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The Resilience of Multilateralism as Seen in the Response to Climate Change The University of Tokyo Hideaki Shiroyama

Abstract

As globalization progresses, the development of scientific technology and the large-scale movement of people, things, and information have created a variety of risks. Globalization has deepened the connections between diverse sectors of society, which has in turn accelerated the combining of risk targets. These targets include not only broad "safety" risks such as people's health and the protection of the environment, but also a number of risks related to "security" (Shiroyama 2016). Various multilateral frameworks have been constructed for managing these risks and dangers. On the other hand, such multilateralism has also been criticized and seen challenges from unilateralism. In terms of risk management, however, systems based on multilateralism seem to have demonstrated a certain resilience despite criticism and challenges. This paper focuses on the mechanisms that enable this resilience, analyzing the layered nature of multilateralism; the role of networks formed by experts and sub-national governments; NGO and private-company networks; securitization; and the structure of domestic systems such as the relationship between legislative and executive branches of government. To do this, it considers examples from the issue of climate change. The paper also looks at how maintaining global governance based on multilateralism requires cooperation at the country level, ensuring capabilities at the national level, and mechanisms for supporting these areas.

1. Formation and strengthening of multilateralism with climate change

Regarding the issue of climate change, a conference was held in the Austrian city of Villach in 1985, during which scientists and other participants reached an agreement on the outlook of global warming and called for international measures to be taken by governments. This led the World Meteorological Organization (WMO) and the United Nations Environmental Program (UNEP) to jointly establish the Intergovernmental Panel on Climate Change (IPCC) in 1988. The IPCC published its first report in 1990, its second report in 1995, and its third report in 2001. It has conducted risk assessments on whether anthropogenic climate change is occurring. In its second report, for example, assessed that "the balance of evidence suggests a discernible human influence on global climate," and further stated in its third report that, "there is new and stronger evidence that most of the warming observed over the last 50 years is attributable to human activities." Thus, the IPCC has indicated that there is an increasing probability that humans are causing climate change.

The IPCC, as its name suggests, the IPCC has both an expert panel and an intergovernmental panel. The IPCC's "Summary for Policymakers," a report containing assessments from its various subcommittees, is reviewed by representatives from each country line by line, then agreed upon, which means that policy requests from those countries are also reflected. Thus, the IPCC is characterized as an unique and composite complex organization that is neither a strictly scientific organization nor a political organization.

Maintaining credibility is essential to the operation of the IPCC. However, a hacking incident in 2009 disclosed documents which revealed that the head of the climate research unit at the University of East Anglia in England had used "tricks" to conceal a decline in average temperatures during a particular period. This so-called "Climategate" resulted in criticism of the IPCC and researchers associated with it. While an investigation concluded that the "tricks" did not amount to falsification, the U.N. Secretary General and the chair of the IPCC requested a comprehensive and independent review of the IPCC's procedures and work processes from an academic council that included the academia of each nation. While that report found that the IPCC has been an overall success, it made recommendations related to its review systems and processes, ensuring integrity when handling uncertainty in each working group, and maintaining transparency with regard to communication strategy (Shiroyama 2018).

The international network of the IPCC, a neutral organization containing expert and intergovernmental aspects, was the foundation upon which other multinational frameworks related to climate change were built. Following the establishment of the IPCC in 1988, the Intergovernmental Negotiating Committee (INC) was created in 1990 through a resolution (Resolution 45/212) of the UN General Assembly for the process of negotiating between governments. After five rounds of negotiations, the INC adopted the Framework Convention on Climate Change in May 1992. Based on the assertion by developing nations during the negotiation process that developed nations should hold primary responsibility, Article 3.1 states that "Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed countries should take the lead in combating climate change and its adverse effects" (Takamura 2011). While European nations advocated the inclusion of reduction targets for developed countries, the United States insisted that only cooperation such as monitoring should be listed and that there should be no obligation for any country to

reduce emissions. As a result, the Framework Convention on Climate Change had low level of biding force on the emission-reduction targets of developed countries. In 1995, at the first Conference of the Parties (COP1) for the Framework Convention on Climate Change, discussions began to strengthen the binding power of the reduction targets of developed nations. Later, these targets were solidified in the Kyoto Protocol agreed upon in 1997, which required each developed nation to reduce its emission of greenhouse gases by the stipulated amount during the five-year period from 2008 to 2012 (the first commitment period) (Kameyama 2011).

In 2001, however, under the Bush administration, the United States declared that it would not be ratifying the Kyoto Protocol, which led to the framework going into effect in 2005 without the participation of the U.S., the world's biggest producer of greenhouse gases at the time. Later, at the end of 2011, Canada also declared its withdrawal from the Kyoto Protocol. The top-down approach of setting legally binding reduction targets thus proved ineffective in terms of the environmental regulations of developed nations.

2. From a top-down approach to a polycentric approach: the role of local governments, NGOs, private companies, bilateral frameworks, and frameworks between major countries

After the Kyoto Protocol, discussions on a systematic structure stagnated. Over 110 heads of state, including President Obama, met at the Copenhagen Summit in 2009 (COP15), where the Copenhagen Accord was created. But countries like Venezuela, Bolivia, Cuba, and Sudan criticized the lack of transparency and impartiality during the drafting of that document, so it was not adopted as a binding agreement but instead merely "noted" by the COP (Takamura 2011). Despite the assertive stance exhibited by President Obama of the United States, an official accord was ultimately not reached. Under these circumstances, many began to advocate for a approach different than the conventional top-down method (Cole 2015). For example, Ostrom suggested a "polycentric approach" in the report to the World Bank (Ostrom 2009). In a polycentric approach, diverse entities collaborate in a variety of situations to build mutual trust, which allows them to accumulate relational capital. Also, Keohane and Victor stressed the importance of responding via a regime complex rather than a single regime (Keohane and Victor 2011) and of experimental governance (Keohane and Victor 2015). Others have pointed out trends like a transition from a regulatory model to a catalytic and facilitative model (Hale 2016) and changes such as orchestration as a form of indirect governance.

These methodological changes can be seen in practice in several phenomena. The first is the significant role that local governments have come to play (Bulkeley 2010, Gordon and Johnson

2017). This started in the early 1990s, when cities in Europe and North America began to take action on climate change and the International Council for Local Environmental Initiative (ICLEI) network was created. There was then a second wave of activity at the regional level around 2005, when the participation of local governments shifted from being symbolic to substantial (Gordon and Johnson 2017). In October 2005, for instance, London mayor Ken Livingstone convened a meeting of representatives from 18 major cities, which would result in the creation of C40. Then in 2006, the private Clinton Climate Initiative was invited into C40, and the number of participating cities rose to 40. The organization also coordinated with the World Bank and the ICLEI at the São Paulo Summit in 2011. In 2011, former California Governor Arnold Schwarzenegger formed a coalition called R20 (Regions of Climate Action) that included the United Nations, NGOs, and private companies with the goal of accelerating infrastructure investments in the green economy at the sub-national level. The Bali World Mayors and Local Governments Climate Protection Agreement was signed at the 2007 intergovernmental COP13 held in Bali. In addition, more local governments began responding to climate change, including the capitals and major cities of nations as well as various southern cities (Bulkeley 2010).

Second, networks of NGOs and private companies have played a major role. The critical juncture here was the launching of the Carbon Disclosure Project (CDP) in the year 2000. The CDP attempted to independently standardize corporate reporting procedures related to climate activities in order to provide institutional investors with information on the risks of climate change. This went beyond mere carbon accounting to include the disclosure of information on organizational preparations, technological investments, and emissions trading and offsets in addition to emission measurements (Kolk, Levy, and Pinske 2008). In 2002, a total of 254 companies disclosed information; by 2020, that number had risen to over 10,000 organizations (including city and municipal governments, which had subsequently become eligible for disclosure). A supply-chain program (CDP 2000) seeking information disclosures from the companies that comprise the supply chain was launched by the CDP in 2007.

As support increased for the Principles for Responsible Investment (PRI) advocated by UN Secretary-General Annan in 2006, there was a movement in the autumn of 2014 to quantitatively understand and reduce the greenhouse emissions and carbon footprint of investments. Specifically, the Montreal Carbon Pledge launched at that time encouraged the annual calculation and disclosure of the carbon-dioxide emissions and carbon footprint of companies in investment portfolios; by December 2015, the pledge had been signed by 120 investment firms (Takase 2017).

In 2014, the Climate Group, a non-governmental organization, in partnership with CDP, established RE100, an initiative that supports companies who obtain 100% of the energy required for their business operations from renewable sources. Each member company must create a target achievement plan that sets a time limit for converting to renewable energy then get that plan approved. RE100 is managed by the RE100 Project Board, a group of representatives from Climate Group and the CDP, with the support of

the RE100 Advisory Board (comprised of corporate members and independent advisors) and the Technical Advisory Group (RE100 2021). As of 2019, RE100 has 261 members, including 37 in Europe, 15 in North America, and 35 in Asia. Also, 141 of those members have reported on their supply-chain activities (RE100 2020). In terms of reducing emissions, using more renewable energy is an effective way of reducing the so-called "Scope 2 emissions" (indirect emissions originating from the usage of secondary energy sources such as electricity, heat, and steam) (Takase 2017).

Additionally, "Assessing Corporate Emissions Through the Lens of Climate Science" published in 2013 by the nongovernmental organizations Climate Counts and the Center for Sustainable Organizations (CSO) sparked interest in science-based targets (SBTs) as a mechanism for translating global targets to goals at the company level. There are several approaches to SBTs: reduction that balances the total quantity of emissions, reduction that also strikes a balance with economic contribution, and reduction based on the characteristics of each business sector. Building upon the diversity of these methods, the World Resources Institute (WRI), World Business Council for Sustainable Development (WBCSD), the CDP, and other organizations led a push to popularize SBTs in 2014. Then, in 2016, CDP companies began being asked to disclose whether they utilize SBTs when setting targets (Walenta 2020). Also, the CDP has established research groups for each sector (steel, cement manufacturing, automobiles, mining, chemicals, electricity, etc.) and to study their unique characteristics since 2015 (Takase 2017).

Third is the progress made by a variety of bilateral and major country initiatives. Regarding bilateral efforts, the United States and China have worked on a joint initiative (Cheng 2017). In both these countries, the conditions that would make an international treaty possible were coming into alignment.

Although China had been experiencing a period of rapid economic growth since 2008, the ratio of coal in its energy usage had declined. In the backdrop were the strengthening of the country's environmental regulations, adding the criteria of energy and environmental indicators to assess the performance of local governments, and an increase in the price of coal due to a reform of the pricing system. Under this backdrop, the country's environmental regulations were strengthened, energy and environmental indicators were added to the criteria used to assess the performance of local governments, and the price of coal increased due to a reform of the pricing system. In June 2015, China decided that its nationally determined contribution (NDCs) would be to hit peak CO2 emissions around the year 2030 (Horii 2016).

In the United States, President Obama's attempt at demonstrating leadership at the Copenhagen Conference in 2009 had failed, and domestically, the Senate had deadlocked in 2010 over the passage of emissions-trading legislation. Then, in Obama's second term of office (which

started in 2013), the administration decided to implement a policy that could be done under the president's authority alone, leading to the formulation of the Presidential Climate Action Plan in June 2013 and the Green Power Plan, which established emissions standards for the country's existing thermal power plants, in June 2014 (Ueno 2016).

As all this took place, discussions between the U.S. and China continued. In April 2013, the Joint U.S.-China Climate Change Working Group was established; and in November 2014, President Obama and President Xi issued a joint declaration (Cole 2015). At that time, the U.S. declared its target of reducing greenhouse emissions to 26%–28% of the 2005 level by the year 2025. The United States and China then issued another joint declaration in September 2015. In it, the two countries indicated policies such as "an enhanced transparency system and flexibility to developing countries that need it in light of their capacities," "formulating and making available mid-century strategies for the transition to low-carbon economies," and "continued support by developed countries to developing countries and encourag[ing] such support by other countries willing to do so," concepts which were later reflected in the Paris Agreement (Ueno 2016).

Regarding initiatives between major nations, the 2005 G8 Gleneagles Summit chaired by England saw the topic of climate change taken up as the so-called "Gleneagles Process" began. Besides the G8 countries, the Gleneagles Process included China, India, South Africa, Brazil, and Mexico (the "Plus 5"). In addition, a "G20 Dialogue" was held between 20 countries, including some that are experiencing rapid economic growth. England, who had initiated the Gleneagles Process, tried framing the issue of climate change as a security problem, terming it "climate security" (Ministry of the Environment 2007). Following the Cold War, there had been a move to position climate change as an issue of "environmental national security" (Yonemoto 1994), and this was an attempt to generate political interest through securitization. As part of this push, the issue of climate change was taken up for the first time by the U.N. Security Council in April 2007. The Security Council also discussed the issue of climate change in 2011 and 2019.

3. The Paris Agreement and the Task Force on Climate-related Financial Disclosures (TCFD): institutionalizing the roles of diverse stakeholders

The mobilization of cities, NGOs, and private companies based on a polycentric approach was also advanced as part of the preparations for the Paris Agreement adopted in 2015. In September 2014, the U.N. invited government delegates, company CEOs, mayors, and others to a climate summit in New York, external to the intergovernmental negotiations taking place under the Framework Convention on Climate Change. Then, in December 2014, COP20 was held in Lima as part of the Framework Convention on Climate Change. There, the Peruvian Minister of the Environment spearheaded an initiative to mobilize cities, corporations, and other entities. An attempt was made to include references to cities and the private sector in the document adopted at the COP, but ultimately this language was omitted. However, at the COP in 2015, host France emphasized the concept of transnational climate governance (Hale 2016).

Under these circumstances, the Lima-Paris Action Agenda (LPAA) was formed in preparation for the Paris Agreement (Gordon and Johnson 2017). Led by the French and Peruvian governments, the UNFCC Secretariat, and the U.N. Secretary-General, the LPAA has obtained commitments from over 10,000 cities and corporations (Hale 2016). This movement also received support from the Alliance of Small Island States (AOSIS), and at COP21 held in Paris in 2015, the fourth pillar known as the Action Agenda including references to "Non-Party stakeholders" (Hale 2016).

As a result, paragraph 118 of the Paris Agreement draft (FCCC/CP/2015/L.9/Rev.1) adopted in December 2015stated that the Parties "welcome the efforts of non-Party stakeholders to scale up their climate actions, and encourages the registration of those actions in the Non-State Actor Zone for Climate Action platform." Additionally, paragraph 134 stated that the Parties "welcomes the efforts of all non-Party stakeholders to address and respond to climate change, including those of civil society, the private sector, financial institutions, cities and other subnational authorities." This established the Non-State Actor Zone for Climate Action (NAZCA) platform as a framework that officially recognizes non-party stakeholders, anticipating the participation of civil-society organizations, the private sector, financial institutions, cities, and other local governments. Moreover, paragraph 137 emphasizes the role that nations play in encouraging the participation of these nonparty stakeholders, stating that it "also recognizes the important role of providing incentives for emission reduction activities, including tools such as domestic policies and carbon pricing." As of April 2016, a total of 2021 cities had joined NAZCA, representing 6.5% of the global population (Hsu et al. 2017). To ensure that NAZCA plays a substantial role, some have stressed the importance of transparently sharing data to prevent problems such as the double counting of emissions (Hsu et al.).

The Paris Agreement was adopted at COP21 in December 2015; in November 2016, it went into effect signed by 165 countries and the E.U. (Takamura 2017b). Article 2.1 establishes the purpose of the Paris Agreement as "holding the increase in the global average temperature to well below 2 °C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 °C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change."

The agreement defines a framework in which each nation periodically reports on the achievement progress of its nationally determined contributions (NDCs), information which is then

used to study the status of implementation globally. As the entities that define NDCs, create reports, and evaluate progress, countries are especially important stakeholders. For example, article 4.2 states that "each Party shall prepare, communicate and maintain successive nationally determined contributions that it intends to achieve. Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions." Article 4.9 then states that "each Party shall communicate a nationally determined contribution every five years...and be informed by the outcomes of the global stocktake referred to in Article 14," while article 14.1 stipulates that "the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement shall periodically take stock of the implementation of this Agreement to assess the collective progress towards achieving the purpose of this Agreement and its long-term goals (referred to as the "global stocktake"). It shall do so in a comprehensive and facilitative manner, considering mitigation, adaptation and the means of implementation and support, and in the light of equity and the best available science."

To enable these mechanisms, the agreement stresses the importance of maintaining trust and transparency as well as ensuring flexibility that considers the capabilities of each nation. Article 13.1 states that "in order to build mutual trust and confidence and to promote effective implementation, an enhanced transparency framework for action and support, with built-in flexibility which takes into account Parties' different capacities and builds upon collective experience is hereby established," while article 13.14 notes that "support shall be provided to developing countries for the implementation of this Article."

In this way, the Paris Agreement adopted in December 2015 institutionalized the roles of diverse stakeholders through the NAZCA platform while also focusing on the role of nations as major stakeholders as well as building their capacities. This institutionalizing of the connections between countries and diverse stakeholders was also observed outside of the Paris Agreement.

As mentioned in section 3 of this paper, the disclosure and assessment of climate-related risks by companies and other entities has been going on since the year 2000 when the CDP and similar organizations began operating. However, trial and error revealed that there are differences of opinion as to what constitutes a material risk. Therefore, there was a move to standardize the way in which information is disclosed, from a financial point of view and through the involvement of public organizations (Walenta 2020).

The spark for this movement was the G20 Finance Ministers and Central Bank Governors Meeting. Held in Washington D.C. in April 2015, the meeting issued a joint declaration to the Financial Stability Board (FSB) asking it to "convene public-and private-sector participants to review how the financial sector can take account of climate-related issues" (TCFD 2017). This was done because the transition to a lowcarbon economy requires significant and fundamental changes over a short period of time—changes which will impact financial sectors and the entire industrial world. In particular, serious financial chaos and precipitous drops in property value must be avoided. Financial policy makers had therefore become interested in the transition's effects on international financial systems (TCFD 2017).

Upon this request, the FSB established the industry-led Task Force on Climate-related Financial Disclosures (TCFD) in December 2015. The task force was comprised of 32 individuals from a wide range of economic departments and financial markets, striking a balance between those who create and disclose climate-related financial information and those who use it. The TCFD found that while several frameworks for climate-related disclosures had been suggested in various countries and regions, there was a need for cooperation beyond the existing systems and G20 nations to create a standardized, shared framework for disclosures (TCFD 2017).

The final report of the TCFD was published in June 2017. It contained recommendations for companies and other entities on the disclosure of items related to the risks and opportunities of climate change. The items are broadly divided into four categories. The first of these is governance. This concerns the systems with which risks and opportunities are being considered, and whether they are being reflected in the company's management. The second is strategy, which is related to the effects of risks and opportunities on the company over the short, medium, and long terms and how those are being approached. The third is risk management. This involves how climate-change risks are being identified and evaluated and whether the company is working to reduce them. Finally, the fourth category is metrics and targets. This is concerned with the indicators being used to assess risks and opportunities and make decisions about them, as well as whether their achievement progress is being evaluated (TCFD 2017).

Some specifics on risks and opportunities were also described. First, climate-change risks were divided into two main categories: transition risks that accompany the changes needed to combat climate change, and the physical risks of climate change (Walenta 2020). Transition risks can be further divided into policy and legal risks, technology risks (the risks inherent in utilizing new technology), market risks (risks created by shifting demand for products and services), and reputation risks, while physical risks, which include direct damage to property as well as the indirect effects of a splintered supply chain, can be subdivided into acute risks (such as abnormal weather) and chronic risks (such as a long-term rise in temperatures). Meanwhile, climate-related opportunities can be categorized as resource efficiency (the efficient use of resources achieved as a circular economy develops), energy sources (new sources of energy such as renewables), products and services (new low-emission offerings that focus on carbon footprint), markets (new markets in which organizations that actively search for opportunities related to new markets and resources can maintain a more favorable position), and resilience (connected to the ability to adapt by managing risks and perceiving opportunities).

From the above, we see that nations and municipalities have also recognized the need for a disclosure framework that allows comparisons between the climate-change data of CDP and other

initiatives led by NGOs based on requests from institutional investors, as evidenced by the fact that the Finance Ministers and Central Bank Governors Meeting and the Financial Stability Board spearheaded the TCFD (Takase 2017). This further demonstrates the increasing link between intergovernmental efforts and those of NGOs and private companies.

4. U.S. policy changes and the resilience of multilateralism

In 2017, President Trump exercised his executive authority to declare that the United States would withdraw from the Paris Agreement. However, it has been pointed out that the substantive impact of the withdrawal declaration by the United States was limited in several ways.

First, there is the reality that the U.S. has not played a major role in the response to climate change over the past 30 years or so; those efforts have been led by China and the E.U. (Keohane 2017).

Second, climate-change governance is currently of a "polycentric" or "transnational" nature, as described in Section 3 (Selby 2018). In the U.S., individual states have experienced the economic benefits of reduced greenhouse emissions (energy conservation and renewable energy) as well as the negative effects of abnormal weather, serving as proving grounds for various ideas through the aims of their leaders. For example, California has restricted carbon-dioxide emissions from vehicles, while New York has tested a regional market for emissions trading (Rabe 2008). Additionally, as of 2015, twenty of the fifty states had set reduction targets for greenhouse emissions. California stated that it would reduce its greenhouse emissions to 40% of their 1990 levels by the year 2030, while Texas has promoted the introduction of wind power (Selby 2018).

These bottom-up approaches are resilient—companies and leaders in regional governments announced that they would continue participating in the Paris Agreement even after President Trump declared the withdrawal. In November 2016, for instance, 85 mayors signed the Mayors National Climate Action Agenda, an open letter to President-elect Trump (Betsill 2017). There is also the United States Climate Alliance (USCA), an organization formed by a bipartisan group of governors from 24 states (USCA 2019, Murthy 2020). Currently, those states represent 55% of the U.S. population. The specific goals of the USCA are to achieve the targets of the Paris Agreement, record reductions in greenhouse emissions, and publish them.

These activities of regional governments were also influenced by changes in the energy cost structure. Each state advanced its policies for reducing emissions and introducing renewable energy, the latter of which 30 states had set targets for. California, for instance, aimed to have 50% of the total energy used by retailers come from renewable sources by 2030; New York's goal was 40% of total energy consumption, while Hawaii also looked to achieve 50% of total retailer energy (Takamura 2017a).

Alongside these efforts of regional governments, private companies were maintaining commitments to the Paris Agreement. Following the U.S. government's declaration to withdraw from the Paris Agreement in 2017, some of the country's major corporations reaffirmed their commitment to achieving its targets (Walenta 2020).

Third are the institutional factors. Internally, independent agencies as well as the U.S. Congress, which has authority over budgetary matters, enjoy a certain degree of autonomy. The Federal Energy Regulatory Commission, for instance, rejected President Trump's demand to introduce subsidies for coal power plants (Selby 2018). Also, the White House requested a decrease of 31% in the budget of the Environmental Protection Agency (EPA) in 2018, but Congress ultimately approved a decrease of only 1% (Hand 2017). Moreover, although the threat of climate change was removed from the 2017 National Security Strategy, references to that threat to national security were left in other documents (Selby 2018).

These institutional factors also had international components. The Paris Agreement did not set targets for each country. Nationally determined contributions (NDCs) were committed to voluntarily, and there were no sanctions if they were not performed. Furthermore, the agreement stipulated that parties could not withdraw from it prior to November 4, 2020, four years after it went into effect (Selby 2018).

So while the U.S. federal government—i.e., the Trump administration—intended to withdraw from the Paris Agreement, some regional governments and major companies remained committed to it. This demonstrates that multilateralism has a certain resilience when it comes to responding to climate change. In this case, it was an inevitable consequence of the strained relationship between the federal and regional governments (Balthasar, Schreurs and Varone 2020, Trachtman 2019).

First, thereotically, states and cities cannot logically become signatories to the Paris Agreement. However, Murthy claims that these regional governments can play the role of "norm sustainers." Specifically, they 1) achieve compliance via the disclosure of data related to their own greenhouse-emission reductions etc., 2) establish the principles of the norm (for example, by embodying the specifics of "shared but disparate responsibilities" through their concrete commitments as they aim to define the norm), and 3) verify the feasibility of policies. This role stands in opposition to the role of "norm entrepreneurs," which is fulfilled by NGOs and similar organizations, and "norm sponsors," fulfilled by countries and other entities party to agreements (Murthy 2020). The roles of norm sustainers or norm entrepreneurs in the Paris Agreement were enabled by the NAZCA framework.

Also, under the Trump administration, the tense relationship between the U.S. federal government and regional governments worsened. In the United States, the role of states in creating

regulations has been historically significant, particularly in the case of California. In 1969, air-pollution regulations for Los Angeles and the San Francisco Bay area were enacted with bipartisan support, and the California Air Resources Board (CARB) was established as the administrative agency for implementing them. The following year, in 1970, the federal government enacted the Clean Air Act (CAA); however, because California's existing regulations were stricter than those of the CAA, it was granted a waiver (the "California waiver") (Tsuji 2021). When the CAA was revised in 1977, a provision was added stating that if other states adopted the same standards as California, then they too would be granted a waiver (Mazmanian, Jurewitz, and Nelson 2020).

In August 2018, President Trump proposed revoking the waiver given to California for automobile fuel regulations in 2013. Regarding the fuel regulations, California and 13 other states as well as Washington D.C. had already adopted stricter standards. The Trump administration stated that its legal basis for revoking the waiver was 1) climate change is a global problem, so state regulations are unnecessary; 2) strict regulations are not technologically feasible; and 3) the federal government has jurisdiction over global warming due to other legislation (the Energy Policy and Conservation Act, or EPCA). But this is a difficult case to make. Regarding 1), NOx regulations were the original reason for introducing zero-emissions vehicles, and as far as 2) is concerned, the CARB had already verified technological feasibility (Hankins and Bryner 2018).

The Trump administration and the state of California negotiated the issue but were ultimately unable to reach a compromise. So in July 2019, California signed a voluntary agreement on reducing greenhouse emissions with some automakers (BMW, Honda, Ford, and Volkswagen). When President Trump responded by formally revoking the waiver in September 2019, California along with New York City, Los Angeles, Washington D.C., and 22 other states sued first the National Highway Traffic Safety Administration (NHTSA) and later the EPA. Meanwhile, automakers were divided, with eleven companies (including G.M., Toyota, Mazda, and Hyundai) joining the suit in October 2019 in support of President Trump. This led California to create a framework that barred these eleven companies from state procurement (Oller 2019).

5. Observations

From the above, we have seen how multilateralism exists in the case of climate change and verified that this multilateralism had a certain resilience to the unilateral actions of the United States under the Trump administration. We can identify four sources of this resilience.

First is the layered nature of multilateralism itself. In addition to the Framework Convention on Climate Change, other frameworks such as G8 and G20 as well as bilateral frameworks like the U.S.-

China joint declaration played a certain role with climate change.

Second are the transnational networks of NGOs, experts, and regional governments. In the case of climate change, an expert network known as the IPCC served as an intergovernmental organization and played a substantial role in the case of climate change, as did regional-government networks such as the C40, R20, and U.S. Climate Alliance (USCA). In addition, many companies participated in the CDP and other initiatives and are now disclosing risk assessments and other data related to climate change. And as financial organizations such as institutional investors focus more on these disclosures, a number of major corporations have stated their commitment to certain reduction targets, independently of government policies at the national level.

Third is the role that framing the issue as securitization has played. England framed climate change as a security issue at the G8 summit and the U.N. Security Council. Treating climate change as a problem of security has also been observed in recent years.

Fourth are the domestic institutional factors. In the United States, the Trump administration tried to drastically reduce the budget of the EPA, which administers environmental matters, but this ultimately did not take place because Congress resisted the budget decrease. Also, the U.S. has a history of strained relationships between the federal and state governments (particularly in the case of California), which has resulted in significant regulations.

All of this suggests that multilateralism has a certain resilience to unilateral action. Ensuring the effectiveness of multilateralism, however, requires commitment at the national level. Countries are a major player in setting targets, publishing reports, and verifying data related to climate change, and maintaining and supporting capacities at the national level is also an essential component of multilateralism. Additionally, government-level commitments related to the disclosure of carbon footprints and similar information by companies are critical in terms of financial regulation.

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