

# **The Effects of the Paris Climate Agreement on Global Ecological Cooperation**

Uroš S. Popadić M.A. Research Associate (POP and WSDF)

## **Abstract**

The Paris Climate Agreement was an unprecedented event for global cooperation related to ecology. It was a catalyst for increased coordination and an inspiration for change. This article attempts to assess the influence of the Agreement on the level of global ecological cooperation and to evaluate the role of the UN in the global promotion of international ecological governance. The author attempts to estimate the effect of the Agreement on the character of future UN climate conferences (referred to as COP) and on the behavior of the signatory governments in the framework of liberal institutionalism in a globalized world.

**Key words:** Paris Climate Agreement Congress of the Parties Ecological Cooperation Global solidarity Ecological policy Climate Change Conferences

## **Introduction**

The article examines the effect that the Paris Climate Agreement in 2015 had on ecological-political cooperation at the global level. Climate cooperation is a positive element of international relations where the various states of the world have a common pressing problem and have to work together and coordinate to solve it. The article's goal is not only to illuminate what effect the Agreement had but also to analyze the possible effects of such cooperation on the general level of friendship and mutual respect between states. Such landmark agreements improve international relations and decrease tension creating a solidarity that can spill over into other spheres of diplomatic practice. As there is only one planet the ecology of which is threatened all states in the global system share the same interest of protecting our common environment and as such this perspective could ease the management of other international problems. The measurement of this effect is done by examining UN Climate Change conferences including the COP summits before and after the Paris Agreement as this is the highest international forum for cooperation and consultation on ecological questions. The article observes the periods before and after 2015 in order to examine the quality and extent of the Agreements made the difference in discourse during the conferences and the difference in the level of understanding and cooperation before and after the Agreement. We take into account the theoretical framework of conventional constructivism and liberal institutionalism to analyze how climate cooperation shapes the identities and interests of states within the bounds of the world's largest international organization and how norms related to environmentalism are diffused through international organizations.

After the methodological and theoretical introductions we divide the article into two main parts. The first is a critical review of available literature regarding international environmental cooperation especially through the UN. The second is our empirical analysis of the datasets. This is followed by a discussion of the results and a conclusion.

## **Methodology**

As mentioned the yearly COP summits are the pinnacle of ecological cooperation and as such provide the best dataset for ecology related policy and discourse. The empirical analysis of the article observes the seminal COP in 2015 one year each before and after it and the sessions four years before and after for a total of five years (the dataset being: 2011, 2014, 2015, 2016, 2019). We use two methods in order to triangulate and give a wider view of the research question. On the one hand, we observed the qualitative difference in the documents produced before and after the seminal 2015 summit and the Paris Agreement.

At the same time, we employ discourse analysis to see if the cooperation changed viewpoints and rhetoric and therefore the interests and identities of the participating states. We look for indicators in discourse which show a greater acceptance of the responsibility to combat climate change and promote global solidarity especially among the most influential states in the global system.

### **Theoretical framework**

A theoretical understanding of constructivism and liberal institutionalism provides a better realization of the effects of the world's largest organization on the interests and identities of the member states. We try to discover a change in the identities of member states through successful cooperation on ecological policy through the United Nations (UN) to show a positive effect on moderation and solidarity by the UN on its members and an increased awareness of the fragility of the ecosystem. Through discourse analysis, we can see if the Paris Agreement increased the acceptance of norms and the identity of globally responsible ecological states.

Starting from the position that world politics are socially constructed, i.e., that the fundamental structures of international politics are social instead of material and that these structures shape the identities and interests of states as well as their behavior (Wendt 1995) we can claim that the COP summits play a role in the construction of state identities and affect their actions. Following from that, considering that the key structures in relations are intersubjective and therefore continually evolve and allow for an evolution of interests and self-interested states could be induced to cooperate through long-term beneficial systemic interaction and integration with a common goal in mind which would allow for a collective identification (Wendt 1994), we can see more clearly how effective COP agreements and the drafting thereof act as a mechanism against self-interest in relation to global environmental concerns. Agency and structure are mutually constituted which implies that structures influence agency and that agency influences structures where identity and interests are created intersubjectively and constantly evolve (Hopf 1998). In the interplay, we expect to see an evolution over the nine-year period taken towards a greater global understanding of the climate emergency and states taking into their identity the concern over this emergency.

Through climate change conferences, the attending states are exposed to international norms related to environmental cooperation and global solidarity. Norms influence behavior in any community and their members are socialized by internalizing these norms (Hoffman 2010). In this case, we see the norms of ecological awareness, international solidarity, and protection of the environment being adopted by the members. Identities allow for the existence of at least a minimal level of predictability and order and it is constantly being constituted by actions as every action a state takes affects its identity in the eyes of others and their interests are likewise affected (Hopf 1998). Therefore, UN members can at least rely on the understanding that all other states in the UN are concerned with climate change as they are all individually affected by it, making their actions more predictable and taking on the identity characteristics of being climate conscious signals their greater openness to cooperation.

The leading theory of contemporary international organizations is liberal institutionalism which promotes the idea of an open, rule-based system in which states cooperate for mutual benefit based on equality and reciprocity as well as restraint where the best system is a democratic one that is open to trade and exchange (Ikenberry 2009). Climate change awareness and mitigation is based on liberal principles of institutional cooperation and is

mostly conducted through international organizations and can be considered a liberal-based international policy paradigm. Institutionalist theory expects interstate cooperation when the states have common interests and international institutions form for the sake of reciprocity and coordination (Keohane and Martin 1995). As such, the greater cooperation on climate change issues should be reflected in general cooperation as this problem can only be solved through international cooperation and each state has a direct interest in it.

We will therefore look at the effects of the Paris Agreement through the prism of liberal internationalism and institutionalism observing the inclusion of liberal norms and expecting to find results predicted by the basic ideas of the theory. International cooperation on ecology related to the Paris Agreement

This section provides an overview of the research on international cooperation on ecology connected to the Paris Agreement through a critical survey of the available literature. We observe the evolution of the topic of ecology in the international discourse, the successes and failures of diplomatic efforts to promote the topic and achieve results, and the gradual increase of international treaties and resolutions about ecology in order to put the effects of the agreement in context.

Climate change is leading to socio-economic problems and vulnerabilities with the poorest communities suffering the most from it as global warming brings greater inequality creating implications for human rights and disrupting the resilience of populations in developing countries (Mboya 2018). It is one of the major challenges to the quality of life because of its effects on food security and the availability of resources causing droughts, floods, rises in sea levels, and with it greater inequality and insecurity creating additional difficulties for people in developing states (Ratha 2019). It has often been argued that climate change is the greatest threat to humanity, but the Millennium Development Goals did not prioritize and did not target it explicitly because mitigation hinders development. The question of limiting global warming to 2 degrees above pre-industrial levels was discussed at the UN decades ago, but multilateral climate policy failed until the mid-2010s as such a goal is very costly for economies leading to a lack of will (Galiana 2014). No wonder then that it took such a long time for actual cooperation and coordination to be initiated. A North-South divide with wide distrust throughout this period hindered bona fide activity. It is expected that every state would put its own interests first and that it would cooperate with others if it saw a common benefit. But it took years of science communication for governments to realize the importance of tackling climate change and to trust multilateralism as the best option to do so.

At the beginning of the 2010s, there was increased rhetoric on the need to put common above national interests and to take urgent international action for the common good. Rather than focusing on the most polluting countries, the discourse moved towards shared responsibility and voluntary action. Global governance in climate change mitigation became an emerging norm (Engberg-Pedersen 2011). Several conferences before 2011 were considered failures as they did not lead to a legally binding agreement that would curtail rising temperature. Therefore, failing to achieve climate and environmental justice. To be effective, such an agreement would need to be monitored by the UN in order to ensure compliance and wide participation (Hurlbert 2011). Developing countries had higher demands of emissions and felt that their voices were not heard enough at the earlier conferences. This is a problem as the most vulnerable should be most heard (Hurlbert 2011). There was an obvious interest among developing states to also benefit from industrialization

that developed states of the global north went through. They expected that in exchange for not following the examples of the past, they would receive compensation.

After the Copenhagen conference in 2011, there was renewed interest in multilateralism for addressing climate change and creating the understanding that no country can tackle this problem on its own. It is in essence a common problem of humanity. Climate change was now firmly on the agenda of national policies but those policies were still weak. International pressure to act increased momentum (Gallagher 2015). There was still a lack of certainty over how exactly global cooperation could best be achieved and what kind of agreement would be acceptable to all states, keeping in mind the interests of all states as well as the common interest of fighting global warming. An attempt to finally resolve this in 2015 was done by having the signatories of the Paris Agreement put forth their plans for contribution to the effort through the limitation of greenhouse gas emissions. But their targets were too low and the probability of fulfillment was likewise small, requiring states to do a lot more to reach the goal of limiting warming to 2 degrees above pre-industrial levels (Nadeau et al. 2022).

The reaching of the Paris Agreement in front of thousands of delegates was a success that drew countries together and even though its actual content was not optimal, it made climate change an accepted global problem and the responsibility for managing it was shared by all countries creating solidarity. The summit brought together many heads of states who gave voluntary targets for their country's activities in reducing their emissions, creating consensus about the major environmental question. The promises were voluntary but public and included robust funding for developing states to help them tackle climate change, creating a new level of good faith cooperation (editorial 2016). The 2015 conference can even be considered as the most successful climate change summit ever, leading to a number of initiatives and announcements outside of the formal event and sparking unprecedented climate-related cooperation by both states and non-state actors. It was considered a diplomatic triumph as well as an environmental one (Kinley 2017). This shows that when it came to questions that are truly in the global interest and are of direct importance to all members of the UN, cooperation in a friendly atmosphere is possible. This can be expected to increase the general atmosphere in the international system and to allow greater solidarity in other spheres through successful multilateralism in this environmental case, showing states around the world that have a common interest.

The focus after 2015 was on individual states and their contribution with a bottom-up approach based on solidarity and voluntary initiative while at the same time the 2-degree limit to warming was put into a written agreement. A rule was made to have regular reporting of progress, giving the conference a long-term reach while all countries were expected to act together whether developed or developing, although financial support was promised to the developing states in a variety of initiatives in and around the summit (Kinley 2017). Despite these positive effects, the agreement was criticized by those who expected more binding agreements as apart from rhetorical condemnation and shaming, nothing would happen to a state that reneged on its promises. Issues were also raised that nuclear energy would have to be used to replace fossil fuels as renewable energy could not meet the demands of modern civilization and that the goals proposed could not be met without radical reductions of fossil fuels that no state would be willing to undertake (Rhodes 2016). It can be argued that the agreement was a compromise and was based on the lowest possible consensus that a variety of states can accept and it was truly a success in that regard.

At the same time, the Agreement was symbolic as it was a signal from the highest levels of

governments that a greener future is necessary, that investment into renewable energy is needed, and that there is global readiness to tackle the issue (Rhodes 2016). Critics have singled out that nationally determined contributions as being an inadequate solution as they are voluntary, expensive, and difficult to achieve especially for developing states who conditioned their green transition on outside financial aid from the developed states. This puts in focus the need for sustainable development to be in balance with the limitation of emissions and the opportunity to connect the Agreement's goals with UN's Sustainable Development Goals in general (Makomere and Mbeva 2019). The mere fact that a robust agreement was reached by more or less all states of the world opened up possibilities for future agreements. For once compromise is reached, it is easier to build on it than create a new paradigm and such a positive outcome, no matter how limited, allowed for bilateral and multilateral cooperation in other spheres.

The effectiveness of multilateral agreements depends on the extent to which the parties honor their obligations and deliver on their promises, meaning that implementation and compliance are the main measurements by which we can assess the effectiveness of the Agreement. The main mechanism of compliance is a committee which observes the activities of the signatories. However, its mandate's scope is open to interpretation and is flexible; it is meant to be a long term (Abeysinghe and Barakat 2016). Another success of the Agreement was that the least developed countries were included in the discussions and the Agreement had universal participation. These countries were also supported by the inclusion of robust financing as well as technology transfer that would help them adjust their economies to the needs of the agreement. This contributed to the restoration of confidence in the Climate Change Conference process (Abeysinghe et al. 2016). The process indeed continued with renewed vigor after 2015 as it increased the level of coordination and the enthusiasm over what was possible.

Even though the actions promised by the signatories were voluntary, the agreement achieved was legally binding and included monitoring of what was achieved at regular intervals, which was a way to include everyone but still find the consensus that allowed for the document to have some legal force. Importantly, the agreement also connected climate change to human rights (Atapattu 2016). The agreement also created political momentum that needed to be maintained as it was the achievement of a decade of negotiation and effort. It led to various bilateral and multilateral side-agreements and decisions that promised bold implementation policies with many nations creating comprehensive climate policies and strategic visions for the first time. The universal signing showed political will and readiness to take cooperation

to the next level and to focus on transparency and shared responsibility which increased cooperation (Bodle et al. 2016). The limited compliance mechanisms of the agreement lead some to lament its reach but it certainly created increased global awareness around climate change. Some commentators had hoped for more robust provisions for states that do not act to reduce emissions and consider the Agreement to be less ambitious than the previous Kyoto Protocol. Developing states are primarily interested in development and not sustainability or renewable energy (Caytas 2018). Yet, they cannot be blamed for this as they have only now reached the stage that the states of the global north already went through and they have the right to carry out their responsibilities to their citizens regarding the improvement of the standards of living.

Even with the seemingly insurmountable tasks ahead to reach the goals set in 2015, the agreement was a diplomatic victory that showed the possibility of global cooperation for climate change mitigation, creating hope and motivation. As climate change affects developing states more heavily, financial and technological aid from developed states to help them in the energy transition is necessary. Future agreements have to be wider and include a more thorough examination of all the sources of carbon emissions and their decrease (Ratha 2019). These are all reasons to be optimistic about the future as these states are among the highest polluters and contributors to global warming, and their taking a leadership role can only inspire the rest of the world.

Several years after the Paris Agreement and after Covid and the American rejoining of the agreement, the UN finally took more action to tackle climate change through the General Assembly and through a renewed vitality in the conferences carrying on the mission of the agreement, which is to facilitate international cooperation to reduce global warming. (Nadeau

*et al.* 2022). The European Union (EU) has taken strong steps on climate change, creating a European green deal and climate laws and putting climate action high on the political agenda, and investing heavily in the green agenda. President Biden also promised robust investment into the green transition and promised huge sums of money for the effort to make the American economy more sustainable and renewable, undoing the damage the previous president did for American climate policy (Brattberg 2020). In the years after the agreement, it was understood that the problem of climate change was unsolvable without unprecedented global cooperation. But problems remained as developed states had huge energy needs and developing states prioritized development but could not do so entirely through renewable energy (Burrows 2019). Awareness was certainly increased by both the Paris Agreement and subsequent climate change conferences, but that is only one step towards the solution.

The biggest questions of climate agreements are universal participation and the balancing of obligations between states, and while the Kyoto protocol was “top-down,” the Paris Agreement was “bottom-up,” focusing on individual contributions by states. Building on the increase of confidence in multilateral solutions from 2010 and on the success of the 2015 conference in particular, the UNFCCC has continued to grow in complexity, participation, and weight. However, urgent efforts are still needed to reach the goals set. But no alternative truly exists (Luomi 2020). As such, we can state that the conferences in general and the Paris Agreement in particular are definitely a step in the right direction and are in accordance with liberal internationalism and global cooperation. It was not only a natural consequence of common interests and the benefits brought by multilateralism but is itself in the best interests of humanity.

### **Empirical analysis**

The analysis of the processes of the creation of international resolutions and documents related to ecology and of the discourse at the COP summits before and after the 2015 agreement agreed with our expectations. We looked at five conferences including the 2015 conference where the Paris Agreement was signed, the conferences before and after, and those which were three years removed. The main normative ideas which we looked for in the discourse were: climate change as a threat to human security; the need for developed states to lead by example and aid the developing states; pressure to reduce carbon emissions and undergo a green transition; the need to openly disclose information and provide reports; the need for states to cooperate and coordinate, and emphasizing green

growth and sustainable development globally. We took these norms as indicative of a positive change towards climate change awareness, responsibility, and solidarity and an increase in their diffusion as a mechanism by which the conferences, and especially the 2015 conference and the Paris Agreement, act on the same participants.

We took the 2012 conference as a starting point to analyze the level of cooperation before the seminal 2015 conference and the Agreement. We found that while it did extend the Kyoto protocol and reached agreement in principle that wealthier states should take greater responsibility towards emission reduction, very little progress was made on carbon mitigation. There was a North-South divide at the conference with developing states focusing more on receiving economic assistance for green energy use to which the response of the northern countries was modest and mixed. No state wanted to lead the change and there was a general vagueness in the documents with no clear goals imposed for oversight. The 2014 conference followed a similar pattern leaving too many questions unresolved and while it was agreed to further cut emissions, the main decisions were put off for later and disagreements remained especially regarding the question of the global north states financing the green transition of the global south states. At least, unlike in 2013, there was no open disagreement or walk-out. But there was a noticeable optimistic expectation that a climate agreement could be reached next year.

The 2015 conference led to the creation of the Paris Agreement finding a rare consensus among 196 states. The USA tried to emerge as a leader in the green transition, leading by example, and promising support. There was a show of cooperation between the USA and China leading to a joint announcement before the conference to reduce carbon output, signaling a turning point. While the limits on emissions agreed were voluntary and the actual commitment of the parties was yet to be seen, many states made public diplomatic statements about reductions and cooperation and made commitments in principle to carry out the agreed upon actions. States were now acting publicly and had to announce and present their results to the global community, creating a moral imperative for states to follow through and a public responsibility upon which their reputations now depended.

The 2016 conference was concerned with demonstrating that the Paris Agreement was producing results. Yet, they were slim as real progress was not achieved. The rhetoric was still optimistic and positive, showing at least a normative change in the discourse, but the promises of 2015 were not fulfilled. Cooperation and coordination were widely accepted by the UN members but actual reductions of emissions were modest and developing states still focused primarily on receiving aid and putting the responsibility for climate change on developed states.

The 2018 conference was harmed by the USA leaving the Paris Agreement the year before, meaning that emissions reductions would have to be planned and undertaken without the world's leading economy, taking away the feeling of responsibility from other states and decreasing general trust and cooperation. Climate change did not slow down. And while the need for action was widely understood and accepted, actual compliance with the goals was very limited as economic development was still widely prioritized. A positive note at the conference was that new rules were agreed upon regarding the implementation of the Paris Agreement and decisions were made by certain states to help developing states finance their efforts, although a general agreement on financial aid was postponed. Individual states pledged action to both follow their emissions targets more seriously and to show solidarity with developing states. The World Bank pledged a large amount of money in support. Some

good decisions were made and the conference was generally a step in the right direction. However, the lack of urgency and practical action remained.

We found that the Paris Agreement indeed had a visible and positive effect on international ecological cooperation, on the strength of the discourse, and on the quality of the documents. The discourse after 2015 was more optimistic and positive and the documents produced had improved qualitatively and quantitatively as they were more encompassing, included more commitments, were signed by more states, and promoted global coordination more widely. Even so, while we found an improvement, there was very little actual progress as documents were still in principle not binding but advisory and no stable oversight of implementation of the decisions was established. As such, we can say that improvement was noticeable but not satisfactory.

Regarding the lateral spread of cooperation into other spheres of international relations, we found that even states which do not have good relations between themselves could still effectively cooperate on ecological questions and such cooperation benefited their bilateral relations in general. States which generally had cool relations and bilateral problems agreed both in principle and in the documents to cooperate with the common good in mind.

### **Discussion**

We have found that large-scale international agreements on ecology like the Paris Agreement in 2015 increase the amount of cooperation on ecology and therefore international cooperation in general, we argue that more such agreements should be created. Such notable conferences and documents create a sense of urgency and motivate states to cooperate, creating at the same time a mechanism by which states which do not show solidarity suffer by being publicly exposed as uncooperative. Even with limited practical results and modest implementation, the discourse regarding climate change and solidarity with other (especially developing) states saw an increase. Regular climate change conferences and COP summits should be augmented and improved by drafting new treaties and agreements, and cooperation should become wider to include other ecological questions of a global nature. We also argue for greater regional cooperation on ecological issues in order to foster regional improvements. Public coordination and cooperation is imperative if states are to follow through with their promises. Voluntary sharing of information is necessary for continued commitment. Governments should hold each other to account at the climate conferences much like they do in the General Assembly to make sure that positive norms and expected behavior continue to be adopted globally.

States naturally have self-interest but their interests are now shared with a myriad of other states making solidarity and cooperation a necessity for both national and international interests, further solidifying the international community. The interconnectedness of the world is increasingly making states reliant on each other and global problems like global warming cannot be solved without the participation of all states. As such, there is no real alternative to liberal institutionalism and efforts being carried out through the UN both for climate change mitigation and for global progress in general.

Continuation of research on this topic was hindered by the switch of global attention to the pandemic at the beginning of 2020 and as such we could not observe clearly how climate cooperation continued at the following conferences. Now that the pandemic is over it is possible to take a wider frame of time. Future research should focus on the long-term effects



of the Agreement in the post-Covid world. The short view we took of the later period showed renewed vigor and enthusiasm. We can therefore expect that the future will bring greater cooperation on environmental issues. It is however, therefore imperative to constantly stress the importance and urgency of this process and to prioritize the common interest of humanity.

### **Conclusion**

The Paris Agreement was truly a watershed event in recent history. The UN has proven itself as an effective facilitator of cooperation in the field of ecology. The world came together in solidarity to coordinate on a problem affecting everyone. Our analysis showed that the Agreement significantly improved the level of understanding and cooperation. We argue for an expansion of the agenda of COP summits and an expansion of regional summits. We found a modest practical increase in carbon emissions but a decisive increase in solidarity and normative change towards international cooperation. A continuation in this direction is expected to spill over to other fields of international relations and improve the overall mood in the international community. The importance of the Paris Agreement climate change conferences and COP summits cannot be overstated.

### **Sources**

The documents and decisions analyzed were accessed at the official website archive of the UN Climate Change Conferences: <https://unfccc.int/decisions>

- Hurlbert, Margot A. Evaluating climate justice – attitudes and opinions of individual stakeholders in the United Nations Framework Climate Change Convention Conference of the Parties. *Journal of Integrative Environmental Sciences*, 8:4(2011)
- Nadeau, KC, Agache, I, Jutel, M, et al. Climate change: A call to action for the United Nations. *Allergy*. 2022;77 Editorial. How to understand the results of the climate change summit: Conference of Parties21 (COP21), Paris 2015. *Journal of Public Health Policy* (2016), 37
- Richard Kinley (2017) Climate change after Paris: from turning point to transformation, *Climate Policy*, 17:1, 9-15
- Rhodes, Christopher. The 2015 Paris Climate Change Conference: COP21. *Science Progress* (2016), 99(1)
- Liz Gallagher. *Political Economy of the Paris Climate Agreement*. Third generation Environmentalism, 2015
- Reuben Makomere, Kennedy Liti Mbeva. Squaring the Circle: Development Prospects Within the Paris Agreement. *Carbon & Climate Law Review*, Vol. 12, No. 1, 2019
- Achala Abeysinghe, Subhi Barakat. The Paris Agreement: Options for an effective compliance and implementation mechanism. *International Institute for Environment and Development*, Nov. 1, 2016
- Achala Abeysinghe, Brianna Craft, Janna Tenzing. The Paris Agreement and the LDCs: Analysing COP21 outcomes from LDC positions. *International Institute for Environment and Development*, 2016
- Sumudu Atapattu. Climate Change, Human Rights, and COP 21: One Step Forward and Two Steps Back or Vice Versa?. *Georgetown Journal of International Affairs*, Vol. 17, No. 2 (Summer/Fall 2016)

- Mari Luomi. Global Climate Change Governance: The search for effectiveness and universality. International Institute for Sustainable Development (IISD), 2020
- Erik Brattberg. Climate and Energy: Reinventing Transatlantic Relations on Climate, Democracy, and Technology. Dec. 1, 2020, Carnegie Endowment for International Peace
- Matthew J. Burrows. Global Risks 2035 Update: Decline or New Renaissance?. Jan. 1, 2019, Atlantic Council
- Atieno Mboya. Human rights and the global climate change regime. Natural Resources Journal, Vol. 58, No. 1 (Winter 2018)
- Lars Engberg-Pedersen. Institutional issues in international climate change cooperation: climate change negotiations and their implications for international development cooperation. Jan. 1, 2011, Danish Institute for International Studies
- Isabel Galiana. International Climate Cooperation: Benefits and Costs of the Climate Change Targets for the Post-2015 Development Agenda. Oct. 15, 2014, Copenhagen Consensus Center
- Keshab C. Ratha. Paris Climate Deal: A Bumpy Road Ahead. Indian Journal of Asian Affairs, Vol. 32, No. 1/2 (June-December 2019)
- Joanna D. Caytas. The COP21 Negotiations: One Step Forward, Two Steps Back. Consilience, No. 19 (2018)
- Ralph Bodle, Lena Donat, Matthias Duwe. The Paris Agreement: Analysis, Assessment, and Outlook. Carbon & Climate Law Review, Vol. 10, No. 1, 2016