

Diffusion or Innovation of Environmental Discourse? Reflections on the Mainstreaming of Two Carbons Discourse in China

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Abstract

Marked by the 20th National Congress of the Communist Party of China in 2022, the “Two Carbons” discourse—carbon peaking and carbon neutrality—has been incorporated into the overall layout of China’s eco-civilizational progress, which will play an important leading or testing role in building a Chinese modernization with harmonious coexistence between humanity and nature in the coming decades. If the evolution of global decarbonization discourse is understood correctly as a process of continuous construction, it would be easy for us to draw a conclusion that the Chinese case is both a process of adaptation (international diffusion) and of reshaping (autonomous innovation) of global environmental discourse, indicating that more attention needs to be paid to the rising discourse autonomy of developing countries like China in international climate politics.

Keywords

Two Carbons Discourse, Carbon Peaking and Carbon Neutrality, International Diffusion and/or Autonomous Innovation, Global Climate Change, China

1. Introduction

“We will actively yet prudently promote carbon peaking and carbon neutrality.” Xi (2022b) was clearly defined as a major strategic deployment in the New Era for building an ecological civilization in China at the 20th National Congress of the Communist Party of China (CPC), which was held in October 2022. This indicates that the “Two Carbons” discourse—carbon peaking and carbon neutrality—has

been incorporated into the overall layout of China's eco-civilizational progress and building a Chinese modernization with harmonious coexistence between humanity and nature in the following decades. A widely influential explanation for this phenomenon is that it adds a new example of international diffusion of environmental discourse from the Western-dominated global system (core) to the developing areas (edge), just like the discourses of "environmental protection," "sustainable development," and "eco-modernization" used to happen (Jänicke, 2000; Broadbent, 2011; Kanie, Abe, & Iguchi et al., 2014). This article argues that, however, the mainstreaming of the "two carbons" discourse in China is actually a quite different story. If we understand the evolution of global decarbonization discourse over the past decades correctly as an unfinished process of construction, it would be easy for us to draw a conclusion that the Chinese case is both a process of adaptation (international diffusion) and of reshaping (autonomous innovation) of global environmental discourse, indicating that the rapidly rising discourse autonomy of developing countries like China will probably be a new impetus or challenge for international climate politics.

2. Evolution of Global Decarbonization Discourse Revisited: A Far-from-Over Journey

A key methodological issue in analyzing the evolution of decarbonization as a global environmental discourse, in the authors' opinion, is the choice of viewing angle and "carbon politics" rather than "metaphorical consensus", such as "There is only one Earth" "Our common future" is a more appropriate one (Niebert & Gropengiesser, 2013; Kutney, 2014; Huan & Huan, 2022). From the perspective of carbon politics, it is easy to understand why the warning on carbon dioxide emission or "greenhouse effect" first by Swedish scientist Svante Arrhenius can only be taken seriously almost one century later and led to actions of the international community (Georgescu-Roegen, 1975). It is also true that various terms of decarbonization such as "carbon reduction," "carbon peaking and carbon neutrality," and "carbon net zero emission" are not just an expression of scientific truth, but also the outcome of multi-dimensional cooperation and competition of international economic, political, social and cultural/scientific forces (Richards, 2022; Yang & Chen, 2022; von Malmborg, 2024).

2.1. Formation of the UN-Centred Decarbonization Discursive and Policy System

The mid-1980s witnessed the emergence of decarbonization as a global environmental politics discourse (Dupont & Oberthür, 2015; Zhang, 2021: p. 12). Greenhouse gas emission, and carbon dioxide in particular, was explicitly identified by the scientific community as a main cause for abnormal change in global climate, and it then became an international (global) environmental socio-political issue, which should be addressed by common action on the international (global) level. Moreover, from the very beginning, the construction of this new discursive and

policy system stands out as an UN-centred effort.

Two key events contributed to the initiation of a global discursive system of decarbonization. One is the shocking discovery of the Antarctic ozone hole around 1985. Based on this “scientific fact” (von Hobe, 2007), Ozone depletion was recognized by the UN-centred institutional system for the first time as a threat to the survival of human beings and other living organisms and as a clear example of human activities already affecting the stability of ecological environment itself on the planetary level. In other words, decarbonization discourse thus established its ethical and political legitimacy in the mainstream international community. The other one is *the Montreal Protocol*, signed in 1987, which aimed to restrict the production and use of chemical substances such as chlorofluoroalkanes worldwide. Its smooth implementation provided a reference of an institutional platform for following global climate governance cooperation (Bo, 2006). Arguably, subsequent decarbonization discourse and policies are, to a large extent, just a replacement of the target object from “chlorofluoroalkane chemical substances” to “fossil energy”.

To make a long story short, the UN Environment Programme (UNEP) and the World Meteorological Organization (WMO) jointly decided in 1988 to establish an Intergovernmental Panel on Climate Change (IPCC), whose series of reports in the next years offered a strong “scientific basis” for discursive discussion and policy negotiation on the international level. In December 1990, the UN General Assembly approved intergovernmental negotiations on climate change convention, and for that purpose, an intergovernmental negotiating committee was established. The text of the *Framework Convention on Climate Change* (UNFCCC) was submitted to the UN Summit on Environment and Development held in Rio, Brazil, for signature in June 1992, and it officially came into force on March 21 1994. As of June 2016, this UN Convention has a sum of 197 signatories (countries and regions).

As far as the text of the Convention is concerned, we can clearly see three key points, which can be called the thus-established common cognitions and policy stances among the international community (UN, 1992). First of all, it has explicitly acknowledged the issue of global climate change and its causal link to greenhouse gas density. Secondly, it has principally expounded future goals of reducing greenhouse gas emissions caused by human activities. Thirdly, it clearly delineates the compliance responsibilities of developed and developing countries among the signatory parties.

From today’s standpoint, on the one hand, *UNFCCC* marks the establishment of a global decarbonization discourse and policy, and until the end of the 1990s, its further construction around the *Convention* implementation negotiations has displayed some obvious positive features, such as scientific research-driven decision making, UN-led platform mechanisms, strong leadership from the developed countries, and active participation by the developing countries (Zhang, 2021: pp. 11-14). In particular, at the third conference of the Parties in Kyoto, Japan, in December

1997, representatives from 149 countries and regions approved the Kyoto Protocol, clearly stipulating the near-term emission reduction targets for major industrialized countries in Europe and the US. On the other hand, there are several structural flaws with this “great deal” regarding the distribution of compliance responsibilities between developed and developing countries, which may become obstacles to the implementation or promotion of the global decarbonization discourse.

2.2. The First Challenge of Development Issue to the UN-Centred Decarbonization Discursive and Policy System

Though representing a remarkable “political consensus” on the global level, the *UNFCCC* and the *Kyoto Protocol* are, to a large extent, an achievement owing to the relatively favorable political opportunity environment (Zhang, 2021: pp. 13-14). At that time, a “tacit political consensus” was arguably reached between the developed countries in Europe and the US and the vast majority of developing countries. The former were willing to exchange the latter’s clear commitment and more efforts to protect the ecological environment by taking the lead on its own and providing the necessary economic and technical assistance. However, such a political consensus is obviously conditional or temporary. From the standpoint of developed countries, they thought that greenhouse gas emission reduction or “decarbonization” itself was no longer a too difficult problem to deal with, and energy and economic structure transformation would bring about more competitive advantages for them, including that compared with the developing countries. In other words, global decarbonization discourse or strategy was considered as a pathway to maintain or even expand their existing advantages. In the view of developing countries, greenhouse gas emission reduction, or “decarbonization”, was certainly a necessary response of the international community to global climate change, a common action for the good of all mankind, but this should definitely not hinder their priority for economic and social modernization (Pan, Liao, & Chen, 2021). Thus, for them, the real issue is to achieve high-quality development by implementing necessary emission reduction policies under the UN-centred decarbonization discourse and policy. In other words, the discourse or policy of decarbonization should not become a restriction or affront to their development right or “carbon emission right” (Yang, 2011; Zeng & Peng, 2012).

The first challenger to the UN-centred decarbonization system, ironically, was the US government under President George W. Bush, on the pretext of development. In March 2001, the US government officially announced its withdrawal from *the Kyoto Protocol* on the grounds that “reducing greenhouse gas emissions will affect economic development in the US” and “the developing countries should also bear the obligation to reduce and limit greenhouse gases emission”. Withdrawal from *the Kyoto Protocol* itself was a very much US-style decision, a blatant prioritization of national interests against the international consensus on the global response to climate change, but it had, to some extent, reflected the increasingly clear common views from the developed countries. For them, emerging economies,

including China, should be included as soon as possible in the ranks of the binding emission targets. Notably, a widely circulated message around 2006 was that China surpassed the US in carbon dioxide emission, becoming the world's largest emitter, and this might make "absolute emission reduction" of the industrialized countries be offset by the "net emission increase" that is occurring in emerging economies (Heinzerling, 2010).

It was against this new backdrop that the UN climate conference of 2007 in Bali, Indonesia, which initially aimed to further promote the implementation of compliance mechanism of *UNFCCC* and the Kyoto Protocol, was characterized by fierce debates between the US and the EU and between the developed and developing countries. The Bali Road Map agreement, which was reached with great difficulty during the 13-day meeting, seemed to be ambitious at first glance, but, in fact, it contained serious crises.

Not surprisingly, the Copenhagen Climate Conference of 2009 was a conference of the Parties with much less than expected achievements, if not a complete failure (Ottinger, 2010). While the EU made high-profile commitments to reduce carbon emissions by 30% by 2020 and 95% by 2050, it did not fill the gap for the US. They failed to demonstrate the willingness and ability of developed countries to continuously act as leaders in the global response to climate change, exposing the US to intense criticism from the Western media, the public, and NGOs. China has firmly defended the implementation framework of the "dual-track system" established by *UNFCCC* and *the Kyoto Protocol*, the basic principle of "common but differentiated responsibilities" and the right to development of developing countries, and refused to undertake any binding obligation for emission reduction beyond its actual level of development. This has caused China to receive lots of accusations and complaints from the Western media and certain developing countries. Arguably, frustrating results, as well as the exposure of contradictions within the UN-centred discourse and policy system, to a great extent, have damaged the accumulated reputation of international environmental governance and cooperation system, or "global carbon politics", and trust and confidence from the mass media, NGOs and the public.

The overall environment for construction and institutionalization of global decarbonization discourse in the first decade of the 21st century has undergone some significant changes, but apparently not in a fundamental sense. For instance, the IPCC series of reports, especially the third and fourth assessment reports released in 2001 and 2007, had provided more solid scientific evidence of global warming, and the related UN agencies, especially the negotiating mechanism for compliance with *UNFCCC*, remained very active and diligent—from the 6th Conference of the Parties in The Hague, Netherlands, in 2000, to the 16th Conference in Cancun, Mexico, in 2010. The most significant difference is that the willingness and capacity of the developed countries to act as world leaders have weakened or become "unworthy of the name". In particular, the US, the world's largest power, has incredibly played a role of "betrayor" or "foot-dragging" (Beary, 2012). On the side

of developing countries, due to the rapid rise of emerging economies like China, they have, in fact, split into more “layers” or sub-groups. Thus, when the UN-centred decarbonization system was widely expected to step up to a new level, it was kidnapped or blocked by traditional political competition focusing on the right and potential of “development”.

2.3. Major Comprise-Based Reform to the UN-Centred Decarbonization Discursive and Policy System

The serious setback of the Copenhagen conference compelled the international community to reflect on the negotiation framework for compliance with *UNFCCC* and its associated *Kyoto Protocol*, especially the specific regulations of emission reduction quotas and verification and supervision based on the UN platform mechanism (Pan, 2010; Zhang, 2010). An alternative proposal that combines global decarbonization goals with a nationally determined implementation. In other words, decarbonization is undoubtedly global thinking and response, but in view of the reality that nation-states are still the major actors in international politics today, it is necessary to consider a better play their role in achieving the long-term goals set out in *UNFCCC*. It can be said that recognition of this philosophy and approach led to the conclusion of *the Paris Agreement* in 2015.

Under enormous pressure from international public opinion, the 17th Conference of the Parties to *UNFCCC* and the 7th Conference of the Parties to *the Kyoto Protocol* held in Durban, South Africa, decided to take several further measures, known as the “Durban Platform”, which opened up a new journey for international compliance negotiations towards *the Paris Agreement*. The precondition for such a document to be concluded, however, is adjustments of the policy stance of the US and China on global climate change and, thus, the formation of cooperation between the two.

In the US, after his successful presidential campaign in 2008, Barack Obama indeed expressed his political ambition to open up “a new chapter for the US to take on leadership in terms of climate change”. But, the Obama administration’s commitment at the Copenhagen conference was widely understood to be rather conservative and was considered a crucial reason for the failure of the conference to achieve the expected results. Partly for this reason, promoting global climate governance and exerting the leadership role of the US became a foreign policy priority during Obama’s second term. In June 2013, the Obama administration launched a roadmap for the US to address climate change, *the Climate Action Plan*, with new measures such as regulating carbon emissions from coal-fired power plants through the US Environmental Protection Agency (EPA). At the same time, focusing on emission reduction by the world’s largest developing countries, the United States established the US-China and US-India climate change working groups to strengthen bilateral policy dialogue and cooperation. From 2013 to 2016, to promote the reaching and signing of *the Paris Agreement*, the US and China issued four joint statements, showing unprecedented cooperation on climate change issues. In short, in the negotiation

process of *the Paris Agreement*, it seems that Obama's US government has resumed its role as a leader of world powers (Zhao, 2017).

On the Chinese side, the 18th National Congress of CPC in 2012 upgraded eco-civilizational progress to a major national strategy. This means that global ecological environment issues, including climate change, have been incorporated into the political ideology and policy framework of building a modern socialist country in all aspects. The biggest change brought about by this is that ecological environment protection and governance are no longer simply understood as a burden or drag on modernization development, but rather as an opportunity or a way forward to achieve green and high-quality development. Moreover, nearly 40 years of reform and opening up have pushed China's economic and social modernization to a new stage, with a more rational understanding and response to population, natural resources, and environmental problems encountered in the modernization process. For instance, although the emission of greenhouse gases such as carbon dioxide in China will continue to increase with sustained economic growth, "carbon peaking" has become an imaginable scenario. Based on this, China decided to closely cooperate with major countries or groups around the world, including the US, to facilitate reaching and signing of *the Paris Agreement*, and thus become an indispensable leader in global climate governance (He & Ma, 2020).

After the preparatory work of the next three conferences (Doha, Warsaw, and Lima), *the Paris Agreement* was reached at the 21st conference of the Parties to UNFCCC and the 11th conference of the Parties to *the Kyoto Protocol* in Paris, France, in December 2015. Its core contents are with the long-term vision goal of holding the increase in global average surface temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit temperature increase within 1.5°C by the end of the 21st century, with the long-term emission reduction goal of achieving "carbon net zero emission" in the second half of the 21st century, and with the near-term goal of proposing the from-bottom-to-top "nationally determined contributions"(NDCs) by the Parties. On November 4, 2016, *the Paris Agreement* officially came into effect after receiving a sufficient number of ratifications from the contracting Parties.

The main progress of *the Paris Agreement* is that it replaced *the Kyoto Protocol* as the legal, institutional arrangement for global climate cooperation after 2020, thus having ended the "institutional deficit" or "negative legacy" left by the Copenhagen Conference. However, it did not set a higher global temperature rise control target, and there is no guarantee that it will necessarily be implemented more strictly and effectively than *the Kyoto Protocol* (Dong, 2022). In fact, in November 2019, the Trump administration repeated the trick by announcing that the US would withdraw from *the Paris Agreement* until February 2021, when Joe Biden was inaugurated and announced the return of the US to it.

Notably, one of the main reasons why *the Paris Agreement* can be reached and signed is a directional change in the climate negotiation or convention compliance mechanism: from the original top-down mandatory emission reduction

to a bottom-up nationally determined contribution. In terms of discourse itself, nationally determined contribution to emission reduction has offered a new thinking and basis for negotiation. This is because the signatories to *the Paris Agreement* include 160 countries, which account for more than 90% of global emissions, and negotiations on their own intended contributions will considerably decrease the difficulty of striking a deal among the Parties. However, as an institutional mechanism arrangement for emission reduction, the issue of checking and verification of effectiveness, which was of particular concern to the Parties during the period of *the Kyoto Protocol*, has not really been solved or even avoided intentionally or unintentionally. In other words, the effectiveness of this new mechanism will overly depend on the conscious and proactive actions of the Parties based on a higher level of cognition.

Negotiation and implementation of the Paris Agreement is indisputably the focal point of international climate cooperation or politics in the second decade of the 21st century. On the one hand, global decarbonization discourse and policy have demonstrated its upward or progressive side in a tortuous manner. Accordingly, *UNFCCC* and its compliance negotiation mechanism have successfully maintained its continuity, if not entering into a new stage. For instance, “carbon neutrality” and “carbon net zero emission” are becoming realistic future scenarios, as the EU countries have shown. In this regard, the IPCC series of reports, especially its fifth report released in 2013-2014, played a very important part in mobilizing the international community (public opinion). The relevant UN agencies continue to work hard to coordinate the positions and attitudes of the Parties as well as their negotiating teams and do their best to achieve positive results. On the other hand, both the implementation mechanism of nationally determined contributions and world leadership architecture dominated by the powerful are moving away from the scenario of “world government (society)” to address global climate change (Lipschutz, 2012). The biggest uncertainty or risk is that once those world powers turn their attention to traditional political issues, and even conflicts among them occur, such a mechanism as nationally determined contributions will be very possibly affected or marginalized, which is the awkward reality we have to face today and the years to come (Wang, 2023).

3. From “Low Carbon” to “Two Carbons”: The Chinese Adaptation and Reconstruction of Global Decarbonization Discourse

As the largest developing country in the world, China’s “carbon politics” discourse and policy have gone through a process of “adaptation first, innovation later” over the past three decades (Yu & Li, 2022; Zhang, Huang, & Chen, 2021). On the one hand, China needs to gradually familiarize itself with international climate institutions and policy systems as well as its operation mechanism, such as the annual implementation negotiation meeting of the Parties, which are built around the goals and tasks of “emission reduction” or “decarbonization”, and the discursive

interpretation behind this system framework. On the other hand, China hopes to fully grasp the relevant provisions of legal responsibilities and obligations made by various conventions, protocols, agreements, and other international regulations so as to safeguard its legal rights and interests while fulfilling its responsibilities as a contracting party. Thus, the transition from the discourse and policy of “low carbon” to that of “two carbons” is both a process of adaptation or diffusion and of reconstruction or innovation.

3.1. Adaptation and Reconstruction around *UNFCCC* and the *Kyoto Protocol* (1992-2007)

With regard to *UNFCCC* and *the Kyoto Protocol*, on the one hand, China attaches great importance to the historic importance of the UN convention as the world’s first international treaty to control the emission of carbon dioxide and other greenhouse gases and to address adverse impacts of global climate change on economic and social development, as well as to international community’s institutional cooperation to address global climate change. Therefore, it has been actively participating in the negotiations at the relevant meetings, and is one of the first Parties to *UNFCCC* and its associated *Kyoto Protocol*. On the other hand, China also clearly emphasizes the distinctions made by *UNFCCC* between the “Annex I” and “Annex II” countries and other countries and the corresponding distinctions made by the Kyoto Protocol between the “Annex I” countries and other countries. In other words, according to the provisions of *UNFCCC* and *the Kyoto Protocol*, China, as a Party of “other countries”, does not have mandatory task requirements to “reduce emission” or “limit emission” (*the Kyoto Protocol* Article 10). Moreover, it is even entitled to receive financial and technical assistance provided or transferred by the Annex I countries on a non-reimbursable basis. It should be pointed out that all these “preferential” policies are based on the principle of “Common but Differentiated Responsibilities” (CBDR), which is explicitly recognized by *UNFCCC* and *the Kyoto Protocol*.

Accordingly, in the Chinese context at that time, global decarbonization discourse and policy, as well as the landmarking slogan of “carbon emission reduction,” was more often interpreted as a kind of responsibility and obligation for the developed countries in Europe and the US, while for the developing countries like China, it is mainly a matter of improving the efficiency of resource use and reducing “carbon increment (growth rate)”, or a “relative emission reduction”, in economic and social modernization. Furthermore, any view or opinion calling for China to take on the task of “absolute emission reduction” would first be criticized on political and moral grounds—especially violating the principle of CBDR, or even labeled as a form of “trap theory” or “conspiracy theory” (Huan, 2015).

This is best exemplified by the fact that neither the report to the 14th CPC’s National Congress in 1992, the report to the 15th CPC’s National Congress in 1997, nor the report to the 16th CPC’s National Congress in 2002 explicitly mentioned anything about energy conservation, efficient use or transformation. The

report to the 14th CPC's National Congress emphasized the overall guiding role of "the basic state policy of environmental protection" "to enhance environmental awareness of the whole nation, protect and reasonably utilize natural resources such as land, minerals, forests, and water, and strive to improve the ecological environment" (Party Documents Research Office of the CPC Central Committee, 2011: p. 28). In comparison, what the report to the 15th CPC's National Congress stressed is the importance of "implementing sustainable development strategy" "resource development and conservation going hand in hand, putting conservation in the first place and improving the efficiency of resource utilization...strengthening the governance of environmental pollution, planting trees and grasses, doing well in soil and water conservation, preventing and controlling desertification, and improving the ecological environment" (Party Documents Research Office of the CPC Central Committee, 2011: p. 24). Finally, the report to the 16th CPC's National Congress stated that, "enhancing harmony between humanity and nature, to push entire society on a path to civilizational development with prosperous economy, affluent life and sound ecosystem" (Jiang, 2002: p. 20).

It can be said that, until 2007, global decarbonization discourse and policy, or "carbon politics" in China, was at a relatively low level of internalization. In other words, *UNFCCC* and *the Kyoto Protocol* were, to a large extent, interpreted as an external green discourse and politics and only temporarily became the hotspot of social-political or public opinion during annual compliance negotiation meetings. Although public governance of ecological environment protection has gained stronger societal attention and recognition under the discourse (policy) of sustainable development, it did not establish a direct link with global climate politics.

3.2. Adaptation and Reconstruction Focusing on "Low Carbon" or "Relative Emission Reduction" (2007-2015)

In June 2007, *China's National Plan to Address Climate Change* was released to the public, explicitly incorporating the issue of climate change into the overall planning of national economic and social development. At the same time, the National Leading Group on Responding to Climate Change and Energy Conservation and Emission Reduction was established, with the Premier of the State Council as the head of it. The report to the 17th CPC's National Congress in October 2007 included the term "eco-civilizational progress" for the first time, indicating an epochal change in CPC and governments' political ideology and policy discourse. When expounding the strategic initiatives of "promoting sound and rapid development of the national economy", the report made it clear of "strengthening energy and resource conservation and ecological environment protection", and put forward a series of policy measures such as "implementing the responsibility system for energy conservation and emission reduction, developing and promoting advanced and appropriate technologies for conservation, substitution, recycling and pollution control, developing clean and renewable energy sources, protecting land and water resources and setting up a scientific, rational system for

utilizing energy and resources more efficiently... Strengthening capacity building to respond to climate change and making new contributions to protect global climate” (Hu, 2007: p. 24). Since then, “responding to global climate change” has been formally incorporated into the chapter on ecological environment protection and governance, or “eco-civilizational progress”, of the Party’s National Congress reports, realizing the convergence or integration of climate change discourse (politics), energy discourse and environmental discourse and thus becoming a “regular” part of CPC and governments’ governance agenda.

By adapting to the constructing global decarbonization discourse and policy, China has gradually formed its own discursive and policy system focusing on “low carbon” or “relative emission reduction”. The core idea is that, as a developing country still in the process of modernization, China’s chief policy objective for responding to global climate change is to fully practice the concept and principle of sustainable development. Accordingly, China needs to continuously reduce the consumption of natural resources and the ecological environment impacts brought about by economic and social modernization, as well as emissions of carbon dioxide and other greenhouse gases in particular. What counts is that, from China’s standpoint, this understanding and policy is in line with the relative provisions of *UN-FCCC* and *the Kyoto Protocol*.

Specifically, *China’s National Plan to Address Climate Change* proposed for the first time the goals of “low carbon”, or “relative emission reduction”, reducing energy consumption per unit of GDP by about 20% by 2010 compared with 2005. Also, in 2007, a white paper on *China’s Energy Conditions and Policies*, released by the Information Office of State Council, emphasized the strategic importance of energy diversification and incorporated renewable energy development into national strategy. *The Outline of the 12th Five-Year Plan (2011-2015) for National Economic and Social Development* declared that energy consumption per unit of GDP had decreased by 19.1% over the past five years and set out clear “binding targets” for energy conservation, emission reduction, and low-carbon development in the next five years: an 11.4% share of non-fossil energy in primary energy consumption, a 16% reduction in energy consumption per unit of GDP, and a 17% reduction in carbon dioxide emission per unit of GDP (Xinhua News, 2011).

An international test of the validity of this discourse and policy was the UN Climate Conference of 2009 in Copenhagen. Prior to this conference, when President Jintao Hu attended the UN summit on climate change, he announced for the first time China’s targets of “low carbon” or “relative emission reduction” for 2020. They include, compared with the 2005 level, a significant reduction in carbon dioxide emission per unit of GDP, a 15% share of non-fossil energy in primary energy consumption, the increase of forest areas by 40 million hectares, the increase of forest stock by 1.3 billion cubic meters, vigorous development of green economy, low-carbon economy and recycling economy. He also emphasized that, however, China is still the world’s largest developing country and could not assume obligations that went beyond its stage of development (Hu, 2016: pp. 264-268). During this conference, Premier Jiabao Wen emphasized in his speech at the

General Assembly that China has always taken responding to climate change as an important strategic task. The intensity of carbon dioxide emission per unit of GDP had dropped by 46% from 1990 to 2005, and by 2020, carbon dioxide emission per unit of GDP would be further reduced by 40% to 45% compared to 2005 (Wen, 2009). In terms of the provisions of *UNFCCC* and *the Kyoto Protocol* alone, policy objectives of “low-carbon” or “relative emission reduction” proposed by the Chinese government are not in question and are even quite ambitious. Judging from the conference’s failure to reach an agreement with higher expectations, however, it is obvious that China’s climate discourse and policy as such was not entirely convincing or encouraging for many Parties, including the developing countries and regions.

3.3. Adaptation and Reconstruction around *UNFCCC* and *the Paris Agreement* (2015-Present)

The 18th CPC’s National Congress in 2012 and the 19th CPC’s National Congress in 2017 were important landmarks for China’s adaptation and reconstruction of global decarbonization discourse and policy. In particular, all these discursive and practical efforts are gradually put on a new theoretical basis of “Xi Jinping Thought on Eco-Civilization”. The report to the 18th CPC’s National Congress emphasized “striving for green, circular and low-carbon development...making contributions to global ecological security” (Hu, 2012: p. 39) and “adhering to the principles of common but differentiated responsibilities, fairness, and respective capabilities, and actively responding to global climate change together with the international community” (Hu, 2012: pp. 40-41). Furthermore, the report to the 19th CPC’s National Congress stressed that “taking a driving seat in international cooperation to respond to climate change, China has become an important participant, contributor and torchbearer in the global endeavor for eco-civilization” (Xi, 2017: p. 6) “We must continue to push forward the Beautiful China Initiative to create good working and living environments for our people and play our part in ensuring global ecological security” (Xi, 2017: p. 24) “We will get actively involved in global environmental governance and fulfill our commitments on emission reduction” (Xi, 2017: p. 51), so as to “build a global community of shared future, an open, inclusive, clean and beautiful world that enjoys lasting peace, universal security and common prosperity” (Xi, 2017: pp. 58-59). On this basis, responding to global climate change is no longer only an issue for China to actively participate in the efforts of the international community to institutionalize global decarbonization discourse and policy, but also one issue for China to re-interpret the problem and propose more reasonable and effective solutions or action plans from its own position of interests and cognition, “seeking to build a global ecological civilization together” (Xi, 2022a: pp. 13-14).

It is against this new background and context that China participated in the negotiation and signing of *the Paris Agreement* with an unprecedentedly active stance and attitude (Zhang, 2016). For China, the main attraction of *the Paris Agreement* is that it allows the majority of developing countries, including China,

to determine the speed and pace of “carbon emission reduction”, or “decarbonization”, in accordance with their own modernization development. But perhaps more importantly, as it enters the second decade of the 21st century, China has become increasingly convinced that, both in terms of the process of “absolute emission reduction” in the industrialized countries of Europe and the US and the progress of China’s own economic and social modernization, “carbon peaking” “carbon neutrality” or even “absolute emission reduction” are already predictable or acceptable future scenarios. In other words, a *de facto* protective “two-track system” like *the Kyoto Protocol* has already fulfilled its historical mission.

Discussions on China’s “carbon peaking” and “absolute emission reduction” policy proposals emerged as early as the Copenhagen Climate Conference in 2009. In addition, in December 2014, representatives of the Chinese government attending the 20th conference of the Parties to *UNFCCC* in Lima already mentioned that China would keep its annual emission of carbon dioxide below 10 billion tons by 2020, which is, of course, only a staged high point and not the final peak. After *the Paris Agreement* was signed and entered into force, as countries around the world announced their “nationally determined contributions” one after another, China also put forward its own roadmap for “carbon peaking” and “carbon neutrality” in the second half of 2020, thus beginning the transition from the “low carbon” discourse (policy) system to a “two carbons” discourse (policy) system.

On September 22 2020, Chairman Jinping Xi first proposed that, in his speech at the general debate of the 75th UN General Assembly, “We will increase our nationally determined contributions, adopt stronger policies and measures, with carbon dioxide emissions striving to peak by 2030, and striving to achieve carbon neutrality by 2060” (Xi, 2022a: p. 252). Since then, he has stated on several international occasions that, China will unwaveringly implement the “two carbons goal” of carbon peaking by 2030 and carbon neutrality by 2060. In October 2022, the report to the 20th CPC’s National Congress explicitly ranked “actively yet prudently promote carbon peaking and carbon neutrality” as one of the four major strategic deployments aiming at “pursuing green development and promoting harmony between humanity and nature” in the years to come. The report not only emphasized that “achieving carbon peaking and carbon neutrality will be a broad and profound economic and social systemic transformation” (Xi, 2022b: p. 51), but also clearly elaborated a series of guiding principles, specific policies and major strategic initiatives that must be adopted in the next years. At this point, the “two carbons” discourse (policy) system formally replaced the “low carbon” or “relative emission reduction” discourse (policy) system, which had been upheld for many years.¹ Since then, China’s decarbonization discourse (policy), or “carbon politics”, has entered a new phase with the theme of “absolute emission reduction (after achieving peak carbon)”.

¹This is not to say that, of course, China will no longer use the expressions or terms like “low carbon” or “relative emission reduction”. For example, when explaining China’s implementation of the 2030 goals of *the Paris Agreement* at the Climate Ambition Summit on December 12, 2020, Jinping Xi stated that “China’s carbon dioxide emission per unit of GDP will decrease by more than 65% compared to 2005” (Xi, 2022a: p. 270).

4. New Hope or Challenge? Rising Environmental Discourse Autonomy of the Developing Countries

China's adaptative and reconstructive efforts targeting the UN-centred decarbonization discourse and policy, which has led to the mainstreaming of "two carbons" discourse and strategy, shows that the Chinese case is both an example of international diffusion of environmental discourses from the core to the edge, and of autonomous innovation of environmental discourses occurred in the developing countries, becoming both an enthusiastic participant and an important leader of global decarbonization politics.² In view of this, in the author's opinion, more attention should be paid to issues such as the multiplicity of players in the construction and dissemination of global environmental (decarbonization) discourse and policy, rapidly rising discourse autonomy of the developing countries in such a process, and the universality and specificity of international or global environmental discourse, or general conditions for its diffusion or innovation.

Globally, it is still true that international promotion of environmental discourse and policy presents a process of diffusion from the center to the periphery, or from the developed countries-dominated UN platform to the developing world. It is also true that, however, as the largest developing country and emerging economy, China has, to a large extent, managed to maintain its independence of cognition and policy in this process and gradually built up its own environmental (decarbonization) discourse and policy system. Specifically, "low carbon," "relative emission reduction," and/or "two carbons" or "absolute emission reduction," as well as the transition from the former stage to the latter in China, are both a manifestation of international diffusion of global decarbonization discourse and policy such as the reaching and implementation of international treaties and agreements and at the same time of autonomous innovation of this discourse and policy such as the implementation strategies based on national conditions and supporting ideas.

As described earlier, "low carbon," "relative emission reduction," and/or "two carbons," "absolute emission reduction (after achieving peak carbon)", as well as a firm and smooth transition from "low carbon" to "two carbons", are in fact systemic and periodic expressions of Chinese carbon politics discourse and policy, and they as a whole constitute a China's autonomous knowledge system of decarbonization with its own characteristics (Huan, 2023; Liu, 2017).

In summary, the mainstreaming of "two carbons" discourse and policy is, to a large extent, a strategic choice that is fundamentally based on China's autonomous stance, cognition, and action of responding to global climate change as the world's largest developing country and emerging economy (Xi, 2022a: p. 283). Although the shift from "low carbon" to "two carbons" is featured with domestic adaptation and gradual follow-up of the UN-centred decarbonization discourse and policy,

²There are still significant differences between China and other developing countries such as India and Brazil on environmental issues, however, it seems that they are converging on a general common position of "global south", arguing that more attention should be paid to keep the balance between anti-poverty, economic growth and environmental protection.

the most decisive element is the cognitive and strategic autonomy behind it. This in no way calls into question the responsibility for the overall goal of tackling global climate change, or “decarbonization”, but rather the advocacy for adhering to realistic and feasible paths and rhythms suitable for national or regional realities, especially fully considering the stage of China’s economic and social modernization development. At least for the time being, although the “two carbons” goal or strategy still faces many challenges, it is a relatively realistic and feasible “nationally determined contribution”. For instance, China’s wind and solar energy hardly started before 2000, but in 2018, renewable energy accounted for 27.5% of global electricity generation, far higher than the US and Europe during the same period (11.3% and 19.7%, respectively). In 2000, there were hardly any pure electric vehicles in China, but by the year 2020, the number and annual sales of pure electric vehicles had steadily ranked first in the world, and public transportation in the megacity of Shenzhen had all been electrified (Pan, Liao, & Chen, 2021).

Therefore, a clear message from the Chinese example is that the role of the key player of vast developing countries and their rapidly rising discourse autonomy in constructing global environmental (decarbonization) discourse and policy, or “global environmental politics”, should be recognized in a proper way. This is certainly good news, given that lots of nations in the world are still not allowed or unable to fully express their feelings and thoughts in this regard.

The majority of developing countries have little or no voice on global environmental issues, including “carbon politics”, which is a historical phenomenon for a number of reasons. And arguably, the issue of global climate change is very easily interpreted or decorated as one that favours the powerful (Huan & Huan, 2022; Lipschutz, 2012: p. 22). On the one hand, the impacts of global climate change clearly present them as a worldwide problem or a problem in the sense of the survival of human society (civilization). Accordingly, consensus and action on the human society level are more easily accepted as a “necessary choice”, and responding to global climate change is uncontroversially recognized as the “common responsibility”, or “political correctness”, for all people of the world today. On the other hand, the international community or human society (civilization) is clearly not a homogeneous or unified whole, but rather is divided into modern nation-states with different natural geographic features, economic and political development, or historical and cultural traditions. As a result, countries and regions around the world perceive, understand, and respond to natural ecological problems and their risk challenges first and foremost from a national (local) perspective, and they will do that more often than not from a perspective of their own economic and social conditions. That is to say, the most natural response for countries around the world to identify and respond to natural ecological challenges, including global climate change, is to externalize the risk challenges of these natural ecosystems rather than to work on pinpointing and eliminating the intrinsic causes of these risks. Obviously, the developed countries have indisputable advantages in the above double senses, and they have thus far made full use

of these advantages. The UN-centred environmental or decarbonization regime is a case in point.

It should be pointed out that there is a structural defect or contradiction with the UN-centred decarbonization discourse and policy system. Of course, a “common concern of all mankind”, or “global consensus”, can be gradually constructed as a mode of cognition and a theory of discourse, and slogans such as “There is only one Earth” “Our common future” “One world, one dream”, etc. can also promote a worldwide socio-political mobilization. However, international efforts in ecological environmental governance based on this cognition and discourse may not be able to transform into active and responsible actions of countries and regions around the world, but more likely to become a display, convergence, or even competition of their respective positions pursued by modern countries (regions), and present as a state dominated by nation states, or the world’s anarchic state, in international ecological environmental governance system (Liu & Chen, 2022; Wang & Guo, 2021). International or UN-centred agencies do exist, but real decision-makers are nation-states and their governments, especially the few powers, which may not necessarily take the forms of democratic consultation or ecological democracy (Huan, 2015). It can be said that the evolution of global decarbonization discourse and policy surrounding *UNFCCC* and its two protocols over the past 30 years is a typical example in this regard (Li, 2020; Li, 2017). In fact, several inspiring discursive generalizations such as “globally thinking, locally acting,” “common but differentiated responsibilities,” and “fairness and respective capabilities” are incorporated as provisions in *UNFCCC* and its two protocols, but they are too weak to resist the onslaught of “realpolitik” (Kou, 2013; Xiu, 2013).

One of the earliest analyses exploring the differences in environmental stances between developed and developing countries was “ecology of the poor,” proposed by Spanish scholar Joan Martinez-Alier (1991). His main argument is that certain social struggles carried out by the poor and ethnic state struggles carried out by poor countries can be defined as ecological struggles. Stronger impetus in this regard came from the long-term joint efforts of many distinguished third-world scholars, such as Vandana Shiva from India and Arturo Escobar from Latin America. Her books such as *Earth Democracy: Justice, Sustainability, and Peace* (2005), *Monocultures of the Mind: Perspectives on Biodiversity and Biotechnology* (1993), *The Violence of the Green Revolution: Third World Agriculture, Ecology, and Politics* (1991), and *Staying Alive: Women, Ecology, and Survival in India* (1988), Shiva tries to elucidate global ecological environment issues from perspectives of women, the poor and the Third World countries. Escobar, through his works such as *World Anthropological Transformation* (2006) and *Encountering Development: The Making and Unmaking of the Third World* (1995), attempts to show that the models and concepts of modern development taken for granted or indoctrinated into acceptance by a large number of developing countries, including those in Latin America, are in fact heavily territorialized or particularized. Or rather, it is just a “strategy” for a few industrialized countries to achieve and maintain their

hegemonic position in contemporary world.

After entering the 21st century, competition for discourse and policy agenda around international ecological environment governance, including global climate change, has been increasingly obvious and intense (Hua & Ling, 2011; Wang, 2010). The developed countries in Europe and the US are more eager to emphasize and better at highlighting global ecological environment issues and their major feature as a common challenge for human society or mankind, and thus intentionally or unintentionally ignore or turn down the relevance and significance of regional or national cognitions and policy measures for global issues. By contrast, even the most powerful developing countries, including China, India, and Brazil, often feel a strong sense of “hard to make sense of it” or are voiceless on the stage of international ecological environment governance. In fact, this predicament not only occurs in the formal occasions of international compliance negotiations, such as the Copenhagen Climate Conference of 2009, but also widely exists in agenda setting and daily management of international environmental intergovernmental or non-governmental organizations (Hao & Cai, 2011).

It is precisely based on reflections on the above facts that the developing countries, including China, are increasingly valuing their voice and agenda-setting rights on the stage of international cooperation on environmental governance, rather than just actively participating in the process of implementing the approved policy. “We should deeply participate in global environmental governance, enhance our country’s voice and influence in global environmental governance system, actively guide the direction of international order change, and form solutions for world environmental protection and sustainable development.” (Xi, 2022a: p. 14) Consequently, China’s responding to global climate change, or the “two carbons” discourse and policy, is not just a “nationally determined contributions” in the specific sense, i.e. the “3060 targets”, but also a constructing systemic and autonomous discourse or knowledge based on the core beliefs of “Chinese modernization with harmonious coexistence between humanity and nature” “working together for building a global ecological civilization”. Therefore, the “two-carbons” discourse and strategy are certainly a Chinese implementation plan of global decarbonization discourse and policy, but also a real contribution from the standpoint of developing countries regarding how global environmental issues like climate change should be addressed more justly and efficiently (Clayton, 2024). In other words, as an autonomous discourse and policy system from the standpoint of developing countries, it has a great potential of innovating the UN-centred discursive and institutional framework.

Of course, there is no guarantee that a louder voice for developing countries in the environmental field will certainly be green news for the globe. As mentioned earlier, for ecological environment issues, it is indeed so common to see the intentions or even conflicts between national/regional interests and human common concerns. On the one hand, global climate change is not only an ecological environment challenge or crisis, but also a problem for the survival of human

civilization. On the other hand, though, the international community or human society today is not a homogenous entity, but rather divided into different groups. Thus, a similar question can be raised for developing countries or regions, including China: in what sense or how does the rising discourse autonomy of the developing countries in the international promotion of environmental governance turn out to be a real “facilitator” or “propellor” rather than a “spoiler”.³ In this sense, the rising developing countries, including China, just like the maligned developed countries, also face the challenge of greening themselves into an “ecological subject”.

5. Conclusion

Just like global ecological environment problems are objective facts in today’s world, it is also an undeniable fact that the current world’s recognition and response to these challenges remain and will continue to be divided into those of countries, regions, and groups with different economic development, society, and culture. It is, therefore, not difficult to understand that the global environmental governance system, as well as its supporting discursive theories, such as decarbonization discourse and policy, is not only a process of gradual construction and diffusion from the core to the edge, but also of continuous adaptation and reconstruction of the related or affected countries and regions around the world. This is the reality that we have today in dealing with global climate change, especially the UN-centred decarbonization system. There is no doubt that remarkable achievements have been made under this framework, but it is also quite clear that such an international system is not the most appropriate one to lead the way to find a fundamental solution.

Mainstreaming of the “two carbons” discourse and policy in China has added a new example of international diffusion of environmental discourses, i.e., “decarbonization”; on the other hand, it is also a landmark that developing countries like China have grown into an influential player of global green consensus construction and institutionalization. This encouraging change in principle also raises questions such as how to make the rising discourse autonomous and truly ecologically progressive.

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³In fact, one can easily find some implications of self-intension from the umbrella word of “Chinese modernization with harmonious coexistence between humanity and nature”, see [Huan & Huan \(2024\)](#).

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