Why international climate agreements are more likely to fail?

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Trump's administration announced the decision of withdrawal from the 2015 Paris Agreement on June 1st, 2017. As of January 2020, Iran and Turkey still have not ratified the Paris Agreement after about four years. International climate agreements have been hard to comply since the first craft of climate treaty. Related to climate agreements, carbon emission is the major criteria for the effectiveness of climate agreements while energy is a global topic that contributed to but avoided with climate change. International climate agreements have much more complicated discussions and implementation issues than other international agreements in the UN, among different states, and in each state. *To understand why international climate agreements are more likely to fail, I analyzed 1) the special characteristic of carbon emission that lead to a lack of legal binding and global leadership, 2) the weaknesses of UN's institutionalization and conflicts among states that prevent global collaborations on energy shift and security, and 3) the coalitions of industries and politicians in states that shape the implementation of renewable energy.*

The evolution of International Climate Agreements of limiting its legal power

The 1997 Kyoto Protocol aimed to control the emission of anthropogenic greenhouse gases (GHG). It set legally binding targets for rich states and time allowance for developing states to emit based on their minimum need for development. It failed when George W. Bush formally withdrew in 2001 followed by Canada withdrew as failing to meet its target. Neither of the states received legal penalty. In terms of GHG, the CO2 emission did not show any trend of declining. Though rich states controlled or reduced the CO2 emission level, developing states accelerated their development and produced much more than the reduced amount. Emitting CO2 turned out to be much easier than reducing it because it was closely tied with the level of development in each state. Therefore, it is necessary to include all states and require all to make commitment of reduction.

However, adding legal binding to emission will make states reluctant to join (Plumer, 2015). Following Kyoto Protocol, Copenhagen and Cancun Agreement failed to achieve the agreement on whether developing states should have binding emissions reductions or whether richer states have the duty to reduce emissions first (Blinch and Buckley, 2010). To ensure universal participation, Paris Agreement adopted a bottom-up approach by requesting states to determine their own goals and to provide transparent data without legal binding to them. The agreement turned into a truly voluntary pledge with UNFCCC serving as the platform to collect, synthesize, and disseminate information (Bhushan, 2019). The Paris agreement became a weak international agreement where international agreements are in nature voluntary.

In comparison, other international agreements are more successful in terms of legal binding and enforcement. The Governing Council of UNEP decided to develop a global legally binding instrument on mercury in February 2009. The UN Minamata Convention on Mercury became legally binding on 16 August 2017 as more than 50 states ratified (Treat Section of United Nations, 2013). In addition, there are 183 parties (CITES, n.d.), including states and regional economic integration organizations, have ratified the Convention on International Trade of Endangered Species (CITES). Following that, wildlife trade has been declared illegal in 80 states (Rogers, 2019). In contrast, more than 164 states have created climate change laws by 2017 but the outcome of emission reduction was much less effective than CITES. The lack of legal binding in international climate agreement limited the effectiveness of state-level enforcement and significantly slowed down its progress.

Characteristic of carbon emission and climate change leads to the lack of global leadership

In most states, carbon emission ties with development and economic growth. With growing population and urbanization, putting resources to reduce carbon emission are widely considered to be contradicting with development. Brazil is a big food exporter whose economy depends on agriculture. To deal with population growth and economic burden, law enforcement was weakened and resulted in an increase in deforestation. In Turkey, Indonesia and other states with developing economies, new coal plants are planned to deal with increasing electricity demand.

Moral persuasion and peer pressures are not strong enough to make states sacrifice economic growth for reduction in carbon emissions (News & World, 2018).

In addition, reducing carbon emission is not economically beneficial. GHG mixed in the atmosphere and spread globally, affecting global climate. No states can avoid being impacted neither there are any states positioning at the center of the problem. Leading changes has cost. States that put in efforts to reduce emissions only gain a portion of benefit while those took no actions can also share the benefit. Therefore, all states have the incentive to wait for other states to reduce emission and to gain benefit without paying the cost (Stavins, 2019).

United Nations (UN) has weak institutionalization of energy

Energy sectors emitted large amount of GHG (e.g. CO2, CH4, N2O) that contribute to climate change but the process of adopting cleaner and renewable energy has been slow. The global energy system has merely changed over the last 25 years both in terms of energy sources and accessibility to cleaner energy (Bhushan, 2019). This dilemma was occurred because of lack of global cooperation. The lack of institutionalization of energy in UN made the progress of energy shift and collaboration inefficient.

Institutionalization of energy in the UN System is highly sensitive and there is no strong normative framework (Graaf et al, 2016). Efforts to institutionalize energy and cooperation on energy either had short durations or limited power. The first political body on new and renewable energy was requested to establish in 1981 (Schechter, 2005) when the US and Eastern European states vote against it. After establishment, the Committee met every two years but was dismantled in 1994. Its mandate was transferred to another Committee under ECOSOC which didn't last long either, which was finally taken over by the CSD (United Nations Economic and Social Council, 1993).

Besides, institutionalization is also quite weak for administrative. There is no mandate for the UN to "institutionalize inter-agency cooperation on energy" (Graaf et al, 2016). Besides, organizations in UN are relatively independent of each other while competing for the same resources. Therefore, many institutions in UN are lack of coordination and collaboration when

dealing with energy problems in developing counties (Karlsson-Vinkhuyzen, 2010), resulting in each institution supported energy sources and services according to their own mandate and priorities. Without a collective force among UN institutions, it is difficult to control the shift in global energy system to comply with and reach the goals of international climate agreements.

Conflicted benefits among states

The conflict between states prevent international collaboration to solve climate problems. While oil importing states are looking for renewable energy for energy security, oil exporting states rely on conventional fossil fuels resources for their economic needs. Many developing states as well as developed states, such as the European Union (EU), expressed strong eagerness to access renewable energy during the 2006-2007 CSD meeting. With renewable energy, developing states that are oil importers will have affordable supply or modern energy, be less vulnerable to unstable oil price as well as negative climate change impacts. However, oil exporting states heavily opposed the idea and argued for the security of demand for their economies during the meeting.

The conflict also exists between states trying to control climate change and those trying to achieve domestic development. In the Ninth Meeting of the CSD (CSD-9) in 2001, energy was first discussed from the dimensions of sustainable development, including energy for the environment. This discussion gave rise to the conflict between the EU and the G77/China. EU focused on promoting renewable energy due to the negative environmental impacts of fossil duals. G77/China formed a coalition with major industrialized states outside the EU who argued the need for state to develop by adopting their own energy priorities and policy instruments (Freudenschuss-Reichl, 2002). The later argued fossil fuel as an affordable access to energy service for the poor. The argument continued to the World Summit on Sustainable Development (WSSD) in Johannesburg 2002. EU aimed for time-bound quantifiable targets on renewables but ended with only a vague qualitative goal. The conflict among states in the sector of renewable energy explained the difficulties for states to meet their emission goals in climate agreements, which further led to the failure of the agreements.

In addition to global discussion on renewable energy, the Carbon Capture and Storage (CCS) initiative under International Energy Agency (IEA) aimed to reduce the level of CO2 in the atmosphere. The initiative included seven large-scale demonstration projects in developing states. However, it is naturally limited in consideration of its priorities and functions when expanding membership due to political tensions within the organization. IEA is an energy consumer forum but not a producer forum. Including non-IEA members, like China and India, two of the major carbon emitters, would expand international energy governance. But accordingly, it would influence IEA's institutional setting. Given that China, India and Brazil are major global energy players right now, current members would need to significantly sacrifice their voting power to make room for new members (Sainsbury & Wurf, 2016). Also, China and India may not be interested in such collaboration where they might compromise on sovereignty. In this way, the conflicted benefits among states made collaboration of efforts to follow and meet the goal of climate agreements relatively hard.

State level resistance against climate agreements

Coalition between fossil fuel sectors and governments

Facing climate issues, policymakers and industry leaders often form a core alliance which is "oriented towards maintain the status quo" (Hess, 2014) at the regime level due to mutual dependencies (Fine & Rustomjee, 1996, Geels, 2014, Unruh, 2000, Urry, 2013, Phelan et al., 2012). Firms depend on government to establish property rights, obligate rules of exchange, frame legal and illegal forms of corporate behaviors, and shape economic sectors (e.g. loans, grants, patents, taxations). Capitalist societies depend on economic growth systematically where industries provide jobs, taxes, and economic dynamics (Burnham, 1990, Newell & Paterson, 1998). The mutual dependency forms relational networks between industrial leaders and senior policymakers. The close contacts may drive policymakers to internalize the ideas and interests of industries subtly (Geels, 2014).

Influence of politicians who disfavor climate agreement – the UK example

Politicians directly use their power, setting agenda, or adopting different framing to maintain the status quo and strengthen the coalition. For example, in UK, the 2003 White Paper emphasized the importance of solving climate change using renewable energy and that challenged the UK electricity sector largely relied on coal, gas and nuclear regime. Prime Minister Tony Blair called for a "nuclear renaissance" to solve climate change in the case of rising gas and oil prices in 2005 (Lehtonen, 2011). He directly used his position and authority to put nuclear energy back on the agenda to protect the nuclear regime from being replaced by renewable energy (Geels, 2014).

To persuade private firms to invest in nuclear power as well as to assure the public, UK politicians shaped agenda to navigate the discussion outcome. They first promised the public that the government will not use their tax to subsidize the development nuclear energy. Then, they broke the promise during the negotiation with a French electricity utility company, paid a high guaranteed electricity price for 35 years, and disguised they ploy by calling the subsidy a "contract for difference" (Geels, 2014). Because of their positions and media access, policymakers and incumbent firms is more powerful than social movement organizations, citizens, unions, and other groups in terms of setting agenda and discussions on it.

Besides, politicians can also use framing to shape how issues are discussed. They use framing to change the definition of problems and policy goal. Also in the UK example, the rising oil and gas prices and Russian gas supply problem gave politicians the chance to reframe the image of coal and nuclear energy. They imaged them as answers to energy security, affordability and climate change (Adam & correspondent, 2005). These changes were later embedded into the 2007 White Paper to add energy security and affordability besides climate change as part of the future strategies. Besides, politicians also shape the image of renewable energy from the main solution to one of the options besides nuclear energy and coal and gas to climate change. They proposed large scale technical options, which fitted better with the practices and interests of utilities and government, to solve climate problems while marginalized the attention and funding of other potential pathways on policy agenda. Last but not least, framing allow politicians to

provide rational for actions and control people's motivations. Fewer and fewer articles in UK national newspapers mentioned "climate change" after 2007. The change weakened public concerns about climate change and moved the attention to financial-economic crisis.

The influence of politicians in UK also has global implications. Energy generated by coal increased by 45% between 2000 and 2010, leaving coal the main source of electricity globally (Geels, 2014). Renewable energy was identified as mainly additional to fossil fuels instead of the solution to climate change since then. Today, many people still believe green energy leads to fewer jobs, to which the opposite is actually right (News & World, 2018). Politicians don't want to make changes in the energy sector due to the risks of losing economic well-being as well as their votes. It also not worth the efforts to make revolutions where the benefits need decades to come out. Therefore, politicians in states largely reply on conventional energy sources, like fossil fuels, did not have the incentives to follow along the international climate agreements. Their power allows them to shift the ways people see renewable energy and climate change.

Conclusion

In short, the environmental and economical characteristics of carbon emission inhibit the incentives for states to reduce carbon emission when others do not and result in a lack of legal binging when all states were included in climate agreements. The weak institutionalization of energy in UN and conflicted benefits among states result in difficult discussions, weak collaborations and ineffective implementations of global projects to deal with climate change, which failed to contribute to meet the goals set in climate agreements. The coalitions of industrial leaders and government prefer to maintain status quo where politicians usually shape the development direction of the states by power, setting agenda, and framing.

The solutions to solve climate issue have gradually shifted from international agreements to small scale collaborations and from developed states dominant to seeking leaders in developing states. More and more market methods are adopted to limit carbon emission, while cap-and-trade (i.e. carbon permit, tax, and subsidies) is slowly expanding internationally. But if we cannot change current perceptions that renewable energy and green industry mean loss of profits and lack of employment, we will fail to dissolve the coalition between industries and government

that favors short-term stability and benefits. Failure to meet the goals set in international climate agreements at state level will add up to the failure of the entire agreement. Therefore, it is also important for non-profit organizations expand their influence on the public and use agenda and framing to shape the public perceptions of solutions to climate change.

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