. We are in a situation of significant social change, a change that could potentially lay the foundation for mankind’s future in the years to come.

As part of this special issue, ERE is trialling a novel, experimental form of article, drawing together short, focussed pieces from a wide group of authors addressing the plethora of issues which such a fundamental challenge as the coronavirus pandemic generates. These provide critical and reflective perspectives on the environmental, socio-economic and policy paths that may be taken in the near and further future—strategies that could lead mankind either on roads to a much more sustainable development, or along paths that could bring about more instability, inequality and further environmental pressures. This innovative article combines short, policy-relevant and less technical papers that deal with specific aspects and provide clear recommendations for policy makers and suggestions for future research alike.

The target audiences are policy makers and companies, but also researchers who want quick yet sufficiently detailed knowledge about particular analyses relating to COVID-19 and issues in environmental economics. We hope that the articles contained within this Perspectives collection provide the necessary information for policy makers to take wise decisions for our future, and for researchers the knowledge to help guide policy makers in their decisions.

## 2. Pushing the Boundaries on Spaceship Earth

Humankind has been very fortunate to have lived through a period of sustained economic growth pretty much since the agricultural revolution, with especially high rates of growth starting from the second half of the twentieth century. This economic progress has allowed us to make unprecedented improvements in consumption, in health, in education and in addressing inequality. Many of us have been fortunate enough to have lived without a war for the past 70 years, which is widely believed to be due to the development of international institutions and a deepening of international trade that led to widespread cooperation and, with it, it brought a new era of global stability.

At the same time, the rapid increases in humankind's population, from around 2 billion in 1930 to 7.8 billion in 2020, coupled with an increase in real-world GDP by a factor of roughly 40 during the same period, have led mankind to progressively push closer to the boundaries of planet Earth. To provide additional food for the surge in population, agricultural land use has increased by 30%; to provide goods and services for the surge in demand, the material footprint of our production increased by an estimated factor of 40; and to provide energy for our lifestyles, our use of non-renewable and polluting resources (coal, oil, gas) increased by a factor of 8. This increase in consumption coupled with a similar increase in input use has transformed the face of the planet Earth and has given rise to unwanted side effects and new challenges.

Some of these challenges are well known, such as local and global pollution, problems of waste and certainly climate change. Another, often neglected challenge, has been a consistent pressure on biodiversity due to our increase in land use. A mixture of burgeoning population and increasing resource use that carved deeply in nature's pristine areas has led to species conflict manifested

not only in the rapid loss of other species, but also in a much ignored yet increasingly visible negative feedback in the form of viral crossovers (Smith et al. 2014). The linkages between economic development, viral crossovers in the form of communicable diseases and environmental issues in particular have, up to now, seen little attention from environmental economists.

### 3. A New Global Threat Enters the Stage

As we have now seen, it was worryingly neglectful on our part to not consider these feedbacks more seriously. The greater interconnectedness via global trade and international migration, air travel for both tourism and business purposes, as well as the ongoing growth of large city hubs, have made it easy for communicable diseases to transcend local spaces and quickly make their appearance in even remote corners of the world. While the Black Death and the Spanish Flu have been among the worst communicable disease outbreaks in recent history, in late 2019 a new virus was detected in Wuhan, China. Identified as a new member of the coronavirus family and subsequently called COVID-19, within the course of half a year this virus has spread out from the Huanan wet market in Wuhan across the whole world. Even inhabitants from otherwise remote places such as villages in Timbuktu, the Korabou and Yanomami tribes of the Amazon, the Navajo Nation of North America and the Arctic Inuit have already tested positive for COVID-19.

Due to initial uncertainty surrounding both the impact of COVID-19 and its spread through society, many policy makers quickly decided to shut down interactions among individuals by restricting local, national and international mobility. These “lockdowns” had pervasive impacts on economic activity across the globe, with significant reductions in production, increases in unemployment, falls in international migration, diminished levels of international trade, significant increases in bankruptcy filings and large ripple effects down supply chains. Relative impacts between developed and developing countries are still very much developing. Globally, herd immunity is expected to take some time to develop if indeed it ever does. A vaccine that has the potential to be potent and widely available may need at least another 1 or 2 years for development and broad deployment. Some countries are already close to a second wave—this pandemic is here to stay for a while. The question is as to how we shall deal with it. While reducing physical contacts to “flatten

the curve” of disease and death has been the preferred policy to slow down the spread of the virus in order to keep serious cases below hospital capacities, consequent impacts upon the economy, society and increasingly environment have arisen. The papers curated within this Perspectives collection provide a valuable early insight into these trends and their future management.

#### 4. Unclear Implications for the Environment: An Overview of the Perspectives Collection

Environmentalists were especially euphoric at the early stages of the lockdowns. Cazcarro and co-authors estimate the impact of the COVID-19 crisis for Europe and its trade-related spill over to the rest of the world and find significant decreases in major environmental pollutants. There is preliminary evidence that this helped both to reduce the effect of the COVID-19 virus, and lower long-term pollution levels may also help individuals to cope with the virus (Peña-Lévano and Escalante). The resulting clear skies, improvements in local water quality, reductions in noise and air pollution as well as substantial numbers of employees working in home offices have raised the hope that mankind is ushering into a new era of a transformed society with reduced pollution and lowered environmental impacts. These hopes were, however, short-lived (McCloskey and Heymann 2020). Not only have, so far at least, all countries that have (mostly) overcome the first wave returned to business as usual, but companies have also used the opportunity to lobby for relaxed emission standards, to increase subsidies or receive financial aid and, therefore, been able to quickly return to the pre-COVID-19 status quo. Side effects are that, already in the short run, many initial improvements in environmental quality succumbed to a relaxation of environmental regulations and a catching-up process that brings countries back to their original economic growth levels. There are early signs that this rebound effect is due to reductions in public transport, increased use of ICT and expected changes in land use leading to levels of pollution that may even rise above pre-COVID-19 levels (Freire-González and Vivanco). Cojoianu and co-authors show that the rebound effect may have been partly financed by the bonds bought through the European Central Bank’s Pandemic Emergency Purchase Programme (PEPP) in response to COVID-19, as they provide empirical evidence that these bonds are more likely to be issued by carbon-intensive companies, or those that lobby more for carbon-intensive sectors. Lopez-Feldman and co-authors discuss the

environmental impacts from the COVID-19 crisis with a focus on Latin America, especially deforestation and air pollution, and show that a rebound effect is already happening and will potentially worsen. In addition, Xepapadeas shows that COVID-19 had not only a short-run negative impact on comprehensive wealth but may also lead to a long-run worsening of sustainability. Shehabi argues that for oil exporting countries, the current crisis increases the opportunity cost of moving to greener alternatives and that, for some regions, stimuli packages may reallocate funds away from green investments.

In contrast to the results presented above, there is a larger movement that argues that this crisis also bears unexpected opportunities. As has often been argued, structural breaks, in this case in the form of COVID-19, are game-changing opportunities that allow policies to be focused on long-term commitments to achieve desired climate targets. The newer recent social momentums, like Friday for Futures, or the policy-pushed New Green Deals, or the focus that the IPCC has laid on 1.5 °C warming, have placed environmental issues at the forefront of many discussions and potential policy changes. The calls for green stimuli, i.e. COVID-19 rescue packages that focus on a green transition, have been astonishing. It is precisely these green stimuli that may turn out to be long-term game changer that environmentalists were advocating for. It is at this point where the contributions selected for this special issue provide first thoughts, first answers and first suggestions for policy makers from the cutting-edge research of environmental economists. In particular, the arguments forwarded support a strengthened focus on economic recovery that, first and foremost, should not undermine the green transition, while also, if possible, provide measures to advance the green transition. The articles then discuss the approaches and potential difficulties that policy makers will be faced with when being confronted with the precise means to implement these green recoveries.

### **Approaches and Difficulties when Designing a Post-COVID-19 Green Transition**

As a first step, due to unprecedented levels of unemployment in places such as the USA and significant contractions to economic growth in most countries of the world, an important consideration is that the focus of the stimuli packages should be the economic recovery, i.e. to predominantly deal with the direct

impact of the lockdowns on economic activity. Once the virus is contained and the short-run recoveries are under way, then it is, however, important to quickly integrate longer-term factors into policy making (Borghesi and co-authors). Here, it is vital that, in contrast to the stimuli in the aftermath of the 2008 financial crisis, policy makers also address inequality (Koundouri and co-authors). A more specific focus on furthering a green transition should only be placed once a certain level of economic recovery has been achieved. This is especially vital as the disruptions to supply chains can have fundamental and unpredictable consequences, as often even companies themselves are not fully aware of their complete supply chains. Cazarro and co-authors estimate some of the impacts of these trade-related supply chains and, for example, show that the European demand changes due to COVID-19 have, in total, larger impacts on the rest of the world than on Europe itself.

Requirements for successful green stimuli are that these policies are implemented in a clear and transparent manner (Rickels and Peterson). In this regard, Ing and Nicolai argue that companies are likely to prefer stimuli packages that are tight to some environmental efforts rather than to new environmental regulations. On the converse, linking stimuli with environmental efforts is more costly for policy makers and likely to be less efficient. Several of the articles in this special issue draw particular attention to the fact that the green stimuli are not enough to successfully further a green transition. What is also necessary is to couple this with a price on carbon and a restructuring of the subsidies paying attention to both the green and fossil industry (Gawel and Lehmann). A stronger social contract with a higher degree of citizen involvement will furthermore help gain public support but also strengthen social norms and thus decentralized internalization of externalities.

Lopez-Feldman and co-authors discuss the policy responses to COVID-19 with a focus on Latin America and argue that, to minimize the likely rebound effect, policies need to be much better coordinated. We have seen that international cooperation quickly breaks down when a crisis looms, so that it would make sense to design international institutions with binding laws and penalties in case of non-compliance.

New Implications for Research

What we have seen so far is that COVID-19 has the potential to become a game changer when it comes to combining stimulus packages with the green transition. That this is a sensible strategy derives from the observation that restricting global warming to 1.5 °C requires efforts that go beyond what countries were willing to do so far, and that the stimuli provide the needed opportunity. While the articles contained in this special issue already provide many reasons for policy makers to push for green stimuli, they also clearly point out the difficulties associated with implementing these well.

Some articles in this special issue also show limitations of current policies or research approaches. For example, Borghesi and co-authors discuss that during the COVID-19 crisis the Market Stability Reserve helped to stabilize the EU ETS price, but imperfectly. It is, therefore, important to consider ways in which these imperfections can be redesigned. On a different topic, Laude explains how the COVID-19 crisis has brought to light both advantages and problems with having local, short supply chains for food, and that there is a substantial lack of research directed towards the impact of crises on the agricultural sector. Another example is a more cautionary tale and deals with the COVID-19 cases data. Here, Cohen and co-authors show very clearly that researchers must be careful with simply using these data as there are many problems in the data collection processes, which differ across countries and also time.

As a final remark, we would like to observe that this special issue not only comes at a very turbulent time for mankind in general, but it also comes at a special time for environmental economists in particular. The COVID-19 crisis gives the opportunity to invest significant amounts of money towards aiding the green transition, and the widespread public support is there. We need to now be able to advise policy makers on efficient, reasonable and relevant policies that they may implement as part of the green stimuli packages. However, these policies also need to be well structured and grounded in good research. The peer-reviewed articles in this special issue provide suggestions and articles with these features and will thus, hopefully, serve as a first benchmark in this endeavour.