10 China's two-level game in the climate change negotiation

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Why is China more concerned about climate change? Where does China stand in climate change negotiation? Climate change as one of the crucial issues has hit developing countries such as China, where the focus is on the environmental dilemma – carbon technology to be used for further development or to compromise with the protocol called by the climate change regime.[1] Beijing was listed as one of the most polluted cities in 2015 due to its smog blanket. However, China came up with the innovative idea at the Paris Climate talks in November 2015 for the commitment of cutting power sector emissions to 60 per cent by 2020. China says it will cut CO_2 emissions from coal power by 180 tons by 2020. Moreover, leaders like Le Keqiang say that the policies of state have to be changed from 'war on terror'[2] to the 'war on pollution'. Theoretically, neoclassical realism explains that states are still dominant according to its domestic capabilities in the international system. Robert Putnam's two-level game explains that at the national level domestic groups pursue their interest by pressuring the government to adopt favourable policies, and politicians seek power by constructing coalitions among groups. At the international level, the national government seeks to maximise its own ability to satisfy domestic pressure while minimising the adverse consequences of foreign development. In the case of China, the domestic game is a 'ratification game',[3] where the contributions do not exceed those in a benchmark without domestic constraints. Thus, the chapter uses the process tracing method by tracing the links between possible causes and observing outcomes focusing on sequential processes.

Climate change in China is an important factor in the contemporary studies which are to be studied beyond the limitation of environment and politics. Tony Eggleton, in his book *The Short Introduction to Climate Change*, argues that the most famous evidence for global warming came from a 1998 paper published in the major scientific journal *Nature* by Michael Mann, then a post-doctoral fellow at the

University of Massachusetts, with Professors Raymond Bradley and Malcolm Hughes (Eggleton, 2012: 4). The Synthesis Report of the Intergovernmental Panel on Climate Change (IPCC) 2007 shows that 'warming of the climate system is unequivocal', which highly indicates the threat where global greenhouse gas emissions rose 70 per cent since the 1970s.

Vaclav Smil published his book, *China Environmental Crisis*, which shows that the 1990s was the worst scenario and China was the leading producer of greenhouse gases before the year 2010 (Smil, 1993: 135). Haidong Kan argues that emissions per person in China are at the global average, where China surpassed the US as the highest carbon dioxide (CO_2) emitter in 2007. He further shows that China is a large emitter of 'methane and black carbon', the other two major contributors to global warming[4] (Kan, 2011: A60). Human activities are affecting the climate, while carbon dioxide concentration in the atmosphere had reached 379 parts per million by 2005, 35 per cent higher than pre-industrial levels, and the average temperature has risen by 0.76 degrees Celsius since the late 1800s – resulting in extreme weather, changing weather patterns, witness of flood, drought, glacial and Arctic ice melt, sea level rise, and reduced biodiversity.[5] In China, the surface temperature has risen between 0.5 and 0.8 degrees Celsius within the past hundred years and will further rise by 3 to 4 degrees Celsius by the end of this century (Lewis, 2009: 1195–96). This indicates that it is high time to think and act according to its choice in its foreign policy giving emphasis to both material capabilities and its environment. China, to be a major power in the future, has to start focusing in both domestic and international matters where climate change is a major topic of discussion.

Research methodology

Process tracing methods[6] will be used, which attempts to trace the links between possible causes and their observed outcomes by focusing on sequential processes (George & Bennett, 2004: 6–13). George and McKeown assert that the primary objective of process tracing is 'intended to investigate and explain the decision process by which various initial conditions are translated into outcomes'. Process tracing can involve either an inductive or deductive approach. Thus, 'successful process tracing requires the use of a plethora of sources' (Verma, 2013: 24). Stone (1981) defines the analytical narrative as the 'organisation of material in a chronologically sequential order, and the focusing of the content into a single coherent story' (Verma, 2013: 24).

However, climate change itself is a process which is gradually moving the whole planet towards a catastrophic scenario. Countries like China have realised the degradation process through the use of non-renewable fossil fuels in the case of the emission process. The chapter looks into the rising threats from the omnipresent environmental hazard which raises insecurity for the state to balance both internal and external threats in case of climate change. In this process, China is negotiating in both the domestic and international systems for its security.

Theoretical analysis of two-level game

James Rosenau was one of the first to call attention to the area of linkage politics (Putnam, 1988). Peter Katzenstein and Stephen Krasner showed the importance of domestic factor in foreign economic policy, where a state must be concerned simultaneously with domestic and international pressures. However, Robert Putnam (1988) came up with the two-level game strategy, where national- and international-level negotiations take place in each state's foreign policy decision making. At the national level, domestic groups achieve their interest by pressuring the government to adopt favourable policies, and the elite or politicians seek power by constructing coalition among groups. At the international level, the national government seeks to maximise its own ability to satisfy domestic pressure while minimising the adverse consequences of foreign development.[7]

Schelling's (1960) 'conjecture'[8] implies that domestic constraints give the government of a country involved in international negotiation a higher ability as compared to a case without domestic constraints (Kroll & Shogren 2008: 564). A nation has a common interest to protect them; they also have a private incentive to decrease pollution as they see fit, which might not match what is best for the globe. A case of Kyoto Protocol shows that China was included in non-annexure-I[9] which meant the less developed countries were not supposed to reduce gas emissions, when the various sources show that during 2006 China surpassed the US in carbon emissions. This also creates an incentive for one country to free ride and cooperate, but a government interacts with another government on the international level, however it must address their domestic audience. Former President Hu Jintao's idea of a 'harmonious society' or scientific development outlook is the classic case where China wanted to seek an 'ecological civilisation' (CCICED, 2008). China realises that to influence in international politics it has to address the domestic politics as well. Therefore, China gave emphasis

to both domestic politics and international pressure, giving priority to its domestic environment.

Environmental factors play a crucial factor in people's suffering, where the state is solely responsible for the policies. Thus China wanted to merge both environment and economic model with the new polices to make the public secure with the new policies. This is because the government still needs to secure ratification of its own country, but multiple interests exist in a country as the preferential choice where domestic audience constraints the action of the international negotiation. The real world insight gained from using a game. A theoretical framework comes from the ability to separate credible from incredible threats. A threat is credible if a country proposes unilateral action that does not decrease pay off, otherwise the threat is considered incredible and unlikely to be played.[10]

Neoclassical realism theory explicitly incorporates both external and internal variables drawn into the thought of insight of classical realist thought, as scope and ambition of a country's foreign policy is driven by the international system and relative power material capabilities. The impact of power capabilities on foreign policy is indirect and complex, because systemic pressures must be translated through intervening variables at the unit level (Gideon, 1998). Government does not behave as the traditional free riding model; now the international level can be seen as an incredible threat given domestic constraints. Schelling's conjecture holds if the home country makes the offer the domestic constraints only work to lower domestic payoff. In the Kyoto Protocol, Fredrikssin and Ujhelyi (2006) include the number of 'veto players as a variable', whereas Jensen and Spoon (2007: 580) explicitly investigate the impact of 'parties preferences' and their position in government. States are rational actors which calculate their costs and benefits for survival. The realist paradigm is concerned with the study about war and peace for security. However, only few neoclassical realists have highlighted that climate change are taken into account by the state during the domestic politics such as bargaining during the time of election. But they are still unaware of the facts that relation of military power and environments are also tangible. In addition, states also use its military power for the environmental purposes (environmental security), which are ignored by the previous realist. The environmental disaster, whether anthropogenic or natural, are concerned towards citizens and thus calculate to provide their military to either protect from disaster or to provide them first aid.[11] Example, China's military budget has outgrown its demand for self-defence – China spent USD 68.09 to protect each of its citizens on the average also in terms of natural disasters (Yuan, 2012). During the Sichuan

earthquake relief efforts. Premier Wen Jiabao had difficulty soliciting the full support of the People's Liberation Army and People's Armed Police (Defence News Report, 2015).

Evolution of climate change in China

Chinese history in relation to climate change can be traced back to as early as the era of Chairman Mao, when China sent its delegation in 1972 to a United Nations Conference on Human Environment in Stockholm (Economy Elizabeth, 2010). Mao was also aware of the resources importance – such as controlling rivers (Mandate from Heaven)[12] by gigantic dams as monuments to progress (Shapiro, 2001). The *Chinese Science Bulletin* found that from the late Tang dynasty to the Qing dynasty, 70 to 80 per cent of war activity took place in cold phases resulting into decline of productivity of land, straining of resources, and driving conflicts (Dian et al., 2005: 137). However, it is to be noted that there are some changes in policies, but the starting point of Chinese position in negotiation is the same in this juncture. The Chinese delegation in the United Nations Conference on Human Environment (UNCHE) gave emphasis to 10 points in their document, which clearly highlight the role of superpowers in the destruction of the human environment. They further elaborated that it was the imperialist aggressive nature of war that put various sanctions and destroyed the human environment.[13] Moreover, at the Rio Conference (1992), China's position was the same – developed countries are responsible for the environmental hazard – and bargained by saying that China should not talk about the responsibility for the global environmental degradation.

However, after Deng Xiaoping (1978) there was an open door policy for the economy and China started exchange with the rest of the world. In the following year, the National People's Congress approved China's first draft Law on Environmental Protection. Progressively, the second national conference on environmental protection (1984) establish the Environmental Protection Commission and formed the Environmental Protection Bureau to the National Environmental Protection Bureau. Lester Ross (1998) examined in the *Environmental Policy in China*, that it is because of the Soviet policy, guidance and ideology, the trade and international relations expanded. In 1989 China came up with its first Environmental Protection Law and the National Environmental Protection Bureau as an independent department from the Ministry of Urban and Rural Construction. This led China to actively participate in the 1992 United Nations Conference on Environment and Development at the Rio Convention.

After the Cold War, the global environment was recognised in the concept of national security. Thomas Homer Dixon found that environmental scarcity is the outbreak of armed conflict, and in the case of China unequal distribution of resources in large population may cause the country's fragmentation (Homer-Dixon, 1994). Lester Brown argues China's demand for resources has global implications, such as rising food prices, land scarcity, and water scarcity, which will affect the world entirely (Brown, 1995). Daniel Deudney says a resources war between countries is unlikely, especially between developed countries (Deudney, 1990: 474). Robert Kaplan argues that resource depletion along with urbanisation and population increase to undermining already fragile government in the developing countries (Kaplan, 2000). Some also go further to consider that war with China over carbon dioxide is unlikely. Elizabeth Economy (2004), in *The River Runs Black: The Environmental Challenges of China Future*, shows China has increased its international engagement and struggle to balance domestic concern with international responsibilities (Economy, 2004: 96).

Moreover, China has already ratified the Kyoto Protocol and has been participating in various climate conferences, showing the concern for climate change and its effects. But by 2008, only the US had not ratified. The Kyoto system classified China as a non-Annex I, which means a developing nation that is not required to set emissions caps on any greenhouse gases. However, the developing nations agreed to conduct emission measurement and submit report regularly to the UNFCCC, while developed committed to reduce greenhouse gas emissions and provide technology and funding to the lesser developed countries (LDCs).[14] Thus, the politics of climate change begins by the negotiation of accusation of who polluted more and who are responsible for the whole environmental hazard and degradation.

Domestic pressure and international negotiation

The United Nations Climate Summit held on 23 September 2014 in New York involved the major topics of reducing greenhouse gas emissions, where Vice Premier Zhang Gaoli stressed that China is committed to working with international partners to respond actively to the challenge of climate change (China Story Year Book, 2014). China cannot escape from the environmental issues where domestic politics is involved – where people are asking for justice and seeking for aid. Thus Chinese scholars started pressurising the government with its scientific studies.

Learning from the past

Learning from the past is also part of the Chinese agenda, as with the end of century of humiliation and the establishment of the PRC in 1949. At the founding moment, 'national humiliation' was linked to 'national salvation' when Mao Zedong famously declared from the Gate of Heavenly Place, 'Ours will no longer be a nation subject to insult and humiliation. We have stood up.'[15] In terms of rebellion, there were many rebellions in the past in the name of climatic issues. One of the domestic reasons which states face the most is the internal rebellion against the government. For example, one government after another in disparate parts of the former Soviet Union was swept away in what were called the 'colour revolutions'[16] – populist upheavals against old-style authoritarian regimes. Other types of revolutions are the 'Rose Revolution' in Georgia (2003), the 'Orange Revolution' in Ukraine (2004), and the 'Pink' or 'Tulip Revolution' in Kyrgyzstan (2005). In 2011, similar protests erupted in North Africa, resulting in what we called the Arab Spring (Klare, 2013). In the case of China, the study of UN climate negotiation in Durban shows that climate change will affect young people the most. Thus a group of students from China and the US, however, is trying to challenge this with a shared vision for the future (Schwägerl, 2011).

The various studies of Chinese history show that China has suffered from climate change since its dynastic era. During the Yuan dynasty (1279–1368), there were famines, droughts, and floods on the Yellow River, which resulted in a bubonic plague pandemic and other natural disasters. Millions of people died, and these disasters indicate that the Yuan dynasty had lost the 'Mandate of Heaven'. The earthquake in Shaanxi in 1556 is thought to be the deadliest natural disaster in the history of China. It is thought that approximately 800,000 people died then. The earthquake killed about 30 per cent of the people in Xian and in the first half of the 1600s; famines became common in northern China because of unusually dry and cold weather that shortened the growing season. Because of the climatic disaster economy collapse, people believed that the Ming court had lost the 'Mandate of Heaven'. Thus, the ancient political doctrine encouraged people to rebel. During the 1350s, there were almost 20 years of rebellions (China Highlights). Yasuda studies shows that during the cold period of AD 180, the Yellow Turban Rebellion[17] led to Late Han dynasty collapsed in AD 220. Suzuki (2000) concluded that the fall of the Han Empire already begun during the abnormal climate conditions in AD 100–130 (Yasuda, 2013: 450). Also the Taiping Rebellion, which nearly toppled the Qing

dynasty 50 years earlier, bears the strongest warnings for the current government which exploded out of southern China during the early 1850s in a period marked, as now, by climatic condition, economic dislocation, and corruption (Platt, 2012).

The online news magazine the *Guardian* shows that since 2008–09, incidents of heavy metal pollution have been frequent. In January, cadmium threatened the drinking water safety of 1.4 million people in Guangxi province. Jin Jiaman, minister of environmental protection, said that China had seen more than 30 major incidents of heavy metal pollution since 2009. The effects of global warming have been increasing. In the past 50 years, glaciers in north-west China shrank by 21 per cent. By 2050, glaciers in western China are estimated to shrink by about 27 per cent. Some lakes relying on melting water from glaciers are shrinking, and water shortages in Gansu, Ningxia, and other north-western areas are becoming fiercer. He elaborated that whether people can participate in the whole decision making process instead of having bargaining power when it comes to implementation will be the biggest challenge. People are becoming more and more conscious of their political and social rights (*The Guardian*, 2012).

Domestic concern and capabilities

China's leading climate change scientists stated 'it is very likely that future climate change would cause significant adverse impacts on the ecosystem, agriculture, water resources and mainly in coastal zones in China' (Lewis, 2009: 1997–98). These impacts include extended drought in the north, extreme weather events and flooding in the south, glacial melting in the Himalayas, and decreasing crop yields and rising sea levels in the highly populated coastlines. China's Special Ambassador for Climate Change Yu Qingtai stated, 'Climate Change is a fact . . . which involves the security of agriculture and food, water resources, energy ecology, public health and economic competitiveness . . . and future of earth might be impacted' (Lewis, 2009: 1997–98). Some of the scientific analyses are as follows.

In terms of rivers: precipitation may decline by 30 per cent in the Huai, Liao, and Hai River regions in second half of this century. Climate change could decrease river flow in northern China, which is already known for water scarcity, and increase in southern China, where flooding and heavy rains are a problem. Since the 1950s, the six largest rivers in China are in declining. Also 150 km^2 of cultivated land is lost annually because of desertification.

In the case of deltas: the Yellow River delta, the Yangtze River delta, and the Pearl River delta are vulnerable coastal regions. Moreover,

climate change also increases hot temperatures and increases infectious diseases like malaria and dengue fever (Lewis, 2009: 1997–98).

Since the 1950s, sea levels have also risen at the rate of 0.0014 to 0.0032 metres per year in the coastal line. Further, they will rise between 0.01 and 0.16 metres by 2030 and between 0.4 and 1 metre by 2030. A 1-metre rise in China will destroy all the cities of the coastal regions, while China's 12 coastal provinces contain 42 per cent of the population – which contribute 73 per cent of its GDP (Vanchani, 2014). In the quantitative analysis of the Yongding River (which is one of the major source of Beijing) economic growth and the increasing population demand for agriculture, industrial and domestic use. However, the result data from Yongding River basin shows that climate change is estimated to account for 10.5 to 12.6 per cent of the reduction in annual runoff, and human activities are the driving factors for climate change (Xia et al., 2014: 1794).

Young Kim argues that, as a fast-growing economy and the largest CO_2 emitter, China has a relatively higher rate of people awareness of global warming at 78 per cent, as compared to other developing countries. Also China shows a relatively higher level of public awareness of climate change (72 per cent) (Kim, 2011: 231). Climate change is not restricted to science but has also been reflected by Chinese artists. The Central Academy of Art in Beijing and Nanjing University consecutively hosted 'Unfold', a travelling exhibition of climate change, where the relationship between the character 'people' (人 *ren*) and 'nature-heaven' (天 *tian*) was also a theme in the exhibition *Landscape: the Virtual, the Actual, the Possible*[18] (China Story Year Book, 2014).

However, in 2005 former President Hu Jintao articulated a new policy titled 'harmonious society'.[19] President Hu Jintao and Premier Wen Jiabao adjusted the growth at all priority costs to deal with environment degradation. There was resistance to this idea by the elite groups in Shanghai and coastal cities who had been benefited from growth strategy. However, the Chinese Communist Party adopted the new harmonious direction. The 11th Party Plan (2006) clearly recognised that climate change could lead to social unrest when environmental disasters such as earthquakes or floods were perceived by citizens as a failure of government policy (McCarthy, 2010). In 2009, a Chinese government initiative united China, Brazil, South Africa and India in BASIC. BASIC is a collective of newly industrialised countries committed to acting jointly on climate change (China Story Year Book, 2014). This also led to formulate various action plans in china to counter the environmental problem within the larger framework of climate change.

Local Agenda 21

China was first to formulate a Local Agenda (LA21) in response to the UN Agenda 21, a framework for international sustainable development. It is for combating climate change that includes research, strengthening the emissions measurement infrastructure, and increasing efficiency in energy production and consumption, as domestic factors play an important role. Domestically, the All China Women's Federation[20] (ACWF) has been involved in the process of formulation and implementation of China's Agenda 21 and its associated priority programmes. Chinese women have taken an active part in the adoption of sustainable practices with concrete results, and Chinese women's organisations have also made substantial contributions to protecting the environment. In Benxi City, a Women's Sustainable Development Centre was set up that disseminates knowledge to rural women and helps urban women to start new careers with gender-relevant knowledge (UN Report, 1997).

National Eleventh Five-Year Plan

In 2007 the Ministry of Environmental Protection (MEP) published the Eleventh Five-Year Plan for Environmental Protection – policies to control the emission of greenhouse gases (GHGs) in each province, autonomous region, and municipality directly under the state council. However, from the Eleventh Five-Year Plan China has softened and been willing to cooperate adhering to the 'principle of common but different responsibilities'.[21] Also, the online news *Xinhuanet* shows that Xie Zhenhua, China's special representative on climate change, repeats that a 2015 deal should reflect the principles of 'common but differentiated responsibilities' (CDR) and 'respective capabilities' (*Xinhuanet*, 2015).

National climate change plan

In 2007, the 62-page document that details China's plan to mitigate and adapt to global warming was published.

The key obstacle outline is to increase the proportion of renewable energy to 10 per cent by 2010, increase extraction of coal bed methane to 10 per cent billion cubic metres, stabilise nitrous oxide emissions at 2005 level by 2010, and reduce CO_2 emissions through 20 per cent reduction of energy consumption per unit GDP by 2010. This was illustrated by the counsellor of the Chinese mission to the United Nations, Bai Yongjie, in her 2008 address to the Roundtable

on 'Environmental Sustainability of the United Nations High-level Event' on Millennium Development Goals.

International negotiation

China primarily blamed the 'north' on the historical grounds of equity in the initial climate negotiation. China also strongly opposed a legally binding emission reduction target for developing countries and emphasised the industrial countries to fund for technology and aid focusing on the rights of developing countries. China also realised the Tiananmen incident in 1989 which resulted in isolation in the 1990s. On the other hand, China opposed a new protocol on the grounds of scientific uncertainty such as 'joint implementation' programs, while crucially bargaining so that developed countries can come to the level of negotiation. Thus, China gradually changed its bargaining level with the international talk in progress in the following Conference of Parties (COPs) to the UNFCCC, paving the way for the 1997 Kyoto Protocol (Chen, 2008: 149–150).

The Kyoto Protocol is the first international legally binding treaty for industrialised nations to reduce their greenhouse emissions. China appealed to ratify the protocol after completing its domestic ratification in 2002. The Kyoto Protocol came in effect in 2005 with the requirement of 38 industrialised countries to reduce their greenhouse gas emissions between 2008 and 2012 by the level of 5.2 per cent below 1990 levels. This negotiation provided profit to China to gain diplomatic ground and also economic lucre under the Clean Development Mechanism (CBM), which helped to improve its country's domestic environment. Thus it also helped in gaining and accepting international norms of environmental protection (Chen, 2008: 150). Thus, China started focusing on the domestic part at first to negotiate in international politics.

Copenhagen

China's position on the Copenhagen Climate Change Conference in May 2009 focused on four basic principles. The principles were 'The UNFCC and its Kyoto Protocol as the Basis and the Mandate of the Bali Roadmap as the Focus', 'The Principle of Common but Different Responsibilities', 'The Principle of Sustainable Development', and 'Mitigation, Adaptation, Technology Transfer and Financial Support on the same footing and equal priorities.' China has bargained with the other negotiators (especially the US) on the grounds that developed states have different responsibilities to provide aid and technology to the LDCs.

Tianjin and Cancun

On 4–9 October 2010, the United Nations Ad Hoc Working Group on Long-Term Cooperation Action under the Convention (ANG-LCA) and the Ad Hoc Working Group on Further Commitments for Annex I Parties under Kyoto Protocol (ANG-KP) met in Tianjin. The official UN meeting was followed by G77 (BASIC). BASIC statement reiterated the constitution insistence that both COP16 in Cancun and the COP17 in South Africa should be legally binding outcome to the Bali Roadmap. After meeting in Tianjin, climate negotiator Su Wei blamed the lack of progress on a coalition of US-led countries to abolish the Kyoto Protocol.

Progressive Paris COP21 2015

In 2014 China produced 9.98 billion tonnes of CO2 per year (tCO_2/year) accounting for 28 per cent of total global carbon emissions at 36.1 billion tCO_2/year (Carafa, 2015: 9). However, the US and China announced a joint climate agreement in the Paris COP21 (2015), which limits global warming to a target of 2 degrees Celsius. On 12 November 2015, President Barack Obama and President Xi Jinping announced a bilateral agreement on climate in Beijing (Carafa, 2015:9). Shannon Tiezzi (2015) writes in an online article in *The Diplomats* that China signed climate change agreements with the US, and France submitted an Intended Nationally Determined Contribution to the UN, pledging to have emissions peak by 2030; and committed RMB 20 billion ($3.1 billion) to help developing countries deal with climate change. The recent COP21 also shows China submitted an early report with the claim of reducing emissions up to 60 per cent.

Critical appraisal and conclusion

Climate change is a slow, gradual process but the structural malaise has a debilitating effect. China has been experiencing slow progress with its side effects, where China realises that Beijing is the highest polluted city under municipality in 2015. However, it can be said that when the process of industrialisation expands in remote parts of the provinces, more pollution is seen in the country, which will not only affect China but also its neighbouring countries at large, resulting in a hostile situation because of various security reasons. China realises properly the situation of climate effect since the era of Hu Jintao when he came up with his agenda of 'harmonious society' and peaceful world.

The state according to its capabilities is acting with the international system. China was rapidly growing in economy with 10.6 per cent in 2006, while at the same time China surpassed the US in carbon emission and became the leading polluter of the world. The state capabilities justify the behaviour of the state and its action of defensiveness. China will hugely suffer in environmental factors in the future if it ignores the present scenario of climate change. The scientific investigation clearly indicates that there will be misbalances in rivers, plateaus, and coastal areas of China. This will create huge disparities and people will obviously turn rebellious, which China fears the most. But by the inclusion of non-Annex I to China, it gave an opportunity to further bargain in the international climate conferences. The Chinese government from Hu Jintao to Xi Jinping also shows the progress of government being concerned about domestic climate issues and international norms.

Neoclassical realism shows that the state is concerned about climate change negotiation according to its capabilities. China was in the economic growing phase during 2006 and was fully aware of its economic strength. When China was included in the non-Annex I, it fully supported the norms of the international system in following the rules of climate change. Leaders like Le Keqiang saying that the policies of state have to change from the 'war on terror' to the war on pollution, where state perceptions are to deal with the environment as the primary concern. This clearly indicates that the negotiation has benefited China in many ways, such as playing the leadership role in less developed countries, and to challenge the developed countries to directly bargain before witnessing a future climate catastrophe.

Lastly, nuclear green energy gives the only alternative to nuclear states to fight against climate change issues. In comparison, even in 2040 under its most optimistic scenario, the International Energy Agency (IEA) estimates just 2.2 per cent of energy will come from wind and solar. Today almost 80 per cent comes from fossil fuels. Green energy, which is 17.8 per cent (nuclear, etc.), is more expensive than fossil fuels. However, instead of pouring money in inefficient wind and solar energy, it would be far better off supporting research and development of green energy technologies to make them cheaper and faster. The International Atomic Energy Agency agreed at COP21 2015 to work towards the use of innovative solutions for the efficient production of energy through nuclear material. China, being one of the nuclear states, can focus on environmental security instead of diverting towards the hard-core nuclear security issues to be one of the leading environmental states.

Notes

1 A 'global climate regime' is a global framework which aims to regulate the interaction of human activity with the global climate system to mitigate global climate change.

2 The term 'war on terror' was first coined by US President George W. Bush to fight against the terrorist state after the 9/11 attacks. However, the Chinese leader borrowed the concept towards addressing the climate issues of China. See: www.reuters.com/article/us-china-parliament-pollution-idUSBREA2405W20140305

3 The ratification model is important for political decision making. The outcome of an international negotiation over climate protection is not the end of the game. Government still needs to secure 'ratification' of the agreement within its own country, and ratification on the domestic level is not a minor outcome when multiple interests exist in a country. See Putnam (1988).

4 The research on sustainability shows that cutting black carbon and methane emissions would slow the rate of warming up until about 2040. The study was supported by the UN Environment Programme, the World Meteorological Organization, and the Stockholm Environment Institute. Chemicals like methane are precursors to ozone because they are emitted by the same processes like biomass burning that produce black carbon. Like black carbon, methane and ozone are potent albeit short-lived greenhouse gases. Black carbon, for example, lingers in the atmosphere for weeks, compared to carbon dioxide, which can last for centuries to millennia. All these can damage human health, while ozone can lower crop yields. See: www.scientificamerican.com/article/cutting-black-carbon-methane-immediate-climate-change/

5 Common Challenge, Collaborative Response: A Roadmap for U.S.-China Cooperation on Energy and Climate Change shows a scientific consensus that human-induced climate change is well underway and poses grave economic and environmental risks to the world. See: http://e360.yale.edu/images/features/us-china-roadmap.pdf; see also: annual issue of Human Activity and the Environment www.statcan.gc.ca/pub/16-201-x/16-201-x2007000-eng.pdf

6 Process tracing is a method used to evaluate and develop theories in psychology, political science, or usability studies. In process tracing studies, multiple data points are collected in comparison to simple input-output methods, where only one measurement per task is available.

7 Robert Putnam (1988), in *Diplomacy and Domestic Politics* pp. 430, 431, 438, emphasises the two-level game, i.e. domestic and international pressure faced by the state in foreign policy decision making.

8 The Strategy of Conflict, Thomas Schelling (1960) suggested what Helen Milner (1997: 68) has called the 'Schelling conjecture': in international negotiations, the ability of a negotiator to credibly say to his or her counterpart that 'anything we sign here has to be ratified by my country's legislature' provides a bargaining advantage that this person would not otherwise have. Schelling wrote, 'Something similar occurs when the United States Government negotiates with other governments on, say, the uses to which foreign assistance will be put, or tariff reduction. If the executive branch is free to negotiate the best arrangement it can, it may be unable to make any position stick and may end by conceding controversial

points because its partners know, or believe obstinately, that the United States would rather concede than terminate the negotiations. But, if the executive branch negotiates under legislative authority, with its position constrained by law . . . then the executive branch has a firm position that is visible to its negotiating partners.' See: www.nyu.edu/gsas/dept/politics/seminars/tarar.pdf

9 United Nations Framework on Climate Change list of non-Annex I. See: http://unfccc.int/parties_and_observers/parties/non_annex_i/items/2833.php

10 Stephan Kroll and Jason F. Shogren, in an edited volume *The Politics of Climate Change: Environmental Dynamics in International Affairs*, highlight the key approach to sustainable knowledge with the separation incredible threat out of credible threat. The government is constrained by the credible threats but is unfettered by the incredible threats.

11 The state's main concern is security whether it is in the form of military guard or in the form of aid. This concept adds to the scholarship of realism that the state plays an important role in the form of environmental security.

12 The Zhou dynasty created the Mandate of Heaven with the idea that there could be only one legitimate ruler of China at a time and that this ruler had the blessing of the gods. They used this mandate to justify their overthrow of the Shang and subsequent rule.

13 The premise of Chinese foreign policy starts from the national humiliation caused by the imperialist power.

14 A least developed country (LDC) is a country that, according to the United Nations, exhibits the lowest indicators of socioeconomic development, with the lowest Human Development Index ratings of all countries in the world. For a list of LDCs, see: www.un.org/en/development/desa/policy/cdp/ldc/ldc_list.pdf

15 Fox Butterfield's (1976) article, 'Mao Tse-Tung: Father of Chinese Revolution', was published in the *New York Times* on 10 September 1976, showing the patriotic slogan of Mao in mobilising the masses.

16 The colour revolution (sometimes called the coloured revolution) is a term that was widely used by worldwide media to describe various related movements that developed in several societies in the former Soviet Union and the Balkans during the early 2000s. Those revolutions toppled the governments by either demanding a new regime or by rebelling against the current regime.

17 'The Yellow Turban Rebellion', also translated as the 'Yellow Scarves Rebellion', was a peasant revolt in China against the Han dynasty. The uprising broke out in the year 184 during the reign of Emperor Ling.

18 Those arts bring consciousness that people are aware of the changing nature of climate in china and its world.

19 'Harmonious society' (*hexie shehui*) is a concept that was introduced by President Hu Jintao of the People's Republic of China (PRC) as a vision or objective for the country's future socioeconomic development.

20 The All-China Women's Federation (ACWF), formerly the All-China Democratic Women's Foundation (1949–57), and the Women's Federation of the People's Republic of China (1957–78), the official state-sponsored organisation representing women's interests in the People's Republic of China (PRC). Founded on 3 April 1949, the basic mission of the ACWF is to represent and safeguard the rights and interests of women and promote gender equality. ACWF is under the direct supervision of the Chinese

Communist Party (CCP) committee at its own level. See also: www.britannica.com/topic/All-China-Womens-Federation

21 The principle of 'common but differentiated responsibility' evolved from the notion of the 'common heritage of mankind' and is a manifestation of general principles of equity in international law. This is one of the starting points of Chinese negotiations in climate change issues. See: http://cisdl.org/public/docs/news/brief_common.pdf. The principle of Common but Differentiated Responsibility (CBDR) is one of the cornerstones of sustainable development. It emerged as a principle of International Environmental Law and was explicitly formulated in the context of the 1992 Rio Earth Summit. It finds its origins in equity considerations and equity principles in international law. It informs in particular the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol. See also: www.eoearth.org/view/article/151320/

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