

## CLIMATE CHANGE POLICIES OF US AND CHINA: A COMPARATIVE ANALYSIS

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### Abstract

*To what extent Climate Change policies adopted by the United States (US) and China are a consequence of their respective domestic and international milieu, is this article's subject of inquiry. It compares the Climate Change policies of the US and China and argues that domestic and international socio-economic and political contexts together have helped shape the manner in which China and the US are dealing with climate change. Both powers collectively contribute about forty-five percent of global Green House Gas (GHG) emissions. Therefore, they are not only the main stakeholders in the Climate Change actions but also the 'responsibility bearers' to deal with 'Global Warming'. Both are nevertheless, failing to comply with the changing climate needs owing to the interplay of domestic and international factors that hamper the creation of efficient climate change policies by both states. Under the current policy environment, prospects for a reasonable GHG emission reduction seem unlikely for the two states.*

**Keywords:** *Climate Change Policies, Domestic Factors, International Determinants, Socio-Economic Context, Interplay, Responsibility Bearers*

### Introduction

Climate Change policy processes of developed and developing countries exhibit huge variations. These reflect upon the kind of responses that they generate to cope with the newly emerged climate change phenomenon. Whether states make commitments in this regard due to the domestic pressures or due to international influences upon their policymaking and implementation, still needs to be researched.

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China and the USA together emit forty-five percent of the world's carbon dioxide (CO<sub>2</sub>), hence the two largest contributors to 'Global warming'.<sup>1</sup> Any successful global effort to reduce Green House gas (GHGs) emissions must be inclusive of meaningful contributions from both countries. Each of the actors have different kinds of political-economic interests and normative environments that translate massively into their climate change-related policy processes. Owing to the domestic-international congruence of pressures, China, with little experience in using market instruments to meet environmental goals, seems to be more responsive to the global climate change demands as compared to the US. The consistent neglect of the climate pledges under various United Nations (UN) frameworks by the US also has roots in domestic politics. The path to low carbon transition is less than half-trodden and full of challenges for both the states suggesting a gloomy picture for any future International climate policy breakthrough.

In contemporary literature, many researchers have tried to cover climate change policies of major developed and developing nations. Averchenkova and others confirm the importance of understanding the relevant economic, institutional, political and ideational factors, at the domestic level affecting countries' abilities to implement adaptation and mitigation efforts<sup>2</sup>. Studies conducted by scholars like Falkner, Never, and Betz have portrayed the strong association among climate-related legislations, domestic drivers and international influences<sup>3</sup>. Also Sprinz and Weiss covered the domestic-international linkages in the climate change policymaking in countries<sup>4</sup>. For US, Putnam notes that domestic groups in the US compel the government to approve beneficial policies and politicians seek power by gathering support of those groups. Also at international level, these governments tend to project the interests of such groups in order to satisfy the domestic pressures.<sup>5</sup> Furthermore for China, as noticed by research conducted by Averchenkova, Heggelund, Belis and

<sup>1</sup> 'Global Green House Gas Emissions Data', United States Environmental Protection Agency, <https://www.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data#Country> (accessed July 12, 2018).

<sup>2</sup> Alina Averchenkova et al., "Climate Policy in China, the European Union and the United States: Main Drivers and Prospects for the Future – in Depth Country Analyses," *The Centre for Climate Change Economics and Policy (CCCEP)*, (2016): 1–96.

<sup>3</sup> Robert Falkner (ed.), *The Handbook of Global Climate and Environmental Policy*, 2013, <https://www.wiley.com/en-us/The+Handbook+of+Global+Climate+and+Environment+Policy-p-9780470673249>.

<sup>4</sup> D. F. Sprinz and M. Weiss, "Domestic Politics and Global Climate Policy," *International Relations and Global Climate Change*, (Cambridge: The MIT Press, 2001), 67–94.

<sup>5</sup> Robert D Putnam, "Diplomacy and Domestic Politics : The Logic of Two-Level Games", *International Organizatio* 42, no. 3 (2018): 427–60.

David, domestic drivers of climate policy influence the decisions on climate management, and these include : an increasing demand for energy for a growing middle class, environmental vulnerabilities, need for constant economic progress, China's global stature, and a desire for strengthening its bargaining position. Hence, this confirms the transition of China's position in relation to meeting climate change goals as set by various collective regimes. China is helplessly poised in the climate future in the wake of these problems<sup>6</sup>. Tann and Lee noted while comparing policies of the US and China that whereas individual states and local governments are more influential as compared to federal governments in climate policy making of US, in China the central government is a chief motivating factor in climate related activism as compared to the locals<sup>7</sup>. A study conducted by T. Ylä-Anttila et al. concluded that due to the changing social contexts, substantially different orientations to the global climate change policy have emerged in many countries. However, the outstanding issues related to climate change are not technical but political in nature. The effects of domestic environmental politics can spillover to international spheres having implications for international climate change policymaking.<sup>8</sup> In discovering the literature gaps, one tends to find out that the studies combining the analysis of climate change responses of both US and China are limited; most of the researches have a European Union (EU) perspective or rising economies. Also, the studies which have combined the domestic and international factors in climate change policy making are minimal.

This study aims to examine both internal and external determinants and actors that influence climate-related policymaking and implementation. It analyses how domestic factors play a role in shaping climate change policies of US and China. Do international treaties, policy diffusion, and global opinions matter in formulating policies to tackle climate change? How does the interaction of both internal and external factors influence US and China's climate change policies? The study argues that domestic and international socio-economic and political contexts together have helped shape the manner in which China and the US are dealing with climate change.

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<sup>6</sup> Averchenkova et al., "Climate Policy in China, the European Union and the United States: Main Drivers and Prospects for the Future – in Depth Country Analyses."

<sup>7</sup> Xianchun Tan and Henry Lee, "Policy Brief: Comparative Assessment of China and U.S. Policies to Meet Climate Change Targets," *Environment and Natural Resources Program, Belfer Center*, February (2017).

<sup>8</sup> David B. Tindall Antilla, Tuomos Yalla, Anti Grono, et. al., "Climate Change Policy Networks: Why and How to Compare Them across Countries?" *Elsevier Energy Research & Social Science*, (2018) .

## Theoretical Framework

Neo-classical Realism offers the most relevant theoretical construct in order to substantiate the argument.<sup>9</sup> For neo-classical realists, the conduct of states is not entirely a product of their external calculations about power, security and balancing in a self-help world. Instead a part of the behaviour is also dependent upon the internal setup of states - most important being the perception of elites and other political actors about the situations, their cost-benefit calculations, their norms and values, the domestic power configuration, the interests of the public and ideological propositions of the states. States as a result often underbalance and cannot effectively respond to more obvious external threats or opportunity.<sup>10</sup>

Climate change offers one such grave external threat that may or may not turn into a devastating hazard depending upon the states' capacity and their will to appropriately balance against it. The growing economic aspirations of the states have heavily influenced their policies and response strategies vis-a-vis climate change problem. A transition from fossil-based pollutant industries to a more clean energy sources is the required set of actions immediately expected from states. However, states often under-balance in relation to the demands of climate change actions because of various factors, top most being the perceptions and interests of different actors.<sup>11</sup> State leaders and their perceptions play a very important role in policies and decisions related to GHG emissions. Democratic leaders only tend to pass those legislations that can satisfy the vested interests of political actors to a maximum. For instance, in US, the separation of powers and partisan politics has hindered smooth implementation of global warming mitigation policies; climate-related regulations are mostly blocked either by Congress or by Judiciary. Despite the presidential powers, climate related executive orders cannot be unilaterally applied, rather the rules have to be applied with the discretion of the State. The big businesses and large corporations may be more intrusive in climate change decisions that affect international obligations as well. The coal industrialists and oil companies such as Exxon mobile, Texaco and Shell may be good examples that exert such leverages.<sup>12</sup> In China, on the other hand, the Central government has the authoritative

<sup>9</sup> E. Engelhaupt, "What Americans Think about Climate Change," *Environmental Science & Technology* 41, no. 13 (2007): 489–4489.

<sup>10</sup> Ibid., 15.

<sup>11</sup> Putnam, "Diplomacy and Domestic Politics : The Logic of Two-Level Games," The MIT Press Stable, <http://Www.Jstor.Org/Stable/2706785>.

<sup>12</sup> Sam Fankhauser, Caterina Gennaioli, and Murray Collins, "Domestic Dynamics and International Influence: What Explains the Passage of Climate Change Legislation?," *Grantham Research Institute on Climate Change and the Environment*, Working Paper no. 156 (2014): 1–33.

control but different levels of government can play their role in consensus building in policymaking. Once the consensus is there, the political will is transformed into policies that are then implemented by governmental ministries and departments. To a certain level, the interests of the provincial governments are taken care of by the central governments in devising climate change policies.<sup>13</sup>

The second level of neo-classical realism in case of climate change looks at state specific international strategic influences such as geographical vulnerability, state's role in the global balance of power and its international image. The established powers such as US may be more sensitive to international transfer of resources to emerging economies such as China in this case. China may be taken as more willing to fulfil international climate commitments owing to International pressures, its climate vulnerability and the perception of its international image as an emerging great power.

## Climate Policy of US

The United States emits about 15 percent of the World's GHGs, hence taking second position in the list of emitter countries. Due to current projected emission rates, the US is rated by Climate Action Tracker as "critically insufficient".<sup>14</sup> The environment came in the US policy-making process in early 1970s when the US passed its first legislation to reduce conventional pollutants.<sup>15</sup> Out of all American leaders, President Richard Nixon proved to be a staunch advocate of environmentalism, when he delivered a speech in his State of the Union address in 1969. Under his government, the US passed several environment related laws and also established Environmental Protection Agency (EPA) which is the chief policy-shaping agent driving federal research, standard-setting, monitoring and enforcement related to green environment. It was this agency which signalled the alarm for climate threats like Carbon emissions and helped declare the US as a world leader in driving environmental policy. The US was among the original signatories of the Kyoto protocol in 1997. However, for President Bush and President Bill Clinton, environment was not a priority. The Kyoto protocol was soon nullified by the Bush administration. Nevertheless, the role of President Obama's

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<sup>13</sup> Mark Purdon, "Neoclassical Realism and International Climate Change Politics: Moral Imperative and Political Constraint in International Climate Finance," *Journal of International Relations and Development* 17, no. 3 (2014): 301–38, <https://doi.org/10.1057/jird.2013.5>

<sup>14</sup> Climate action Tracker, "No Title," 2018, [https://climateactiontracker.org/media/documents/2018/4/CAT\\_2017-1106\\_CountryAssessment\\_USA\\_8fXxIrP.pdf](https://climateactiontracker.org/media/documents/2018/4/CAT_2017-1106_CountryAssessment_USA_8fXxIrP.pdf).

<sup>15</sup> Xianchun Tan and Henry Lee, "Comparative Assessment of China and U.S. Policies to Meet Climate Change Targets".

administration is much more impressive rather encouraging in this regard. He worked with both the public and private sectors to reduce carbon pollution and enthusiastically grew the clean energy economy. His three-fold contributions i.e. to reduce greenhouse gas emissions, to prepare for the impact of climate change, and to lead international efforts to address global climate change are noteworthy. The Obama administration's Climate Action Plan (CAP) was, unfortunately never fully implemented, because of the role of judiciary, which was critical to achieving the US NDCs.<sup>16</sup>

So far, plenty of laws have been introduced at the federal level. Some of these have succeeded (e.g. ones related to methane emissions), while others have failed (e.g. carbon-cap and trade-related programs). The most relevant legislations include the Clean Air Act (CAA) launched and interpreted in 2009, The National Environmental Policy Act (NEPA) 1969, EPA in 1970, The National Oceanic and Atmospheric Administration (NOAA) 1970, Obama's Climate Action Plan (CAP) in 2013 and the recently repealed Clean Power Plan (CPP) 2015.<sup>17</sup> With the recent US withdrawal from the Paris climate agreement, President Trump clearly opposed all the green policies of his predecessor by terming the phenomenon a 'Hoax' and hence there are very few chances of new environmental legislations. The hopes of proper implementation of earlier laws and plans have also dimmed. However, many states and cities responded to the withdrawal by putting their own commitments.

## Climate Policy of China

The status of China as being among the world's largest emitters (30 percent rate) is closely linked with its booming economy starting with the 1980s. The economic boom brought with it not only the benefits of poverty alleviation and better living standards but also incurred heavy costs in the form of huge environmental destruction.<sup>18</sup> The environmental neglect along with accompanied growing population size, economic prioritization, and rapid urbanization have added complexity to the current environmental vulnerability of China, resulting in massive pollution and health hazards.<sup>19</sup> With changed socio-economic conditions, policymakers became more attentive to the importance of low carbon

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<sup>16</sup> "US Climate Change Policy," *Economic and Scientific Department Director General for Internal Policies*, 2015, [http://www.europarl.europa.eu/RegData/etudes/STUD/2015/536321/IPOL\\_IDA\(2015\)536321\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2015/536321/IPOL_IDA(2015)536321_EN.pdf).

<sup>17</sup> Ibid.

<sup>18</sup> David Sandalow, "Guide to Chinese Climate Policy 2018," *Columbia SIPA*, July 27, 2018, [https://energypolicy.columbia.edu/sites/default/files/pictures/Guide to Chinese Climate Policy 7-27-18.pdf](https://energypolicy.columbia.edu/sites/default/files/pictures/Guide%20to%20Chinese%20Climate%20Policy%207-27-18.pdf).

<sup>19</sup> Ibid.

intensive development. Now the climate policy is increasingly regarded as a tool for improving energy efficiency and technological up-gradation of industries.<sup>20</sup> While, the US is an early starter in terms of passing climate laws, China's efforts are very recent. The 11<sup>th</sup> and 12<sup>th</sup> five-year plans (2006-2010 and 2011-2016 respectively) became the hallmarks when China prioritized climate change as a greater threat. Both short and long-term policy measures for limiting carbon and other GHGs' emissions have been adopted by the Chinese government. For instance, low carbon development, coal use cuts, focus on non-fossil fuels, sustainable urbanization and climate diplomacy are notable initiatives.<sup>21</sup> The National Climate Change Program (NCCP) - 2007, China's White Paper on efforts to address Climate Change - 2008, shutting down of factories and power plants - 2010, promoting seven emerging strategic industries including alternative energy, establishment of China's Climate Governance Fund (CGF) - 2015, and venturing into energy saving technologies including new energy vehicles, are among the chief climate actions taken by successive Chinese governments. China also submitted its NDCs to the United Nations Framework Convention on Climate Change (UNFCCC) in which it pledged to achieve the CO<sub>2</sub> emissions' peak around 2030.<sup>22</sup> It was also an active participant of the Paris Climate Conference in December 2015.

The policy tools adopted by China are inclusive of all federal, provincial and local bodies. For instance in June 2016, as part of China's Alliance of Pioneer Peaking Cities, 23 provinces and cities have shown commitment to its peak emission targets of 2030.<sup>23</sup> China is also taking measures to control coal burning by banning new coal-fired power capacity, improving SO<sub>2</sub> controls at coal -powered plants and promoting alternatives to coal such as natural gas and hydro-solar powers. Environmental legislations and monitoring capabilities by provinces and localities have been enhanced and prioritized.<sup>24</sup> Another grooming area of Chinese policies is its emphasis on promotion of electric vehicles that have high benefits for improvement of air quality. Unfortunately, these policies have slowed but not stopped new coal plant construction in China. For instance, just 'in 2017, at least 35 GW of new coal power plants were commissioned'.<sup>25</sup> Furthermore, the focus on Chinese hydropower development growth, the construction of pumped hydro-plants, standardized administrative processes, the goal of solar capacity in China,

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<sup>20</sup> Ibid.

<sup>21</sup> Gørild Heggelund, "China's Climate Change Policy: Domestic and International Developments," *Asian Perspective* 31, no. 2 (2007): 155–191.

<sup>22</sup> David Sandalow, "Guide to Chinese."

<sup>23</sup> Ibid.

<sup>24</sup> Ibid.

<sup>25</sup> Ibid.

and coal to gas conversion programs have become prominent in Chinese policymaking for over a decade.

## **Climate Change Policies of US and China**

### **Domestic Drivers and Actors**

The climate-change-related commitment of national governments and their adherence to related international agreements is largely the bi-product of several domestic political influences which may include: legislatures, political configuration, elite' perceptions, the provincial setup, states' norms and values, interest groups, economic needs, and public opinion.<sup>26</sup>

### **Case of US**

Economic and energy interests correlate in the case of US when discussing the climate-change policy. It has significantly moved away from its traditional reliance on coal and other fossil fuels, to dependence on shale oil and gas.<sup>27</sup> However, despite US' self-sufficiency in oil and gas, it still has a need for energy imports. It has achieved a standardized economic development, having a mature market economy with comprehensive conflict management system. The economic interest groups, lobby groups, corporations, trade associations, think tanks and aristocratic class exert strong influence on climate policy orientations.

The Climate-related policymaking in the US is mostly under federal control. The Executive (President) is the sole authority in climate related decision-making.<sup>28</sup> Both houses in the Parliament, the House of Representatives and the Senate have members from different States. Bills are separately passed and approved in both houses. The final bill is then agreed upon by a jointly appointed committee, after which the President approves it.<sup>29</sup> Rather than a national comprehensive policy on climate change, multiple orientations exist based on perceptions of states and local actors. The most influential actors of environmental arena are the state governments that facilitate and motivate the climate related decision making of the federal government in a direction. The federal governments may take actions against the States missing their adhered targets, but the

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<sup>26</sup> Sprinz and Weiss, "Domestic Politics and Global Climate Policy."

<sup>27</sup> Tan and Lee, "Policy Brief: Comparative Assessment of China and U.S. Policies to Meet Climate Change Targets."

<sup>28</sup> Director general for Internal Policies: Policy Department A, "US Climate Change Policy."

<sup>29</sup> Tina Ohliger, "U.S. Climate Change Policy" *Policy Department A for the Committee on the Environment, Public Health and Food Safety (ENVI)* (2015), [http://www.europarl.europa.eu/RegData/etudes/STUD/2015/536321/IPOL\\_IDA\(2015\)536321\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2015/536321/IPOL_IDA(2015)536321_EN.pdf).



legal disputes and congressional gridlock over implementation of plans make the environment related actions delayed unless otherwise implemented by President's own will.<sup>30</sup> Many corporations, mayors and a majority of states have pledged to reduce the overall emissions of their respective areas. Some states are more committed to adopting pro-climate policies such as energy efficiency programs, cap and trade systems etc. Regional Green House Gas Initiatives (RGGI) of the nine North Eastern states, the Western Climate Initiative (WCI), and California Global Warming Solutions Act (AB 32) are some of the widely acknowledged emission control steps.<sup>31</sup> Sub-national governments and non-governmental organizations are also instrumental in the development of protocols and registries for verifying GHG emissions.

A very important and relevant domestic feature is the party politics and partisanship, because of separation of powers in the US. Republican and Democrats have their own divergent orientations giving rise to extraordinary delays in making and implementation of climate regulation policies. Usually Democrats tend to be more in favour of climate change actions as compared to Republicans who are more sceptical over the issue.<sup>32</sup> Here, because of the absence of a national framework and the polarized perspectives on Climate Change, carbon markets have emerged in comparatively liberal states. Hence, presidential and congressional elections have profound implications for national climate change policy. The US leadership role in the international climate negotiations is severely hampered by the economic groups which increasingly view environmental regulation as contradictory to economic interests. Big business corporations spend large amounts of funds and resources to facilitate or obstruct climate-related policymaking, to sabotage climate change negotiations and to erode public understanding and support on climate change issues. For this, they adopt various means like directing public statements, lobbying, congressional verification and influencing think tanks.<sup>33</sup>

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<sup>30</sup> Ibid.

<sup>31</sup> United States Department of State, "U.S. Climate Action Report 2010 - Fifth National Communication of the United States of America Under the United Nations Framework Convention on Climate Change," (Washington, 2010), [https://unfccc.int/resource/docs/natc/usa\\_nc5.pdf](https://unfccc.int/resource/docs/natc/usa_nc5.pdf).

<sup>32</sup> Director general for Internal Policies:Policy Department A, "US Climate Change Policy."

<sup>33</sup> Union of Concerned Scientists, "A Climate of Corporate Control - How Corporations Have Influenced the U.S. Dialogue on Climate Science and Policy," May 2012, [https://www.ucsusa.org/sites/default/files/legacy/assets/documents/scientific\\_integrity/a-climate-of-corporate-control-report.pdf](https://www.ucsusa.org/sites/default/files/legacy/assets/documents/scientific_integrity/a-climate-of-corporate-control-report.pdf).

## Case of China

There are three sources of domestic challenges faced by the Chinese leadership regarding its stance towards low-carbon economy<sup>34</sup>. First, addressing the energy security problem has become the top concern of Chinese government since China is one of the largest importers of oil and gas; it is greatly dependent on cheap energy supply - largely coal based.<sup>35</sup> The consumption of oil is still growing owing to the expanding transportation sector, automobile market and industrialization. By shifting to clean development mechanisms, energy demand is expected to decrease, thereby reducing dependence and enhancing energy security. There is a huge tussle between the need for low-carbon sustainable transition, and the need for continued consumption of fossil fuel for meeting economic priorities. Second, the massive quantity of low-quality coal-fuelled power plants has created massive pollution-related problems in big urban areas of China. Related to this is the booming population and resulting public pressures for standardized clean living for the current 1.38 billion Chinese, whose number is on a constant rise. This number is four times the US population.<sup>36</sup> This has created a serious politico-economic concern for the Chinese government; building public pressure puts political legitimacy in question, and therefore Climate-change policies become a necessity for maintaining political stability. Third challenge is the weaknesses of the old export-oriented economic growth model. Switching to a sustainable economic model may be more beneficial and promising to the Chinese political leadership: international recognition, improved status, and better living conditions being among the top achievements.<sup>37</sup>

Climate policymaking is different in China as compared to the US. The National Leading Group (NLG) for addressing climate change assumes the leadership role that is inclusive of all members of the central government. The National Development and Reform Commission (NDRC) assume prime responsibility for climate governance. NDRC is responsible

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<sup>34</sup> Anita Engels, "Understanding How China Is Championing Climate," *Palgrave Communications*, August 14, 2018, <https://doi.org/10.1057/s41599-018-0150-4>.

<sup>35</sup> Averchenkova et al., "Climate Policy in China, the European Union and the United States: Main Drivers and Prospects for the Future – in Depth Country Analyses."

<sup>36</sup> Katelyn Newman, "China Invests in Environment but at What Cost?" *US News & World Report*, April 2018, <https://www.usnews.com/news/best-countries/articles/2018-04-20/china-takes-different-approach-than-us-on-climate-change>.

<sup>37</sup> Anita Engels, "Understanding How China Is Championing Climate Change Mitigation," *Palgrave Communications* 4 (2018), <https://www.nature.com/articles/s41599-018-0150-4>.

for policymaking in three different areas: economic development, energy policy and climate policy. This reveals how much addressing climate is vital for other priorities.<sup>38</sup> All departments coordinate extensively among themselves w.r.t. green strategies.<sup>39</sup> Provincial governments often have energy and economic interests opposed to environmental choices of the central government. Local governments' capacity building is increasingly the target of the central environmental planning. Decisions on China's climate policy are not taken in isolation from other policy issues. As environmental hazards are the consequences of industrial, transportation and agricultural activities, so any decision to reduce carbon emissions will be consequential for all these sectors. Compatibility between climate policy goals and other policy goals is required in order to have a more proactive climate policy. If they conflict with the most influential bureaucratic interests regarding various policy areas, the chances of China moving in the direction of the pro-climate policy get lesser. Unlike US, in China, business influences and interests are aligned with the interests of the State. Yet sometimes personal and organizational goals outcast national objectives. Societal influence on Climate-change policy making is very limited and not as similar as in the US. Average person is out of political matters.<sup>40</sup> However, the growing awareness and impacts of climate change has enhanced the vision and influence of the public opinion towards environment friendly policies. They have pressurized for clean air and healthy environment. According to a national survey in 2017, 94.4 percent respondents admitted that climate change is happening and 66 percent attributed this phenomenon to anthropogenic causes.<sup>41</sup>

Successful policy implementation depends on cooperation of subnational governments and State Owned Enterprises (SOEs).<sup>42</sup> Energy and economic related SOEs are largely impacting government's decision-making. In a return of preferential treatment to these contract based enterprises, government expects a lot more contribution on their part in the environmental policies of Chinese government. The chief obstacles in the implementation may include non-cooperation and lack of coordination among key ministries, lack of resources for enforcement, conflicting interests may manifest in policies, non-alignment of centre and provincial

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<sup>38</sup> Lisa Williams, "China's Climate Change Policies : Actors and Drivers," *Lowey Institute for International Policy*, July (2014): 9-11.

<sup>39</sup> Heggelund, "China's Climate Change Policy: Domestic and International Developments."

<sup>40</sup> Ibid.

<sup>41</sup> Li Jing, "Does the Chinese Public Care about Climate Change?," *China Dialogue*, September 21, 2018, <https://www.chinadialogue.net/article/show/single/en/10831-Does-the-Chinese-public-care-about-climate-change->.

<sup>42</sup> Williams, "China 's Climate Change Policies : Actors and Drivers," 12.

climate priorities<sup>43</sup>. Overall, China faces many challenges in the climate actions despite strong political will as it lacks experience, institutional capacity, and technical support.

## **International Determinants of the Climate Policies of US and China**

### **United States**

Many different international factors impede on the nation's climate efforts.<sup>44</sup> Most relevant in the US case, is the threat of future damages due to climate change that demand huge state resources. States like to retain resources for their domestic adaptation instead of committing these to collective international efforts. Such preferences negatively implicate upon international adaptation policies since collective efforts are seen as a compromise on states' ability to support domestic Climate-change adaptation. One reason for US not becoming an effective part of international negotiations, and its reluctance to ratify global climate change regimes is its aversion to resource-transfers to developing countries, which may obstruct its domestic climate resiliency.<sup>45</sup>

Another pertinent stimulus is provided by a state's contribution to global balance of power.<sup>46</sup> Status-quo oriented states struggling against rising revisionist powers are less likely to enter into universal cooperative mechanisms. They try to retain their essential wealth and resources for maintaining their hegemony and military status like the US. Diversion of additional funds to management of global warming instead of military up-gradation will affect its contribution to maintaining global balance of power.

An interesting feature in US' considerations is China's emerging status. Many argue that this may have threatened the former's 'established' power status and cautioned it to not transfer its resources and capabilities to China in the name of international climate change cooperation. International actions related to global climate response measures are seen by most policy-makers in the US as attempts to drain its material resources for benefiting rising economies.<sup>47</sup>

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<sup>43</sup> Bill Hare et al., "China and the US : How Does Their Climate Action Compare ?" (2014): 12.

<sup>44</sup> Mark Purdon, "Neoclassical Realism and International Climate Change Politics: Moral Imperative and Political Constraint in International Climate Finance," 2014.

<sup>45</sup> Ibid.

<sup>46</sup> Ibid.

<sup>47</sup> Engelhaupt, "What Americans Think about Climate Change."

## China

Many elements shape up the climate policy orientations of China at the International level as well. The most important aspect is its relationship with the US, which influences its decision to be pro-climatic. Even at the time of US withdrawal from Kyoto protocol, and still now in the wake of its exit from Paris climate conference commitments, China views this odd US attitude as an irresponsible behaviour. However, the traditional stance of China that if US fulfil its climate pledges on emission cuts only than China would reciprocate seems to be changing this time.<sup>48</sup> In the international climate change negotiations, China now is among the leading and most influential actors in the group of developing countries, and thus is a key actor for the success of global efforts to combat climate change.<sup>49</sup>

A significant impact is also created by China's possibility of gaining access to the technical expertise and foreign aid, which has quickened its pace of taking massive climate-friendly measures. China perceives itself to be a developing country and its government argues that a larger bracket of emissions be allowed for developing its economy. It focuses on the argument that maximum responsibility for emission reduction lies on developed states and they should change their patterns of development having reached the desired level of development. Its major concern is that developing countries' compliance with UNFCCC depends upon how much developed nations cooperate and fulfil their responsibilities in terms of technology sharing and financing. China presently is the largest recipient of financial support for climate projects from many International agencies such as United Nations Development Program (UNDP), World Bank (WB) and Asian Development Bank (ADB).<sup>50</sup>

China's approach to International environmental regimes is also affected by concern about having an international image of a 'responsible' actor. China is more aware of its rising status as a Great Power, and would be more concerned with how to retain its reputation. Many argue that, "China wants to be well regarded on the world stage, and image is increasingly important as its economy grows".<sup>51</sup> Struggling to enhance its

<sup>48</sup> Heggelund, "China's Climate Change Policy: Domestic and International Developments."

<sup>49</sup> Ida Bjørkum, *China in the International Politics of Climate Change: A Foreign Policy Analysis*, FNI Report 12/2005, 2005.

<sup>50</sup> Heggelund, "China's Climate Change Policy: Domestic and International Developments"; Guri Bang, Arild Underdal, and Steinar Andresen, "The Domestic Politics of Global Climate Change: Key Actors in International Climate Cooperation," *New Horizons in Environmental Politics series*, Edward Elger Publishing, 2015, <https://books.google.com/books?hl=de&lr=&id=EraCCgAAQBAJ&pgis=1>.

<sup>51</sup> Williams, "China's Climate Change Policies: Actors and Drivers."

soft power throughout region and the globe, emergence of climate issue on the global scale gave China an opportunity to show and reinforce its solidarity with the developing world.

### **Comparative Analysis of US and China Climate Change Policies: Domestic-International Interaction**

Mitigating climate change is a full time responsibility of the world's two largest GHG emitters, China and the US. So far, both have not effectively delivered in this regard despite several substantive initiatives and plans. The primacy of economic growth seems to be the prominent factor setting the direction of climate policy response of the two nations. However, in developing countries such as China, the short-term costs carry more weight in the decision making rather than uncertain future costs. Energy concerns do play a role in both countries' rational calculations.

There is a huge gap between the socio-economic and politico-normative environments of the two.<sup>52</sup> Thus, the policymaking regarding carbon emissions is also very much different. In the US, though the main actors who facilitate climate actions in a said direction are the States, the climate actions are mostly dependent upon federal-executive (Presidential) orders, which may sometimes lead to deadlocks with the change of President along with the policy priority. This has happened in the case of US withdrawal from Paris Climate agreement and abrogation of all Clean and Green policies of President Obama under the President Trump. On the other hand in China, the Communist Party of China (CPC) and central government sets direction for the policy. Nevertheless, Provincial governments have some discretion in interpretation of mandates assigned to them centrally.<sup>53</sup>

Climate policy priorities of both the nations are domestically driven and more focused at subnational, local or regional level rather than at the national level. Climate policy action is quite active and robust at the state and local levels in the US. A majority of the GHG emissions related policies are proposed by States and adopted by others. This clearly shows that GHG emission targets are the side effects of domestic policies. The US has utilized cap and trade systems to control GHG emissions, but despite having several successful experiences, it faces multiple political challenges

<sup>52</sup> David Belis et al., "China, the United States and the European Union: Multiple Bilateralism and Prospects for a New Climate Change Diplomacy," (2015) 203-18.

<sup>53</sup> Bo Wang, "Exploring China's Climate Change Policy From Both International and Domestic Perspectives," *American Journal of Chinese Studies* 16, no. 2 (October 2009), 87-104; Joanna I Lewis, "China's Environmental Diplomacy: Climate Change, Domestic Politics, and International Engagement," *China Across the Divide: The Domestic and Global in Politics and Society*, (2013), 200-221.

to adopting policies of carbon taxing as unlike traditional policies of emission control standards, it cannot hide carbon reduction costs.<sup>54</sup> It also manifests the political polarization of the US political system, which hinders any move towards establishing a comprehensive national cap and trade system in United States. The cap and trade components of RGGI (CAT systems in Power sector in nine North Eastern states) and California's Assembly Bill (AB32) are exceptional subnational initiatives to cut GHG emissions. China also manoeuvred such systems and it has successfully incorporated these in the 12<sup>th</sup> Five Year plan. For instance, several payment systems to incentivize private landowners to protect water resources were initiated by the government. Trading programs in provinces like Shanxi, Henan, Tianjin, and cities like Shanghai are notable.<sup>55</sup>

The lucrative geographical advantage of the US, in terms of extractable hydrocarbons, has made fossil fuel industry heavily profitable. This has made such an industry politically active and their lobbying and effective campaigning have caused fossil fuel producing states to tilt towards anti-climate action policies.<sup>56</sup> Moreover, the political polarization, electoral processes, separation of powers and the vested economic interests of the big corporations have hindered any attempt of the country to take leadership role in climate-change collective actions. Since the withdrawal from Kyoto protocol, US has been showing a reluctance to join any such mechanism with full political will. It has continuously refused to commit to a legally-binding international instrument with quantitative emission reduction targets. This position of the second largest global emitter, after China has strongly affected the UNFCCC (United Nation's Framework Convention on Climate Change) negotiations. President Trump's dismissal of Obama's green initiatives and withdrawal from all International climate commitments is a manifestation of domestic-international interface.

China, as compared to the US, is perceived to be a less difficult country in climate negotiations particularly after the recent backing out of US from emission pledges and international commitments.<sup>57</sup> The transformed political focus on Clean Development Mechanisms (CDM),

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<sup>54</sup> Joseph E. Aldy and Robert N. Stavins, "The Promise and Problems of Pricing Carbon: Theory and Experience," *Journal of Environment & Development* 2, no. 21 (2012): 152–180.

<sup>55</sup> Harvard Project on Climate Agreements and National Center for Climate Change Strategy and International Cooperation, "Bilateral Cooperation between China and the United States: Facilitating Progress on Climate-Change Policy," February (2016).

<sup>56</sup> Ibid.

<sup>57</sup> Heggelund, "China's Climate Change Policy: Domestic and International Developments."

restructuring and reforming economies, sustainability transition, cap and trade programmes, and shifting technologies, all show the instances where domestic and international factors interact. This manifests that the current international climate-related cooperation by China is not just the result of commitments but some internal pressures as well. The incorporation of climate-change response in its national planning is in its own interests and fulfils internal needs. The solution of domestic environmental problems - a consequence of long-term economic growth - and the quest for sustainable economic development with secure energy supply lines are at the roots of China's climate change responses. The effective response to climate change, however, proves to be more costly as it needs a thorough overhauling of key sectors like energy, industry, transport and agriculture. The possible growing vulnerabilities to climate change along with the repeated calls for achieving full GHG peak targets have constrained China to shift quickly to a low carbon and integrated development model.

The interdependent global world is forcing a revision of Chinese policymakers' thinking-process in terms of multiple sources of costs and benefits apart from those relating to addressing the climate. Many argue that, 'the costs of choosing a non-commitment approach in international cooperation can for instance come in the form of sanctions, lost prestige or damage to a country's international image and the possibility that other states will link failure to comply with the climate-change regime to retribution on other issue-areas'.<sup>58</sup> Likewise, the concerns regarding image are generally expected to lead to a more proactive position; just as China appears very sensitive to criticism. It has no doubt increased its understanding of the scientific facts and impacts of climate change by continued presence in International and national scientific climate change assessments. Besides, the presence of Chinese President in the Paris Climate conference in December 2015 can be understood as an outcome of domestic cum international pressures on China to achieve sustainable economic growth. The more it engages in International climate setting, the more pressures it will face to accommodate climate goals in the development policy goals.

## **Conclusion**

China and the US owing to their carbon emission rates are the world's biggest emitters and hence the chief responsibility bearers for resolution of this collective good problem. Any global Climate solution will largely depend on American and Chinese commitments. With respect to climate mitigation, China and the US are taking divergent paths. Whereas in case of China, economic growth, population pressure and political stability drive its present posture towards sustainable environment, in the

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<sup>58</sup> Purdon, "Neoclassical Realism and International Climate Change Politics."



US, environmental issues get politicized. With the recent US withdrawal from the Paris climate agreement 2015 and the cancellation of many of President Obama's climate initiatives, not only global climate activism has suffered a severe blow but also the US commitment to the creation of a climate robust world is left disputed and less credible. At the crucial time of doing more at the climate forum, the US back-out and 'abrogation' of its responsibility is objectionable. Due to its internal polarization, leader's perceptions, congressional and other actors' perceptions, it has failed to meet the intended NDCs. So far, whatever the state and sub-state efforts exist, US is least likely to lead to any giant leap in emission reductions without serious national political will.

China's state-led non-participatory authoritarianism cannot effectively offer a solution to the global climate problem because of low public and private-business participation, and due to the government's adoption of strategies to secure China's global market positions. Yet, the increasing environmental vulnerabilities, the domestic landscape and the international pressures have all pushed the Chinese leadership towards adopting and developing a low carbon economy. All related departments are increasingly interacting with each other and with many think tanks, scientists and researchers. More emphasis on scientific research and inclusion of scientists at the policy level suggests a growing focus on the scientific aspect of climate change. Many critics argue that China's determinations have not matched its increased economic strength and parallel responsibility for climate change. Two possible scenarios might emerge for China: one, with increasing energy needs and lack of alternative energy sources the expected emission targets might not be met; and second, the domestic-cum-international pressures with ambitious energy efficiency goals may help China proceed towards low-carbon sustainable goals. How far China proves to be steadfast in the commitments set by Paris Agreement, particularly when 'the other' responsibility bearer is not fulfilling its promises, is yet to be seen. The answer depends on the future turn in US politics. Under the current political environment, prospects for reasonable GHG emissions reduction are unlikely for both the states.

