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Between a Rock of Global Security and a Hard Place of Domestic Growth:

China's Role in Climate Action as an Unsuspected Norm Maker

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ABSTRACT

Climate change has been a contentious issue in international politics, and academic and scientific communities. Its progressive move into the sphere of "high politics" has paralleled a structural shift in the global centres of power, especially towards the emerging economies of China, India, Brazil, and South Africa. Among them, Beijing is playing an increasingly pivotal economic, political, diplomatic, and military role.

In this context, as climate change has emerged as a major policy issue in national and international security affairs, an increasing number of countries have started to urge China to take on binding emission reduction commitments commensurate with its level of economic development. They have used international climate change negotiations (ICCN) to pressure Beijing and criticize its climate change policy as inadequate. While criticism has not died down entirely, critics have to contend now with China's apparently evolving behaviour.

Beijing's response to this international pressure has been twofold. On the one hand, it has anchored its negotiating position in ICCN to the principle of "common but differentiated responsibilities" (CBDR), thereby claiming its developing country identity and rights. On the other hand, China has progressively switched, at both domestic and international levels, from a predominantly reactive role of a recipient of criticism and policy demands to one of proactive engagement in environmental protection, climate change policies, and ICCN. Thereby, it has become an unavoidable player in global environmental governance.

This research investigates the driving forces behind China's increasing engagement in global environmental policy and, ultimately, Beijing's shift to a leading role in global environmental governance. It addresses the ostensibly puzzling change in China's behaviour from "norm taking" to "norm making". My argument is that China's unfolding engagement arises from a changing self-perception and identity shift from a recipient of international norms and expectations to a global norm entrepreneur and leader of the "global South" who also sees economic, technological, political, and diplomatic benefits in environmental and climate change reforms. Ultimately, I argue that Beijing's strategic pursuit of material gains and new reputation has been enabled and reinforced by its identity transformation.

To address the research question and substantiate the core argument, a threefold document, literature, and discourse-analysis approach has been employed. It has been used to investigate the evolution of China's environmental policy at domestic and international levels. To examine and substantiate the hypothesized norm-making evolution, this study has tied its dynamics to underlying shifts in China's collective social identities along a number of key and interconnected dimensions. Moreover, this course of analysis has been enabled by a critical use of International Relations (IR) theories. In analysing which IR theory could best explain China's evolving behaviour in global environmental governance, this research argues that limitations of realist and liberal theories call for a more sociological and identity-based contribution. Therefore, by drawing on a set of social constructivist ideas, this study shows how China has used diplomacy, clean energy research, development aid, and South-South Cooperation and its own understanding of soft power to secure broad political support within the global South for its climate change and development policy in relevant international forums. Thereby, China has progressively strengthened its normative power and, accordingly, framed the global debate on climate change as a subject of North-South politics.

By utilizing a social constructivist lens, this research makes a combined theoretical and empirical contribution to interpretive, constructivist, and sociological-organizational accounts of great power behaviour, power transition, and institutional participation – areas of study traditionally dominated by the 'neo-neo debate' in International Relations.

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LIST OF ABBREVIATIONS AND ACRONYMS

ADB	Asian Development Bank
AIIB	Asian Infrastructure Investment Bank
CASS	Chinese Academy of Social Sciences
CBDR	Common but Differentiated Responsibility
CCDMF	China Clean Development Mechanism Fund
CCP	Chinese Communist Party
CCPIT	China Council for the Promotion of International Trade
CCTV	China Central Television
CDM	Clean Development Mechanisms
CMA	China Meteorological Administration
EPL	Environmental Protection Law
FOCAC	Forum on China-African Cooperation
FYP	Five Year Plan
GCF	Green Climate Fund
GDP	Gross Domestic Product
GEF	Global Environmental Facility
GHG	Greenhouse gas
GNI	Gross National Income
ICCN	International Climate Change Negotiations
IEA	International Energy Agency
IMF	International Monetary Fund
INDC	Intended Nationally Determined Contributions
IPCC	Intergovernmental Panel on Climate Change
JI	Joint Implementation
LDCs	Least Developed Countries
MoFA	Ministry of Foreign Affairs
MOST	Ministry of Science and Technology

NCCCC	National Coordination Committee on Climate Change
NDB	New Development Bank
NDRC	National Development and Reform Commission
NIEO	New International Economic Order
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
OSCE	Organization for Security and Co-operation in Europe
PBoC	Peoble Bank of China
PRC	People Republic of China
RTP	Responsability to Protect
SCIO	State Council Information Office of the People Republic of China
SEPA	State Environmental Protection Administration
SSC	South South Cooperation
SSCF	South South Cooperation Fund
UNCED	United Nations Conference on Environment and Development
UNCTAD	United Nations Conference on Trade and Development
UNEP	United Nations Environmental Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNGA	United Nations General Assembly
UNSC	United Nations Security Council
WB	World Bank
WCED	World Commission on Environment and Development
WMO	World Metereological Organisation

Chapter I: Introduction

The aim of this chapter is to present the topic of research to the reader. It focuses on China's role in international climate change negotiations (ICCN) in light of both the climate change securitisation debate and China's broader rise to power in international affairs.

1.1   Climate Change, Sustainable Development and International Security

In the post-Cold War era, a new understanding of the concept of security began to emerge and non-traditional threats to security, such as economic decline, social and political instability, and international terrorism, as well as environmental stress, were incorporated into the concept of security (Homer-Dixon, 1991; Slantchev, 2009). Since then, a great deal of research has focused on the relationship between environment and security. Consequently, environmental security has become one of the "new" non-traditional security issues that have served to deepen and broaden the concept of security (Collins, 2007: 182; Freeman and Hill, 2007).

Scholars of environmental security argue that if environmental change is a potential source of destabilisation and conflict, and if societies face dangers from environmental change, then security policies must be redefined to account for these threats (Conca & Dabelko, 1998). Within this debate, climate change has emerged as a major issue in national and international security affairs. This is mostly due to the increasing evidence of climate change effects in many regions of the world and medium-term forecasts of extreme weather events with greater frequency and intensity (IPCC, 2007).

Within the scholarly framework of environmental and security studies[1], the threats posed to global security by a changing climate are conceptualised mainly in two ways. First, climate change could threaten international security through the direct impact of rising sea levels, extreme weather events, and other climate change consequences such as droughts or floods. A one-meter sea level rise is likely to adversely impact the economy and infrastructures of virtually every costal city in the world. Increasing temperatures may also facilitate the spread of disease and result in crop losses. Such phenomena threaten the survival and well-being of people as well as the territorial integrity of states, even in the absence of conflict (Scott & Andrade, 2012).

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[1] See Chapter IV for further details.

The second way in which climate change could represent a threat to global security is through the exacerbation of already existing tensions in those countries already facing a high risk of political instability due to social, economic, and political instability. In this conceptualisation, climate change acts as a threat multiplier. In fact, climate change interacting with a number of other socio-economic factors could contribute to an increasing potential for insecurity and conflict[2].

In the course of the 2000s, a range of speeches, reports, and media articles were released, warning about climate conflicts over resource scarcity, about chaos caused by mass climate migration, and about border disputes over changing landscapes (Boas, 2014). While such ideas were present from the early 1990s[3], this "alarmistic" approach to climate security newly emerged in policy circles after the turn of the millennium. This approach has been largely supported by the US government, and is particularly reflected in the growing involvement of the military and the security community in the environmental security debate in the aftermath of the Cold War. In 2002, on the eve of the World Summit on Sustainable Development, Colin Powell, the former US Secretary of State, stated that:

> "*Sustainable development is a compelling moral and humanitarian issue, but it is also a security imperative. Poverty, environmental degradation, and despair are destroyers of people, of societies, of nations. This unholy trinity can destabilise countries, even entire regions*" (UNEP, 2002).

A 2003 US Department of Defense report, commissioned by Andrew Marshall, one of the most influential US foreign policy strategist who served as director of the United States Department of Defense's Office of Net Assessment from 1973 to 2015, claimed that climate change could lead to violent conflict (Schwartz & Randall, 2003). A few years later, in 2007, a report commissioned by the Pentagon to the CNA, a nonprofit research and analysis organisation located in Arlington (VA), advised the US Government to fully integrate the consequences of climate change in national security and national defense strategies (CNA, 2007). The study, *National Security and the Threat of Climate Change*, conducted by a

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[2] See: Myers, 1986, 1989, 1993; Deudney, 1990, 1991; Rowlands, 1991; Shaw, 1996; Deudney and Matthew, 1999; Murphy, 1999; Barnett, 2001, 2001a, 2003; Dalby, 2002, 2002a, 2009, 2009a; Schwartz & Randall, 2003; CNA, 2007; UNEP, 2007; Scott, 2008; UNGA, 2009; US Joint Forces Command, 2010; US Naval Studies Board, 2011.

[3] For older debates on environmental degradation and conflict, see, for example, the *State Failure Task Force Project* - Etsy et al. 1994 - and Homer-Dixon, 1991, 1994, 1999.

military advisory board of retired US admirals and generals and released in April 2007, explores ways in which climate change acts as a "threat multiplier" in already fragile regions of the world, creating breeding grounds for extremism and terrorism. The report, moving beyond the arguments about the causes and effects of climate change, stressed the importance for the US military to start planning to address the potentially devastating effects of a changing climate (CNA, 2007).

Furthermore, the scientific findings of the 2007 Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report contributed to strengthening the link between climate change and security, highlighting that climate change represents one of the most serious threats to international security and the well-being of human kind. The Nobel Prize awarded to Al Gore and the IPCC in October 2007 has significantly contributed to the understanding of climate change as a security risk. In announcing the award, the Norwegian Nobel Committee called climate change both a fundamental threat to human well-being and a contributing factor to more traditional violent conflict.

As of 2007, the issue has also been acknowledged by the United Nations (UN); debates took place at the UN Security Council in 2007, 2011, and 2013 over the link between climate change and security. In 2009, the United Nations General Assembly (UNGA) adopted a first resolution on the possible security implications of climate change (UNGA, 2009). In 2011, the Security Council issued a Presidential Statement recognising that climate change may aggravate certain existing threats to international peace and security. As explained by UN Secretary General Ban Ki-moon "the facts are clear: climate change [...] not only exacerbates threats to international peace and security; it is a threat to international peace and security" (UNSC, 2011).

In this framework, a *language of security* has pervaded the *discourse on climate change*, and a number of actors from the political, academic, and public spheres now classify climate change as a threat to security, following a clear path to the securitisation of environmental issues and, more recently, climate change itself. While this process is an attractive strategy (given the extraordinary responses it implies) that could be used to raise awareness about the severe effects of climate change, it would place the debate in a political context that is dominated by security institutions designed for completely different types of threats (Buzan, 1998). As a consequence, climate change would turn into a military problem and not a political one, dramatically narrowing the field of actions and the policy choices available.

Today, climate change is widely perceived to be one of the greatest threats of the twenty-first century and, at an international level, climate change has been identified as a growing threat

to governance and a force capable of exacerbating already existing conflicts. The inclusion of climate change in the US Department of Defense's 2014 Quadrennial Defense Review and the 2015 National Security Strategy acknowledged climate change as a crisis capable of limiting the United States' capacity to respond to international events and maintain a strong security posture. Therefore, while there has been some resistance to conceptualising this phenomenon in terms of "security", it seems that an apparent global consensus about the close association between climate change and national security has been achieved in Europe and in the United States (Freeman, 2010)[4].

Like the broader field of security studies, approaches to environmental security are diverse and reflect many theoretical perspectives. Since the early 2000s, however, the security focus has been dominated by state-centric approaches, which interrogate the implications of environmental degradation in the *global South* for security of states in the *global North* (Swatuk, 2004), an argument described by many critics as 'Malthusian' or 'neo-Malthusian[5]' (Dalby, 2002a). This approach faces a severe opposition from several developing countries and emerging economies[6], such as Brazil, India and, above all, the People's Republic of China. They argue that climate change is essentially a development issue and not a security one, and that it should be tackled accordingly.

When in April 2007 the United Nations Security Council held its first ever debate on the security implication of climate change, the Group of 77 (G77)[7] and China sent a letter to the President of the Council expressing their concerns regarding the Security Council's

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[4] See Chapter IV for more details.

[5] Thomas Robert Malthus was the first economist to propose a systematic theory of population in his 1798 *Essay on the Principle of Population*, where he argued that human populations grow exponentially while food production grows at an arithmetic rate. This scenario of arithmetic food growth with simultaneous exponential human population growth predicted a global crisis in which humans would have no resources to survive on. Neo Malthusian theorists share this premise but their notion of crisis encompasses more than the disproportionate relation between demographic growth and food production, including also an imbalance between rates of mineral and fossil resources consumption and the planet's finite capacities.

[6] Like other attempts at country classification, the term "rising power" is controversial, competing partly with designations including emerging economies, middle-income countries, medium-sized powers or regional powers (see: Paul, 2016; Scholvin, 2014; Manicom & Reeves 2014). The language of "BRICs" and of "rising" or "emerging" powers took off from the early 2000s. Since then, both popular commentary and a great deal of political rhetoric has focused on the emergence of new powers. See: O'Neill, 2001; Hurrell & Sengupta, 2012; Tank, 2012; Stratfor, 2012; Stuenkel, 2015.

[7] The Group of 77 (G-77) was established on 15 June 1964 by seventy-seven developing countries signatories of the "Joint Declaration of the Seventy-Seven Developing Countries" issued at the end of the first session of the United Nations Conference on Trade and Development (UNCTAD) in Geneva. The Group of 77 (which now has 134 members) is the largest intergovernmental organisation of developing countries in the United Nations, which provides the means for the countries of the South to articulate and promote their collective economic interests and enhance their joint negotiating capacity on all major international economic issues within the United Nations system, and promote South-South cooperation for development.

involvement in matters of climate change. In the letter, they argue that focusing on the linkages between climate change and security would only divert attention and distract resources from the main goal, which is the achievement of sustainable development. In addition, some developing countries and, above all, leading emerging economies - namely the BRICS (Brazil, Russia, India, China and South Africa) - fear the "green imperialism" of the developed world and the risk of interference in their own security agendas. In fact, the recognition that climate change threatens international peace and security raises the possibility that the Security Council could undertake active steps to counter the threat.

From a "southern perspective", environmental security is mainly perceived as a discourse about the security of northern countries, their access to natural resources, and the protection of their pattern of consumption (Shiva 1994; Dalby 1999; Barnett 2001). The German Advisory Council on Global Change has, for instance, produced a map visualising the "hotspots" of climate migration. All of these hotspots are located in the global South, notably in Asia, Latin America, and Africa (German Advisory Council on Global Change, 2007: 4). This tends to give the global South a stereotypical image of a vulnerable and dangerous actor that can weaken the stability and prosperity of the global North (Hartmann, 2010; Oels, 2012; Boas, 2012, 2014; Bettini, 2013).

In this regard, within the growing international debate on environmental security, scholars, pundits, and politicians have started to issue warnings on potential resource wars between the global North and the global South, emphasising, among other examples, the increasing Chinese demand to fuel its impressive economic growth. China's increasing quest for natural resources and its opposition to the climate security paradigm have fueled the Western-based narrative, which pictures China as the climate villain in international environmental governance. In this framework, the securitisation of environmental issues with the development of the climate security paradigm can be read as a strategy to slow down or, at least, to interfere with China's impressive economic growth. As argued by Gupta and Dutta, the West's agenda appears to be to use the security dimension of climate change to force the developing world to fall in line on climate change negotiations and pressurise them on governance-related issues (Gupta & Dutta, 2009: 36). Research shows that some Western actors, such as the UK government and the EU, have indeed used warning messages about climate conflict and mass migration to raise the urgency of climate action among countries, like China or India, not yet subjected to binding mitigation targets (Boas, 2012; Mayer et al. 2013).

In parallel, international climate talks - which were initially developed solely within the scientific arena - shifted from the level of *low politics* to that of *high politics*, and climate change evolved from an environmental concern to a matter of geopolitics. Since 2007, it has become a major agenda item at the European level, a top priority of the G-8 Summit, and both the United Nations Security Council and the UN General Assembly placed it high on their agendas (Oberthür and Roche Kelly, 2008).

Within the scientific community, there is a general and common understanding that to stop, or, at least, to slow down the process of global warming, the only feasible solution is to reduce greenhouse gases emissions (GHG) or remove them from the atmosphere. In this context, the focus has been placed on climate change mitigation and adaptation measures designed to reduce the negative effects of global warming. Both mitigation and adaptation measures, however, have been difficult to agree upon politically and to implement because the burning of fossil fuels is integral to the provision of energy for modern society. Bringing about the necessary transformations in infrastructure and lifestyles constitutes, therefore, the global governance challenge of our era.

To date, the main vehicle by which climate change has been addressed at the global level has been through multilateral treaties, namely the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol (Scott & Andrade, 2012). When, after almost fifteen years of international negotiations, the Kyoto Protocol finally entered into force in February 2005, it was celebrated as a great achievement for international environmental cooperation. However, although Kyoto can be argued to have been a step forward for climate diplomacy, on a practical level, it has had a limited impact on the current pace of global warming (Hamilton, 2014). According to a large number of developed countries led by the US, the major impediment of the Kyoto Protocol was the uncompromising position of developing countries and emerging economies, above all China, to commit to any binding, international carbon emissions reduction targets, on the basis of the Principle of Common but Differentiated Responsibility (CBDR). In fact, the Kyoto Protocol did not call for binding commitments from developing countries, which were only needed to report their emissions in respect of the CBDR. On the other hand, according to the G77, the real impediment for the achievement of the Kyoto Protocol targets has been that developed countries failed to comply with their obligations under the CBDR principle, as incorporated into both the UNFCCC and the Kyoto Protocol.

The tension among the different and competing interests of developed and developing countries reached its peak at the 2009 fifteenth session of the Conference of the Parties (COP

15) in Copenhagen. At the meeting, this tension was clearly summarised in the sharp division between the two negotiating fronts, led respectively by the US and China, which embody the opposite and conflicting positions of the global North and the global South. While both sides agree on the reality of climate change as currently unfolding, their perspectives on it are opposite. On one side, the global North focuses on the necessity to limit GHG and having all countries commit to binding emission reductions according to their level of economic development. This should purportedly be done in order to avoid the potentially catastrophic consequences of climate change. Conversely, the global South approach is centered on the concept of sustainable development and argues that the efforts of developed countries and international organisations should be placed on policy responses required for climate change mitigation and on adaptation measures designed to reduce the negative effects of global warming. This approach is coherent with the findings of the 1987 Brudtland Report which stated that:

> '*Few threats to peace and survival of the human community are greater than those posed by the prospects of cumulative and irreversible degradation of the biosphere on which human life depends. True security cannot be achieved by mounting buildup of weapons (defense in a narrow sense), but only by providing basic conditions for solving non-military problems which threaten them. Our survival depends not only on military balance, but on global cooperation to ensure a sustainable environment*' (WCED, 1987).

Emerging economies hold the developed world responsible for the bulk of historical emissions and for having "colonised" emissions space (Mattoo & Subramanian, 2013: 5), which, in the framework of the efforts to achieve the common agreed target of limiting temperature rise to 2°C, could de facto hamper their growth and development prospects. In fact, applying binding emission reductions to all countries according to their level of economic development will immediately eliminate any possibility of emerging economies supporting their fast economic growth and of developing countries lifting their citizens out of poverty. Indeed, at least for the foreseeable future, under current technology conditions, any emission reduction would entail dramatic economic costs for emerging economies given their need for massive expansions in energy, transport, and urban structure (Ma, 2010; Chen, 2012).

Taking the floor at the 2009 Copenhagen Summit, former Chinese premier Wen Jiabao stated that:

"*The principle of common but differentiated responsibilities represents the core and bedrock of international cooperation on climate change and it must never be compromised. Developed countries account for 80% of the total global carbon dioxide emissions since the Industrial Revolution over 200 years ago. If we all agree that carbon dioxide emissions are the direct cause for climate change, then it is all too clear who should take the primary responsibility. Developing countries only started industrialization a few decades ago and many of their people still live in abject poverty today. It is totally unjustified to ask them to undertake emission reduction targets beyond their due obligations and capabilities in disregard of historical responsibilities, per capita emissions and different levels of development. Developed countries, which are already leading an affluent life, still maintain a level of per capita emissions that is far higher than that of developing countries, and most of their emissions are attributed to consumption. In comparison, emissions from developing countries are primarily survival emissions and international transfer emissions. (…) Action on climate change must be taken within the framework of sustainable development and should by no means compromise the efforts of developing countries to get rid of poverty and backwardness*" (MoFa, 2009; Xinhua, 2009).

Considering the linkages of climate change with global strategic issues such as energy security, water security, food security, and therefore its relevance in terms of political stability, climate change policy may act as a major 'game-changer' in international relations. In fact, the evolution of a climate change regime based on the Chinese approach which emphasises the development aspect of climate change in opposition to the Western approach, built on a narrow focus on emission reductions, may shape an alternative vision in global climate governance, bringing a new perspective to the international climate change debate[8].

China, which plays an important role in the current ICCN, as it represents the interests of developing countries through the mechanism of the G77 and China, is working to promote an approach on global environmental policy based on the understanding of climate change as a socio-economic development issue towards the development of a low carbon economic model of growth. Accordingly, Beijing has developed a growing number of national policies and programs in recent years aimed at stabilising CO_2 emissions without undermining its development objectives. In this framework, China's role in the global fight against climate

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[8] See Chapter VII for further details.

change has increasingly become an issue of international attention, above all, by an increasing number of emerging economies and developing countries.

The challenge of climate change arises in parallel to a far reaching shift at the centres of power of the political world order, especially towards the major emerging economies of Brazil, South Africa, India and China (the so-called BASIC countries). Hence, my analysis will focus on Chinese climate change policy and its repercussions on global environmental governance.

1.2 Research Question

As climate change has emerged as a major policy issue in national and international security affairs, an increasing number of developed and developing countries alike have pressed China to take on binding emission reduction commitments commensurate with its level of economic development. This has largely taken place in the framework of ICCN, and the reaction of Beijing to this increasing pressure has been twofold. On the one hand, China has become entrenched in its non-negotiable position, underlining that: (1) climate change should be dealt with in the framework of sustainable development rather than security policy; and (2) it would be irresponsible for China to engage in binding commitments while it is still struggling with poverty and underdevelopment in many of its provinces. On the other hand, since the late 1990s, Beijing has progressively switched, both at national and international levels, from having a passive role to active engagement in environmental protection and climate change policies, thereby becoming an unavoidable player in global environmental governance (Liang, 2010; Barbi et al., 2016).

Does this shift mean that China has been socialised and integrated into the Western-led global governance system, whereby it would be seen as a responsible stakeholder internationally? This dissertation's response is a contingent one. China is not socialised into climate change politics in the way advocated by the large majority of developed countries of the global North. The "Northern" discourse of climate change politics was characteristically summarised by Robert Zoellick, former US Deputy Secretary of State, in his 2005 speech before the national committee on US-China relations:

> *"For the United States and the world, the essential question is - how will China use its influence? To answer that question, it is time to take our policy beyond opening doors to China's membership into the international system: we need to urge China to become a responsible stakeholder in that system"* (Zoellick, 2005: 6-7).

Therefore, the central research question posed here is: What has driven China's shift in environmental and, ultimately, climate change policy from a generally cautious and defensive attitude towards a leading role in global environmental governance?

I argue that China's active engagement in global environmental politics arises from a self-perception and identity shift from *recipient of international norms* to *global norm entrepreneur*. Arguably, this shift has been based on three main interconnected elements.

First, China's self-perception in the international political-economic system has progressively evolved over the past three decades into one of a leading developing nation within the global South. A second shift refers to China's concerns over the growing economic, social, and political costs of its environmental degradation and pollution, mostly due to its impressive economic and industrial development based on fossil fuels. Finally, a third element of this identity shift is related to China's increasing concerns over its energy security.

Since Deng Xiaoping launched the process of reform and opening to the world in the late 1970s, the fundamental declarative goal of China's diplomacy has been to create a stable and peaceful international environment to support its economic development. In parallel with its increasing economic, political, and diplomatic interaction with the international society, a central topic of discussion for many constructivist international relations scholars (Qin, 2011) has been the potential impact of such interactions on China's identity[9]. Nowadays, the pressure for change comes from domestic and international fronts, both of which contribute to sparking debates over China's identity.

1.2.1 The First Element of China's Identity Shift: China Opening Up to the World

As for the first element of China's shifting identity, early Chinese participation in global environmental governance was mainly characterized by Deng Xiaoping's foreign policy doctrine of "keeping a low profile and never tak[ing] the lead". The main objective of China's foreign policy was to create conditions that were advantageous for its economic development in the framework of national sovereignty and security. After joining the UN in the early 1970s, China slowly entered the global institutional order, and, according to David Shambaugh,[10] this process passed through four broad phases of system challenger, system studying, system exploitation, and system altering (Shambaugh, 2013: 133).

Initially, Beijing's approach was characterised by an attempt to challenge the existing order that had excluded China's participation in global governance institutions over the previous two decades. In the framework of ICCN, this was reflected by the large degree of suspicion

9 Scholars who have attempted to study China's identity include: Yong Deng, 2000: 41-70; Anne F. Thurston, 2001: 149-172; Zheng Shiping, 2001: 203-226; and Qin Yaqing, 2010: 249-270.

[10] In 2015, researchers at the China Foreign Affairs University named David Shambaugh the second most influential China expert in the United States behind David Lamptom, Professor at the Johns Hopkins School of Advanced International Studies. See: http://sinosphere.blogs.nytimes.com/2015/03/15/q-and-a-david-shambaugh-on-the-risks-to-chinese-communist-rule/?_r=0 [accessed 30 November 2016].

Beijing attached to any proposals from developed countries, such as the flexible mechanism of the Kyoto Protocol, which were considered tools for "environmental imperialism" by a few political elites and climate policy makers (Yu, 2008: 75). In parallel with its integration into the international institutional order, Beijing progressively learned how to play by the system's rules, and its presence and voice grew accordingly (Shambaugh, 2013: 134). After a phase of passive but rather cooperative participation[11], China gradually saw international environmental cooperation as a valuable diplomatic way to promote its own foreign policy goals as well as to defend its sovereignty, protect its strategic interests, and enhance its international image.

Since joining the United Nations in 1971, China has ratified more than fifty multilateral environmental agreements and its national climate change policy has been developed in parallel with the evolution of the UNFCCC, which was ratified by China in 1993. In this framework, over the past two decades, it has progressively achieved a central role within the global South, and it has been successful in building large coalitions in support of its stances, becoming a key player in climate change diplomacy. At the same time, in parallel with its international engagement since the early 1990s, China has begun adopting a number of policies and undertaking several actions to address climate change in its national legislation. These policies and measures come in response to concerns about several interrelated issues, including climate change, energy efficiency, air pollution, long-range planning, and international opinion (Downie et al. 2009, 105).

Since 2005, through the process of reform and opening, China has made staggering progress in building its economy; becoming the world's factory while successfully fighting poverty at home. Gross Domestic Product (GDP) growth has averaged a rate of about 9% a year; the fastest sustained expansion by any major economy in history, and has lifted more than 800 million people out of poverty. With a population of 1.3 billion, China is the second largest economy and is increasingly playing an important and influential role in development and in the global economy[12]. From 1990 to 2013, the Gross National Income (GNI) per capita based on purchasing power parity increased almost 12 times from 1,010 US dollars to 11,850 US dollars, extreme poverty (living under 1.25 dollar/day) was reduced from 60% to 6% (as of 2011) of the population (WB, 2015), and the Human Development Index (HDI) hiked from

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[11] China was the first among the five permanent members of the UN Security Council to sign the UNFCCC Treaty, and the 10th earliest state-party to join the convention (Yan & Xiao, 2010).

[12] World Bank, China overview: http://www.worldbank.org/en/country/china/overview [accessed 20 March 2017].

0.49 to 0.73 (UNDP, 2014). Reflecting on this economic success, intellectuals and policy-makers in China have been asking, "What comes next"? How can China convert this new economic power into enduring political and cultural influence? (Callahan & Brabantseva, 2011: 2).

The challenge of climate change has coincided with a long-term shift in the global balance of power, especially towards the major emerging economies of Brazil, South Africa, India, and China, whose individual statuses in world affairs have grown progressively in recent years. The Copenhagen Climate Summit has been used as a "vignette" to capture this power shift with the perception that geopolitical power has moved towards major emerging developing countries, such as China, India, South Africa, and Brazil (Hurrell & Sengupta 2012; Jacques, 2012). The four BASIC countries share aspects of a common Third World and postcolonial identity, have been aligning with one another since the turn of the millennium in several policy areas, and, above all, have jointly demanded more of a say in international institutions (Hallding et al., 2013).

Therefore, I argue that the new leading role of the PRC in global environmental policy should be analysed in the framework of China's economic, as well as political, rise at the international level. In fact, as Terhalle and Depledge put it, the complex politics of climate change cannot be properly understood without reference to deeper geopolitical trends in the wider international system (Terhalle & Depledge, 2013). The political, economic, and military rise of China has changed the balance of power between the global South and the global North, as well as the mutual perceptions among their national leaderships. This new geopolitical context has been reflected in Global Environmental Governance. The 2009 Copenhagen climate summit is frequently framed as a political earthquake for global climate diplomacy (Backstrand & Elgstrom, 2013: 1377), where emerging economies – looking for an international political dimension congruent with their increased economic relevance in world affairs – exercised their newly achieved international economic role to safeguard their own national priorities and interests. This trend emerged very clearly and was strengthened in the aftermath of the financial crisis.

In this context, leaving behind Deng Xiaoping's policy "hide brightness, cherish obscurity", even some Chinese policy analysts began discussing China's rise as a world power, arguing that the United States had begun an inevitable decline that would leave room for China at the top of the global "pecking order" (Economy, 2014). Fu Mengzi claims that US power projection peaked in 2000, and has been declining ever since, partially inhibited by Iraq and Afghanistan. "It is just that the financial crisis has made it seem more and more obvious"

(Dyer, 2009). China's challenge to Euro-American dominance in international politics became even sharper just after the 2008 Olympic Games, when the global financial crisis erupted in the United States in September. Many Chinese analysts and commentators thus see not just the rise of China, but also the fall of the West (Callahan & Brabantseva, 2013: 3).[13]

Since 2010, the long-discussed topic of China's rise has come to be dominated by a new theme among both Chinese and foreign observers: the image of the supposedly cautious, low-profile Beijing of the past giving way to one of a more confident, assertive China (Swaine, 2010). However, Alastair Johnston, in his article *How New and Assertive is China's New Assertiveness*, claimed that historical records of the last decades seem not to support the claim of a more assertive China (Johnston, 2013). China has simply never stopped confronting the US and other developed countries over a number of issues that question its national sovereignty and domestic priorities. The only difference is that today, in comparison to the early 1990s, the bargaining power of the country at international level has increased exponentially, not only thanks to its constant double digit growth rate but also to its leverage vis-à-vis other developing countries and emerging economies. This leverage vis-à-vis other developing countries and emerging economies has been progressively acquired by Beijing through an impressive use of South-South Cooperation (SSC) and the projection of Chinese soft power[14]. Although SSC practices have been evolving in the past years they have always preserved a constant and specific focus on "Climate Finance". Since 2001, China has contributed a total of about 270 million yuan ($44 million) to help other developing countries enhance their capacity to address climate change, and trained nearly 2000 climate change officials and professionals from developing countries, according to the statistics of NDRC (Beijing Review, 2014: 17).

Cooperation on environmental challenges has always been one of the key dossiers in the framework of SSC. With increasing levels of economic interactions and political cooperation, environmental concerns have become increasingly important and, among them, the hot topic of climate finance. Climate finance is critical to addressing climate change because large-scale investments are required to significantly reduce emissions, notably in sectors that emit large quantities of greenhouse gases. Moreover, climate finance is equally important for adaptation, for which significant financial resources will also be required to allow countries to adapt to the adverse effects of climate change and reduce their impacts.

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[13] See: Ramo, 2007; Fletcher, 2008; The Economist, 2009; Jacques, 2009; Zakaria, 2009.

[14] The elements of China's identity shift to leading nation in the global South, such as the so-called Beijing Consensus, South-South cooperation, and Chinese soft power are analysed in detail in Chapter VIII.

North-to-South climate finance has long been a central focus of the UN climate negotiations, with disputes between countries over the amounts, timing, and conditions of transfers to developing countries. Hence, alongside official North-South transfers, South-South financing for climate change mitigation and adaptation has increased significantly in recent years under the framework of the SSC. The growing institutional landscape in the context of SSC is a sign of growing discontent among emerging economies which seek a stronger voice in global governance structures, and which often suffer the severity of existing structures that are too rigid and do not grant them the space and responsibility they require.

The message that China is channeling through SSC reflects Beijing's subscription to the Five Principles of Peaceful Coexistence[15]: (1) Mutual respect for territorial integrity and sovereignty, (2) mutual non-aggression, (3) mutual non-interference in each other's internal affairs, (4) equality and cooperation for mutual benefit, and (5) peaceful co-existence.

The guiding principle of non-interference in the domestic affairs of states has supported China's position as an international actor that can both be trusted and emulated by developing countries and emerging economies.

Together with SSC, 'Beijing has mounted a major public relations offensive in recent years' in what David Shambaugh defined China's Soft-power push (Shambaugh, 2015).

In an internal speech to the *Foreign Affairs Leading Small Group* in January 2006, President Hu Jintao said that "the enhancement of China's international status and international influence must be reflected both in hard power, including the economy, science and technology, and national defense power, and in soft power such as culture" (Glaser & Murphy, 2009). One year later, in his keynote speech at the 17th National Congress of the Communist Party in 2007, Hu Jintao stressed the need to enhance Chinese culture as the country's soft power. As a consequence, since the late 2000s, the Chinese leadership has progressively increased government funding for the development of China's soft power resources at home and its expansion abroad as a tool to present a less threatening image to the world, caused by the country's rise.

Beijing's Olympic Games in 2008, the large-scale celebrations of the PRC's sixtieth anniversary in 2009, and the Shanghai Expo in 2010 are all global spectacles aimed at

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[15] The Chinese leadership originally enumerated these principles in 1954 when China was trying to reach out to the non-communist countries of Asia. Today, the Five Principles have a different purpose: they offer an alternative to the Western conception of "world order" which stresses the equal, uninfringeable sovereignty of all states. large and small, Western and non-Western, rich and poor, democratic and authoritarian, each to run its own system as it sees fit, whether its methods suit Western standards or not.

presenting China to the world, which, in turn, testifies to China's entitlement to act as a global player.

1.2.2 The Second Element of China's Identity Shift: China's Environmental Crisis

The second element of this identify shift is linked to China's environmental challenges which emerged from the country's rapid industrialisation and turned China into the largest emitter of GHG. Its economic rise, in which GDP grew on average 9% each year for more than a decade, has come at the expense of its environment and public health: air quality in hundreds of cities is worsening and water resources across the country are deteriorating.

These environmental challenges are exemplified by the persistently high air pollution that all too frequently envelops many of the country's major cities and produces increasingly distressing human and economic costs. Some western journalists and scholars have coined a new ad hoc term to describe the severity of air pollution in Beijing: *Airpocalypse*[16].

According to a 2007 report conducted jointly by the World Bank (WB) and the Chinese government on the costs of pollution in China, from 2001 to 2005, an average of about 54% of the seven main rivers in China contained water deemed unsafe for human consumption (WB, 2007: xi). The same year, the Yellow River Conservancy Commission, a Chinese governmental agency, surveyed 13,000 kilometres of the river and its tributaries and concluded that a third of the water was unfit even for agriculture due mostly to the pollution generated by the four thousand petrochemical plants built on its banks (The Economist, 2013). In January 2013 alone, 25 days in Beijing were categorised as unhealthy, very unhealthy, or hazardous, according to World Health Organization Air Quality Guidelines. A joint study by Peking University's School of Public Health and Greenpeace East Asia found, in 2012, that more than 8500 premature deaths resulted from fine particulate matter (PM2.5) air pollution in Beijing, Shanghai, Xian, and Guangdong (Greenpeace, 2012). Meanwhile, the Ministry of Environmental Protection's Academy of Environmental Planning calculated the losses in 2010 due to pollution (excluding the cost of health care) to be 1.1 trillion RMB - equivalent to 3.5 % of GDP (South China Morning Post, 2013).

Air pollution and acid rain from China are also serious problems affecting the Korean peninsula, Japan to the east, and Hong Kong to the south. Polluted rivers in southern China that flow into the Mekong River similarly affect down-stream Laos and Vietnam. The

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[16] The Economist, 2013; Kaiman, 2013; Wong H., 2013; Wong E., 2013; Saint-Paul, 2013; Hall, 2013; Carter, 2013; Bhatnagar, 2014; Moore, 2014; Hanningan, 2014: 61; Gallagher & Lewis, 2015: 192.

extensive use of chemical fertilisers and pesticides in agriculture, combined with industrial waste and raw sewage, account for the main source of river and lake contamination (Shambaugh, 2016: 89-90). The use of fossil fuels, especially by a coal-dominated energy system, was a driving force behind China's 9% rate of economic growth between 1990-2010, however it is also responsible for the poor air quality.

Approximately 90% of the sulfur dioxide (SO2) emissions and 50% of the particulate emissions in China result from coal use (Economy, 2010: 309). China is also the largest SO2 emitter in the world. From a sectoral perspective, the industrial sector produces around 90% of the total SO2 emissions, and the electric power industry specifically makes around 60% of total industrial SO2 emissions (Zhang & Crooks, 2012: 61). As around 77% of China's electricity generation is based on fossil fuels (USEIA, 2015), 70% of SO2 emissions can thus be attributed to the combustion of fossil fuels, with coal being the major component.

As the former Deputy Minister of China's State Environmental Protection Agency, Pan Yue, said in an interview with Der Spiegel in 2005:

"*Many factors are coming together here: Our raw materials are scarce, we don't have enough land, and our population is constantly growing. Currently, there are 1.3 billion people living in China, that's twice as many as 50 years ago. In 2020, there will be 1.5 billion people in China. Cities are growing but desert areas are expanding at the same time; habitable and usable land has been halved over the past 50 years. […] The environment can no longer keep pace. Acid rain is falling on one third of the Chinese territory, half of the water in our seven largest rivers is completely useless, while one fourth of our citizens does not have access to clean drinking water. One third of the urban population is breathing polluted air, and less than 20 percent of the trash in cities is treated and processed in an environmentally sustainable manner. Finally, five of the ten most polluted cities worldwide are in China. […] Because air and water are polluted, we are losing between 8 and 15 percent of our gross domestic product. And that doesn't include the costs for health. Then there's the human suffering: in Beijing alone, 70 to 80 percent of all deadly cancer cases are related to the environment. Lung cancer has emerged as the No. 1 cause of death*" (Der Spiegel, 2005).

The turning point in the government's environmental policy arrived with the integration of environmental degradation in the New Security Concept in September 1997 (Baiyi, 2001), marking the upgrade of the environment from the level of "low politics" to the one of "high politics". The integration arose mainly from the acknowledgement of Beijing that short-term considerations and the acceptance of environmental degradation for economic reasons were

not sustainable, jeopardized stability, and could not maintain China's growth in the long run (Richerzhagen & Scholz, 2007: 9). China has also been witnessing an alarming increase in societal unrest linked to environmental pollution, especially in rural areas. These occurrences have been labelled by the central government as "environmental mass incidents". Mass incidents refer to large-scale demonstrations, which have the potential to develop into violent stand-offs between demonstrators and the authorities, or violent attacks on government facilities (Tanner, 2010).

In April 2005, a large-scale violent protest, sparked by industrial pollution in a small village in Dongyang, Zhejiang province, shocked the Chinese authorities, news media, and the general public, as the scale of such a protest, involving thirty to forty thousand villagers and thousands of armed police, was previously unseen in China (Economy, 2007: 48).

In her 2007 article in *Foreign Affairs*, Elizabeth Economy, Director of Asia Studies at the Council on Foreign Relations, summarised the protest:

"*After trying for two years to get redress by petitioning local, provincial, and even central government officials for spoiled crops and poisoned air, in the spring of 2005, 30,000 to 40,000 villagers from Zhejiang Province swarmed 13 chemical plants, broke windows and overturned buses, attacked government officials, and torched police cars. The government sent in 10,000 members of the People's Armed Police in response. The plants were ordered to close down, and several environmental activists who attempted to monitor the plants' compliance with these orders were later arrested*" (Economy, 2007: 48).

The Dongyang case is probably the most well documented social riot due to environmental degradation, but China now sees thousands of these kinds of protests every year

This was the result of more than 30 years of uncontrolled pollution in which Chinese leaders consciously traded environmental protection and public health for economic growth following the principle of "grow first, clean up later". This principle was backed up by the famous Deng Xiaoping maxim: "Black cat, white cat, all that matters is that it catches mice" that clearly favored China's growth over the competing social concern of environmental degradation.

However, since the late 1990s, the inclusion of environmental degradation into the New Security Concept testified to a change of course in Chinese leadership. Indeed, Beijing realized that the environmental and social costs of indiscriminate pollution were undermining

the country's development priorities of securing economic growth and maintaining social stability[17].

On top of that, China's political leadership realised that their past inability in handling environment issues could pose challenges to the regime's legitimacy (Wang, 2013).

Therefore, undertaking a path toward sustainable development was becoming "a must" for Beijing, which started to implement a number of regulatory steps to accelerate the transition from a brown economy model to a green and low-carbon development one (Hu & Liang, 2011)[18].

In the late 1990s, after almost three decades of impressive industrialisation, environmental protection started to become a key issue for Beijing and, since the first Environmental Law in 1979, the Chinese government have passed more than 40 environmental protection laws and a large number of state regulations[19].

In November 2012, the 18th National Congress of the Chinese Communist Party (CCP) proposed building an ecological civilization and embarking on the path of sustainable development through green development, a circular economy, and low carbon incentives (Xinhua, 2012). In November 2013, the third plenum of the 18th CCP Central Committee reiterated the need to accelerate the process of building institutions on ideas of ecological civilization and the rule of law with law-based thinking. In March 2014, Premier Li Keqiang declared a war on pollution. CCP General Secretary Xi Jinping also stressed that only with the strictest systems and the rule of law could the state provide reliable guarantees for the building of an ecological civilization. The slogan of "*Gold mines override clear water and green mountains*" at the beginning of the reform has evolved into that of "*Both gold mines and clear water and green mountains are wanted*" at the beginning of the 21st century and, finally, "*Clear water and green mountains are gold mines*" today (Zhang et al, 2016).

Meanwhile, from 2011 to 2014, China's legislative body has amended its Environmental Protection Law (EPL), setting forth a stringent legal framework for China's sustainable development including toughening penalties for environmental offenses. According to the newly amended EPL, local environmental protection bureaus are required to disclose environmental information and build unified pollution control and coordination mechanisms for some key areas across administrative units (Zhang, ibid.). Furthermore, in 2013, the State

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[17] See chapter VI for more details.

[18] See chapter VI for more details.

[19] http://english.sepa.gov.cn/Resources/Policies/policies/ [accessed 20 March 2017].

Council released an action plan of prevention and control for air pollution aims to reduce the consumption of coal below 65% in terms of total energy consumption and cut the level of PM2.5 in Beijing-Tianjin-Hebei Province, the Yangtze River Delta, and the Pearl River Delta by 25%, 20% and 15% respectively.

Since 2013, the Chinese government has launched a range of initiatives in order to establish a green financial system. Following the plan to grow a corporate green bond market to assist China's transition to a low-carbon economy, announced by the State Council, China's central bank and the United Nations Environmental Program initiated a Green Finance Task Force in 2014, which comprises more than 40 Chinese and foreign experts from regulatory institutions, think tanks, academia, and the private sector. In April 2015, this task force proposed fourteen specific recommendations for building China's green finance system and a few months later, the People's Bank of China (PBoC) published the Green Bond Guidelines with the Green Bond Endorsed Project Catalogue. The green bond market has grown incredibly fast in China: in 2016 two commercial banks issued more than US$ 4.5 billion bonds, and the Bank of China launched the largest multi-denominated issue of green bonds so far on international markets, worth US$3 billion (Xu & Wang 2016).

Indeed, China's move towards green finance constitutes a key element of a reform on green economy, identified by the country's 13th Five-Year Plan (FYP), which aims to build a green financial system, develop green credits, green bonds, and establish green development funds. More recently, China's leadership shows its determination on the issue by approving the "Guidelines on Establishing the Green Financial System" on 31 August 2016, jointly issued by seven government agencies. In putting forward a wide range of financial instruments, these guidelines can be seen as the world's first attempt at an integrated policy package to promote an ambitious shift towards green economy (Ma & Zadek 2016).

On the international stage, China has also shown its intention to lead a global reform. Hosting, for the first time, the 11th session of a G20 summit in Hangzhou in September 2016, China put green finance high on the G20's agenda with the aim of promoting cooperation on a green financial system and developing the attractiveness of green finance.

In 2016, as part of the Chinese government's war on pollution, 335 factories were shut down in Beijing and more than 400,000 high-emitting vehicles were ordered off the roads – helping to achieve a total of 198 "blue sky days" in 2016, compared to just 12 days in 2015.

1.2.3 The Third Element of China's Identity Shift: Energy Security

The third element of this identity shift is related to energy security, which is intrinsically linked to the government's development priorities to secure economic growth and maintain social stability. Thereby, the energy security has topped China's policy agenda due to an increasing energy demand and a need to fuel the country's fast economic growth and development. The primary concern for China is to ensure it has sufficient energy volumes to support its economic growth and prevent debilitating energy shortfalls that could trigger social and political turbulence (Wang & Zheng, 2013: 508). Oil dependence has always been the biggest concern in the framework of energy security. China became a net importer of oil in 1993 and of natural gas in 2007 (IEA, 2011a). Furthermore, China has been also a net importer of coal since 2009, importing 103 million tonnes that year (Yu, 2010).

In 2006, former President Hu Jingtao proposed a "new energy security concept" when he talked about energy security issues at the G8 Summit in St Petersburg. He called for close international cooperation to increase oil and gas supplies and addressed the need to control domestic demand for the "sustainable development of human society". This new energy-security concept was expressed by other Chinese leaders in international meetings in the framework of constructing a "resource-conserving and environmentally friendly society" (Kennedy, 2010). This broader concept of energy security is firmly based on the Chinese approach of understanding energy security as a combination of three key elements: (1) sufficient energy supplies to protect the Chinese government's core objectives of prioritising economic development and social stability; (2) affordable energy prices; and (3) reliability for oil and natural gas to have the safe delivery of imports to China (Downs, 2006). In this framework, the Chinese government identified and started to implement two fundamental steps toward energy security: (1) the improvement of energy intensity (the total amount of energy consumed per unit of GDP) in order to increase the efficiency of energy consumption; and (2) the transformation of the domestic energy consumption pattern, encouraging the development of renewable and clean energy.

This means that the government's energy security strategy has been managed by both supply and demand to cope with risks of energy shortage and supply disruptions, due also to extreme weather events. In fact, climate change, especially through extreme weather events, has threatened China's energy security in recent years by damaging energy infrastructure and directly cutting off energy services. These energy supply disruptions caused by extreme weather events warned that simply acquiring enough energy resources was not sufficient to

secure China's energy supply, and building up a stronger and firmer energy system capable of managing the emerging climate risks and unexpected disruptions was another fundamental element for the country's energy security.

Starting from the 11th FYP, set in 2005, the Chinese government made impressive progress in decreasing its national energy intensity and building up a set of strategic low-carbon industries. Although China made the greatest contribution to the overall increase in GHG emissions in 2012, thanks to the measures undertaken in the 11th and 12th FYPs, its growth rate was one of the smallest in the past decade. Furthermore, China's energy intensity declined between 2000 and 2012, even with an increasing GDP (IEA, 2013). Since 2007, the state has shut down thousands of inefficient power and industrial facilities so that its energy consumption per unit of GDP continues to decrease over the last decade – 19.1% from 2005 to 2010, and 18.2% from 2010 to 2015, and a target of a further 15% decrease by 2020 has been set in its 13th FYP (Sun, 2016). Moreover, thanks to a strong policy of energy reforms - including the Renewable Energy Law launched in 2006 - and massive state-led investments, the share of coal in the energy mix fell from 76% in 1990 to 68% in 2005, and the renewable share reached 20% of the mix in 2012 (Ren21, 2013).

In addition, in 2011, Beijing has also decided to institutionalise seven pilot emission-trading schemes (ETSs) at the city and province levels, and to establish, as from 2016, a national cap-and-trade system to be full in operation between 2017 and 2020 (Lo, 2016). Such progress helps China make ambitious pledges in the international arena. In its "intended nationally determined contribution" (INDC)[20], submitted to the UNFCCC in June 2015, China puts forward several concrete and challenging climate actions goals to be reached before 2030, including, among others: (1) peaking its CO2 emissions around 2030 and striving to peak early; (2) lowering CO2 emissions per unit of GDP by 60% to 65% from the 2005 level; and (3) increasing the share of non-fossil fuels in primary energy consumption to around 20% (NRDC, 2015).

Furthermore, in early January 2017, the Chinese government announced its plan to invest more than $360 billion by 2020 in renewable energy and low carbon energy technologies -

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[20] Intended Nationally Determined Contributions (INDCs) is a term used under the UNFCCC for GHG emission reductions that all countries that signed the UNFCCC were asked to publish in the lead up to the COP 21. Before the conference, countries publicly outlined what post-2020 climate actions they intended to take under the new international agreement, known as INDCs. The climate actions communicated in these INDCs largely determine whether the world achieves the long-term goals of the Paris Agreement: to hold the increase in global average temperature to well below 2°C, to pursue efforts to limit the increase to 1.5°C, and to achieve net zero emissions in the second half of this century. Countries first signed on to the notion of INDCs at the UN's 2013 climate negotiations in Warsaw (COP19). The final text invited all governments, who were "ready to do so", to set out their intended contribution to the Paris deal by the "first quarter of 2015".

39% more than the 2011-2015 period - to meet its commitments under the 2015 Paris Agreement on climate change. The investment is part of the 13th FYP, and will support the national target for half of all new electricity generation to come from low carbon sources by 2020. The new investment plan has enhanced China's trajectory towards a low carbon economy: in 2014, the country achieved a decarbonisation rate of 4% - almost double the average G7 rate of 2.2%. This is despite the fact that China's per capita GDP is six times smaller than that of the USA and five times less than that of G7 countries. Until the early 2000s, the alternative to an inefficient coal plant in China was generally a more efficient modern coal plant, but renewables are now a valid competitor in many regions. Moreover, the increasing role of "soft tech" and engineering services in the Chinese economy, and the large investments and deployment in high-speed electric trains, electric buses, electric cars, and electric bikes, by millions of Chinese users, have played a relevant role.

With the double aim of diversifying its own energy mix and implementing climate mitigation policies, China implemented an ambitious long term program of investment in renewable energy that positioned the country as a world leader in manufacturing renewable energy parts, coinciding with a global surge in wind and solar power. Thanks to its aggressive green policy, China has now become the world's second largest market for, and investor in, clean energy (after the EU), and the market size of its clean technology sector is estimated to be worth more than $100 billion (€76 billion) by 2020 (Mu, 2010; China Greentech Initiative, 2013).

1.2.4 China's Identity Shift: Conclusions

Environmental governance is critical to China's future because a better environment and cleaner energy are instrumental to maintaining the government's legitimacy, both domestically and abroad, moving towards a sustainable model of economic growth, and building an image of leading rising power within the global South. Having realised the importance of environmental protection, China has launched several environmental policy reforms since the late 1990s, and has made important progress in the past decade, especially on the reductions of energy and carbon intensity.

The three elements of China's identity shift discussed above are mutually reinforcing and, combined together, shape Beijing's change of course from having a defensive attitude to acting increasingly as a leader in global environmental governance. The Intended Nationally Determined Contributions (INDC) were announced in juncture with the ambitious plans to

further mitigate climate change, promote green finance, and control pollution, as foreseen in the 13th FYP. Both have correlated with Beijing's rhetorical determination to play a leading role in global environmental governance.

1.3   Core Argument

China has strong normative preferences regarding climate change policies and it has pushed for their international recognition since Copenhagen. To this aim, Beijing has worked within the existing Western-led institutions while, at the same time, deepening ties with other developing countries and emerging economies to propel a different approach to global climate change policy that emphasises the development aspect of climate change.

This research argues that the transformation undertaken by the People's Republic of China (PRC) since 1978 has correlated with an identity shift based on the three main interconnected elements discussed in section 1.2. Furthermore, I argue that China's political-economic and identity transformations have been mutually constitutive and reinforcing, therefore, unfolding in unison and as inseparable from one another. Finally, this shift has been reflected internationally in Beijing's changing attitude to global environmental governance and its unfolding role of a proactive "norm maker". Its normative entrepreneurship has operated via and been enabled by the principle of Common but Differentiated Responsibility (CBDR).

Accordingly, the Chinese government has demonstrated a commitment to reducing dependency on energy-intensive industries and introducing more efficient ones by specifying targets in its five-year plans and by promulgating new laws, standards, and rules. With reforms implemented through its domestic environmental and energy policies and the 11th and 12th FYPs[21], and factoring in the ambitious new targets set for the 13th FYP for the period of 2016-2020, China is, today, a key player in global climate change mitigation efforts. Since the early 2000s, driven primarily by concerns over its immediate pollution problems related to industrial development, as well as issues of energy security and national image, the Chinese government has been pushing for a transformation towards a low carbon economy model of growth. In so doing, Beijing has started to play a key role in decoupling energy consumption

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[21] The Chinese government had promised in 2009 to cut its carbon emissions per unit of GDP by 40 to 45% from its 2005 level, and to do so by 2020. By late 2014, according to government data, China had already fulfilled much of its original commitment and the carbon intensity was down by 33.8% from the 2005 level. See chapter VI for more details.

from carbon emissions, and climate change has become a driving force to address both energy security and air quality restoration. In fact, new technologies that improve energy efficiency reduce overall energy consumption which, in turn, causes fewer pollutants to be released into the air and requires less energy to be imported from other countries (Gallagher, 2014: 15).

As discussed in the previous section, the Chinese government has made considerable progress in the field of R&D spending on green energy and low carbon technologies in recent years, strengthening its world leadership in clean energy development. In this context, the key to China's approach is to view renewable energy not primarily as a source of emission reductions, as do many Western developed countries, but as a source of energy security (Mathews & Tan, 2015: 145). As argued by Kelly Sims Gallagher, China's long term energy security is dependent not only on having sufficient supplies of energy to sustain its incredible rate of economic growth but also on being able to manage the growth in energy demand in a way that does not continue to damage the local environment, harm human health, or irreversibly alter the global climate (Gallagher, 2014: 29-33).

The change of course undertaken by Beijing on domestic environmental and energy policy has been reflected also in the government attitude at international level in the framework of international climate talks. Starting from the COP 16 in Cancun, Beijing has progressively assumed a more cooperative attitude in ICCN, eventually becoming a key player in facilitating the conclusion of the Paris agreement at COP 21 in December 2015. This was made possible by reaching a joint deal on climate change with the United States in November 2014, during the 22nd Asia-Pacific economic Cooperation Summit, where China, for the first time, indicated a goal on an emissions peak.

A few weeks before the Lima Climate Conference (COP 20), the two main actors in global climate governance presented their joint ambitious climate strategy to reduce carbon emissions in the post 2020 period. The White House press office stated 'the United States and China hope that by announcing these targets now, they can inject momentum into the global climate negotiations and inspire other countries to join in coming forward with ambitious actions' (White House, 2014). According to the deal, the United States intends to achieve an economy wide target of reducing its emissions by 26%-28% below its 2005 level by 2025, and to make best efforts to reduce their emissions by 28%. China intends to achieve peak CO_2 emissions around 2030, and intends to increase the share of non-fossil fuels in primary energy consumption to around 20% by 2030. In China, almost 70% of the electricity generated goes to industrial production and any reduction in emissions will have a direct impact on economic growth and poverty eradication. China is in a stage of rapid urbanisation, which is driving

increasing energy consumption in all sectors. The urbanisation rate has risen from 31.9% in 2000 to 51.27% in 2011, an increase by 19.37% in the last twelve years. According to the experience of developed countries, the urbanisation rate of a mature industrial economy should reach at least about 70%. Therefore, following current annual urbanisation growth, China will not complete the process of urbanisation until 2030. This means that increasing related urban energy consumption will peak in 2030.

For Beijing, this deal is a turning point because it represents the recognition of its role as climate leader for the global South and its ability to shape international norms. In fact, the deal shifts the criteria upon which actions taken by developing countries are reviewed, from emissions reduction to longer-term transformations, which acknowledge the importance of social and economic development for developing countries and emerging economies.

China's rise in the framework of Global Environmental Governance represents an interesting case study. In fact, in order to (1) deal with the international pressure on climate security, (2) avoid being singled out in ICCN and, (3) support the transition of its economy to a low carbon development one, the PRC is developing an alternative model of sustainable economic development.

Internationally, Beijing has been slowly working on a different policy option divorced from the securitisation of climate change and a narrower focus on emission reduction towards an understanding of climate change defined in terms of sustainable development. Accordingly, the CBDR principle has become a fundamental tool used by the Chinese government to de-escalate the issue of climate security and to switch the international focus from security discourses to development. In doing so, China has attempted to diplomatically and politically engage countries that do not feel represented by today's global governance system, reinforcing its much-discussed alternative model of economic development, the so-called Beijing Consensus[22].

China's economic success generated a lot of discussion about a Chinese model of development and, since the early 1990s, economists, policy makers, and researchers have started to analyse the "case study" of Chinese economic development[23]. The term "Beijing Consensus" was coined by Joshua Cooper Ramo in 2004, in an attempt to define the Chinese development model in comparison with the Washington Consensus, as an alternative model for developing countries and emerging economies:

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[22] The Beijing Consensus will be analysed in detail in Chapter VIII.

[23] See, among others: Ramo, 2004; Callahan, 2005; Callahan, & Barabantseva, 2011; Jacques, 2012; Carmody, 2013; Shambaugh, 2013; Dyer, 2014; Economy & Levi, 2014.

"China is marking a path for other nations around the world who are trying to figure out not simply how to develop their countries, but also how to fit into the international order in a way that allows them to be truly independent, to protect their way of life and political choices in a world with a single massively powerful centre of gravity. I call this new centre and physics of power and development the Beijing Consensus" (Ramo, 2004: 3-4).

The Beijing Consensus has been widely discussed at an international level and has attracted the interest of developing countries and emerging economies from Latin America, Africa, South Asia, and the former Soviet republics, making it a major source of China's soft power. Although questionable under several viewpoints, the economic success of China seemingly proves that America's so-called "universal values" are not indispensable for developing countries to achieve modernisation and that the Western path is not the only choice for economic prosperity (Canrong, 2012). In this regard, for an increasing number of developing countries, China's experience crafts an innovative model that fits their particular conditions and needs[24].

The Chinese model looks appealing in several developing countries and emerging economies from Africa to Latin America, Eastern Europe, and parts of Asia, where the popular impression of China might contrast favourably with the general perception of the West, or where Beijing might be seen as a more attractive development partner in comparison with other Western countries and/or institutions. The sharp expansion of trade and investment linkages among Southern countries underlines this phenomenon (RIS, 2013). In fact, in recent years, China has become the most important trading partner for Brazil, South Africa, India, and several African countries.

Furthermore, the economic rise of China and the BRICS as key actors in the global political economy has also changed significantly the conventional practice of development cooperation set through established institutions, such as the UN and the Bretton Woods institutions. In fact, unlike Western aid, China's aid often comes with little, if any, political preconditions and, therefore, is increasingly more attractive for recipient countries.

Emerging economies, with rapidly growing strength and size in the global economy, and moved primarily by a quest for energy security, new trading opportunities, and new economic

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[24] See, among others: Eisenman & Kurlantzick, 2006; Naidu & Davies, 2006; Garner, 2007; Alden et al. 2008; Brautigam, 2009, 2010; Gardelli, 2009; Moyo, 2009, 2012, 2013; Kopinski et al., 2012; Eisenman & Kurlantzick, 2006.

and diplomatic partnerships, have therefore started to change the rules of the game, providing aid on their own terms and according to their own norms. At the head of this group of emerging donors is China, which is increasingly expanding its bilateral cooperation with other emerging economies and developing countries.

Politically, as well as economically, China has provided an alternate development model for African states in the eyes of many of their leaders (Taylor, 2009: 23). The conviction is that, as a successful late developing country, Beijing might become a model for others to follow (Spakowski, 2009: 489). As a consequence, China's relationship with Africa is seen as a refreshing alternative to the traditional engagement models of the West. By a large majority, African governments see China's engagement as a point of departure from Western neo-colonialism and political conditions (Naidu & Davis, 2006: 80). This approach allows Southern countries to enjoy some level of autonomy towards traditional multilateral aid agencies, creating a domestically driven development agenda influenced by their own development priorities and challenges. It simultaneously allows Beijing to secure both political and diplomatic support for its stances from developing countries and emerging economies in the international arena, as well as new market opportunities for its growing economy.

In essence, China has strengthened its role as a leading emerging economy within the global South.

1.4   Outline of the Dissertation

This research project is organized into nine chapters.

Chapter I introduces the topic of the research and conveys its focus on China's role in International Climate Change Negotiations in light of both the climate change securitization debate and China's political, military, and economic growth domestically and in international affairs. Chapter I also presents the research question and hypothesis, or the core argument of the research. It argues that China's active engagement in global environmental politics arises from a self-perception and identity shift *from recipient of international norms* to *global norm entrepreneur.*

Chapter II outlines the theoretical framework of the research. This chapter contextualizes the leading role of China for the Global South within the North-South divide debate. Moreover, by analysing the rise of China through the lens of three principal International Relations

theories, I explain why the limitations of Realism and Liberalism in understanding the shift in China's environmental and climate change policy call for an identity-based contribution. Finally, the chapter introduces the concept of Normative Power China as critical to understanding the capacity of Beijing to act as a global norm entrepreneur in the framework of international environmental governance.

Chapter III presents the methodology of the research, in particular the methods of data collection and data processing used to address the research question and substantiate the argument.

Chapter IV analyses discourses on environmental security and climate change. In this chapter I explore the genesis and the development of environmental security as a field of study. Starting with an analysis of climate change as a geopolitical threat, the chapter surveys the process of broadening the concept of security from environmental security to climate security, as well as the deepening of the notion, roots and actors involved in the process of the securitization of climate change. Having analysed the main discourses on environment and security, the research introduces a different approach to deal with threats posed by climate change – one that follows the path of sustainable development and focuses on the human security dimension of climate change.

Chapter V is a case study on the Principle of Common but Differentiated Responsibility (CBDR). In this chapter, I analyse the rationale of the CBDR principle, its roots and development in the framework of international climate change negotiations as well as its relevance in China's identity shift. The analysis of the CBDR here is instrumental to explaining, in the subsequent chapters, the role of the CBDR for China in designing and implementing its strategy within international climate change negotiations.

Chapter VI is centred on the analysis of China's framework policy on environmental protection and climate change. In this chapter, I explore the position of the Chinese Government on the issue of climate change and security and the way in which the topics under examination in Europe and the United States have been absorbed and interpreted in China. I will then investigate China's views and actions on climate change and the reasons why the Chinese Government is not willing to apply the apparent global consensus of linking climate change to national security policies. This chapter explores also in details the 12th Five Year Plan as well as Beijing's achievements within the frameworks provided by the Kyoto Protocol.

Chapter VII analyses the position of the Chinese government in international climate change negotiations, investigating how China's role in global climate governance may shape an alternative global vision and a new perspective to the international climate change debate.

In chapter VIII, I analyse how international institutions and great powers are responding to the emergence of China as a global power and how the Chinese government perceives and pursues its role of a global player through its own brand of soft power and public diplomacy. An in-depth analysis of Chinese policies and actions in the framework of South-South cooperation will be undertaken. Finally, I analyse the role of China as a norm maker in the framework of international climate change negotiations.

Chapter IX is the final and concluding chapter in which I present the conclusions of the research summarizing its key findings and contribution.

Chapter II: Theoretical Framework

This chapter contextualises the leading role of China for the global South within the North-South divide debate. Moreover, by analysing the rise of China through the lens of the three principal International Relations theories, I explain why the limitations of realism and liberalism in understanding the shift in China's environmental and climate change policy call for an identity-based contribution and why it is useful in addressing my research question. Finally, I introduce the concept of "normative power China", understood as the capacity of Beijing to act as a global norm entrepreneur in the framework of international environmental governance.

This research employs a social constructivist conceptual lens to create a coherent analytical framework following the underlying theme of the research: China's identity construction and national interest. By drawing on social constructivist ideas and their identity-based approach, this research shows how China has used SSC and its own understanding of *soft power* to secure broad political support within the global South for its climate change and development policy in relevant international forums. Thereby, China has progressively strengthened its normative power and, accordingly, played a crucial role in framing the global debate on climate change as a subject of North-South politics.

2.1   The North-South Divide and the Rise of China as a Global South Leader in ICCN

The North-South divide has been widely explored as an analytical tool to explain the process and outcomes of climate negotiations (Mejia, 2010). There is extensive literature that explores the centrality of the divide between developed and developing countries in the evolution and current dynamics of the climate change regime (Müller, 2002; Najam, 2004; Beyerlin, 2006; Prum, 2007).

At the heart of the North-South debate on climate change lies the concept of equity[25], which arose in parallel with the development of international environmental negotiations,

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[25] The concept of equity was included in the 1974 Declaration on the Establishment of the NIEO, in the 1987 Brundtland report and in the 1992 UNFCCC Treaty. Since then reminder to equity have been always present in the UNFCCC documents from 1995 COP I in Berlin till 2015 COP 21 in Paris.

highlighting the opposed perspectives of developed and developing countries. Developing countries and emerging economies feared restrictions on their economic growth, and emphasised the North's wasteful use of planetary resources, advocating for a redistributive program that would benefit them economically and hasten the transition towards industrialisation. On their part, developed countries wanted Northern consumption off of the negotiating table, Southern population growth on the agenda, and the use of non-binding language on issues of financial assistance and technology transfer (Haas et al., 1993: 57).

In the negotiation process, the global South has been united under two non-negotiable key bargaining positions: (1) developing countries will not accept responsibility for climate mitigation and, consequently, will not commit to any binding GHG emission reductions; and (2) developed countries should be responsible for financing climate change policies in developing countries. In February 1991, just a few days before the first meeting of the newly established Intergovernmental Negotiating Committee for a Framework Convention on Climate Change (INC)[26], China organised a widely attended Ministerial Conference on Environment and Development for developing countries. The outcome of this conference was the "Beijing Declaration", which clearly framed the climate regime negotiations in North-South terms by asserting that:

> "*The FCCC currently being negotiated should clearly recognize that it is developed countries which are mainly responsible for excessive emissions of greenhouse gases, historically and currently. [...] Developing countries must be provided with full scientific, technical and financial cooperation to cope with the adverse impacts of climate change*" (Prum, 2007: 230).

In the following years, it became clear that the defining negotiation dynamics were between major developing countries, led by China, in confrontation with the United States (Athanasiou, 2010). This was particularly clear in the final stages of the 2009 Copenhagen Climate Summit when, for the first time in a major global conference in the modern era, neither the US nor Europe led the process. Key authors of the final agreement were the BASIC countries led by China (Jacques, 2012: 211).

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[26] The Intergovernmental Negotiating Committee for a Framework Convention on Climate Change was established on 21st December 1990 by Resolution 45/212 of the United Nations General Assembly.

The common denominator that has held together the vastly heterogeneous group of developing countries in the framework of ICCN is its self-definition based on a "narrative of exclusion" from world affairs (Vihma, 2010: 4). The desire for unity in the face of an international order, which most developing countries and emerging economies conceive of as placing them at a systematic disadvantages, has outweighed the internal differences, therefore placing them and their negotiation stances within the narrative of a North-South relationship (Najam, 2004: 225).

From the perspective of the G77, many negotiation processes were perceived as serving explicitly the Northern agenda (Vihma et.al, 2011). More specifically, they were perceived as being based on the neo-Malthusian approach discussed in Chapter I. As a consequence, this created a greater suspicion among developing countries that industrialised countries were using climate change negotiations to protect their own economic interests against the rise of developing countries and emerging economies (Hallding et al., 2013). In this context, Beijing, strengthening its diplomatic and economic ties within the global South progressively, has started to emerge as an influential normative actor in the international arena.

The past two decades have seen a surge in South-South economic cooperation including trade, investment, development assistance, and other financial flows. China has been the main architect and leader of this trend, promoting a number of high-profile institutions of policy cooperation and cross-border financing within the global South. The Forum on China-African Cooperation (FOCAC), the Annual BRICS Summit, the BRICS New Development Bank, the Asian Infrastructure Investment Bank (AIIB), the Belt and Road Initiative, and the SSC Fund are all initiatives spearheaded by emerging economies, with China playing a key role. These institutions symbolise China's growing influence in development funding and represent potential new sources of financing for climate change policies in the global South. In this regard, in early 2016, the first round New Development Bank (NDB) funding was dedicated to renewable projects across the BRICS, which received in total $811 million in loans to finance clean energy investments[27].

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[27] Brazil's Banco Nacional de Desenvolvimento Economico e Social received the biggest credit, worth $300 million to help build 600 megawatts of renewable energy capacity. India's Canara Bank received a $250 million loan as well, with $75 million earmarked for 500 megawatts of renewable-energy projects. South Africa's Eskom Holdings SOC Ltd. secured a loan of $180 million for power lines that can transmit 670 megawatts and transform 500 megawatts of renewable energy generation. Finally, China's Shanghai Lingang Hongbo New Energy Development Co. received an $81 million loan, to fund 100 megawatts of rooftop solar power. Available at: http://www.ndb.int/medias/brics-bank-gives-811-million-first-round-green-energy-loans/ [Accessed 20 March 2017].

2.2   International Relations Theory and the Rise of China: Realism, Liberalism, and Constructivism

The inquiry into the transformations and the transformative potential of China's foreign policy has been the focus of in-depth analysis from International Relations scholars in recent decades. As China's relevance continues to rise in world affairs, it will concomitantly become more important to analyse China's international relations discourse in order to understand its possible actions and directions. Beijing's ability to reshape the structure of global governance is important in understanding the significance and implications of its rise (Legro, 2007; Wang & Rosenau, 2009). Therefore, analysing the rise of China, a key aspect for many political analysts and International Relations (IR) scholars, is revolves around the the question of how the Chinese leadership will exercise its new economic influence on Western-led n lead global governance. As framed by James Reilly:

> "*As China emerges as a global power, is it more likely to accommodate itself to the existing systems and norms; or will the Chinese government insist that the international system be reshaped more in its own image and reflecting China's own national interests*?" (Reilly, 2011: 71).

Answering this question is important to contemporary global politics because of China's growing relative power and influence, which may motivate Chinese attempts at restructuring elements of the international order with which current Chinese leadership is dissatisfied (Buzan, 2010; Ross & Zhu, 2008). The consequences of China's rise affects relevant issues in international relations, such as whether a power transition between Washington and Beijing will trigger global conflict, or whether China will seek to overturn the contemporary liberal world order (Foot, 2006; Ikenberry, 2008). However, for the purpose of this research, more specific issues will also be considered, because China's increasing influence in world affairs means that it is also critical to the success of global governance processes such as ICCN (Gao 2011a; Gu, Humphrey & Messner 2008; Hurrell & Sengupta 2012; Reilly 2011).

Within the discipline of international relations, competing theoretical perspectives offer different answers to the above question. So far, the debate on China's rise has been dominated mainly by realist and liberal IR theories, with much of the discussion based on traditional arguments.

2.2.1 The Rise of China through the Lens of Realism

The realist paradigm has been one powerful source of fears for a rising China and, within this branch of international relations theory, offensive realism has been the main proponent of the so-called "China Threat Theories". "China Threat" claims that regardless of how integrated China is, it is a revisionist power that will attempt to change the balance of power to its advantage (Gertz, 2013; Al-Rodhan, 2007; Broomfield, 2003; Roy, 1996). Some realists, such as John Mearsheimer, even openly advocated a US policy to block its rise because "China cannot rise peacefully" (Mearsheimer, 2001; 2006; 2014).

Realists argue that the international system is defined by anarchy, which means that international politics takes place in an arena that has no overarching central authority above the individual collection of sovereign states (Dunne & Schmidt, 2014: 101). In such an anarchic system, state power is key; the only variable of interest, because only through power can states defend themselves and hope to survive. However, neorealists are divided over the structural implications of anarchy. Defensive realism's most prominent adherent, Kenneth Waltz, argued that great powers will act to preserve rather than upset the balance of power in the international system, in order to maintain their great power status. Waltz argues that states should strive for what he calls an 'appropriate amount of power' (Waltz, 1979: 40). Waltz maintains that it is unwise for states to try to maximise their share of world power, because if any state becomes too powerful, balancing will occur. Specifically, the other great powers will build up their militaries and form a balancing coalition that will leave the aspiring hegemon at least less secure, and maybe even destroy it (Dunne & Schmidt, 2014: 105). In contrast, scholars of offensive realism argue that the ultimate goal of every great power is to maximise its share of world power and eventually dominate the system, becoming the hegemonic player. However, since global hegemony is "almost impossible", a great power has two goals: to dominate its region and to prevent other powers from dominating other regions (Mearsheimer, 2001). In this view, China's growing economic relevance in world affairs will translate into increased military power and allow China to use force to assert its strategic aims in Asia and, eventually, across the world. As new powers rise, they will inevitably seek to replace the leading nation, therefore China's rise will inevitably challenge the United States for supremacy and in a struggle for mastery in Asia (Sutter, 2005; Mearsheimer, 2006).

From a "power transition theory" perspective, rising powers will delegitimise the existing authority and replace the current order with something entirely new (Schweller & Pu, 2011).

Therefore, China's double-digit economic growth matched by double-digit annual increase in defense spending foresaw an inevitable confrontation between the United States, the status quo power, and its rising power challenger. In this regard, the 2006 US Quadrennial Defense Review Report asserted that China has the greatest potential to compete militarily with the United States and field disruptive military technologies that could over time offset traditional US military advantages (US Dept. of Defence, 2006: 41).

In this framework, realists see the advent of the US rebalancing strategy - the so-called "pivot" - as a proof that power balancing, rather than institutional engagement, would be the predominant force shaping the international order of Asia. This argument is bolstered by the view held by many in China that the US pivot is a form of "containment" of China (Acharya, 2014). In fact, the US's decision to strengthen American relations with other democratic countries in the Asia-Pacific, such as India, Japan, South Korea, and Australia on the basis of common values could be seen as a move to deny China's moral authority as a regional leader.

In this frame of thought, as China becomes more powerful and the United States' position erodes, two things are likely to happen. Firstly, China may try to use its growing influence to reshape the rules and institutions of the international system to better serve its interests. Secondly, as a consequence, other states in the system - especially the declining hegemonic players - will start to see China as a growing security threat. The result of these developments, according to the realist school, will be tension, distrust, and conflict, the typical features of a power transition process (Gertz, 2000; Friedberg, 2011). Consequently, realists advocate and support an aggressive policy of containment to prevent China from becoming too strong.

Contextualising global environmental governance under a realist perspective, the theory could offer a treatment of the political symptoms of climate change as a state-centric security threat. For a climate change impact to be classified as a traditional security threat, it must have some demonstrable connection to a vital national interest, which can be enhanced or defended through the application of military, economic, and political power (Gleick, 1991). However, climate change is better defined as a threat multiplier for those fragile countries already affected by internal instability and economic weaknesses, rather than as a threat per se. The progressive securitisation of the climate change debate and the development of the climate security paradigm could be understood as the transposition of the offensive realist approach to international environmental governance.

2.2.2 The Rise of China through the Lens of Liberalism

The basic insight of liberal international relations theories is at least twofold. First, liberal theorists argue that the national characteristics of individual states matter for their international relations and, second, that the incidence and prospect of conflict in international relations are exaggerated by realism (Slaughter, 2013).

Classical liberalism rests on three pillars. The first is commercial liberalism, or the view that economic interdependence, especially free trade, will decrease the likelihood of political conflicts (Keohane & Nye, 1977). Drawing on theories of economic interdependence, scholars highlight the wide-ranging costs that China would have to pay for aggressive foreign policies aimed at destabilising an international order that has largely facilitated and supported its impressive economic growth (Goldstein, 2005; Fravel, 2010; Luckhurst, 2013; Johnston, 2013). In fact, most of China's neighbours, and indeed the world's most developed countries, have contributed substantially to Beijing economic rise through the provision of market access, technology and capital investment, and even foreign aid. Considering that China is one of the largest beneficiaries of today's global order, it is unlikely that it will move away from a system that has allowed its internal economic growth, its international political rise, and from which it still benefits.

The second pillar is republican liberalism, which assumes that regime types of individual nation-states crucially determine their foreign policies and, by implication, overall international relations. Therefore, this variant of liberalism implies that liberal democracies are more peaceful than autocracies, or at least seldom fight one another (Shambaugh & Yahuda, 2014: 69). While both strands of thought are commonly referred to as "Democratic Peace Theory", the former is typically known as its *monadic* version, whereas the latter (involving comparisons between two broad types of regimes) is commonly labelled *dyadic*.

The third is liberal institutionalism, which focuses on the contribution of international organisations in fostering collective security, managing conflict, and promoting cooperation. A modern variant of liberal institutionalism is neoliberal institutionalism. Unlike classical liberalism, neoliberal institutionalism accepts the realist premise that the international system is anarchic and that states are the primary and utility-maximising actors in international relations. But it disagrees with neorealism's dismissal of international institutions. Neoliberals maintain that international institutions can regulate state behavior and promote cooperation by reducing transaction costs, facilitating information-sharing, and providing opportunities for peaceful bargaining and quid-pro-quos, and, by extension, peaceful resolution of conflicts,

including international courts, arbitrations, and mediations (Acharya, 2014). As posited by John Ikenberry, by strengthening global economic and institutional ties, prospects for conflict are reduced. Thereby, the promise of economic, diplomatic, and political gains will incentivise emerging powers to participate in the existing liberal order, and will progressively make them internalise existing liberal norms (Ikenberry, 2008).

Since Beijing obtained its UN seat in 1971, the country launched massive economic reform programs in 1978, and joined the WB and the International Monetary Fund (IMF) in the 1980s. Arguably, the socialisation of China into the behavioral norms of the modern international society has been one of the defining stories of the last four decades (Chin, & Thakur, 2010: 119). From the early 1970s onwards, at least until the 2008 global financial crisis, China had become increasingly reliant on the advanced markets of Europe and the United States to facilitate its export-led growth.

In the past three decades, China has largely taken to ''learning'' the rules of global order (Pearson, 1999). During this period, Chinese foreign policy has been engaged in a relevant diplomatic effort aimed at reassuring the international community of China's "peaceful rise". This term, forged in the early 2000s by Chinese Communist Party theoretician Zheng Bijian, and replaced soon after by "China's peaceful development", called for a harmonious international environment for China's growth, focusing on the paradigm that stable economic growth is the key in maintaining domestic political stability.

The highest point of its socialisation into global practices and norms was China's 2001 accession to the World Trade Organization (WTO), when Beijing accepted and implemented the comprehensive transparency obligations of the WTO (Pearson, 2006). Furthermore, through its active participation in non-proliferation diplomacy and its contribution with more than 3000 troops to serve in UN peacekeeping operations, China has come a long way in altering the common international stereotype of a reactive and obstructive actor (Zhu, 2007: 15–20; He, 2007; Guo, 2008).

Neoliberals claim that, as China increasingly integrates with rest of the world, its social and political systems will also change incrementally, moving towards Western-style democracy and liberalism. This will, in turn, greatly limit the potential for conflicts. John Ikenberry suggests that rising powers such as China and India – direct potential challengers to US hegemony in Asia – have benefitted from the liberal order to the extent that compels them to refrain from revisionism and they will instead be co-opted and socialised into the existing order (Ikenberry, 2011).

However, while Beijing respects and defends the norms that are in accordance with its own national interests, such as the Westphalian norms of state sovereignty and, above all, non-interference in the internal affairs of foreign states (Chin &Thakur, 2010: 127), there are a number of examples which demonstrate that China is not quite internalising existing liberal norms. These range from the UN Convention on the Law of the Sea[28] to most aspects of the international human rights order.

In this regard, scholars like Amitav Acharya emphasise that the optimism about rising powers progressively internalising existing liberal norms could be questionable for three main reasons. Rising power such as China and India did not participate in the creation of the liberal order; indeed, before their large-scale economic reforms (China's since 1979 and India's since the early 1990s), they mostly stayed out of it or even opposed it. Second, both China and India are uncomfortable with new norms of liberal internationalism that challenge state sovereignty, especially humanitarian intervention and the Responsibility to Protect (RTP) principle. Finally, both countries, along with other emerging powers such as Brazil, are claiming and working towards a reform aimed at acquiring a greater voice in the decision-making process of institutions such as the IMF and the WB to achieve an updated balance of voting power that reflects the economic power of the members of the board. Until these reforms are carried out, resistance, rather than co-option, may be a more likely element of their attitude toward existing global institution (Acharya, 2014).

All in all, the attitude of resistance rather than co-option reflects China's behaviour in the framework of ICCN. It is captured in its treatment and understanding of the CBDR principle, which, for Beijing, represents the core and bedrock of international cooperation on climate change and, therefore, is non-negotiable (MoFa, 2009; Xinhua, 2009).

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[28] Control of the South China Sea is one of the most contentious and diplomatic issue in east Asia, with China asserting sovereignty over maritime areas that span 3.5m square kilometres but are also claimed by Vietnam, Taiwan, Malaysia, Brunei, the Philippines and Japan. Washington has become deeply involved, backing those against China and conducting military patrols. In essence, the South China Sea disputes is over the Parcels and Spratlys islands, together with various uninhabited atolls and reefs, especially the Scarborough Shoal. China claims historical rights to the islands dating back 2000 years. Vietnam rejects these historical claims and says it has ruled over both the Parcels and Spratlys islands chains since the seventeenth century. At the same time, the Philippines also claims the Spratlys islands because geographically they are close to its territories. The Philippines also has a further dispute with China over the Scarborough Shoal. These islands lie 100 miles away from the Philippines and 500 miles from China. The arbitration lawsuit brought by the Philippines, have stimulated debate and research about China's South China Sea policy, as well as about the 1982 United Nations Convention on the Law of the Sea (UNCLOS). For Beijing, the South China Sea dispute is essentially a dilemma with UNCLOS, which the PRC took part in negotiating from 1973 to 1982, and finally ratified in 1996. In 2013, China declared that it would not participate in the arbitration and in 2016 the tribunal ruled in favour of the Philippines stating that China has "no historical rights". However, China has rejected the ruling.

The outcome of socialisation is the production of agents who can adjust themselves and their behavior in accordance with the guidelines, values, and norms of the social environment into which they have been integrated. This happens because these rules come to be seen as natural, rightful, expected, and legitimate. In this framework, an agent follows its internalised prescriptions of what is socially defined as normal, true, right, or good, according to a logic of appropriateness that is without, or in spite of, calculation of consequences and expected utility (March & Olsen, 1998).

As explained by James March and Johan Olsen in *The Institutional Dynamics of International Political Orders,* when analysing the dynamics of social and political action and structures, there are two basic logics of action by which human behavior is interpreted. On the one side are those who see action as driven by a logic of anticipated consequences and prior preferences. On the other side are those who see action as driven by a logic of appropriateness and senses of identity. An interest-driven actor behaves according to a logic of consequence; it reasons on the basis of instrumental calculations concerning its self-interest, i.e. in defense of its very own benefit. By contrast, a norm-driven actor follows a logic of appropriateness; it decides and behaves in accordance with norms that it has internalised and that it considers to be the most appropriate in a given context (March & Olsen, 1998).

In the framework of ICCN, the question that needs to be addressed is therefore about the logic underpinning Beijing's efforts on international climate change policy. Does Chinese climate policy (both internal and external) follow a logic of appropriateness (i.e. acting as a responsible stakeholder doing what the relevant international players believe is appropriate) or a logic of consequence, focusing primarily on its domestic interests and expected utility?

In the context of the two logics, the "responsible stakeholder" narrative of developed countries could be understood as an attempt to include emerging powers and present them with two clear options of responsible integration (i.e. logic of appropriateness) or irresponsible confrontation (i.e. logic of consequence) (Stuenkel, 2012; Economy & Oksenberg, 1999). Yet it remains up to the system's creators and norm setters to define what "responsible" and "irresponsible" mean. Applying this framework to ICCN, emerging powers have been called irresponsible whenever they happen to disagree with the developed world (Stewart, 2010).

However, the stark dichotomy of emerging powers either confronting the existing order or becoming fully-fledged members of it oversimplifies a more complex reality (Barna et al., 2008: 166-7) because the ascent of China, coupled with both global and regional dynamics, has significantly challenged the global governance system. Both realists and liberal

institutionalists generally take the interests of China for granted or deduce its interests from systemic variables (Bøje Forsby, 2011). On the one hand, realism's state-centric focus fails to see that domestic politics has a fundamental influence in Chinese foreign policy. In the framework of ICCN, the Chinese position is determined by key domestic priorities such as economic development, ecological vulnerability, and energy issues. In this context, the CBDR is seen as a fundamental tool to safeguard China's domestic priorities because it represents an anchor to counterbalance the climate security discourses.

Conversely, the general argument that economic interdependence would lead to reductions of conflicts and improvements of political relations does not work for China. In fact, a liberal unipolar system, what John Ikenberry calls a "one-hub" international system, could best seen as "an organizational complex in which the United States is the organizational hub" (Ikenberry, 2011). Unipolarity is established on the basis of an American-led open and rule-based global system, which can be joined by other great powers.

From this perspective, the US's calls for China to take the role of "responsible stakeholder" indicate that China should come to embrace and accept this system. However, this type of global leadership portrays the United States as a benign hegemon[29] that builds a liberal international order with the cooperation of other countries, which then internalise and implement the values and norms of the hegemon. While China has benefited substantially from the existing international economic order, there is no evidence that the country is moving towards an open, rules-based international order that promotes the US's universal values of liberal democracy, human rights, and economic freedom.

2.2.3 Rethinking the Rise of China through a Constructivist Approach

In analysing which IR theory could best explain Chinese behavior in the international system, and particularly on the issue of climate change, at least two issues prompted by China's rise should be considered. One relates to the application of Western standards for gauging the international behavior of non-Western actors and the second is the lack of language to both articulate and engage the novelty of China's rise (Kavalski, 2009: 2-3).

At a glance, while realism and liberal international relations theories provide valuable insights into the discussion about China's rise, they pay little attention to the ideational side of the

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[29] See at this regard: Kehoane, 1984; Ikenberry, 1989; Nye, 1992.

debate, such as the values and identities that shape the decisions of Chinese policy makers (Liu, 2010). Realists assume that states are the primary actors in the anarchic realm of international politics; therefore they are restricted to seeing threats only from the power maximisation strategies of other states. However, global warming is a common problem and GHG emissions, regardless where they are generated, are dispersed throughout the atmosphere and exert influence on the global climate as a whole (Gardiner, 2006). Moreover, neorealist theorists emphasise structural factors as the driving force of international relations. Specifically, the anarchic international system forces states to privilege survival and power maximisation over other ends. However, assuming that state interests remain fixed over time does not allow one to understand neither China's changing behavior in international climate change negotiations nor its entitlement to play a leadership role in the global South.

On the other hand, a liberal approach could be valuable for a discussion on global environmental governance because it focuses on the role played by institutions within interstate cooperation and is therefore helpful in explaining the basic features of international climate change negotiations. Hence, neoliberal institutionalism captures the transnational element of climate change politics in a way that realism is incapable of doing. However, this approach also implies a number of problems when applied to my research question.

The first problem, as highlighted by Cutler, is the lack of historical awareness. Given that neoliberal institutionalism as a theory is broadly based on game theoretical approaches and a positivist methodology, it fails to capture the historical dimensions of climate change (Cutler, 2002: 181), which is very relevant for Beijing in the framework of international climate talks.

Moreover, much like realism, it takes actors' identities as given. Neoliberal institutionalism subscribes to the notion that states react to the state of anarchy in similar, predictable ways, based on rational analysis. As a rationalist theory, neoliberalism takes utility-maximisation as the underlying motivation behind most state-based action (Sterling-Folker, 2010: 118). A neoliberal analysis therefore struggles with normative concepts such as equity, fairness, or common responsibility, which have been repeatedly invoked and highlighted by Beijing since the establishment of the Climate Convention in 1992.

As a consequence, the limitations of the above mentioned International Relations theories call for a more sociological and identity-based contribution to address my research question. A constructivist lens allows us to understand how China's shifting and evolving identity has shaped the country's behavior regarding its integration into the global economy, providing a lot more explanatory power for China's behavior in international environmental governance.

Identity issues have been a central topic of discussion in Chinese society because as China's role expanded in the international system it has been forced to re-evaluate its identity and preferences (Wong, 2013). Since the policy of reform and opening up began in 1978, China has changed itself and has incrementally joined the international society. In this framework, the shift in China's environmental policy, and, ultimately, climate change policy, from a suspicious and defensive attitude to active engagement in global environmental governance has been largely caused by China's integration into the international economic and social system. It is the opening up that has encouraged China to carry out domestic reform and has eventually led to the three dimensions of China's identity shift outlined in Chapter I. China's new role and proactive engagement in global environmental governance is thus a result of both reform and opening up. Without opening up, the reform could not have been so successful.

A state's attitude toward international society and its international behavior are rooted in its identity. States with different identities have different worldviews, which, in turn, make different impacts upon its foreign policies and strategies. As a state's identity changes, its attitude and policy toward international society also changes (Jepperson et al., 1996: 52). Since the end of the Cold War, constructivist IR scholars have been focused on analysing the revolutionary impact of ideas to transform the organisation of world politics providing insight into the dissolution and creation of new regional and international orders (Barnett, 2014: 157). According to Alexander Wendt, the debate between "neorealist" and "neoliberals" has been based on a shared commitment to "rationalism." Like all social theories, rational choice directs us to ask some questions and not others, treating the identities and interests of agents as exogenously given, and focusing on how the behavior of agents generates outcomes. As such, rationalism offers a fundamentally behavioral conception of both processes and institutions: they change behavior but not identities and interests. On the contrary, a fundamental principle of constructivist social theory is that people act towards objects, including other actors, on the basis of the meanings that the objects have for them (Wendt, 1992). For constructivists, international relations are shaped not just by material forces such as power and wealth, but also by subjective and intersubjective factors, including ideas, norms, history, culture, and identity. Constructivists take a sociological, rather than "strategic interaction" view of international relations. The interests and identities of states are not pre-ordinated or given, but emerge and change through a process of mutual interaction and socialisation (Acharya, 2014).

In order to understand the national identity dimension of China's international relations, it is necessary to assess how identities are constructed and how changing identity discourses are linked to foreign policies. Identity can be defined as the understanding of the self in relation to an "other". The scholarly insight into personal identity can be usually applied to the analysis of national identity and international relations (Neumann, 1992). National identity is a form of collective identity, whereby the identity of a group of people is defined and shaped by its internal cohesion and external relationship with other groups of people. National identity matters because it provides a cognitive framework for shaping state's interests, preferences, worldview and, consequently, foreign policy actions (Kim, 2004: 41). As Wendt argues, without interests, identities have no motivational forces and, without identities interests have no direction (Wendt, 1999: 231). A state (the self) forms its identity in relation to how it evaluates the perception of other states (the other) and their actions. According to Wendt, conditions such as anarchy and power politics are not permanent or "organic" features of international relations, but are socially constructed: "anarchy is what states make of it" (Wendt, 1992). Actors' identities and interests are constructed by intersubjective social structures rather than given exogenously by the system, human nature, or domestic political regimes. Constructivism maintains that states' goals, either material/objective such as economic development, or immaterial/subjective such as international recognition and standing, are generated by their social corporate identities or how they view themselves in relation to other actors in the international community (Griffiths et al., 2008: 52). Therefore, identities and interests can also be transformed.

Through interaction and socialisation, states may develop a "collective identity"[30] that would enable them to overcome power politics and security dilemmas (Acharya, 2014). In this framework, constructivists see diplomacy as a pattern of behavior between states and their environment that may play a central role in helping to confirm, recreate, or challenge their identities (Berger, 1996: 326). In analysing the development of China's post-war international relations, constructivists emphasise the fundamental role of collective identities. Indeed, the concept of collective identities can be used to understand China's diplomacy from the late 1980s onwards, its proactive engagement in multilateral settings in the global South and, more

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[30] Wendt defines collective identity as a positive identification with the welfare of another. It is based on solidarity, community, and loyalty; it discourages free-riding by increasing diffuse reciprocity and the willingness to bear costs without selective incentives. Collective identity is different from an alliance, which is a temporary coalition of self-interested states in response to a specific threat. Collective identity results in multilateral actions against non-specific threats by diffusing reciprocity and increasing the willingness to act on "generalized principles of conduct" (Wendt, 1994).

recently, with the BRICS, and its repositioning from a "taker" to a "maker" of the international order. Constructivist analyses, focusing on the role of national identity in China's strategic choices, gravitate towards seeing diplomacy as a tool that confirms Chinese beliefs about its entitlement to play a leadership role in the global South. According to them, Beijing adheres to traditional norms of sovereignty and non-intervention in its pursuit of a new identity as a responsible great power, based on Chinese concepts of the world order (Odgaard, 2013).

2.3   Normative Power China

Adherence to the traditional norms of sovereignty and non-intervention has had significant implications for the evolution of China's normative power. As noted by Kavalski, this has promoted an understanding that a position of leadership cannot be imposed upon others by force or through domination, but needs to be earned in the process of interaction (Kavalski, 2014: 313). In this regard, Womack argues that this attitude is crucial to understanding China's engagement towards African countries. He singles out respect for the other as the "cardinal virtue" of Beijing's normative power (Womack, 2008). Thus, by focusing on countries that normally do not get much respect or political consideration at the international level, China sets itself apart as a different kind of actor that is welcomed by a large majority of developing countries and emerging economies.

That which is crucial in understanding normative power through a logic of relationships is that the norms underwriting the "normal" are no longer defined by the leading state in terms of "rights and obligations", but emerge as "behavioral standards" accepted by the majority of participating states in the process of interaction (Yan, 2012: 238). A clear example is represented by the normative implications of the AIIB, a multilateral development bank initiated by China in 2013. At the early stage of its formation, the influence of the bank was rather limited, since the United States and Japan immediately rejected the initiative (New York Times, 2014). Notwithstanding the position of the United States, the announcement of the United Kingdom to join the bank, followed immediately after by a large number of Western countries, changed the situation dramatically. As a result, when the AIIB opened for business on 16 January 2016 there were 57 Founding Members. The AIIB, being a Chinese initiative, is an important vehicle to spread Chinese norms of financial governance, which,

since the early 2000s, have been a major target of Western criticism in relation to its foreign aid, above all in Africa[31]. The conventional Western aid programs not only provide financial assistance, but also impose social and political requirements on recipient countries. These conditions are not foreseen in the Chinese legal framework for development. Furthermore, Beijing has not only introduced its norm of unconditionality into the AIIB, but also managed to gain endorsement for this norm from all of the member states of the bank (Peng & Tok, 2016).

Marta Finnemore, in her 1996 book *National Interests in International Society*, analyses the norms of international society and the way in which they affect state identities and interests. State behaviour is defined by identity and interests. Identity and interests are defined by international forces; that is, by the norms of behaviour embedded in international society. The norms of international society are transmitted to states through international organisations and shape national policies by 'teaching' states what their interests should be (Finnemore, 1996). In interpretive and constructivist IR theory, there is a general agreement on the definition of a norm as a standard of appropriate behaviour for actors with a given identity (Katzenstein, 1996; Finnemore, 1996; Klotz, 1995). Furthermore, scholars across disciplines have recognised different types or categories of norms. The most common distinction is between regulative norms, which order and constrain behaviour, and constitutive norms, which create new actors, interests, or categories of action (Finnemore & Sikkink, 1998: 891).

In *International Norm Dynamics and Political Change*, Marta Finnemore and Kathryn Sikkink outline how norm influence may be understood as a three-stage process, the so-called "life-cycle of norms", which explains the political process of norm evolution. The first stage is "norm emergence", followed by broad norm acceptance, or "norm cascade" (Sunstein, 1997), and the third stage involves "norm internalisation". The first two stages are divided by a threshold or "tipping" point, at which a critical mass of relevant state actors adopt the norm. The characteristic mechanism of the first stage, norm emergence, is persuasion by norm entrepreneurs. Norm entrepreneurs attempt to convince a critical mass of states (norm leaders) to embrace new norms. The second stage is characterised by a dynamic of imitation as the norm leaders attempt to socialise other states to become norm followers. At the far end of the norm cascade, norm internalisation occurs; norms acquire a taken-for-granted quality and are no longer a matter of broad public debate (Finnemore & Sikkink, 1998: 895). In the framework of international environmental protection, an example of a new accepted norm and

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[31] See: Zweig & Jianhai, 2005: 31; Taylor, 2009: 1-2; Shambaugh, 2013: 110.

its life cycle is well represented by the successful achievement of the 1987 Montreal Protocol, a landmark agreement for the reduction of global production, consumption, and emissions of ozone-depleting substances (ODSs). In this framework, norms about the environment, climate security, or sustainable development not only regulate what states do, but they can also be connected to their identities and are thus expressive of how they define themselves and their interests. Therefore, norms constitute and redefine state interests and approaches.

As previously mentioned, in analysing norms and interests in China's domestic and international climate change policy, the aim of this research is to investigate the logic behind Chinese actions. In considering climate change as a problem whose solution necessitates the transformation of energy – and ultimately economic – systems, adopting March and Olsen's analysis, both normative (logic of appropriateness) and interests-based (logic of consequence) explanations can be considered in analysing Chinese activism in national and international climate change policy. In this regard, as argued by March and Olsen[32], although there is some tendency for society to be divided into separate spheres, each based primarily on either consequential calculation or rules, the two logics are not mutually exclusive. As a result, political action generally cannot be explained exclusively in terms of a logic of either consequences or appropriateness. Any particular action probably involves elements of each. Political actors are constituted both by their interests, by which they evaluate their expected consequences, and by the rules embedded in their identities and political institutions. They calculate consequences and follow rules, and the relationship between the two is often subtle and mutually reinforcing (March & Olsen, 1992).

In this context, following the logic of consequences, China acts on climate change because it believes to be working to its own advantage by simultaneously tackling the considerable domestic problem of environmental degradation and pollution, as well as by achieving energy security. Furthermore, following the same logic, China participates actively in the ICCN and is investing great diplomatic and economic resources in SSC in the field of climate change because it sees these actions as commensurate to playing a leadership role in the global South. On the other hand, following the logic of appropriateness, China can be interpreted as taking a proactive role in global environmental governance because there is a strong (normative) expectation from the international community for Beijing to take on commitments, proportionate to its level of economic development.

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[32] According to March and Olsen there are four interpretations of the relationship between the two logics. However, they believe that the two logics are sufficiently distinct to be viewed as separate explanatory devices.

With the aim of (1) reconverting its "brown" and energy-intensive economy toward a more efficient and low-carbon one[33], (2) opposing the development of environmental norms which could negatively impact its economic growth and, finally, (3) enhancing its international image of a responsible rising power, Beijing has started to act as a norm-driven actor behaving in accordance with and building consensus around the CBDR principle.

Using Finnemore and Sikkink's approach, the development of the climate security paradigm, led by the US and carried forward by other key Western countries, could be read as an attempt to create a new set of constitutive norms that, among other social effects, also constrain China's growth. By analysing China's push towards clean energy technologies and its increasing proactive engagement in global environmental policy, I argue that its adherence to the CBDR has been integral to creating a network of partners. This network is built on the collective identity of the global South to promote an alternative model of development – one that allows for the possibility to oppose the securitisation of climate change. Thus, China's response to what it encounters internationally as a North-driven securitisation of climate change has been based in a broader process of identity construction and performance, both domestically and abroad.

Following Ian Manners' oft-quoted proposition that normative powers are only those actors that have the ability to shape what is considered normal in international life (Manners, 2002), the notion of a "normative power China" might appear provocative and controversial (Pu, 2013), especially if applied to global environmental governance. In fact, for many years, the common narrative on global environmental policies has been that China was the climate villain obstructing and delaying the international negotiations on climate change (USHC on IR, 1998). The country has been blamed for acting irresponsibly and for hampering any United Nations Security Council resolution on the threats that climate change poses (UNSC 6587th meeting, 2011).

On the contrary, in the last decade, both internationally and domestically, China has manifestly made considerable progress in the field of R&D spending on green energy, low carbon technologies development, and environmental protection legislation. Beijing signed the Kyoto Protocol in 1998, and since then, it has upheld the UNFCCC as the most authoritative, universal, and comprehensive international framework for coping with climate change (SCIO, 2008), and it has also treated the Kyoto Protocol as the basic framework and

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[33] See: Der Spiegel, 2005; Craig, 2007; Wang & Zheng, 2007; Lewis, 2008; Friedman, 2009; Kennedy, 2010; Hu & Liang, 2011; Ng & Mabey, 2011; Chen, 2012; Wang & Zheng, 2013; Gallagher, 2014; Wang et al., 2014; Mathews, 2015; Mathews & Tan, 2015.

legal foundation of international cooperation for addressing climate change (SCIO, 2011). Moreover, China has acknowledged the need for a post-Kyoto agreement and has actively worked for it. China has also accepted voluntary targets for developing countries and has lowered its resistance to the international monitoring of developing country mitigation efforts. Internationally, by drawing on climate diplomacy and SSC, Beijing has developed a large number of partnerships and cooperative frameworks on climate policies, above all with African countries and other emerging economies, which have significantly improved its diplomatic credentials in the framework of ICCN.

Based on the discussion about normative power China, Kavalski stresses that external perception is another essential criterion of a normative power qualification. He argues that since normative power emerges from interactions with others, recognition from one's social counterparts is also crucial for an international actor to qualify as a normative power (Kavalski 2013: 250). In other words, there needs to be an intersubjectively established understanding of China as a normative power for it to be one. In this regard, new institutions and instruments promoted by China, combined with the long lasting efforts the country is implementing in its African policy, could be understood as the basis of Beijing's strategy to build consensus around its ambitions to secure the role of the global South's leader in the framework of ICCN.

The study of "normative power China" is a recent subject in IR (Kavalski, 2007, 2012; Zhang, 2011; Pu, 2012; Wang, 2009; Womack, 2008). Until the early 1990s, developing countries were assumed to be the "passive recipients of the external rule scripted by the template of colonialism or Cold War bipolarity system" (Kavalski, 2012: 2). Today, the international geopolitical context is changed and is dominated by the rise of new powers seeking a global political role comparable with their increased economic relevance in world affairs. The idea that rising powers will either challenge or be assimilated into the existing order does not reflect the state of today's world and needs to be updated to understand the rise of China and its consequences for world politics (Gat, 2007; Jacques, 2009; Kupchan, 2012). In fact, while China has shown its willingness to work within the system, internalising some of its basic norms and by being involved in a number of international organisations and multilateral dialogues, it has also endeavoured to reshape other norms to defend its national interest and domestic priorities.

Seeing itself as a large country with a five-thousand-year-old of civilisation, China desires and expects to gain a proper status in the international system and a proper identity in international society, which fit and correspond to its land scale, population size, resources,

and history (Qin, 2010: 226). In the framework of ICCN, the uncompromising position of Beijing around the CBDR principle and its refusal to accept the climate security paradigm suggests that any expectations that China will undertake a clear process of "socialisation", passively adopting international existing norms, may be misplaced. Given the choice between the two stark options of passive acceptance or complete refusal, Beijing is instead undertaking a third path by internalising selected global practices and norms while at the same time claiming its seat at the table in order to rewrite some others.

Most existing IR theories tend to focus on how emerging powers are socialised into the existing international norms and orders (Johnston, 2007) but the other side of the story, how emerging powers might influence the evolution of norms, has been relatively under-theorised (Pu, 2012:47). However, Beijing's increasing economic and political clout demonstrates that non-Western actors can be equally able and willing to engage in the global playground (Kavalski, 2009: 2) with the aim of shaping existing norms. This process was accelerated after 2008, when the global financial crisis seriously undermined the economic strengths of many of the dominant players of the world economy. While in 2009 the United States and other Western powers were still struggling to revive their economies, China had quickly recovered and by the end of 2008 become the world's largest creditor nation and holder of foreign reserves. Making its economic development less dependent on Western consumers, China has grown rapidly, boosting its confidence and leading to a reassessment of the global strategic environment. America's weakened position and China's continued rise were said to be a clear indication of the changing global balance of power (Li, 2013). At the same time, the so-called China Model started to attract considerable international attention.

In fact, even before the outbreak of the financial crisis, China's confidence in its own role (constitutive of its shifting identity) in the world was already present in Chinese political discourses. In an internal speech to the party's powerful Foreign Affairs Leading Small Group in January 2006, President Hu Jintao said that "the enhancement of China's international status and international influence must be reflected both in hard power including the economy, science and technology, and national defense power and in soft power such as culture" (Glaser & Murphy, 2009). In this regard, as argued by Buzan, the often-heard Western reservation that China does not possess persuasive soft power appeal is not so much erroneous as it is irrelevant (Buzan, 2010: 22). In fact, over the last decade, PRC leaders and elites have made a strong effort to develop China's own understanding of soft power and cultural influence in order to advance its global position.

Through the projection of its soft power, China presents itself to the world as a source of ancient wisdom and high technology, which together form an alternative model of progress and development (Callahan & Barabantseva, 2011: 3). This image reinforces China's entitlement to play the role of climate leader in the global South.

2.4 "Norm Making" and "Normative Power"

Following the work of Ian Manners, the concept of "normative power" refers to an actor's ability to shape or change what passes for normal in international relations (Manners, 2002). According to Manners, the concept of normative power is at its core ideational rather than material or physical. This means that its use involves normative justifications rather than the use of material incentives or physical force. In the post-Cold War period, the power of ideas and ideation has been seen as particularly influential in the evolution of the European Community into the European Union (EU). Such ideas have helped create an EU which is concerned about more than economic policies and which exercises more than material forms of influence and power (Manners, 2009).

Furthermore, the legitimacy of normative power should primarily be analysed through the principles that it promotes. The legitimacy of principles in world politics may come from previously established international conventions, treaties, or agreements, particularly if these are important within the UN system.

Overall, these principles can be summarized as the core values of peace, freedom, democracy, human rights, and the rule of law, as well as the objectives of equality, social solidarity, sustainable development, and good governance (Manners, 2009). In this context, the EU's constitution as an "elite-driven, treaty based, legal order," means that its identity and behavior are fundamentally based upon a set of common values (Manners 2002). Among those, five core norms — peace, liberty, democracy, rule of law and respect for human rights and fundamental freedoms — are said to exemplify the EU as a "normative power" and define the principles and objectives of the EU's "presence" in the international arena (Allen & Smith, 1990). By integrating these norms with its various bodies' official and legal documents, white papers, and formal and informal statements of its representatives, the EU reinforces expectations that it will promote these norms in its external relations with the rest of the world.

Therefore, being a normative power seems to imply not only the ability to shape norms and act as a norm entrepreneur but also one's adherence to and the promotion of a common set of values which are considered legitimate by state and non-state actors globally.

As a consequence, being a norm maker does not imply automatically the status of normative power. A clear example of this subtle but fundamental difference between "normative power" and a "norm maker" is "Official Development Assistance" (ODA).

ODA is one of the instruments used by the EU as an international actor - and by its Member States at the bilateral level - to spread some of the norms discussed above. The EU does this by making ODA an object of its positive and negative conditionality, i.e. by insisting on a set of social and political requirements in relations with aid-receiving countries[34].

On the contrary, China rejects the imposition of political or economic conditions considering it as interference in recipients' domestic affairs. Instead, Chinese leaders insist that achieving economic growth in recipient countries should be the core objective of assistance programs (Reilly, 2012). In its latest 2014 White Paper on Foreign Aid published in July 2014 Beijing stated that:

> *"When providing foreign assistance, China adheres to the principles of not imposing any political conditions, not interfering in the internal affairs of the recipient countries and fully respecting their right to independently choosing their own paths and models of development. The basic principles China upholds in providing foreign assistance are mutual respect, equality, keeping promise, mutual benefits and win-win" (SCIO, 2014).*

Although Beijing's aid and cooperation programs implemented in the framework of SSC do not follow the OECD-DAC guidelines[35], China's active engagement in several norm-setting forums has allowed Beijing to switch from the role of norm taker to the one of norm maker. In fact, for China to be a successful norm maker, other states have to accept its ideas as valid and appropriate standards and this seems to be the case above all for an increasing number of developing countries and emerging economies[36].

This does not constitute the type of explicitly value-driven and value-oriented social practice across a number of issues that the Manners-inspired literature on the EU's normative power tries to account for. It is a qualitatively different kind of norm entrepreneurship and is distinct

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[34] See: Zanger, 2000; Rich, 2004; Sippel & Neuhoff, 2008; Kitt, 2010; Carbone, 2010; Stichelmans, 2016.

[35] The main guidelines of the Organization for Economic Cooperation and Development's Development Assistance Committee (OECD-DAC) are the 2005 Paris Declaration on Aid Effectiveness and the 2008 Accra Agenda for Action: http://www.oecd.org/dac/effectiveness/34428351.pdf.

[36] See Chapter VIII, paragraph 8.3 for further details.

from the European Union's diplomatic and rhetorical effort to maintain (at least a semblance) of normative consistency across nearly every policy and political issue with "external" implications. However, as section 2.3 of this chapter has already argued, China's foreign, development, trade, and environmental policies are integrated with identifiable normative practices, albeit of different scope, legitimacy, and application. The concept of "normative power China" is understood here as the capacity of Beijing to push for the (formal and informal) adoption of a relatively specific set of rules and flexibilities in the framework of international environmental governance. Therefore, the term "normative power China" refers here solely to the capacity of the PRC to act as a norm maker within the international system on specific issues. A conceptual alternative would be to study China "merely" as a "norm maker" and preserve the status of "normative power" for the EU alone. However, this would be at odds with important aspects of Manners' work on value-driven elite behavior, and would artificially limit the concept to largely one actor in world politics (sui generis as that actor may be). Kavalski (2014) and Womack (2008) make a strong case against this, as does, arguably, the remainder of this work.

Chapter III: Methodology

The empirical part of this research examines the drivers behind China's increased engagement in global environmental policy. Ultimately, it scrutinizes the proposition that Beijing is developing an alternative model of sustainable economic development moving from the role of norm taker to the one of norm maker in the framework of International Climate Talks.

To this end, a tripartite document, literature, and discourse-analysis approach, broadly defined, is employed to investigate the evolution of China's environmental policy both at domestic and international level; a process this thesis claims has been centred on the three interconnected elements of its identity shift. This chapter first outlines data collection methods and sources that will be used. It then moves on to present the study's tripartite data processing method.

3.1   Data Collection

Data collection and processing have been designed to buttress this dissertation's hypothesis that:

1) The political and economic transformation following the reform and opening up policy undertaken by the People Republic of China since 1978 has been contingent upon, and has reinforced, an identity shift based on three main interconnected elements, namely:

   a) China's self-perception in the international political-economic system as a leading developing nation within the Global South;

   b) China's concerns over the growing economic, social and political costs of its environmental degradation and pollution, mostly due to its economic and industrial development based on fossil fuels;

   c) China's increasing concerns over its energy security.

2) This identity shift has been reflected at the international level in Beijing's changing attitude toward global environmental governance;

Therefore, this dissertation analyses the PRC foreign policy, diplomatic, economic/development energy and other associated discourses in contexts relevant to the research question and core hypothesis. Specifically, it considers:

a) Beijing's "rhetorical action" aimed at framing climate change as a North-South issue, primarily through the promotion of the Common but Differentiated Responsibility norm;

b) The security dimension of climate change in China vis-à-vis the Western-led environmental security discourses;

c) Chinese discourses related to the processes of reform and opening up launched in 1978 as well as those – both new and re-framed – related to the post-Deng period, namely:

- the five principles of peaceful coexistence;
- socialism with Chinese characteristics;
- China as a 'permanent country of the Third World with international obligations'[37];
- the peaceful development;
- the Beijing consensus;
- Chinese soft power;
- the south-south cooperation (i.e.: the shift from "economy serves diplomacy" to "diplomacy serves the economy");
- the Chinese dream of the Great rejuvenation.

Moreover, in order to contextualize these foreign policy, diplomatic and other associated discourses in the framework of Chinese domestic, as well as international environmental and climate change policy, I will analyse:

a) China's framework policy and approaches to climate change, and

b) China's role in the framework of international climate change negotiations;

While more detail will be offered below on this dissertation's use of discourse analysis, a note associating it with data sources is opportune here. A discourse analysis approach to investigating China's climate policy and diplomacy in the context of the country's economic and political rise is crucial to understanding how discourses on environmental justice, equity or fairness act as powerful tools for Beijing to defend and promote its interests. As argued by Hajer and Versteeg, studying environmental politics through a discourse analysis approach has three particular strengths: the capacity to reveal the role of language and its social context in politics, to reveal the embeddedness of language in practice, and to illuminate mechanisms

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[37] Deng marked two key points for Chinese foreign policy: China would have always belong to the Third World and, notwithstanding its level of economic development, it would never seek hegemony. See: Solé-Farràs, 2016.

by which a policy does or does not come about and answer 'how questions' (Hajer & Versteeg, 2005).

Regarding the first strength, as already mentioned, defining climate change in the framework of sustainable development rather than security policy is strategically crucial to Beijing and tied to its evolving identity. Understanding climate change through a language of security instead of that of development would turn climate change into a military problem rather than one of societal welfare. This would, in turn, narrow considerably the field of action and the policy choices available to tackle it.

With reference to the second strength, applying a discourse analysis approach allows this research to understand how a number of actors actively try to influence the definition of a problem or an issue, as they try to impose a particular frame of thought or discourse upon a discussion. In this regard, the case of the CBDR principle is an emblematic one.

Finally, regarding the method's third strength, analyses of discourses can help to illuminate why certain definitions do or do not catch on at a particular place and time and help to explain the mechanisms by which a policy does or does not come about. For example, it provides a valuable key to understanding why for Beijing water, food, or energy are all perceived as security issues, while climate change is classified solely as a development one, remaining the singular global concern in the broad framework of environmental protection that has not been securitized yet through Chinese governmental discourses.

On the basis of this dissertation's research question and hypothesis, empirical data have been collected to paint a picture of China's shifting role and behaviour in international climate talks as tied to the country's multipronged identity shift. Both primary and secondary sources have been used accordingly.

A crucial pool of data that has driven this study comes from in-depth analyses of monographs, newspaper articles, governmental documents, official statements and speeches about the evolution of (1) the international climate change regime, (2) Chinese security policy, (3) Chinese foreign policy, (4) Chinese environmental policy, and (5) Chinese development policy. The reason for focusing on the secondary literature as a critical source of data is due to its advantages in accessibility and coverage.

In addition, literature on China's National environmental policy has been gathered from conversations with researchers of the Chinese Academy of Social Sciences (CASS) during two short-term visit in Beijing in October 2012 and September 2013 where I had the opportunity to present and discuss my research topic with researchers of the Institute for Urban and Environmental Studies of the CASS. On that occasion, I also had the opportunity

to exchange views with a number of researchers who worked on China's 2013 National Human Development Report, prepared in collaboration between UNDP China and the Institute for Urban and Environmental Studies of the CASS.

Data for this project consist of six main categories:

1) Textual (categorical, qualitative) and quantitative data from Chinese publications (in English) including official government statements and declarations, academic articles and newspaper articles on Chinese foreign policy and diplomacy, Chinese security policy, Chinese climate change policies, Chinese development policy (mainly the 10th, 11th and 12th FYP), China environmental policy, Chinese soft power and South – South cooperation.

   In this context, I also collected news articles from Xinhua - China's official state news agency - and the China Daily, an English language Chinese newspaper often used as a guide to government policy, and which is run by the Publicity Department of the Communist Party of China. These articles have been collected from 2007 to 2015 and selected via a set of keywords, including (but not limited to) "global warming", "climate change", and "environmental security". The data so collected has been used primarily to trace the evolution of narratives in how the government communicates issues of climate change.

2) Data and policy documents from international organizations such as the WB, the UN and its agencies (mainly UNDP and UNEP) and IEA on China economic development, China GDP trend and China CO2 emissions;

3) Textual (categorical, qualitative) and quantitative data drawn from conference proceedings and final statements related to major international conferences on environment and development from the 1972 Stockholm Conference on the Human Environment to the 2012 United Nations Conference on Sustainable Development (Rio + 20);

4) Textual (categorical, qualitative) and quantitative data extracted from conference proceedings, speeches and official statements of the UN Security Council and at the UN General Assembly related to the discussions held on climate change and security from 2007 to 2013;

5) Textual (qualitative, categorical) data drawn from decisions, conference proceedings, speeches and final statements related to the first 21 *Conferences of The Parties to the United Nations Convention on Climate Change* with a particular focus on COP 3 (Kyoto, 1995), COP 7 (Marrakech, 2001), COP 13 (Bali, 2007), COP 15

(Copenhagen, 2009), COP 16 (Cancun, 2010), COP 17 (Durban, 2011), COP 18 (Doha, 2012), COP 20 (Lima, 2014) and COP 21 (Paris, 2015).

6) Data related to the five Assessment Reports of the Intergovernmental Panel on Climate Change (mainly from the Summary for Policymakers):

    a. IPCC First Assessment Report (FAR), 1990 and the 1992 Supplementary Report requested in the context of the negotiations on the UNFCCC at the Rio Earth Summit;

    b. IPCC Second Assessment Report (SAR), 1995;

    c. IPCC Third Assessment Report (TAR), 2001;

    d. IPCC Fourth Assessment Report (AR4), 2007;

    e. IPCC Fifth Assessment Report (AR5), 2013;

Moreover, I conducted a literature review of theories related to:

- The North-South divide;
- A Liberal and Realist Perspective of China's rise;
- A Constructivist perspective on the rise of China;
- Emerging powers as normative powers;
- Emerging power's role in International Development; and
- The changing concept of security and environmental security studies;

Data collection has been conducted in light of my hypothesis and data analysis has been performed adopting a Social Constructivist approach in an attempt to address my research question.

While details about the theoretical foundations of this research will be discussed in the following chapter, the core idea is that both Realist and Liberal International Relations theories display limitations in understanding the evolution of China's climate policy and diplomacy in the context of the country's economic and political rise. Therefore, a more comprehensive account calls for an identity-based contribution built upon a social constructivist approach.

Discourses articulated as concepts, narratives, and practices are generally theorized as the "non-material" or "ideational" kind of unit of analysis in the conventional material-ideational divide in the philosophy of social sciences" (Wendt, 1999). The inadequacy of Realist and Liberal theories emerges in particular from the limited attention that they pay to the ideational factors of the debate about China's rise, such as the values and identities that shape the decisions of Chinese policy makers (Liu, 2010). Therefore, a Social Constructivist approach

has been selected since it allows to create a coherent analytical framework following the underlying theme of this research: China's identity construction and its links to the country's national interest.

3.2   Data Processing: Document and Literature Analysis

Like other analytical methods in qualitative research, document analysis requires that data be examined and interpreted in order to extract meaning, gain understanding, and develop empirical knowledge (Rapley, 2007; Corbin & Strauss, 2008). This analytic procedure entails finding, selecting, appraising (making sense of), and synthesising data contained in documents. Document analysis yields data - excerpts, quotations, or entire passages - that are then organised into major themes, categories, and case examples specifically through content analysis (Labuschagne, 2003).

As a research and data processing method, document analysis is particularly applicable to qualitative case studies such as intensive studies producing rich descriptions of a single phenomenon or event (Yin, 1994; Stake, 1995). In this regard, this type of research method fits well with the analysis of the economic, political, and diplomatic rise of China. Much ink has been spent in recent years analysing what this "rise" implies (Albramowitz & Bosworth, 2006: 13–14) through a variety of methodologies and conceptual approaches, but document analysis is also useful to unpacking the wide and perhaps even more discussed themes of climate change and international climate change negotiations. Non-technical literature, such as reports, minutes of policy meeting, conference proceedings, etc., can provide a potential source of empirical data for the research. As Merriam pointed out, 'Documents of all types can help the researcher uncover meaning, develop understanding, and discover insights relevant to the research problem' (Merriam, 1988: 118).

As highlighted by Bowen in *Document Analysis as a Qualitative Research Method*, 'documents can serve a variety of purposes as part of a research undertaking' which can be summarised to 'provide background and context, additional questions to be asked, supplementary data, a means of tracking change and development, and verification of findings from other data sources' (Bowen, 2009: 29-30).

In this research, and by following Bowen's approach, document analysis has been carried out to:

a) Provide background information and create a solid knowledge base about the phenomena under investigations, namely:
  - The changing concept of security in the post-Cold War period;
  - The development of environmental and security studies;
  - Different conceptions of power in International Relations;
  - The changing balance of power between the global South and the global North and its repercussions in ICCN;
  - China's broader political, economic, and military "rise" in international affairs;
  - The changing role – and identity – of China in a multipolar world.

b) Provide historical insight as well as track changes and development of those phenomena, and

c) Verify findings and corroborate evidence by comparing different sources in order to solidify the research argument and rule out possible alternative explanations.

Thereupon, information collected has been organized into ten main categories related to the central question of the research:

1. Information and data related to the genesis, historical roots and development of the present climate regime;

2. Information related to the North-South Divide;

3. Information related to Chinese policies and programs in the field of environmental protection and climate change;

4. Information related to Chinese development policy through the evolution of its Five Years Plan on National Economic and Social Development;

5. Information and data related to the Chinese political and economic expansion in Africa;

6. Information related to the concept of soft power and, specifically, to Chinese understanding and use of soft power;

7. Information related to the economic and political rise of emerging powers with a specific focus on the BRICS countries;

8. Data related to the analysis and interpretation of the meaning of "China's rise" from the perspective of three principal International Relations theories: realism, liberalism, and constructivism;

9. Data related to the academically and politically evolving concept of security, its progressively broadening in the aftermath of the Cold War, and the development of the climate security paradigm;

10. Information and data related to scientific evidence of climate change and its potential negative impact on international security;

11. Information related to the concept of normative power and, specifically, the concept of "normative power China";

12. Information related to Chinese collective identity, specifically in relation to its changing behaviour in ICCN;

The usefulness of the data collected has been assessed in function of its systematic contribution to the logical development of the argument. In this process, I have progressively selected core information and separated it from contextual or tangential information less relevant for the construction of the core argument and its substantiation.

Regarding the collected data, it is worth cautioning that a relatively large quantity of material pertinent to categories 1 through 10 is not matched by studies (secondary data) related to identity-based and sociological explanations of China's changing role and behaviour in ICCN, in particular regarding the notion of Chinese normative power.

3.3   Data Processing: Discourse Analysis

According to Vivien Burr, discourse is a form of social action that plays a part in producing the social world – including knowledge, identities and social relations – and thereby in maintaining specific social patterns. Our knowledge of the world should not be treated as objective truth. Reality is only accessible to us through categories, so our knowledge and representations of the world are not reflections of the reality 'out there', but rather are products of our ways of categorising the world, or, in discursive analytical terms, products of discourse (Burr 1995: 3). Hajer and Versteeg, define discourse as 'an ensemble of ideas, concepts and categories through which meaning is given to social and physical phenomena, and which is produced and reproduced through an identifiable set of practices' (Hajer & Verteeg, 2005).

Overall, discourse analysis is the analysis of these patterns. Discourse analysis is a broad and diverse field, including a variety of approaches to the study of language, which derive from

different scientific disciplines and utilize various analytical practices (Wetherell, et al., 2001). In discourse analysis, language is examined in terms of construction and function; that is, language is considered a means of constructing, rather than mirroring, reality. Discourse analysis, therefore, examines how certain issues are constructed in individual and group accounts and the variability in these accounts. It explores the rhetorical aspects and the functions of talk in the context of the on-going interaction (Potter & Wetherell, 1987).

Thereby, John L. Austin, in his series of lectures published posthumously as *How to Do Things with Words*, argues that a statement or 'the uttering of a sentence is, or is part of, the doing of an action' (Austin, 1975: 5). He presented a new picture of analysing meaning; meaning is described in a relation among linguistic conventions correlated with words/sentences, the situation where the speaker actually says something to the hearer, and associated intentions of the speaker. The idea that meaning exists among these relations is captured successfully by the concept of acts: in uttering a sentence, that is, in utilizing linguistic conventions, the speaker with an associated intention performs a linguistic act to the hearer (Oishi, 2006). For Austin, different circumstances require that words are uttered in different and appropriate ways, and, it is usually analytically desirable that the person uttering a certain statement performs other physical or mental actions (Austin, 1975: 8). Moreover, the effectiveness of any statement depends of a series of factors ("felicity conditions") and on their illocutionary force, i.e., the property of an utterance to be made with the intention to perform a certain act.

Furthermore, as underlined by Hansen, the words we use to describe something are not neutral, and the choice of one term over another has political implications (Hansen, 2014: 172). In this sense, defining climate change in the framework of sustainable development rather than security policy has a critical meaning for Beijing. James P. Gee describes discourse analysis as 'the study of language-in-use. Better put, it is the study of language at use in the world, not just to say things, but to do things' (Gee, 2010: ix).

This research adopts a broad and eclectic understanding of discourse that draws on the conceptualizations of Burr, Austin, and others who view discourses as productive and operative. Thereby, the meaning adopted here refers to social forces and relations beyond the linguistic or the "text", and engages with the *con*-text of the textual. In fact, as previously mentioned, I argue that in order to fully understand China's shift in global environmental governance, it is necessary to embed it into the wider context of China's economic and political rise.

Studying China's economic and political rise' by adopting a methodological approach based on document and discourse analysis is crucial to understanding transformations and continuities in contemporary Chinese identity politics. In fact, with levers and mechanisms of social control being relatively centralized in China's political system of "fragmented authoritarianism", speeches, statements, and formal and informal remarks of the Communist Party and state leadership articulate critical concepts and imaginations of the nation's Self and its foreign, security, trade, energy, and environmental policies (Brødsgaard, 2017).

Overall, drawing on these general guidelines, the following key discourses have been analysed in relation to their contribution to the development of the core argument and in order to answer the research question:

1. *Environmental security discourses* – Environmental security discourses largely emerged in the aftermath of the Cold War and have become one of the "new" non-traditional security issues that have served to deepen and broaden the concept of security. Scholars of environmental security argue that if environmental change is a potential source of destabilisation and conflict, then security policies must be redefined to account for these threats (Conca & Dabelko, 1998). Most of the discourse's key promoters are actors from the Global North, such as the government of the United Kingdom and the United States' security institutions and state apparatus. Their arguments largely build on the assumption that climate conflicts and climate migration will predominantly originate in the Global South (Boas, 2014).

2. *China's official (governmental and academic) conceptions of national and international security* – Following the collapse of the former Soviet Union and the end of the Cold War, the Western debate around the redefinition of the concept of security has also altered the context of Chinese security thinking. Chinese analysts started then to consider a new broader concept of security which have been incorporated in the 1996 New Security Concept.

3. *The discourse of peaceful coexistence* – The Chinese leadership originally enumerated five principles of peaceful coexistence in 1954 when China was trying to reach out to the non-communist countries of Asia. Today, these principles are central in the new international political and economic order that Beijing proposed to replace Cold War bipolarity. They offer an alternative to the Western conception of "world order" which stresses the equal, uninfringeable sovereignty of all states (democratic and authoritarian as well), each to run its own system whether its methods suit Western

standards or not. The Five Principles has been the basis of Hu Jintao's 'harmonious world 'discourse and Xi Jiping "China Dream".

4. *China Threat discourse* – China's economic rise has been largely viewed with uncertainty and anxiety in the Western world. Its rapid economic growth, military modernisation, and increasing appetite for energy has prompted many in the United States and Europe to talk about a "China Threat" which led to the development of the so-called China Threat Theories.

5. *China's Peaceful Development* – Since the early 1990s China's leadership has been engaged in a significant diplomatic effort aimed at reassuring the international community of "China's peaceful rise" which calls for a harmonious international environment for China's growth. The concept was the object of a White Paper in 2005 and of a second one in 2011.

6. *Harmonious Socialist Society* – This preexisting discourse was rearticulated and reinforced in 2007 and presented as "scientific outlook on development" that "calls for comprehensive, balanced and sustainable development" (Wang & Zheng, 2007; Xinhua, 2007).

7. *Sustainable development discourses* - The notion of sustainable development is one of the key discursive framings of China's process of economic and social transformation. The Government, in particular the National Development and Reform Commission (NDRC), have deployed and been both enabled and constrained by this discourse in underscoring its comprehensive mandate to steer processes of economic, social, and environmental development (Kuhn, 2016).

8. *Ecological Civilization and Inclusive Growth* – The term of ecological civilisation is part of a series of visionary discourses about civilisations, societal transformations, and economic reforms that have a long tradition in China. Ecological civilization and inclusive growth are two interrelated discourses embedded in the 12 Five Year Plan for National Economic and Social Development (2011 – 2015) which marked the shift toward a low-carbon economic model of growth.

9. *Environmental justice* – Environmental justice is intrinsically linked to the broader discourse on the North-South divide and has been a recurrent discourse in the effort of the global South towards a New International Economic Order (NIEO) during the 1970s. In the context of ICCN discourses on environmental justice have been instrumental to support and strengthen the position of the global South in defending the rationale of the CBDR norm.

10. *China's discourses on soft power* – The concept of soft power fully entered Chinese academic discourse when former President Hu Jintao made a specific mention to 'soft and cultural power' in his keynote address to the Seventeenth Party Congress in 2007 (Shambaugh, 2013: 210). Academic, policy, and political elites in the West have criticized China's understanding and use of the concept as disingenuous, ineffective, and strategic. Conversely, a degree of practical engagement with it has been identified in some African political and business elites.

11. *The Chinese Dream of the Great Rejuvenation* – The Chinese Dream is a discourse proposed by Xi Jiping in 2012, which involved a combination of a higher standard of living and the ascent of China to Global Power status. As asserted by Yang Jiechi, former Ambassador to the US and Chinese Minister of Foreign Affairs from 2007 to 2013, the Chinese Dream is a tool appropriate to and useful in boosting China's influence in international relations, thereby underwriting strong integration between China's domestic and foreign policies (Yang, 2014).

Even if the concept of environmental degradation was clearly mentioned on the 1996 NSC, Chinese official narrative and discourses started to become structurally associated with environment and climate change starting with the last period of the 10th FYP (2001-2005). A significant watershed for domestic climate change policy came in 2007 with the National Climate Change Programme.

Chapter IV: Environmental Security and Climate Change: Analysing the Discourse

"The majority of the United Nations' work still focuses on preventing and ending conflict, but the danger posed by war to all of humanity and to our planet is at least matched by the climate crisis and global warming... [the effects of climate change are] likely to become a major driver of war and conflict."

United Nations Secretary General, Ban Ki-moon, Geneva, March 1, 2007

On 15 February 2013, the United Nations Security Council (UNSC) hosted an Arria Formula meeting[38] co-chaired by UK Ambassador Mark Lyall Grant and Pakistan Ambassador Masood Khan on the security dimension of climate change. This was not the first time that the UN Security Council had such a debate. A previous debate was held on 20 July 2011, with a focus on the impact of climate change on the maintenance of international peace and security and, back in April 2007, the Security Council held its first ever debate on the impact of climate change on international security.

On that occasion, as well as on occasions that followed, there was a strong opposition from China, Brazil, India, Russia, and the entire G77 that argued that climate change was a socio-economic development issue to be dealt with within the appropriate UN Bodies, in particular the United Nations Framework Convention on Climate Change (UNFCCC), and not by the Security Council.

China's official English language newspaper, the China Daily, labelled the meeting as a clear attempt to interfere in domestic affairs: *"The call for the international community to address climate change is sensible, but sensationalising it as an issue of security is conspiratorial. Discussing climate change at the Security Council will not help countries in their efforts to mitigate its effects"* (China Daily, 2007; Le, 2007). Developing countries and emerging

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[38] The "Arria-formula meetings" are very informal, confidential gatherings which enable Security Council members to have a frank and private exchange of views, within a flexible procedural framework, with persons whom the inviting member or members of the Council believe it would be beneficial to hear and/or to whom they may wish to convey a message. The process is named after Ambassador Diego Arria of Venezuela, who, as the representative of Venezuela on the Council (1992-1993), initiated the practice in 1992 (http://www.un.org/en/sc/about/methods/bgarriaformula.shtml).

economies argued that the Security Council was not the proper place to discuss such a matter and, even if climate change could have had some security implications, it was essentially a development issue and the Security Council did not have the means nor the resources to address it.

On 16 April 2007, just one day before the debate called by the UK, the G77 and China sent a letter to the President of the Council underlying their concerns regarding the Security Council's involvement in matters of climate change, asserting that:

"The Council's primary responsibility is the maintenance of international peace and security, as set out in the Charter of the United Nations. On the other hand, other issues, including those relating to economic and social development, are assigned by the Charter to the Economic and Social Council and the General Assembly. The ever-increasing encroachment by the Security Council on the roles and responsibilities of other principal organs of the United Nations represents a distortion of the principles and purposes of the Charter, infringes on their authority, and compromises the rights of the general membership of the United Nations" (S/2007/211, April 16th 2007).

However, two years later, in June 2009, the General Assembly adopted a resolution asking all UN Bodies to analyze the implications of global warming in a way that could respect their own specific operating mandates.

In July 2011, Germany, which then presided over the Security Council and organised the second Security Council meeting, stated that the Security Council debate followed up on the General Assembly request, addressing specifically the security implications of climate change faced by small island and coastal states due to rising sea levels. Notwithstanding the strong concerns of the vast majority of developing countries about the possibility of having such a debate at the Security Council again, UN Secretary General Ban Ki-Moon argued that it was not only appropriate but, indeed, essential to hold the debate at the Security Council because *"climate change is real, and it is accelerating in a dangerous manner. It not only exacerbates threats to international peace and security, it is itself a threat to international peace and security"* (UNSC 6587th meeting, 2011).

In the most recent 2013 session, Germany's representative stated that, with the current trends of CO_2 emissions, climate change would produce devastating consequences, representing a high risk to economic growth and a grave threat to peace and security (German Mission to the UN, 2013). Addressing the session, leading German scientist Joachim Schellnhuber, Director

of the Potsdam Institute for Climate Impact Research, explained that rises in global temperatures were likely to have catastrophic consequences: *"Imagine India in 2033. It has overtaken China as the most populous nation. Yet with 1.5 billion citizens to feed, it's been three years since the last monsoon. Without rain, crops die and people starve. The seeds of conflict take root"* (Krause-Jackson, 2013).

While from one side, Germany, the United Kingdom, France, and, above all, the United States, have pushed for climate change to be recognised as a security issue by the UN Security Council, on the other, China, Russia, India, and more than 100 developing countries oppose this approach because the Security Council does not operate under the Principle of Common but Differentiated Responsibility, which underpins the UN climate talks. According to a large number of developing countries and emerging economies, the emphasis and the efforts of the United Nations should be placed on policy responses required for climate change mitigation, and on adaptation measures, finance, and capacity building to reduce the negative effects of global warming, rather than on the security options that its effects will imply. In fact, according to them, understanding climate change as a security issue risks making it a military rather than a foreign policy problem, and a sovereignty rather than a global commons problem (Barnett, 2001: 11).

From a "Southern perspective", environmental security is mainly perceived as a discourse about the security of northern countries; their access to natural resources and the protection of their pattern of consumption (Shiva 1994; Dalby 1999; Barnett 2001). In this context, some developing countries and emerging economies clearly fear the "green imperialism" of the Developed World and the risk of interference in their own security agenda.

Understanding the links between "environment" and "security" has proven to be a challenging issue for policy-makers and researchers over the past years. Analysing the drivers behind different strategies in international climate change negotiations could serve as a useful and interesting exercise in understanding these links and could, furthermore, offer an important indicator of the balance of power between developed countries and emerging economies.

4.1   Climate Change as a Geopolitical Threat: the Scientific Findings

In the last two decades, climate change has progressively become a key global concern affecting almost all fields of science and politics, with huge attention given to it in popular

discourse and in the media, emphasising catastrophic consequences that could virtually impact the entire world. Disaster movies like *The day after tomorrow* (Emmerich, 2004) or books such as *An Inconvenient Truth: The Planetary Emergency of Global Warming and What We Can Do About It*, released in conjunction with the film *An Inconvenient Truth* (Gore, 2006), further reinforced the representation of climate change as a threat and a security issue.

Most of the contemporary concerns about extreme climate events are associated with anthropogenic global warming. This assumption is shared and accepted by the international scientific community but the magnitude of the future change and the variations in impact are disputed. The clearest fact in these studies is the dramatic change in atmospheric CO2 since the beginning of the industrial age, roughly 1790.

In 1988, the United Nations Environment Program (UNEP) and the World Meteorological Organization (WMO) established the Intergovernmental Panel on Climate Change (IPCC) to provide the world with a clear scientific view on the current state of knowledge about climate change and its potential environmental and socio-economic impacts. The IPCC is an intergovernmental body, open to all member countries of the United Nations, which reviews and assesses the most recent scientific, technical, and socio-economic information produced worldwide, relevant to the understanding of the risk of human-induced climate change. It is charged with undertaking a systematic review of climate change research, identifying gaps in knowledge, and recommending options for addressing the problem. The IPCC's assessment work is mainly organised in three working groups. These groups prepare reports on the available scientific aspects of the climate system and climate change (Working Group I - WGI), on the impacts, adaptation, and vulnerability of climate change (Working Group II - WGII), and on the options to mitigate greenhouse gas emissions (Working Group III - WGIII). IPCC reports are written by a team of authors who are all selected experts in their fields. Each report is subject to a first review by scientific experts and a second review by experts and governments. The first IPCC assessment report was published in 1990 and subsequent reports were published in 1995, 2001, 2007 and 2014.

Each report has noted, with increasing confidence, that global warming is taking place, that it is due to anthropogenic causes, and that it will have serious and far-reaching consequences.

The IPCC's work prompted the creation of an international negotiating process that led to the first international environmental treaty, the United Nations Framework Convention on Climate Change (UNFCCC), which was signed at the United Nations Conference on Environment and Development (UNCED), also known as the Earth Summit, held in Rio de Janeiro in June 1992. The UNFCCC commits signatory nations to stabilising greenhouse gas

concentrations in the atmosphere at a level that "*would prevent dangerous anthropogenic interference with the climate system[39]*.

In an effort to clarify which impacts of climate change might be considered "dangerous anthropogenic interference" (DAI) with the climate system, the IPCC'S 2001 Third Assessment Report (TAR) identified five different categories of key vulnerabilities[40] to be considered of particular concern regarding the potential danger for society or the environment. Key vulnerabilities may be associated with many climate-sensitive systems, including food supply, infrastructure, health, water resources, coastal systems, ecosystems, global biogeochemical cycles, ice sheets, and modes of oceanic and atmospheric circulation (IPCC, 2001). The five reasons for concern (RFCs) identified in the Third Assessment Report were:

1. *Risk to Unique and Threatened Systems*, which addresses the potential for increased damage to, or irreversible loss of, unique and threatened systems, such as coral reefs, tropical glaciers, endangered species, unique ecosystems, biodiversity hotspots, small island states, and indigenous communities.

2. *Risk of Extreme Weather Events*, which tracks increases in extreme events with substantial consequences for societies and the environment. Examples include increases in the frequency, intensity, or consequences of heat waves, floods, droughts, wildfires, or tropical cyclones.

3. *Distribution of Impacts*. Some regions, countries, and populations face greater harm from climate change, whereas some others face much less. The magnitude of harm can also vary within regions and across sectors and populations.

4. *Aggregate Damages*, which covers comprehensive measures of impacts. Impacts distributed across the globe can be aggregated into a single metric, such as monetary damages, lives affected, or lives lost. Aggregation techniques vary in their treatment of equity of outcomes, as well as in their treatment of impacts that are not easily quantified.

5. *Risks of Large-Scale Discontinuities*, which represents the likelihood that certain phenomena (sometimes called singularities or tipping points) would occur, any of which may be accompanied by very large impacts. These phenomena include the deglaciation (partial or complete) of the West Antarctic or Greenland ice sheets and major changes in some components of the Earth's climate system.

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[39] Art. 2, United Nations Framework Convention on Climate Change, UN, 1992.

[40] Key vulnerabilities can be identified based on a number of criteria in the literature, including magnitude, timing, persistence/reversibility, potential for adaptation, distributional aspects, likelihood, and relevance of the impacts.

The relationship between impacts for the RFCs and increases in global mean temperature (GMT) were portrayed in what has been called the "burning embers diagram" (Figure 4.1).

Figure 4.1: The five reasons for concern
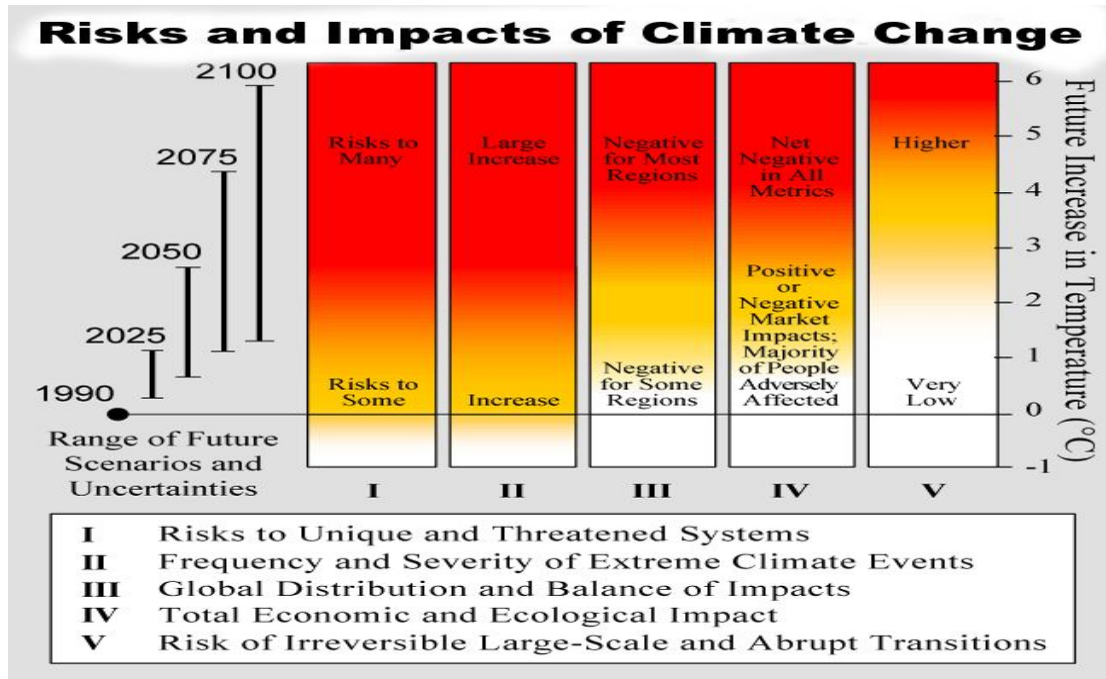
The diagram assumes that GMT could rise by up to 6° by 2100 and seeks to summarise the "reasons for concern" linked to the prospect of rising global temperatures. The diagram schematically represents the level of danger associated with these rises in mean temperature levels for the five categories, from 1990. The change in colour from white to yellow to red is taken to denote risks of increasing magnitude, severity, or geographic spread, and it is this colour palette which gave rise to the nick name "burning embers" among the diagram's creators (Mahony and Hulme, 2012). The potential risks of global warming have been addressed in detail in the IPCC 2007 Fourth Assessment Report, which draws a comprehensive picture of the physical conditions, the magnitude and likelihood of impacts, and the possible strategies for mitigating and adapting to climate change.

The IPCC Fourth Assessment Report, which took six years to be completed and draws on the research of 2,500 scientists from more than 130 countries[41], launched the "global alarm" on climate change, warning that, without drastic reduction of greenhouse gases, the resulting

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[41] IPCC 2007 flyer, available at: http://www.ipcc.ch/pdf/press-ar4/ipcc-flyer-low.pdf [Accessed 30 July 2016]

global warming would produce irretrievable damages to the environment and imperil the lives of hundreds of millions of people. Climate change is predicted to have a range of serious consequences, some of which will have impacts over the longer term, like the spread of disease and sea level rise, while others have immediately obvious impacts, such as intense rain and flooding (IPCC, 2007). These negative consequences of climate change not only threaten the natural environment and ecosystems, but could also negatively interfere with the social, economic, and political stability of a nation.

At the end of 2004, the world witnessed a geologic phenomenon – a tsunami unleashed by a high magnitude earthquake in the Indian Ocean – which killed more than 150,000 people and devastated coastal zones from Indonesia to Somalia. Of the 200 inhabited islands of the Maldives, 14 were rendered uninhabitable or wiped off the map (Black, 2013: 290). Similar devastation will almost certainly imperil low-lying coastal zones and island states as sea levels rise and the acceleration of the global water cycle continues to drive extreme weather events. The tsunami also offered dramatic evidence of how natural disasters can eliminate homes and livelihoods, leaving societies with the challenge of not only relief and rehabilitation, but also the need to reconstruct economic and social activity (Kimble, 2005: 105). It is estimated that the overall costs and risks of climate change impact would be at least 5% of global GDP each year, and if a wide range of risks and impacts are estimated, the damage of climate change could reach 20% of global GDP or more (Stern, 2007: vi).

According to an interesting report prepared by the US National Oceanic and Atmospheric Administration's Climatic Data Center (NOAA), during the 1980-2005 period, the US sustained over $500 billion in overall inflation-adjusted costs due to weather extreme events, mostly hurricanes, storms, and tornados (Lott & Ross, 2006). Of the 66 disasters resulting in at least $1 billion overall damages considered in the report, 57 occurred during the 1988-2005 period. According to Global Reinsurer Munich Re, since 1980, weather related disasters worldwide have more than tripled. In 2011, insurers endured one of the most extraordinarily violent years ever in terms of catastrophes on a global scale. According to 2011 data, mega-catastrophes[42] worldwide caused an estimated $350 billion in economic losses, shattering the previous record of $230 billion, set in 2005. The Insurance Information Institutes estimates

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[42] Though definitions vary, a mega-catastrophe generally generates more than $50b of direct and indirect losses and very often occurs when a single peril triggers associated damage-inducing events. For instance, a hurricane may strike a costal area, causing damage from wind and storm surge; once overland, the storm may spawn tornados and additional rainfall causing even greater amounts of damages (Banks, 2005: 34). Mega catastrophes, by definition, constitute uninsurable risk and therefore no market solutions are likely to emerge by themselves that will be able to deal with this exposure. Therefore, some type of government intervention will be needed (OECD, 2005).

that catastrophe losses around the world shaved 0.5 percent off global GDP in 2011. In the United States, catastrophe losses totaled $33.6 billion, implying economic losses in excess of $75 billion. On an inflation-adjusted basis, 2011 ranks as the fifth most expensive year on record for insured catastrophe losses (Hartwig, 2012).

After the 2004 Tsunami in the Indian Ocean, the earlier scientific hesitancy to link actual weather events to climate change shifted significantly (Oreskes, 2004). However, some environmental scientists and climate experts are still cautious when it comes to assessing and approving a direct cause-effect link between climate change and extreme weather events (Cotton & Pielke, 1995; Watson, 2008). They argue that it is only possible to demonstrate a change that might be attributable to climate by using long-term statistics because the detection of a change in climate requires a long-term record: weather is not climate and short term climate variability is not climate change. With all the natural fluctuations in the climate, an increase in the intensity or frequency of extreme conditions generally only becomes apparent in later stages. Nevertheless, in the last decades, new research, applied to specific events, seems to support the thesis of a climate change linkage with extreme weather events.

A growing body of scientific research has documented that climate change is already underway and some dangerous impacts have already occurred. The most important study in this regard looked at the European heat wave in 2003, the hottest year on record since 1500, and demonstrated that the human-induced contribution to the atmosphere has doubled the risk of heat waves of this magnitude (Scott et al, 2004). These findings illustrated that the 2003 July-August temperatures exceeded the level of normal variation to the point that natural drivers could not account for the deviation from the mean.

For the IPCC, confidence has increased that some weather events and extremes natural events will become more frequent, more widespread, and more intense over the 21st century. Vulnerable systems include water resources, agriculture, forestry, human health, human settlements, energy systems, and the economy. The impacts are specific for each region and they spread from directly impacted areas and sectors to other areas and sectors through extensive and complex linkages (IPCC, 2007).

In a peer-reviewed paper published in the Proceedings of the US National Academy of Sciences, some authors of the 2007 IPCC Fourth Assessment report (AR4) have revised the sensitivities of the RFCs to increases in global average temperature and published a revised version of the "burning embers" graphic (Figure 4.2) following the new data presented in the AR4 (PNAS, 2008). The diagram shows clearly that, compared to the results reported in 2001, smaller increases in global average temperature are now estimated to lead to significant

or substantial consequences for the five RFCs. These 'reasons' are assessed here to be stronger and many risks are identified with higher confidence. Some risks are projected to be larger or to occur at lower increases in temperature.

The new assessment was based on observations of global warming impacts and supported by an improved understanding about the relationship between impacts (the basis for 'reasons for concern' in the AR4) and vulnerability (including the ability to adapt to impacts).

Moreover, since the publication of the AR4 in 2007, the particularly affected regions, sectors, and groups have been identified more precisely. These results indicate that the risks of climate change may have been underestimated in the past.

Figure 4.2: Updated reasons for concern of IPCC AR4 in comparison with IPCC AR3
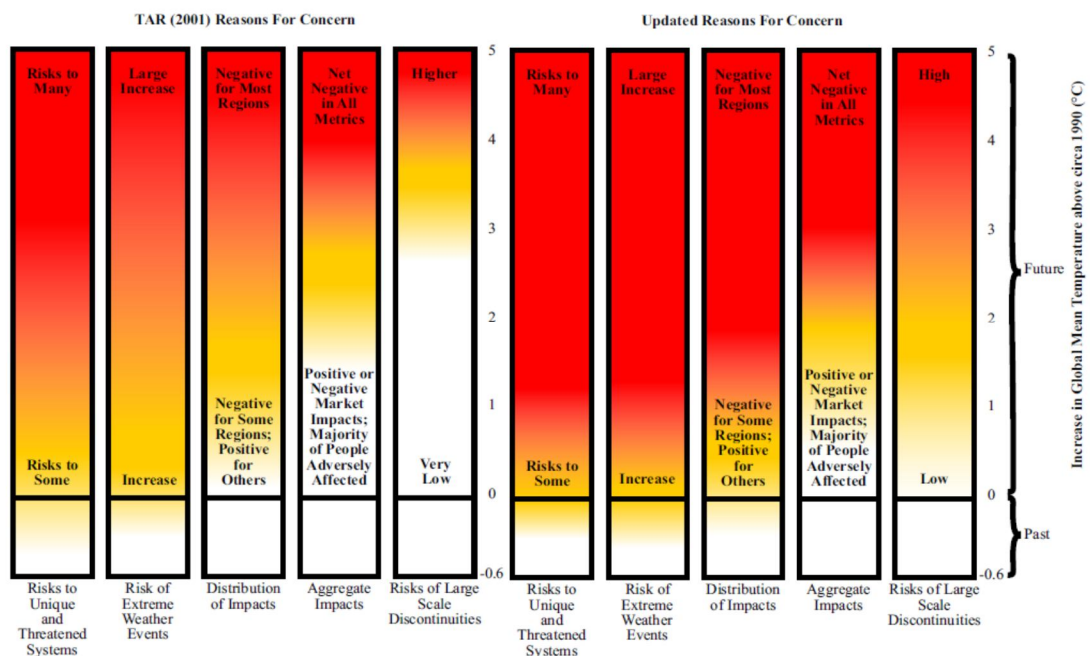
Source: Assessing dangerous climate change through an update of the IPCC ''reasons for concern'', Proceedings of the US National Academy of Sciences (PNAS), March 2008

Climate change risk is about exposure to external climate hazards, affecting natural and human systems and regions, while vulnerability is a measure of capacity to manage such hazards without suffering a long-term, potentially irreversible, loss of well-being. The IPCC defines vulnerability as the degree to which a system is unable to manage and cope with adverse effects of climate change such as variability and extremes. Vulnerability is a function of three factors: (a) exposure to changes in the climate, (b) sensitivity - the degree to which a system is affected by or responsive to climate stimuli, and (c) adaptive capacity - the ability to

prepare for or respond to and tackle the effects of climate change. If vulnerabilities are not overcome, climate change risk and its scale of damaging society are likely to increase (IPCC, 2007).

Scientific data presented in the IPCC 2007 report demonstrates that many aspects of climate change are happening earlier or more rapidly than climate models and experts initially projected. The scientific findings imply that the risks of climate change to the planet and human beings under the current climate change trend will be severe if global mean temperature keeps increasing (IPCC, 2007). The rate of change projected for global surface temperatures and related impacts, such as ice melting and sea level rise, is unprecedented in human history. Adapting to climate change will become then much harder and more expensive as changes happen faster, or on a larger scale, than expected.

The scientific findings of the IPCC 2007 Fourth Assessment Report contribute to strengthening the link between climate change and security, underlining that climate change represents one of the most serious threats to international security and the well-being of human kind. Since 2007, climate change has become a major agenda item at the European level, regularly discussed by the European Council of EU heads of state and government and, internationally, the issue has become one of "high politics". It was a top priority at the G8 Summit, and both the United Nations Security Council and the UN General Assembly placed it high on their agendas (Oberthür and Roche Kelly, 2008). The first ever debate held at the UN Security Council in April 2007 on the impact of climate change on international security, and the awarding of a Nobel Prize to Al Gore and the IPCC in October 2007, have definitively contributed to the understanding of climate change as a security risk. In announcing the award, the Norwegian Nobel Committee called climate change both a fundamental threat to human well-being and a contributing factor to more traditional violent conflict[43].

In the same year, in the United States, a report commissioned by the Pentagon to a military advisory board of retired US admirals and generals switched the focus from how to prevent and mitigate the effects of climate change to the management of the threat of climate change. The study, *National Security and the Threat of Climate Change*, released on April 2007, explores ways in which climate change acts as a "threat multiplier" in already fragile regions of the world, creating breeding grounds for extremism and terrorism. The report, moving beyond the arguments about the causes and effects of climate change, stressed the importance

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[43] The text is available at: http://nobelpeaceprize.org/eng_lau_announce2007.html.

for the US military to start planning to address the potentially devastating effects of a changing climate (CNA, 2007).

The concept of climate change as a threat multiplier was further analyzed in detail in the 2009 UN General Assembly Report *Climate Change and its possible security implications* (UNGA, 2009). According to the report, the magnitude of specific threats, the resilience of individuals, communities and societies, and their capacity to adapt effectively to those threats all bear on the security implications of climate change. Where climate change threats to human well-being are expected to be severe - particularly where people are especially vulnerable because of low levels of human development and weak institutions of governance - the security implications are inclined to be most pronounced, including the possibility of social and political tensions and of armed conflicts. In this regard, according to the report, it is useful to think of climate change as a threat multiplier, namely as a factor that can work through several channels to exacerbate existing sources of conflict and insecurity (figure 4.3, below). By the same token, conditions, policies, institutions, and actions that serve to relieve and manage stresses effectively can be considered threat minimisers (UNGA, 2009).

Figure 4.3: Threat multipliers and threat minimizers
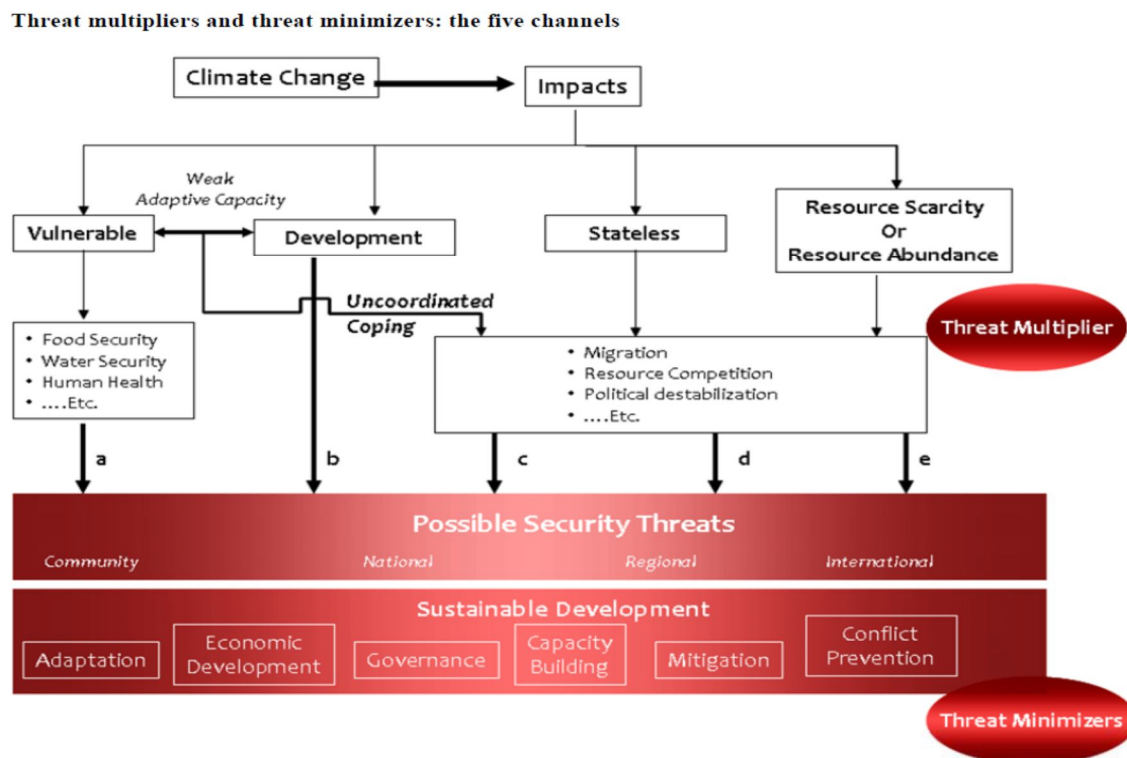
Over the past 30 years, climate related disasters - storms, floods, and droughts - have increased tremendously, according to the UN International Strategy for Disaster Reduction (ISDR). In 2006 alone, 134 million people suffered from natural hazards that cost $35 billion in damages, including some devastating droughts, in addition to massive flooding throughout Asia and Africa. These disasters scarred lives, shattered families, stripped away livelihoods, and set back development efforts (Wahlström, 2007).

The IPCC AR4 states that, by 2020, between 75 million and 250 million people in Africa are projected to be exposed to increased water stress due to climate change, and agricultural production in many African countries and regions, including access to food, is projected to be severely compromised by climate variability and change. The forecasted impact of climate change on Asia is similarly drastic. The IPCC says that melting glaciers will result in increased flooding and rock avalanches in the Himalayas, followed by decreased river flow over the next several decades. Furthermore, freshwater availability in Central, South, East, and South-East Asia, particularly in large river basins, is projected to decrease and, along with population growth and increasing demand arising from higher standards of living, this could adversely affect more than a billion people by the 2050s (Parry et al., 2007: 13).

In this context, it is likely that continued anthropogenic global warming will result in more extreme, and therefore more hazardous, meteorological phenomena, especially hydro-meteorological events, in particular:

a) The increase in the strength of tropical hurricanes and the frequency of heavy rains and flooding, due to the rise in evaporation with increased temperatures;

b) The growth in the number of droughts, with evaporation contributing to a decrease in soil humidity, often associated with food shortages;

c) The increase in sea levels resulting from both water expansion and melting ice. In this regard, a 2007 study conducted by the WB underlined that the impact of sea level rise from global warming could be catastrophic for many developing countries, as it was estimated that a single meter rise would impact at least 56 million people in 84 countries (WB, 2007a).

The IPCC Fourth Assessment Report also makes it clear that, while poor people worldwide will suffer most from the effects of global warming, no person on Earth will escape its consequences. As was made dramatically clear in the aftermath of Hurricane Katrina in 2005, marginalised people are not only those living in developing countries or in conflict prone

regions in the less developed countries of the world (Cutter, 2005; O'Brien, 2006). The effects of global warming will be felt in every region of the world and at all levels of society. Regardless of any nation's development and their contributions to the historically accumulated GHG emissions, no country in the world would avoid climate risks and threats that would have an impact on their ecosystems and inhabitants, social and human development, and political stability.

In this framework, the main argument for an environmental security perspective arose from the consideration that environmental threats can lead to catastrophic consequences which society is not prepared to deal with using traditional instruments. Moreover, current research indicates that global environmental change and its subsequent socio-economic effects are likely to continue and intensify in the future (IPCC, 2007; IPCC, 2012; USGCRP, 2013). The intensity, as well as the interdependence of these problems, will have effects, not only at the local level, but also on an international scale and will begin to impact both developing and industrialised countries.

While there is a consensus that climate change is real and produces consequences that can affect large numbers of people, several authors emphasise different environmental effects and predictions of how many people will be affected or displaced over a particular period of time (Ferris, 2007). These predictions vary significantly because they depend on assumptions about how the international community will respond, or fail to respond, to climate change. Many scientists have noted that even if natural disasters become more frequent in the future, political efforts and measures of protection will be able to lessen their impact, provided that necessary financial means are made available (Stern, 2007).

Notwithstanding the differences in opinion regarding the magnitude of the future change and the variations in impact, both scientists and policy makers seem to agree that climate change could represent a geopolitical threat.

4.2   Most Relevant Actors and Milestones in the Environmental Security Debate

Environmental security, as a field of study, has long been contested. Beginning in the early 1970's with Richard Falk, and continuing today, scholars have debated whether, and to what extent, environmental issues are related to security. Since the early work on environmental

security, a leading theme within the literature has been that security threats should no longer be limited to military elements but viewed in a more holistic fashion (Freeman and Hill, 2007).

Richard Falk's *This Endangered Planet* (1971) is one of the first studies linking environmental issues to international security. In his work, Falk highlighted the relationship between time and climate change introducing what he called the "first law of ecological politics": the faster the rate of change, the less time to adapt (Falk, 1971: 353). A few years later, Lester Brown, in his 1977 paper titled *Redefining National Security*, contested the meaning and practice of national security as it was defined, arguing that in a world that is not only ecologically interdependent but economically and politically interdependent as well, the traditional concept of national security was no longer adequate (Brown, 1977: 40-41).

When the Independent Commission on Security and Disarmament Issues (ICSDI) developed and introduced the concept of common security in the early 1980s, giving a broader perspective to the idea of national security, other non-traditional threats to security, such as economic decline, social and political instability, ethnic rivalries and territorial dispute, international terrorism, as well as environmental stress, were incorporated (Homer-Dixon, 1991). Since then, a great deal of research has been produced on the relationship between environment and security and the early 1990s saw two main interlinked discussions: one involving the redefinition of security (Ullman, 1983; Buzan, 1991; Baldwin, 1997; Krause & Williams, 1997; Buzan, Waever & de Wilde, 1998; Lietzmann & Vest, 1999), and the other involving questions about how environmental change represents a threat to individual, national, and international security (Myers, 1989; Deudney & Matthew, 1999). Proponents of environmental security argue that if environmental change is a potential source of destabilisation and conflict, then security policies must be redefined to account for these threats (Conca & Dabelko, 1998).

The current debate on environmental and security issues is the result of four generations (or phases) of environment and security research (Levy, 1995; Krause & Williams, 1997; Dalby, 2002a; Brauch, 2003 and 2007). A first conceptual phase, between the 1970s and the 1980s, is marked by progressive concern about environmental issues and by an interdisciplinary debate on whether, and how, environmental factors should be integrated into the concept of security. The second phase, during the 1990s, is dominated by case studies and research projects aimed at identifying the causal pathway from environmental scarcity to conflict, and at basing research on firm empirical ground. The most relevant research was conducted by The Toronto

Group, guided by Canadian political scientist Thomas Homer-Dixon and by the work of the Environment and Conflict Project (ENCOP), under Gunther Baechler's overall direction.

The third phase is characterised by a methodological critique of the second phase and mainly focuses on an attempt to place environmental and security research on firmer methodological ground. Since the mid-1990s, comparative studies and studies aimed at conceptual deepening have been launched by numerous research teams on projects focusing on the conflict potential of resource use and on state failures (above all, The Global Environmental Change and Human Project - GECHS, focusing on the human dimensions of environmental change and the reconceptualisation of security, and the State Failure Task Force). Finally, the fourth phase is a stage of synthesis and reconceptualisation (Dalby, 2002 and 2002a), focused on human and environmental security and combined structural factors from the natural dimension (climate change, water, soil) and the human dimension (population growth, urbanization, pollution, food), based on expertise from the natural and social sciences (Brauch, 2007).

Within the environment and security research framework, a growing body of research has dealt with the relationship between environmental stress (environmental degradation and resource scarcity) and conflict. In fact, environmental degradation and violent conflict is the most heavily investigated research theme under the rubric "environmental security".

The link between environmental stress and conflict was explicitly presented by Richard Ullman in his *Redefining Security* in 1983 (Ulmann, 1983). *Redefining Security* is considered a watershed of contemporary environmental security studies because analysing the link between resource scarcity and population growth introduced the idea that environmental degradation may cause armed conflicts. The rationale behind this idea is that environmental degradation and environmental threats that result from scarcities of environmental resources directly or indirectly affect national security becoming a cause of conflicts between states (Barnett, 2001; Dalby, 2002; Collins, 2007). The concerns regarding growing uncontrolled consumption in an increasingly interdependent world with limited resources was not a new issue in the international debate: scholars like Peter Falk or even the Club of Rome launched the debate on this issue more than 10 years before. In 1972 the Club of Rome, an international team of government officials, business leaders, and scholars brought together by the Italian tycoon Aurelio Peccei, Alexander King, former OECD Director General for Scientific Affairs, and Hugo Ernst Thiemann, a Swiss research and development manager, warned the world that, continuing with a "business as usual" model of growth, humanity was condemning itself to an unavoidable catastrophe (Meadows et al., 1972). This group made the case in a

volume, *The Limits to Growth*, which became a mass phenomenon: it was indicated as "one of the most important documents of our age" by the New York Times, and it was translated into more than 30 languages and sold over 20 million copies (Schmandt, 2010: 33). The aim of the Club of Rome was to explore a number of scenarios, stressing the choices open to society to reconcile sustainable progress within environmental constraints, adopting a scientific approach. To this aim, the research was commissioned to the Massachusetts Institute of Technology. The MIT team developed a mathematical model that allowed for the calculation of the impact of changes on the planet's future in a number of variables, considering five basic factors that determine, and therefore, ultimately limit, growth on this planet: population, agricultural production, natural resources, industrial production, and pollution (Meadows et al., 1972). The final result was unappealing: if we were to follow the path of the business as usual economic growth model, the world would end in a disaster.

The Limits to Growth was neither the first nor the last publication to claim that the end was close due to the weakness of the modern model of economic development, but in many ways it was the most successful. A few years before, in 1962, Rachel Carson's book *Silent Spring* had raised concerns about pollution and sparked the modern environmental movement and, in 1968, Paul Ehrlich's book *The Population Bomb* had argued that humanity was condemning itself into self-destruction. In 1970, the first Earth Day was marked by pessimism about the future, and later that year, also as a consequence of the 1969 Santa Barbara oil spill, U.S. President Richard Nixon created the Environmental Protection Agency to address growing environmental problems[44]. This was the context in which *The Limits to Growth* was devised: its genius was to bring together, in one argument, the concerns over pollution, population, and resources, showing how so-called progress would soon run into the natural world's hard constraints. *The Limits to Growth* seemed to show that even if pollution and population growth were controlled, the world's resources would eventually be exhausted and food production would decline back to the subsistence level. Even though it proved to be wrong, it helped set the terms of debate on crucial issues of economic, social, and particularly environmental policy (Lomborg, 2012).

Divergent from *The Limits to Growth*, Ullman's analysis introduced a broad re-definition of security to account for a wide range of environmental threats, including natural catastrophes, such as earthquakes, and resource scarcities. Ullman challenged the state-centric

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[44] The American Presidency Project. 254 - Message to the Congress Transmitting the First Annual Report of the Council on Environmental Quality, August 10, 1970. Available from: http://www.presidency.ucsb.edu/ws/?pid=2618.

understanding of security and uncovered great concern for cross border security threats that demand different tools, techniques and, in general, a different approach from those which were conventionally used (Ullman, 1983). In his analysis, the threat represented by environmental degradation and resources scarcity was presented specifically as a threat to the developed economies, due above all to the immigration pressures in northern countries as a consequence of the deteriorating security of third world states, caused in large part by unwanted environmental events or conditions (Makinda, 2006).

The need to consider environmental degradation within security studies and the link between environmental degradation and violent conflict was further developed, and concepts like food security, water scarcity, and environmental refugees were linked to global warming (Myers, 1986). The main argument was that people who would no longer be able to gain a secure livelihood in their homelands because of drought, soil erosion, desertification, deforestation, and other environmental problems in general, together with the associated problems of population pressures and profound poverty, would be forced to leave their country with the potential consequences of creating conflicts in receiving communities. This was specifically reported in an analysis made by British environmentalist Norman Myers for the Organization for Africa Unity about the Ogaden war between Ethiopia and Somalia. According to Meyers' analysis, the war had been caused in major measure by deforestation and soil erosion, in addition to runaway population growth and poverty in the Ethiopian highlands, which triggered widespread famine, followed by a mass migration from the highlands toward the lowlands and hence toward the Ogaden, which Somalia viewed as a prelude to an invasion (Myers, 2002).

A major advancement in linking environmental degradation and security issues was made in 1987 when the World Commission on Environment and Development, also known as the *The Brundtland Commission*, presented the report *Our Common Future*. Significantly, *Our Common Future* was the first official international document to employ the term "environmental security". From a security perspective, the Brundtland report[45] launched the message that the adverse effects of climate change could contribute to an increasing potential for insecurity and conflict, particularly by interacting with a number of other socio-economic factors. The immediate drivers of conflict are likely to remain: national and regional power struggles; ideological, ethnic, religious, and national tensions; and economic, social, or political inequality (Baltes & Snoy, 2007). However, the cumulative impacts of climate

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[45] From the name of his Chair, the former Norwegian Prime Minister Dr Gro Harlem Brundtland.

change could exacerbate these drivers of conflict and, in particular, increase the risk to those states already susceptible to conflict.

Indeed, the phrase "environmental security" has prompted a re-examination of the essence of security, thus enriching the debate on social priorities and resource allocations (Sooros, 1994). The idea behind this is that the study of environmental security is based on environmental problems. Within this framework, it is argued that resource scarcity and environmental degradation lead to conflicts among states and nations, in turn inevitably leading to the inclusion of environmental issues on the international political agenda (Swatuk, 2014).

This process of broadening the concept of security and identifying new security issues received further impetus with the fall of the Berlin wall, and found its height when the dramatic rise in intra-state conflicts in the early to mid-1990s led many academics, commentators, and policy makers to investigate the issue and search for an explanation, often looking for answers outside traditional models of state security (Barnett, 2001: 34; Brown, 2008). Since the end of the Cold War, traditional security concepts, based on national sovereignty and territorial security, have increasingly been brought under review and a broader definition of security that incorporates non-traditional threats and their causes, including environmental stress, has been advocated (Kepner et al., 2003: xi). In this framework, the interest in environment and conflict grew even more rapidly and several research programs and projects were initiated with the aim of tracing the links between environment, population, and security. Among them, as aforementioned, the most renowned are those implemented by Canadian political scientist Thomas Homer-Dixon and colleagues at the Toronto University, and the Swiss Environment and Conflict Project (ENCOP) in Zurich (Rønnfeldt, 1997; OECD, 2000). Although the initial hypotheses were different, both studies shared the same findings that many environmentally induced conflicts would take effect in developing countries due to their relative dependency on renewable resources, and especially in countries with pre-existing tensions (Baechler, 1998). This issue was deeply analysed and presented in the well-known 1994 article *The Coming Anarchy* by the American Journalist Robert Kaplan, who brought this research to a wider audience. Kaplan's article was a milestone in the literature linking environmental change and security. He presented a distressing picture of West Africa condemned to a spiral of endemic conflict, overwhelmed by disease, overpopulation, unprovoked crime, scarcity of resources, refugee migrations, the increasing erosion of nation-states and international borders, and the empowerment of private armies, security firms, and international drug cartels. He argued that this devastating mix was spreading to other regions and would be exacerbated by rising sea levels, changing rainfall

patterns, and more frequent natural disasters arising from anthropogenic climate change. The core message of the article was that the environment would become the national-security issue of the twenty-first century (Kaplan, 1994).

In 1994, civil unrest in Liberia, Rwanda, Somalia, as well as in Eastern Europe, offered fodder for the discourse of "state failure". Senior politicians and academics started to investigate how these conflagrations might be related to natural resources. Citing Kaplan's piece and political instability in West and East Africa, Vice President Al Gore established and funded the *State Failure Task Force*, a panel of distinguished academics, social scientists, experts in data collection, and consultants in statistical methods to investigate and examine the economic, social, and environmental causes of state failure, mandating that the analysis should fully integrate environmental and demographic variables (Esty et al., 1999). Assembled from 1994, with the guidance of over two dozen scholars with expertise on political conflict and on different parts of the world, this data set contains information for all countries in the world on nearly 1,300 political, demographic, economic, social, and environmental variables from 1955 to 1998. The research of the task force analysed the forces that have caused instability in the post-Cold War era, but in its latest report published in 2000, the project found only weak evidence for a direct influence of environmental degradation in violent conflict (Goldstone et al., 2000).

Indeed, in the scholarly community there is no consensus on dire projections of future climate wars and several observers conclude that there is no robust and consistent evidence for an important relationship between climate change and conflict. Although climate change is likely to have severe consequences for people around the world, in particular for already vulnerable populations, the link to violent conflict is a potential but contested consequence (Gleditsch & Nordas, 2014).

However, from the early 1990s, the argument that environmental change should be considered a security issue, for nations and individuals, was increasingly raised in both environmental and security journals and it become almost commonplace to talk about waves of environmental refugees escaping from their countries due to wars over resource scarcity. In some ways, environmental security replaced the threat of the global nuclear warfare of the Cold War, as it shares the same two main characteristics: it is global in reach and its effects could be highly devastating (Smil, 1997).

In the meantime, the end of the Cold War, the breakdown of the former Soviet Union, and the democratic transition of many socialist states during the late 1980s and 1990s marked an era of discussion and debate in the security field. Concepts such as human security, incorporating

freedom from fear with freedom from want, preventative diplomacy as a core mandate of the United Nations and the Organization for Security and Co-operation in Europe (OSCE), and the links between the environment and security, were all presented, debated, and, over time, incorporated into international organisations as principles, plans, and programs (Bortwick, 2009: 160).

These challenges called for cooperation at an international level, which required the integration of both technicians and policy-makers in the fields of environment, development, foreign relations, and security. Since 2002, the UNEP, the OSCE, and the United Nations Development Programme (UNDP) have been working together within the *Environment and Security Initiative* (ENVSEC), established to assess and address environmental problems that threaten, or are perceived to threaten security within and across national borders in conflict-prone regions. The North Atlantic Treaty Organisation (NATO) became an associate member of the initiative in 2004, through its Public Diplomacy Division and, since 2006, the initiative has been reinforced with two new members: the United Nations Economic Commission for Europe (UNECE), and the Regional Environment Center for Central and Eastern Europe (REC). Since the beginning, the ENVSEC Initiative has worked to combine expertise in the fields of environment and development, and in security agencies, to identify, prioritise and tackle environmental issues that are perceived to be a threat to security.

4.3   From Environmental Security to Climate Security: The Securitisation of Climate Change

The new trend in environment and security research, inaugurated after the end of the Cold War, has catalysed the international attention of a wide audience to focus on environmental issues. However, it has also placed the debate in a political context that is dominated by security institutions, which are designed to face and manage different types of threat.

As a consequence, this has generated a new debate about whether or not international institutions designed for completely different types of threats should be involved in the management of environmental security issues. In this regard, as argued by Professor Richard Black, member of the Centre for Migration and Diaspora Studies at SOAS, there is the danger that academic and policy writing on environmental refugees, water scarcity, food security, and climate security, has more to do with the bureaucratic agendas of academics or international

organisations looking for new rationales for their existence, rather than with any real theoretical or empirical insight (Black, 2001a: 14). The main question regarding whether or not to expand the notion of security to include environmental degradation and climate change is mostly linked with the problem of defining the referent object of security and with the obstacle of providing security in practical terms. Most discussions about the meaning of environmental security focus on the nature of *security:* whether it is fundamentally a military phenomenon that, by implication, would tend to render environmental concerns largely irrelevant, or whether it is something more robust and inclusive that logically would encompass, and perhaps even revolve around, environmental considerations (Foster, 2001: 375).

Proponents of a new, broader and up-to-date conception of security share the idea that the traditional definition of security must be broadened to incorporate new threats, which have to be managed with the same instruments and logic used to manage traditional threats. In this regard, the identification of a link between environment and security could be interpreted as a tool with which to alarm traditional security analysts about the issues that "really matter" (de Wilde, 2001: 2) and to elevate environmental problems from the level of *low politics* to *high politics*. In this way, states would be pushed to commit as much energy and as many resources to address environmental problems as they do to address other security problems, increasing the relevance of environmental problems on the international political agenda. On analytical grounds, it seemed a way to provide a better account of new typologies of vulnerability, as well as of the potential for conflict and violence with which these vulnerabilities could be associated (Trombetta, 2009: 586).

The main critique of this approach is that the term "security" evokes a set of confrontational practices associated with the state and the military, which should be kept apart from the environmental debate. Concerns included the possibilities of creating new competencies for the military - militarising the environment rather than greening security - or the rise of nationalistic attitudes in order to protect the national environment. Moreover, it has been noted that military threats are clearly different from environmental threats: particularly in the fact that military threats are deliberately imposed while environmental ones are not (Deudney, 1990; Kakonen, 1994). Therefore, environmental problems should not be viewed as security problems because when an earthquake or hurricane causes extensive damage it is customary to speak of natural disasters but not to speak about such events as threatening national security (Deudney, 1991).

Indeed, defining something as a "security issue" implies that it is something that deserves particular attention and requires specifically dedicated measures and a high level of specialist expertise and knowledge. Interpreting a challenge as a security issue raises its status: it is no longer merely a problem to be dealt with through mainstream institutions, but instead requires extraordinary measures. This is a critically important aspect of the use of security: it raises the stakes of certain problems and justifies drastic and potentially unaccountable action (Barnett, 2001a: 25). This process, known as securitisation, was introduced by scholars working at the Conflict and Peace Research Institute in Copenhagen (COPRI), generally known as the Copenhagen School. As argued by Ole Waever, one of the three main representative of the School, security is a "speech act", a power word that operationalises state monopolisation of responses to a challenge (Waever, 1995). From this perspective, security becomes a social practice: when an issue has been labelled a security issue, the procedures of managing it will change and this process is irreversible because, once an issue is securitised, the logic of security necessarily follows. The work of the Copenhagen School is crucial in understanding the discourse on environmental security because it considers the implications of broadening the concept of security, analysing specifically the risks of framing environmental problems in security terms (Trombetta, 2009: 587-588). In this context, the Copenhagen School underlined the difference between securitisation and politicisation, claiming that any specific matter can be politicised or securitised. An issue becomes politicised when it is managed within the standard political system. A politicised issue is part of public policy, requiring government decisions and resource allocations. On the other hand, an issue is plotted at the securitised end of spectrum when it requires emergency actions beyond the state's standard political procedures (Collins, 2007: 111).

A concrete example of this process is given by the response of the United States' Bush Administration to the attack of 11 September 2001. In the aftermath of the attack, two options were available: the acts could have been presented as criminal terrorist attacks, thus requiring an international political and criminal justice response, or the attacks could be considered an existential threat to the nation-state itself, and thus be securitised. The second option was chosen and, by securitising the issue, other non-military options were automatically excluded (Buckland, 2007: 10).

The theory of securitisation argues that there are no objective threats that are defined as such because of their intrinsic nature. Securitisation happens when an issue is presented as an existential threat and when the audience accepts the existence of such a threat. Security is a self-referential practice because it is in this practice that the issue becomes a security issue,

not necessarily because a real existential threat exists, but because the issue is presented, perceived, and then codified as such a threat (Buzan, Waever, de Wilde, 1998: 24).

The international debate on environmental security was overshadowed in the early 2000s due to the global attention on the war on terror. However, in recent years, the debate has returned to the spotlight of international attention because of the growing consensus on the global dimension of anthropogenic climate change. Several factors contributed to this comeback but, above all, there were two main reasons. From one side, the decision of the US Administration not to sign the Kyoto Protocol, mainly due to its negative impact on the US economy and the lack of binding commitments for emerging economies. From the other, the dramatic consequences of a number of environmental disasters that hit both developed and developing countries, such as the 2004 Tsunami in Thailand, the Maharashtra floods in India in the summer of 2005, and hurricane Katrina and Rita which struck the US in 2005. While security studies and international relations scholars remain sceptical about the idea of environmental security, arguing that it is too woolly and broad a concept to be useful either analytically or practically, decision-makers, international organisations, and governments are increasingly recognising the importance of environmental security as a policy framework (Bajpai, 2003: 2).

It is possible to identify several reference points that can be analysed as parts of the same process to attempt to securitise environmental issues and, more recently, climate change itself: the State Failure Task Force of the Clinton Administration in 1994, the 2003 US Department of Defence Report that put forward the view that climate change could lead to violent conflict, and the debates at the UN Security Council in 2007, 2011, and 2013 about the link between climate change and security. Evidence of this process can be found in the growing interest and involvement of militaries, intelligence agencies, and international security organisations in examining climate change and its implications. In 2007, UN Secretary General Ban Ki-moon, stated that "*the majority of the UN work still focuses on preventing and ending conflict, but the danger posed by the climate crisis and global warming are likely to become a major driver of war and conflict*". Moreover, in the same year, the UN Secretary General wrote, in an editorial in the Washington Post, that, "*within the diverse social and political causes, the Darfur conflict began as an ecological crisis, arising at least in part from climate change*" (Moon, 2007).

In this context, many observers interpreted the sense of urgency around environmental problems as an attempt to securitise climate change, rather than as a tool addressed to sensitise policy makers and civil society. However, actions on climate change require a set of

policies and programmes that necessarily imply long-term, dedicated measures. This gets to the core of the problem and identifies two conflicting policy approaches in managing potential environmental threats arising from climate change: the "Southern approach", represented by a large number of developing countries and emerging economies such as Brazil, India and, above all, China, and the "Northern approach", represented by the UK, Germany and, above all, the United States of America. Both of them hold the same starting point, that climate change is happening now, but their approaches are opposed. The first approach argues that the efforts of developed countries and international organisations should be placed on policy responses required for climate change mitigation and on adaptation measures designed to reduce the negative effects of global warming. The second approach stresses the sense of urgency around climate change, arguing that it is necessary to put any available measures in place to face the catastrophic impacts it implies, marking a path towards the securitisation of environmental issues.

From an academic perspective, these contrasting approaches rely on the premises of two different schools of thought. The first is described by critics as "Malthusian" or "neo-Malthusian" and has been developed around the main state-centric approach to security, focusing on the implications of environmental degradation in *the global South* for the security of states in *the global North* (Dalby, 2002). The second is comprised of those opposing the strategy of securitising climate change, because it frames environmental issues in a logic that is not its own (Brock, 1997; Lipschutz, 1997).

The securitisation of climate change may have problematic effects on international relations in general, as well as on the mitigation of and adaptation to climate change in particular. In fact, it may draw political focus away from mitigation and adaptation efforts as well as fostering an international climate in which co-operation around the issue(s) of climate change would be more difficult.

These developments, switching the object of the analysis from climate change to climate security, follow the typical path of securitisation, presenting climate change as an urgent and existential threat, which implies immediate and concrete actions. According to Simon Dalby, a leading figure in the disciplines of environmental security and critical geopolitics, the key point about the operation of securitisation is precisely that it refers to pressing and immediate situations that normal political life cannot address (Dalby, 2009: 15). As a consequence, the invocation of security could justify the use of extraordinary measures to handle these new threats and, historically, it has opened the way for the state to mobilise, claiming the right to

use whatever means necessary to block a threatening development (Buzan, Waever, de Wilde, 1998: 21).

In this framework, one of the possible outcomes of the involvement of the UN Security Council and other national and international security organisations in the climate change debate could be to invoke the RTP principle. According to the RTP principle, the United Nations can claim high moral authority to take action in cases of the widespread destruction of natural environmental goods and grave violations of international environmental law, and apply appropriate sanctions against the responsible states. Alternatively, the United Nations could charge the UN Peacebuilding Commission with addressing the specific tasks arising from this principle (Homan, 2008: 4).

If one of the most salient security effects of climate change will be the destabilisation of countries, or even entire regions, it will be consequently necessary to call for multinational responses in the form of peacekeeping and state building operations. In fact, the idea of a new peacekeeping force, the which could step into conflicts caused by sea level rise and shrinking resources is not a new one. In May 1992, Germany and Switzerland (supported by thirteen other countries) proposed the creation of a National Environmental Task Forces, called the "Green Helmets," to respond to environmental emergencies. This proposal was made at one of the follow-up meetings of the fifty-two-nation Conference on Security and Cooperation in Europe, held in Helsinki, but the proposal has not (yet) been implemented at UN level (Malone, 1996: 519). During the discussion held at the United Nations in July 2011, the US Ambassador to the UN Susan E. Rice asserted that climate change has very real implications for international peace and security, stating that "*the Security Council needs to start now to act on the understanding that climate change exacerbates the risks of conflict*" (UNSC 6587th meeting, 2011). According to the US Ambassador, the Council had already demonstrated an impressive ability to combat new peace and security threats and to adapt peacekeeping tools to address more complex peace and security crises around the world. Furthermore, Rice claimed that climate change should be considered no different, being the central threat of our age. In this regard, many of the international military interventions of recent years have made the prevention of refugee flows one of their main objectives. The list includes the establishment of a "safe haven" for Kurds in Northern Iraq after the Gulf War, the US intervention in Haiti in 1994, and the NATO intervention in Kosovo in 1999. Fear of refugee flows has also played a major part in Western strategies in the current Afghanistan conflict. If environmental factors lead to refugee flows then this would be a powerful reason for the international community to take pre-emptive action (Castles, 2002: 6). In fact, the issue of

disruptive migration due to regional conflicts and government instability as a consequence of extreme weather events is one of the hot topics in the environment and security debate. In February 2013, during the press conference organised by the *Partnership for a Secure America (PSA)* to launch their latest initiative to raise awareness on the national security threats of climate change, former CIA director James Woolsey stated that:

 "*If we have difficulty figuring out how to deal with immigration today, look at the prospects for the glacial retreats in the Andes. (…) If that starts to go away, we will have millions upon millions of southern neighbours hungry, thirsty, with crops failing and looking for some place in the world they can go*" (PSA, 2013).

The terms to be used for those displaced by environmental factors vary. Some policy makers and researchers refer to "*environmental refugees*", some others to "*environmental migrants*", "*climate change refuges*", or "*climate refugees*" (IOM, 2008; Williams, 2008; Ďurková et al., 2010: 6). If those displaced remain within their country borders, no matter why they have been displaced, prevailing international normative standards should apply to them: they are internally displaced persons (IDPs). Contrastingly, there is no legal definition for those people who cross into another country because of natural disaster and the term "environmental refugees" can be misleading. It implies a mono-causality, which very rarely exists in practice (Castles, 2002: 8). The only exception of climate change as a direct cause of migration is represented by those small atoll country populations, such as, for example, Kiribati and Tuvalu, who may lose their country in the near future as a result of sea level rise.

However, the concept of environmental refugees is also problematic because the term "refugee" has a precise meaning in international law. A refugee is defined by the 1951 UN Convention relating to the Status of Refugees as a person outside his or her country of nationality who is unable to return because of a "well-founded fear of persecution on account of race, religion, nationality, membership in a particular social group, or political opinion"[46]. Clearly, someone who flees due to environmental problems does not fall under this definition and nobody receives asylum just because of environmental degradation (Castles, 2002: 8). The 1951 Convention and its 1967 Protocol were drafted at a time when the dangers of climate change were unknown and neither climate change nor environmental degradation are mentioned in any of the key legal conventions or norms that currently provide protections for

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[46] Article 1 of the Convention as amended by the 1967 Protocol.

refugees and asylum seekers. According to some scholars, the opacity of the situation regarding the concept of environmental refugees lies in the agenda of the policy-makers of developed countries, who wish to further restrict asylum laws procedures. Thus, the term was invented at least in part to depoliticise the causes of displacement, so enabling states to derogate their obligation to provide asylum. Since current international law does not require states to provide asylum to those displaced by environmental degradation, the notion that many or even most migrants leaving Africa for Europe or Central America for the US are forced to move by environmental factors allows governments to exclude a significant number from asylum (Black, 2001a: 11). Because the word "environmental" can imply a sphere outside politics, receiving states may treat the term "environmental refugees" in the same way as the term "economic migrants", in order to reduce their responsibility to protect and assist (Piguet, 2008: 3). Following this approach, as pointed out by Professor Stephen Castles, Honorary Associate and former Director of the International Migration Institute, it can be argued that the "non departure regime" of the Cold War has been replaced by the "non arrival regime" of the New World Order (Castles, 2002: 9). This policy has been identified as one of the first results of the securitisation of climate change. Securitising climate change and labelling migrants who are forced to leave their country to survive because of lack of fresh water supplies, arable land, and agricultural productivity "environmental refugees" make it a military rather than a political problem, and justify both restrictive immigration policies and investments in patrolling the country's borders rather than in adaptation and mitigation policies in those countries where living conditions are already precarious.

An essentially political problem, involving the costs of prevention and adaptation and the losses and gains in income arising from change in the human environment, might be perceived as too difficult to be managed, thus necessitating the build-up of military and police forces to prevent it from becoming a major security risk. The portrayal of climate change as a security problem could cause the richer countries in the global North, which are less affected by climate change, to strengthen measures aimed at protecting them from the spillover of conflicts from the poorer countries in the global South, which will be most affected by climate change. This kind of reaction to climate change would be counterproductive, mainly for two reasons. Firstly, more borders protection implies an increase in military expenses and, given that in an increasingly globalised world it has become more and more difficult to isolate and control borders, it would be difficult to quantify the precise cost of this action. As a consequence, the financial means to compensate for the negative economic effects of reducing greenhouse gas emission and adapting to climate change could be exponentially reduced.

Secondly, the acceptance of the climate security paradigm (which is the consequence of the securitisation of climate change) will not allow investigation into available solutions other than those that are contemplated in the security sphere of actions. From a security perspective, Western European states (and certain members of the European political elite) have often reacted to migration as if it posed a threat to social identity and values. From an economic perspective, however, the overwhelming consensus is that Europe needs to encourage migration in order to sustain its welfare entitlements (including pensions), in the face of an aging workforce and population. The securitisation of migration illustrates well some of the negative consequences of using the powerful concept of security in a loose, even perhaps politically careless, fashion (Krause, 2005).

As noted by Buzan and Waever, one of the most striking features of the environmental sector is the existence of two different agendas: a scientific and a political one. Although they overlap and shape each other in part, the scientific agenda is constructed outside the core of politics, mainly by scientists and research institutions, and offers a list of environmental problems that already or potentially hamper the evolution of present civilisation. Contrastingly, the political agenda is essentially governmental and intergovernmental. It consists of the public decision-making process and public policies that address how to deal with environmental concerns. As such the political agenda reflects the overall degree of politicisation and securitisation (Buzan, Waever, de Wilde, 1998: 71-72).

A leading criticism of securitisation, presented by Dr Olav Knudsen, Director of Research at the Swedish Institute of International Affairs, is that its practice is based on subjective, not objective threats (or, as one might say, on "perception", not "reality") and that this basis lacks substance (Knudsen, 2001; Parsons, 2010), and is particularly evident in the climate change debate. While distinctions between the "subjective" and "objective" are problematic in interpretive accounts, it is justified to say that the securitisation of climate change is not based on intersubjectively founded scientific analysis. Rather, it is largely driven by ad hoc theories on the links between environmental degradation and violent conflict that are mostly based on political assumptions rather than on empirical evidence. Furthermore, the latest studies in this field substantially confute the climate-conflict link (Scheffran & Battaglini, 2011; Bernauer et al., 2012; Gleditsch, 2012; Scheffran et al., 2012; Theisen et al., 2013).

On one hand, Thomas Homer-Dixon has argued that there is "substantial evidence to support the hypothesis that environmental scarcity causes large population movement[s], which in turn causes group identity conflicts" (Homer-Dixon, 1994). Conversely, Dr Astri Suhrke, from the Norwegian Centre for Humanitarian Studies, argues that there is little empirical

support for the notion that people are forced to move because of environmental factors or the argument that refugees lead to conflicts (Barnett, 2003; Suhrke, 1997).

The literature on environmental conflicts, with or without migration as an important component, has been criticised as being theoretically rather than empirically driven and "existing environment and conflict research has simply not produced sufficient evidence to enable us to make anything but highly speculative claims about the effects of climate change and violent conflict" (Barnett, 2001a: 5; Barnett, 2003: 10).

For several years, researchers have been analysing the links between climate change and violent conflict, starting from the earlier research of the Toronto Group and the work of the Environment and Conflict Project in the 1990s, up until the latest analyses of Hsiang, Meng, and Kane (2011) and Hsiang, Burke, and Miguel (2013). The dominant form of analysis is a quantitative approach, which correlates extreme weather events or temperature and precipitation data with conflict records. Yet the ambiguous findings of several studies have led to an intense controversy within the research community (Schilling, 2014) and a decade of generalisable quantitative research on climate change and armed conflict appears to have produced more confusion than knowledge (Buhaugh, 2015: 269). The relationship between climate, climate change, and conflict has been empirically tested in a wide variety of studies, but the literature has not yet converged on a commonly accepted set of results (Salehyan, 2014). The battle line lies mainly between quantitative and qualitative research. On one side of the debate are the 'quants', who use quantitative methods to identify correlations between conflict and climate in global or regional data sets. On the other side are the 'quals', who study individual conflicts in depth (Solow, 2013).

The most comprehensive assessment of the scientific literature to date, the Human Security chapter of the UN Intergovernmental Panel on Climate Change's Fifth Assessment Report, states that while individual studies vary in their conclusions, collectively the research does not conclude that there is a strong positive relationship between global warming and armed conflict (IPCC, 2014: 772). In itself, the climate is not a threat; it is a condition. Instead, the consequences of climate change are conditioned by the institutional, social, economic, political, and historical context of the societies facing them. As a consequence, securitisation is ultimately counterproductive because by securitising environmental issues - and making them part of high politics - efforts, energies, and resources will be used to address the weak link between climate change and violent conflict, excluding other policy choices.

In the long run, to deal with environmental issues, desecuritisation, or politicisation, may be preferable to securitisation. Politicisation is a recognition of social-political responsibilities

for changes in the quality of environmental conditions, which makes environmental issues part of the usual day to day political business (Buzan et al., 1995: 15).

Understanding climate change as a security risk involves the revolution of the traditional concepts of security, environmental security, and human security. In classical terms, security means the integrity of territorially organised sovereign nation states within the system of international law as represented by the United Nations since the end of the Second World War. Thus framed, security is the preservation of nation state integrity in the face of external threats in an anarchic world of states; the task of guaranteeing security is seen as being ultimately a military one (WBGU, 2007: 19). With the end of the Cold War and the globalisation process, which characterise the present world, security is no longer limited to the military capability to safeguard countries, and the concept has been extended to include economic, cultural, political, and ecological dimensions. Meanwhile, security policies have been expanded to economic and foreign non-military measures, such as development and environmental policies. When debating climate change as a security issue, human security is often discussed as one of the major threats that climate change poses to human societies. Climate change may undermine human security by reducing access to, and availability of, natural resources that are key to sustain livelihoods. It may, through a range of largely indirect effects, undermine the capacity of states to provide services and instruments to provide appropriate livelihoods. In this way, it may be one among several coexisting and interrelated factors that contributes to violence.

4.4   Shifting the Discourse: Climate Change as an Issue of Human Security

The concept of environmental security refers to a sector of security (the environment) rather than a referent object to be secured. Therefore, it is possible to talk of the environmental security of the international system, of nation states, and of people, which means talking about human security (Collins, 2007: 197). Human security, which is only the latest in a long series of attempts to challenge the traditional state-centred concept of security, is an increasingly popular notion which focuses on the security of individuals or groups. It aims at ensuring the survival, livelihood, and dignity of people in response to current and emerging threats that are widespread and cross-cutting. Such threats are not limited to those living in absolute poverty

or conflict. Today, people throughout the world, in developing and developed countries alike, live under several conditions of insecurity. These threats seriously challenge both governments and people[47].

The UNDP, in its 1994 Human Development Report *New Dimensions of Human Security*, put forward the concept of human security to assist in the framing of development and equity issues, defining it as being concerned with how people live and breathe in a society, how freely they exercise their many choices, how much access they have to market and social opportunities, and whether they live in conflict or peace. The two guiding principles on which the concept of human security has been developed in recent years can be summarised in the terms *freedom from fear* (the removal of the use of, or threat of, force and violence from people's everyday lives) and *freedom from want* (the ensurance of the basic human needs in economic, health, food, social, and environmental terms) (UNDP, 1994). This concept became popular in the late 1990s, when Japan and Canada adopted it as an official policy through two specific political initiatives: the Human Security Network, initiated by the Canadian Government in 1999, and the UN Trust Fund for Human Security, established by the Japanese Government as early as 1999 (Bosold & Werhes, 2005; Remacle, 2008).

According to the Human Development Report, human security is not a concern with weapons, but it is a concern with human life and dignity, therefore ensuring *freedom from want* and *freedom from fear* for all persons is the best path to tackle the problem of global insecurity. The vision presented in the UNDP Report was very broad and it dissected human security into seven main interconnected dimensions: economic security, food security, health security, personal security, political security, community security, and environmental security. The overall goal was to expand the concept of security which had "*for too long been interpreted narrowly: as security of territory from external aggression, or as protection of national interest in foreign policy or as global security from the threat of nuclear holocaust*" (UNDP, 1994: 22). The concept of human security was thus meant to change the referent object of security "from an exclusive stress on territorial security to a much greater stress on people's security" and, somewhat more problematically, to advocate "security through sustainable human development" (UNDP, 1994: 24). In fact, as noted by Liu Zhijun, an Associate Professor at the Zhejiang University Department of Sociology, the consecutive occurrences of events such as the Asian financial crises in the late 1990s, the 9/11 terrorist attack in 2001, the

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[47] UN Trust Fund for Human Security: http://www.un.org/humansecurity/about-human-security/human-security-all.

eruption of SARS in 2003, and the tsunami in the Indian Ocean in 2004 further supports the evidence that a traditional security concept is no longer relevant to the new security threats confronting humanity. This broad definition of human security allows governments, international organisation, NGOs and scholars to apply different interpretations of the concept of human security, varying in accordance with their subjective values, understandings, and priorities (Zhijun, 2006).

In this framework, environmental security aims to protect people from the short-term and long-term threats and disasters caused by the deterioration of the natural environment (UNDP, 1994).

The environmental dimension of human security has been addressed in several studies by the United Nations University Institute for Environment and Human Security (UNU-EHS) and in other research projects implemented in the last decades. One of the most notable among them was the Global Environmental Change and Human Security Project (GECHS) which investigated environmental changes within larger socioeconomic and political contexts, focusing on the way diverse social processes such as globalisation, poverty, disease, and conflict combine with global environmental change to affect human security[48].

Framing climate change as an issue of human security raises several questions and concerns about the capacity of society to respond to current and future changes from a different perspective. The security of individuals, in the framework of human security, is derived from their well-being, which includes their economic, political, cultural, demographic, and ecological systems. In this sense, the concept of human security helps to catalyse broader parallel discourses of security and development, which integrate research findings from the fields of international relations, development economics, and political sciences.

Human security goes beyond the traditional understanding of security as a state-centred concept related to threats and conflict. In terms of environmental change, human security can be considered the condition wherein individuals and communities have the necessary options to end, mitigate, or adapt to risks to their human, environmental, and social rights; have the capacity and freedom to exercise these options; and actively participate in attaining these options (GECHS, 1999). This is a people-centred concept that focuses on enabling individuals and communities to respond to change, whether by reducing vulnerability or by challenging

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[48] The Global Environmental Change and Human Security (GECHS) project became a core project under the auspices of the International Human Dimensions Programme on Global Environmental Change (IHDP) in 1999. The science plan set the foundation for exploring the relationship between global environmental change and human security, through interdisciplinary, integrative, and international research collaboration and extensive dialogue with policy makers and stakeholders. See http://www.gechs.org/ [Accessed 30 July 2016].

the drivers of environmental change. Human security is therefore linked to the development of human capabilities facing change and uncertainty. In this way, human security is a variable condition where people and communities have the capacity to manage stresses to their needs, rights, and values. When people do not have enough options to avoid or to adapt to environmental change such that their needs, rights, and values are likely to be undermined, then they can be said to be environmentally insecure. This definition gives attention to values and recognises that human security concerns both needs and rights (Barnett et al., 2010: 18).

Inequality and vulnerability are central to understanding both environmental insecurity and the impacts of climate change. Environmental insecurity is the double vulnerability of people that arises when underdevelopment and impoverishment are compounded by human-induced environmental change (Barnett, 2001: 17; Barnett, 2001a: 11).

The degree to which people are vulnerable to climate change depends on the extent to which they are dependent on natural resources and ecosystem services, and the extent to which the resources and services they rely on are sensitive to climate change. In other words, people that are more dependent on climate sensitive forms of natural capital are more exposed to the risk of climate change. Yet environmental change rarely undermines human security in isolation from a broader range of social factors. These include, among other things: poverty, the degree of support people receive from the state, their access to economic opportunities, the effectiveness of decision-making processes that govern people's lives, and the extent of social cohesion within and surrounding vulnerable groups. This means that marginalised people are more vulnerable to environmental change (Barnett & Adger, 2005: 5) and poor people in developing countries will suffer the most from climate change (AdB, 2003). Developing countries are affected more because of the economic importance of climate sensitive sectors, such as agriculture, in combination with their low adaptive capacity, which is the ability of individuals, groups, organisations, and institutions to address climate issues as part of a range of efforts to achieve sustainable development (OECD, 1995; Stern, 2006). Many developing countries lack the human and financial capacity to face the threats of climate change. Natural disasters, from floods, droughts, and cyclones, have major impacts on developing countries, not only in terms of human loss, but also on long-term development. Besides a lack of capacity, in many developing countries there is also a significant lack of data and knowledge on climate change impacts. The WB estimates that 40% of all overseas development assistance and concessional finance is devoted to activities that will be affected by climate change, but few of the projects adequately account for the impact that climate change will

have. As a result, dams are built on rivers that will dry up, and crops are planted in coastal areas that will be frequently flooded (WB, 2007a).

Moreover, historic events show that droughts and large-scale floods have had a significant impact on the economy of developing countries. During these droughts or floods, government incomes are often reduced due to lower productivity, while government spending must increase to supply food aid and repair damaged infrastructure (EP, 2007). In this framework, natural disasters can quickly erase years of work and progresses because the lack of financial capacity will not allow the possibility of a rapid reconstruction process, and any natural or manmade disaster will indeed represent a total loss of investment and assets.

Evidence that natural disasters are increasing in intensity is fairly solid, and it is likely that continued anthropogenic global warming will result in more extreme, and therefore more hazardous, meteorological phenomena, particularly hydro-meteorological events (IPCC, 2007; IPCC, 2012). Understanding climate change from a human security perspective requires the basic premise that climate change is a global problem relevant to all societies. To use a familiar phrase, 'pollution knows no borders', whereas military security presupposes borders, or in any case boundaries (Haldén, 2007: 154), but the causes of anthropogenic climate change and its impacts on human societies are distributed across the boundaries and jurisdictions of individual states (Keohane *et al.,* 1994; Vogler, 2011).

In order to understand what it means to reframe environmental change as an issue of human security, it is necessary to start by considering that the framing of an issue influences the questions that are asked, the research that is prioritised, and the solutions and policies that are proposed. To reframe environmental change as an issue of human security involves asking some very relevant questions about equity, justice, vulnerability, power relations, and, in particular, questions about whose security is actually threatened by environmental change (O'Brien, 2006: 2-3). Therefore, applying the concept of human security to global climate change implies a move forward from the inverse correlation between developed countries and emerging economies, where one state's gain in security equals another's loss, toward a wider dimension in which climate change would be seen as an equal threat to all states of the world and tackled as a common problem of sustainable development. In other words, as suggested by Brauch (2003) and Dalby (2002), shifting the discourse from climate security to human security represents a step towards a fourth phase of social science research on human and environmental security. This phase marks a new generation of environmental and security research that moves forward from the current debate between environmental security studies

and critical environmental security studies, towards a human security perspective that considers an integrated analysis of causes, impacts, and outcomes of environmental stress. However, it should also be noted that human security relies on the broader framework of security, and therefore framing climate change as an issue of human security does not eliminate the option of securitising climate change.

4.5   Conclusions

Environmental security is one of the new key security issues that has been discussed in the process of broadening the meaning of security in the post-Cold War era. However, although scientific community has debated climate change for some time now, it is only recently that the issue has entered the political mainstream and reached its current, highly exposed status (Haldén, 2007: 156). Moreover, the current discourse on climate instability is quite new in many respects, at least in the form that underpins the surge of interest in "climate security" shown by Western intelligence, security organisations, and military agencies, where the debate over the implications of abrupt climate change is taking place more and more often (Russill, 2010). According to some scholars, such as Lodgaard (1990) or Westing (1987), this process of linking the environment to security is fundamental in creating the political and social awareness to produce the sense of urgency required to tackle environmental problems. However, while the concept of environmental security was originally conceived with the intention of elevating environmental problems from the level of *low politics* to *high politics* so that states would commit as much energy and as many resources to address environmental problems as they do to other security problems, the result has been that problems of environmental change have been militarised. This process, fueled by ad-hoc catastrophic climate change communications focusing on climate wars, large and uncontrollable migration flows, and the possibility of unimaginable, devastating changes to our daily lives, has been highly supported by think tanks, policy makers, and also the film industry, above all in the United States of America (Russill, 2010).

Therefore, instead of a trade-off of military security for environmental security, or an increase in resources and energy devoted to enhancing environmental security, the emphasis has been placed on environmental change as a cause of violent conflict rather than human insecurity (Dalby, 1999). As a consequence, the most influential interpretation of environmental

security, largely accepted by the security policy community and the armed forces, especially in the United States, is that climate change is a threat to national security.

The climate security paradigm (i.e. the causality link between climate change and national security), has been largely criticised by a number of scholars, such as Deudney (1990; 1991), Peluso and Watts (2001), Dalby (2002; 2002a), and Buckland (2007), who argue that the securitisation of environmental problems is restricting the range of means available for resolving and managing the threats of a changing climate. However, environmental security is still largely understood to be about threats to the nation-state rather than to the environment, to other states, or to individuals. This suggests that, while environmental security may have broadened the meaning of security, it has been less successful in deepening it (Collins, 2007: 201).

Nevertheless, current practices of national security need to be re-evaluated and re-calibrated to face both the new security challenges and the new political balances of the world order, which is moving from a unipolar to a multipolar system, with the rising of emerging economies. Among them, China, which plays an important role in the current international climate change negotiations, representing the interests of developing countries through the mechanism of the G77 and China, is working to promote an approach on global environmental policy based on the understanding of climate change as a socio-economic development issue in opposition to the global mainstream in the developed world.

Chapter V: The Principle of Common but Differentiated Responsibility

"The principle of common but differentiated responsibilities represents the core and bedrock of international cooperation on climate change and it must never be compromised […].Developing countries only started industrialization a few decades ago and many of their people still live in abject poverty today. It is totally unjustified to ask them to undertake emission reduction targets beyond their due obligations and capabilities in disregard of historical responsibilities, per capita emissions and different levels of development".

Wen Jiabao, Copenhagen Climate Summit, 2009

In the framework of global environmental governance, there are several discourses[49] that can be used to capture how China's identity has shifted. One of them is Beijing's attitude towards the flexible mechanisms of the Kyoto Protocol. The Kyoto Protocol is the first international environmental agreement that seeks to achieve environmental targets using market-based instruments. This is executed by creating a demand for carbon credits by putting a price on carbon dioxide (CO_2) and demanding that certain sectors hold CO_2 permits to be allowed to operate. To this end, and in order for each country to fulfil its commitment, the Kyoto Protocol introduced three market-based mechanisms, known as flexible mechanisms, thereby creating what is now known as the "carbon market[50]".

Initially, the Chinese government was very sceptical about the Kyoto flexible mechanisms, fearing that this would result in rich countries circumventing their responsibility to reduce their own emissions (IIDS, 1995). However, the Chinese view on the flexible mechanism began to change after the adoption of the Marrakech Accords at the COP 7, were the modalities, guidelines, and procedures for the implementation of the mechanisms under the Kyoto Protocol were clarified and finally agreed. The Marrakech Accords paved the way for

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[49] Based on Hajer and Versteeg, and as per Chapter III, I adopt the definition of discourse as "an ensemble of ideas, concepts and categories through which meaning is given to social and physical phenomena, and which is produced and reproduced through an identifiable set of practices" (Hajer & Verteeg, 2005, p.175).

[50] Emissions trading, as set out in Article 17 of the Kyoto Protocol, allows countries that have emission units to spare - emissions permitted to them but not "used" - to sell this excess capacity to countries that are over their targets. Thus, a new commodity was created in the form of emission reductions or removals. Since carbon dioxide is the principal greenhouse gas, people speak simply of trading in carbon. Carbon is now tracked and traded like any other commodity. This is known as the "carbon market".

developed countries to ratify the Kyoto Protocol, leading to positive support from Beijing for the three flexible mechanisms. In particular, the CDM evolved from being labelled a tool for "environmental imperialism" to being considered "a creative mechanism of the international community to address global climate change, conducive to the sustainable development of developing countries as well as the achievement of an emissions reduction target by developed countries" (Jiang, 2005).Therefore, I argue that the Chinese government's move from defensive scepticism to active support of the three Kyoto mechanisms can be considered one of the discourses that can capture China's identity shift.

Another example could be through a comparative analysis of China's quantified commitment on CO_2 emissions reduction, starting with Beijing's first step towards quantified targets and timetables, pledged by former president Hu Jintao at the 2009 Climate Conference in Copenhagen. However, for the purpose of this research, I will focus on a third discourse to capture China's identity shift: the strategic use of the CBDR principle in ICCN. In fact, while China's changing attitude toward the Kyoto flexible mechanisms and its pledges on quantified commitments on emissions reduction are a sort of manifestation, or consequence, of China's identity shift, the driving force behind the shift itself is the CBDR principle.

The CBDR is the main pillar of the Chinese government negotiation strategy utilised to achieve China's preferences in the framework of ICCN. In fact, by framing its opposition to binding commitments in the language of CBDR, China uses rhetoric that is aligned with the views and shared identity of the developing world. In this context, strengthening its diplomatic and economic ties within the global South, and using the CBDR principle as a catalytic force, Beijing has been able to inspire a broad coalition of developing countries and emerging economies to support its negotiating strategy and stances. In this process, through an extensive use of soft power and South-South cooperation, Beijing is emerging as an influential normative actor in the international arena.

While soft power and South-South cooperation, as well as the potential role of China as a norm maker, will be discussed in detail in Chapter VIII, and the Kyoto mechanism in Chapter VI, the purpose of this section is to present the roots and development of CBDR within the framework of ICCN and its relevance in China's identity shift.

5.1 The Rationale of the CBDR Principle

The Principle of Common but Differentiated Responsibilities is a cardinal one in the context of international negotiations under the United Nations Framework Convention on Climate Change. The notion of common responsibility in the climate regime brings together several discourses and is rooted in the principle of cooperation, which states that all countries are obliged to cooperate in preventing transboundary pollution[51]. The common responsibility primarily involves an obligation to cooperate to conserve, protect, and restore the health and integrity of Earth's ecosystem[52]. In the complex puzzle of international climate change negotiations, CBDR reflects a political consensus that the widest possible cooperation by all countries is needed to fight climate change and the adverse effects thereof. In addition, it means that all countries have a responsibility to act according to their own capacities (Pauw et al., 2014).

The 1992 UNFCC/C outlined the common responsibility in clear terms, stating that the Parties to the Convention acknowledge that change in the Earth's climate and its adverse effects are a common concern of humankind[53]. Accordingly, the UNFCCC aims to stabilise greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system[54]. To achieve this objective, the principle of common responsibility in the climate change regime incorporates states' historical contributions to global environmental degradation and embraces the principles of fairness and justice, to be taken into account when devising relevant legal commitments[55].

By taking into account states' historical contributions to CO2 emissions, their diverse circumstances and capacities, and their specific development needs in determining their levels of responsibility under the regime, the word "differentiated" implies the adoption and implementation of differing commitments for different states. Differential treatment applies assistance mechanisms and rules to deviate from general international obligations, favouring the least advantaged countries; usually, but not exclusively, this is equated with developing countries (Honkonen, 2009: 1-2). Thereby, the CBDR principle, as applied to international

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[51] Principle 24 of the Stockholm Declaration, 1972.

[52] Principle 7 of the Rio Declaration, 1992.

[53] UNFCCC, Para 1.

[54] Article 2 UNFCCC, preamble to the Kyoto Protocol.

[55] Sands, 2003.

environmental treaties, includes two fundamental elements. The first element concerns the common responsibility of states for the protection of the environment, or parts of it, at the national, regional, and global levels. The second element concerns the need to take into account the different circumstances, particularly each state's contribution to the evolution of global environmental degradation and its ability to prevent, reduce, and control it.

On the one hand, common responsibility under CBDR is based on the principle of solidarity of fair sharing of both the effort to protect a resource and of the enjoyment of the accruing benefits. Common responsibility under CBDR was a response to the voices mainly coming from the developing world demanding fairer rules to international environmental cooperation (Sands, 2003: 218-219). On the other hand, differentiated responsibility translates into differentiated environmental standards based on a range of factors, including special needs and circumstances, future economic development of countries, and historic contributions to the creation of an environmental problem. The rationale is to ensure that developing countries can come into compliance with particular legal rules over time, thereby strengthening the regime in the long term (Sands, ibid.). According to Oran Young, the essence of the CBDR is to "*couple an acknowledgement that everyone bears some responsibility for coping with large-scale environmental problems with a recognition of the fact that some members of the international community are much better situated than others to provide the resources needed to address these problems*" (Young, 2001: 169).

In practical terms, the principle has at least two consequences. First, it entitles, or may require, all concerned states to participate in international response measures aimed at addressing environmental problems. Second, it leads to environmental standards that impose differing obligations on states. The differentiation is aimed at balancing the need for universal obligations in taking action against global environmental degradation with the need to consider and respect each country's peculiarities and relevant circumstances. As a consequence, as argued by Oran, the principle has been designed to combine "*a universal ethical standard with a pragmatic acceptance of marked differences in the material circumstances of individual members of international society*" (Young, ibid.).

The UNFCCC was signed by 154 nations at the 1992 Earth Summit held in Rio de Janeiro. The four key elements contained in the agreement are: (1) a general long-term objective to stabilise GHG concentrations; (2) a near-term quantitative emission reduction goal for industrialised countries; (3) the CBDR principle as the guidance of burden sharing; and (4) the preference for market-based measures. These four elements have largely defined the international climate change policy regime since 1992 (Aldy & Stavins 2007: 6).

However, since the UNFCCC was adopted in 1992, no updates have been made to better account for the dynamic diversification of developing countries and emerging economies. Moreover, the 1997 Kyoto Protocol marked the beginning of the controversial dichotomy between developed and developing countries. In practical terms, this means that the emissions of developing countries and emerging economies are allowed to grow in accordance with their development needs.

The North-South politics related to the Annex I / Non-Annex I dichotomy has since been called "dysfunctional" and "the regime's greatest weakness", giving rise to several critiques questioning the utility of the CBDR principle in guiding climate negotiations (Depledge & Yamin, 2009: 443). This dichotomy has been incredibly controversial because it does not regulate sizeable, emerging (but still "developing") economies such as Brazil, South Africa, India, and China (the BASIC countries), all of which are now among the world's largest GHG polluters (Pauw et al., 2014).

Paradoxically, the logic of common but different responsibilities, which first enabled negotiators to agree on a legal framework for international climate policy in the early 1990s, has since become a persistently challenging obstacle in international climate change negotiations.

More than twenty years after the climate convention was agreed upon, most developing countries still want CBDR to maintain a clear differentiation between different categories of states (Pauw et al., 2014). From their perspective, the toning down or, even worse, the removal of the CBRD principle from ICCN would compromise their development path and, consequently, undermine their right to development.

5.2   Roots and Development of the CBDR Principle in ICCN

The principle of CBDR may be regarded as originating from the more general principle of differential treatment of countries in international regulation, which can be traced back to the 1960s and 1970s when developing countries started to call for a *New International Economic Order* (NIEO). The call for the NIEO started in the late 1960s; a decade that was declared by the United Nations the *Development Decade* (UNGA, 1961). With the NIEO process, the global South was demanding a more equitable sharing of the resources and wealth of the

world. At the same time, developing countries were demanding assurances of their sovereignty over their natural resources and, more generally, over their economies.

Developing countries have often argued that developed countries were allowed to exploit their own environmental resources without restraints in order to develop. On the contrary, for developing countries, hundreds of years of exploitation by the colonial powers have depleted their natural wealth and created conditions of trade and technological dependence, as well as extreme poverty among their citizens (Felice, 2009). For this main reason, among many others, developing countries should be entitled to achieve a certain level of development before implementing any environmental measures that could compromise their right to development[56].

In this sense, it was posited by the leaders of developing nations that all peoples have a right to the satisfaction of their basic needs, therefore, those that are already able to do so have the responsibility to help others (Cooper, 1977). According to the global South, new rules and preferential treatment for developing countries would both act to compensate for the injustice of the past and make the international system fair for trade and other interaction between states. In this context, it has been argued that the history of international environmental dialogue is a history of conflict between developed and developing countries (Honkonen, 2009: 8). Post-colonial theory of international law is based precisely on this perceived conflict and its historical roots (Honkonen, ibid). According to the post-colonial argument, the CBDR principle cannot be understood without taking into account its broader historical and ethical context, in which the colonial encounter and its aftermath continue to play a critical role (Mickelson, 2007: 274). The poor conditions of developing countries were not only considered by Post-colonial theorists to be a result from the age of colonisation but also in large measure derived from the prevailing rules of the current economic order in which their specific needs were not taken into consideration.

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[56] The Declaration on the Right to Development was adopted by the UN General Assembly with the resolution 41/128 of 4 December 1986. However, the path to reaching this goal started 10 years earlier, on 10 February 1975, when the Commission on Human Rights decided to place on its agenda the "Question of the realization of the economic, social and cultural rights contained in the Universal Declaration of Human Rights and in the International Covenant on Economic, Social and Cultural Rights, and study of special problems relating to human rights in developing countries". In this context, in 1981, the Commission established a Working Group to study the scope and contents of the right to development. The former president of the UN Commission on Human Rights, the Senegalese jurist Kéba Mbaye, was one of the first expert scholars to refer to a right to development, which he defined as "*the recognized prerogative of every individual and every people to enjoy in just one measure the goods and services produced thanks to the effort of solidarity of the members of the community*" (Mbaye, 1981).

For this reason, the struggle for the establishment of the NIEO can be understood as a continuation of the process of decolonisation in the economic sphere and as an instrument to avoid neo-colonisation in international economic relations. Accordingly, it was also argued that the need for NIEO was justifiable, politically logical, and necessary, and it represented a step forward in freeing societies from the remnants of colonialism (Honkonen, 2009: 40).

This challenging international context was further driven by mounting concerns about the increasing utilisation of natural resources within finite ecosystems as well as global environmental degradation. This was also the backdrop of the first major global environmental meeting held in Stockholm in 1972: the United Nations Stockholm Conference on Human Environment. The conference underlined the importance of common responsibility and international cooperation in the efforts to protect the global environment and the need to support developing countries in their difficult path to overcome poverty and underdevelopment. In analysing the roots of the CBDR, the Stockholm Conference can be considered a first milestone in its evolution. In fact, Principles 4 and 24 of the Stockholm Declaration stated respectively:

> Principle 4: "*In the developing countries most of the environmental problems are caused by under-development. Therefore, the developing countries must direct their efforts to development, bearing in mind their priorities and the need to safeguard and improve the environment. For the same purpose, the industrialized countries should make efforts to reduce the [development] gap between themselves and the developing countries*".

> Principle 24: "*International matters concerning the protection and improvement of the environment should be handled in a cooperative spirit by all countries, big and small, on an equal footing* (UN, 1972).

Two years later, in 1974, the pressure from the developing world resulted in the Declaration on the Establishment of the NIEO, launched by the UN General Assembly. In the preamble, the declaration stated:

> "*…[It is necessary] to work urgently for the Establishment of a New International Economic Order based on equity, sovereign equality, interdependence, common interest and cooperation among all States, irrespective of their economic and social systems which shall correct inequalities and redress existing injustices, make it possible to eliminate the widening gap between the developed and the developing countries and ensure steadily accelerating*

economic and social development and peace and justice for present and future generations” (UNGA, Res. 3201, 1974).

In the same year, the United Nations General Assembly adopted the *Charter of Economic Rights and Duties of States*, which also addressed environmental issues, emphasising that, “The protection, preservation and enhancement of the environment for the present and future generations is the responsibility of all States” (UNGA, Res. 3281, Art. 30, 1974).

A decade after the adoption of the Stockholm Declaration, *The World Charter for Nature* was adopted by the United Nations General Assembly and, in 1983, the General Assembly passed the Resolution 38/161 *Process of preparation of the Environmental Perspective to the Year 2000 and Beyond*, establishing the World Commission on Environment and Development. The World Commission on Environment and Development, also known as The Brundtland Commission, can be considered a second milestone in the development of the concept of CBDR. The Commission officially dissolved in December 1987 after releasing its final report – *Our Common Future* – which put forward the concept of sustainable development, built upon the notion of “intergenerational equity” and on three main pillars of sustainability: economic, social, and environmental.

The concept of sustainable development has since been regarded as an overarching framework for international environmental policy. As argued by Philippe Cullet, of the School of Oriental and African Studies ‘the realisation of environmental quality cannot be sought in isolation from the socio-economic elements that constitute the backbone of equity in general international law. Equity and its environmental offshoot, the CBDR principle, imply therefore that environment and development goals must be pursued at the same time’ (Cullet, 1999: 170).

Although Our Common Future did not explicitly mention the CBDR principle, it lay down a foundation for it. In fact, ideas constitutive of the concept of “common” and “differentiated responsibility”, such as intergenerational equity or the lower financial and technological capacities of developing countries to address the adverse effects of climate change, were included in the report:

> *“Globally, wealthier nations are better placed financially and technologically to cope with the effects of possible climatic change. Hence, our inability to promote the common interest in sustainable development is often a product of the relative neglect of economic and social justice within and amongst nations”* (WCED, 1987).

On one hand, the emphasis placed by the Brundtland report on intergenerational equity is in line with the notion of common responsibility, since only broad cooperation and participation in common efforts would ensure that future generations are able to enjoy a rich life on this planet (Honkonen, 2009: 5). Conversely, the recognition that developing countries have fewer financial and technological resources to invest in infrastructures that are resilient to the adverse effects of climate change implies that the capacity to take remedial measures should be one of the criteria for differentiating between countries under the CBDR.

In 1989, the UN General Assembly, noting the Brundtland report, called for a UN Conference on Environment and Development[57]. The first UN Conference on Environment and Development (UNCED), also known as the Earth Summit, was held in Rio the Janeiro in 1992 and represents a third fundamental milestone for the development of the CBDR. Formally, the CBDR evolved as an international principle during the 1992 UNCED, and is articulated in Principle 7 of the Rio Declaration. According to Principle 7 the CBDR is defined as follows:

> "*States shall co-operate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem. In view of the different contributions to global environmental degradation, states have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command*" (UNCED, 1992).

In essence, the Rio Declaration recognises the special needs of developing countries, especially in the context of international environmental law (Pauw et al., 2014). The negotiating history of the Rio Declaration is of interest because it unveils the different views of developed and developing countries regarding the purpose of environmental law-making and their relative bargaining power in negotiations. On the one hand, Western countries wanted to achieve a final declaration focused exclusively on environmental issues. On the other hand, developing countries argued that the Rio Conference was about people and their right to development. Finally, the developing countries were successful in influencing many

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[57]General Assembly Resolution 44/228, United Nations Conference on Environment and Development, A/RES/44/228, Dec. 22, 1989.

of the provisions of the declaration, including the articulation of a right to development[58] and the focus on both poverty eradication[59] and on the needs of developing countries[60]. In this respect, the Rio Declaration provided an opportunity for developing countries to use the environmental agenda as a means to advance their concern about development and growth (Louka, 2006: 33-38). Fundamentally, the divergence between the global North and the global South encompasses the framework, nature, and agenda of international environmental law. It is essentially focused on who should take responsibility, in what measure, and under what conditions to contain global environmental degradation (Mickelson, 2007: 8).

A particularly important aspect of the CBDR principle is reflected in the issue of international assistance, including financial aid and technology transfer. Developed countries are seen as having played a critical role in global environmental degradation and climate change, and as actors with the unique ability to address, them thanks to their technological and financial capacity. Therefore, according to the CBDR, they are expected to take the lead on environmental problems. In addition to moving toward sustainable development on their own, developed countries are expected to provide financial, technological, and other assistance to help developing countries fulfil their sustainable development responsibilities (CISDL, 2002).

On the other hand, with respect to the common responsibility foreseen in the CBDR, developing countries should actively implement adaptation measures in their economic development and poverty elimination policies, decrease their emission as much as possible, and fulfil their duties in addressing climate change.

Since the early stages of its formulation there has been considerable debate around the definition and scope of the CBDR principle, as well as its content and the nature of the obligation it entails. All of these constitutive elements continue to be contested (Stone, 2004; Rajamani 2010; Deleuil 2012).

Although included in the UNFCCC's "principles" section, CBDR was explicitly not included as a legal principle. This has generated persistent vagueness and uncertainty around the CBDR principle in the realm of international law (Pauw et al., 2014). In this framework, its interpretation can reflect fundamentally different perspectives on the roles of the South and North in responding to global environmental challenges. In the aforementioned Principle 7 of

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[58] Principle 3 of the Rio Declaration.

[59] Principle 4 of the Rio Declaration.

[60] Principle 6 of the Rio Declaration.

the Rio Declaration, CBDR is based on "the different contributions to global environmental degradation".

From the perspective of the North, this principle can be said to reflect a pragmatic recognition of the different financial and technological capacities of developed and developing countries, and of the current imbalance in consumption of resources between South and North (Mickelson, 2008). From the perspective of the South, in contrast, it can be said to reflect an acknowledgement of the historic, moral, and legal responsibility of the North to shoulder the burdens of environmental protection, just as it has enjoyed the benefits of economic and industrial development largely unconstrained by environmental concerns. Implicit in the latter view is a sense that the North has received a disproportionate share of the benefits of centuries of environmentally unsustainable development, and the underprivileged in the South have borne many of its costs (Mickelson, 2000). The opposite – and near incompatible - views on its content are also reflected in the fundamental disagreement as to the nature of the obligation it entails. While the G77 and China argue that it is obligatory, others, such as the US, contend that it can be nothing but discretionary.

The increasing reach, significance, and application of the CBDR principle has led several international legal scholars to query whether the principle is a form of "soft law" - a nonbinding norm - or has emerged as a robust, acknowledged principle of international environmental law (Joyner, 2002: 358-359)[61].

However, as argued by Lavanya Rajamani, the preoccupation of international lawyers with the precise legal status of this norm is misplaced. The FCCC, as a framework convention, imposes obligations that are largely aspirational in nature and function as building blocks for the development of the climate regime. CBDR is a notion that, despite the legal wrangling on the point, is the overarching principle guiding the future development of the climate regime. Even though this principle does not assume the character of a legal obligation in itself, it is a fundamental part of the conceptual apparatus of the climate change regime such that it forms the basis for the interpretation of existing obligations and the elaboration of future international legal obligations within the regime in question (Rajamani, 2006: 159-162).

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[61] See also: Philippe Sands, *Principles of International Environmental Law* (2nd ed., 2003), p. 289; Edith Brown Weiss, *The Rise and Fall of International Law*, 69 Fordham L.R. 345, 350 (2000); Patricia Birnie and Alan Boyle, *International Law and The Environment*, (2nd ed., 2002), p. 103.

5.3   The Relevance of CBDR in China's Identity Shift

The formal establishment of CBDR was ultimately the result of decades of political action and negotiating efforts by developing countries, with China being a key player in the process (Stalley 2013; Biermann 1998). China's influence traces back to the 1972 Stockholm Conference when it was able to insert two principles into the final declaration about the need to balance development with environmental protection (Aaronson, 1972; Najam, 1995: 253)[62]. While Beijing used to be a latecomer to international regimes[63], especially before the 1990s, for the global climate change regime formation, China has participated in the process from the very beginning and has attended all the international negotiations leading to UNFCCC and the Kyoto Protocol as a full party.

Over the years, within the group of developing countries and the G77 in particular, China has progressively assumed a leadership role in defending the right to development for developing countries and stressing the need for a poverty eradication policy, whilst simultaneously highlighting the historical responsibility of the global North for global warming. Following this negotiating line drawn by China in ICCN, developing countries and emerging economies were almost unanimous in putting forward the historical responsibility of the industrialised nations for exacerbating the greenhouse effect in international forums.

The inclusion of the CBDR in the UNFCCC's preamble is the most prominent manifestation of China's influence in the international climate change negotiation process. The regime revolving around the UNFCCC has since been shaped by two distinct framings. First, climate change was framed as an environmental issue, to which pollution control is the answer. Second, climate change was linked to the emergent paradigm of sustainable development, thereby highlighting intra- and intergenerational equity and emphasising the minor contribution of developing countries to current global environmental problems and their limited capacities to deal with them (Depledge & Yamin 2009). Consequently, the CBDR principle was included in the UNFCCC's preamble as follows:

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[62] At the last stage of the conference, some states expressed dissatisfaction with the draft declaration's inadequate treatment about the needs of developing countries and insisted on their right to propose amendments. Upon the request of China, as amended by Iran, a working group to work on the final declaration was established. This working group finally produced an agreed version of the final declaration where two principles (Principle 2 and Principle 4) were updated in order to better focus on the need to balance development with environmental protection.

[63] Following Gareth Porter and Janet Welsh Brown's definition, regime is considered here a "system of norms and rules specified through a multilateral agreement between relevant states with the purpose of regulating domestic actions in relation to an issue or group of related issues" (Porter & Brown, 1996: 23).

"…The global nature of climate change calls for the widest possible cooperation by all countries and their participation in an effective and appropriate international response, in accordance with their common but differentiated responsibilities and respective capabilities and their social and economic conditions" (UNFCCC, 1992).

Under the UNFCCC framework, China has been pushing for a strict divide between developed and developing countries' mitigation responsibilities, and has favoured proposals that allow soft targets, protect developing countries' autonomy, and call for more ambitious actions on the part of industrialised countries. Over the years, China has helped to keep the CBDR principle at the forefront of climate change debates in several different ways: organising international conferences, such as the Beijing Ministerial Conference in 1991, or sponsoring international gathering, such as the FOCAC since 2000, the BOAO Forum for Asia since 2002, or the BRICS annual Summit since 2009. China has helped mobilise developing countries and bind them around the principle of CBDR. Moreover, in the climate change negotiations, Chinese delegates repeatedly referred to CBDR in their formal statements. As a result, the CBDR principle is referred to in the Rio Declaration[64], the FCCC[65], several UNFCCC COP decisions[66], the Johannesburg Plan of Implementation 2002[67], the RIO+20 Summit[68], and finally in the 2015 Paris Agreement[69]. The Paris

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[64] Principle 7.

[65] Article 3.

[66] See: Decision 1/CP.1, *The Berlin Mandate*: Review of Adequacy of Article 4, paragraph 2, sub-paragraph (a) and (b), of the Convention, including proposals related to a Protocol and decisions on follow-up, in *Report of the Conference of Parties on its First Session*, FCCC/CP/1995/7/Add.1 (1995); Decision 24/CP.7, Procedures and Mechanisms Relating to Compliance under the Kyoto Protocol, in Report of the Conference of the Parties on its Seventh Session, Addendum, Part Two: Action taken by the Conference of the Parties, Volume III, FCCC/CP/2001/13/Add.3 (2002) at Annex, section IV, paragraph 4; and Decision 1/CP.8, Delhi Ministerial Declaration on Climate Change and Sustainable Development, in Report of the Conference of Parties on its Eighth Session, Addendum, Part Two: Action taken by the Conference of the Parties, FCCC/CP/2002/7/Add.1 (2003) at 3.

[67] See: World Summit on Sustainable Development, Plan of Implementation, 4 September 2002, available from: http: //www.un.org/jsummit/html/documents/summit_docs/2309_planfinal.htm. There are six references to CBDR in the plan, including in the introduction (paragraph 2) and in the context of changing unsustainable patterns of consumption and production (paragraph 13), climate change (paragraph 36), air pollution (paragraph 37), and means of implementation (paragraph 75).

[68] The final document approved at Rio +20, "The Future We Want" [A/RES/66/288] reaffirms the Rio Principles mentioning the CBDR in section II (Renewing Political Commitment) and section V (Framework for action and follow up). Available from: http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/66/288&Lang=E

[69] The Paris Agreement, which will be discussed in more details in Chapter VII, reaffirms the CBDR in the preamble of the document and in Articles 2 and 4 [FCCC/CP/2015/L.9/Rev.1]. Available from: https://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf

Agreement, which is both the latest achievement in the framework of ICCN and the first major multilateral deal of the twenty-first century, clearly stated in Article 2 two that "This Agreement will be implemented to reflect equity and the principle of common but differentiated responsibilities and respective capabilities, in the light of different national circumstances".

Although China did not create the CBDR principle norm on its own, Beijing has been one of the norm's key architects and most vocal advocates. While China's active engagement in global environmental policy arises from an identity shift based on the three main interconnected elements previously described, I argue that the CBDR norm has been the main instrument that has allowed this shift. In fact, Beijing's adherence to the CBDR norm has been instrumental in creating a network of partners built on the collective identity of the global South which, in turn, allows Beijing to achieve its preferences in ICCN and simultaneously creates the economic and political conditions necessary to promote the low carbon transformation of its economy without undermining its development objectives.

China's framework policies on climate change reflect its domestic circumstances and its national interest. While economic interests are certainly critical in explaining China's position in climate change negotiations, it is also important to consider environmental justice arguments such as fairness and, above all, equity (Stalley, 2013). In fact, arguments such as fairness, equity, and the right to development have been used by China in an attempt to engage the global South. In so doing, China has been trying to position itself as a "different", responsible and reliable international player that offers a political alternative to Western actors and organisations. Above all, this approach has been directed at African developing countries. Together, they hold strategic relevance for Beijing, while also being commonly imagined as the backbone of the developing world. In fact, this is the largest group of states that tend to vote as a block in multilateral contexts and their political and diplomatic support has been crucial for Beijing on several occasions[70].

According to Philip Nel, Professor of Political Studies at the University of Otago, New Zealand, China's policy has contributed to what he labels "the struggle of developing countries", regardless of whether they are in Central Asia, Africa or Latin America, against their own invisibility in terms of reigning (Western) discourses of development, modernisation, and global economic and cultural integration (Nel, 2010: 970-1). Therefore, environmental justice arguments are critical to both understanding China's opposition to

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[70] See chapter VIII for more details.

emission targets and its ability to resist taking on more costly commitments in the climate change regime. In essence, these arguments are critical in understanding how China has become a key player in climate change diplomacy.

In using arguments about environmental justice to pursue its self-interest in ICCN, China's behaviour largely coincides with Schimmelfenig's concept of "rhetorical action," which refers to the "strategic use of norm-based arguments" (Schimmelfennig, 2001). China's "rhetorical action" strategy has been to frame climate change as a North-South issue, primarily through the promotion of the CBDR norm. Framing its claims and preferences in ICCN in ways that appeal to commonly held principles and norms in international relations, China used its public diplomacy as a way of building legitimacy for itself as an actor, as well as for its policies. By framing its opposition to binding commitments in the language of CBDR, China uses a rhetoric that resonates deeply with the views and shared identity of the developing world. In so doing, Beijing maintains solidarity with developing countries, keeps the attention on industrialised nations and off major developing country emitters, and ultimately legitimises its opposition to binding reduction limits (Stalley, 2013).

In the last two decades, the People's Republic of China has developed a large number of partnership and cooperative frameworks with other emerging economies and developing countries. These have significantly improved its diplomatic credentials. At the same time, it has played an increasingly pivotal role in international climate talks, significantly influencing global South negotiating strategy, and has been successful in building large coalitions in support of its positions. Furthermore, by embedding its actions in both a "developing country rhetoric" (vis-à-vis developed countries) and a "donor role" (towards least developed countries), China has been able to raise its international profile and acquire a leading role among a large number of developing countries and emerging economies[71].

From the late 1990s, in the aftermath of the Asian financial crisis, Beijing has progressively increased its engagement with existing global Western-lead institutions. At the same time, as China's economy began its dramatic climb, Beijing started to invest a growing amount of diplomatic and economic resources into building alternative institutional options to the Bretton Woods system in several different fields. In the framework of financial and monetary policies, China was the main proponent of the New Development Bank, in the field of trade and investment policy, it established the China-ASEAN Free Trade Area, in the field of

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[71] See: Naidu & Davis, 2006; Garner, 2007; Breslin, 2007; Moyo, 2009; Taylor, 2009; Spakowski, 2009; Cooke, 2009; Gardelli, 2009; Nel, 2010; Callahan & Barabantseva,2011; Jacques, 2012; Kopinski et al., 2012; Carmody, 2013; Dyer, 2014; Economy & Levi, 2014; Mathews & Tan, 2015.

transnational infrastructural projects, it was the leading architect of the Silk Road Economic Belt and the Asian Infrastructure Investment Bank, and in the field of regional security, it was one of the founding members of the Shanghai Cooperation Organization. These and other potential routing-around options, such as the annual Brics Summit or the BOAO Forum for Asia, caught the attention of foreign policy analysts in 2006, when Beijing hosted over fifty African leaders at the Fourth FOCAC Forum. On that occasion, China signed bilateral economic agreements and commercial contracts and pledged development aid, exercising its role as a great power vis-à-vis Africa (Chin & Thakur, 2010: 126). Indeed, since the early 1990s, China strengthened its economic and political ties with African and Central Asian countries gaining a growing relevant role in many of them.

In seeking to cultivate external relations with African countries, China has long stressed their shared history as developing countries, putting themselves in contrast to Western countries. Thereby, it has emphasised the symbolic attraction of China that resonates with African elites looking for a positive development model for the Third World. In fact, many African leaders are increasingly looking at China as a success story in that it has risen from backwardness to staggering economic growth without following the prescriptions of the West (Alden, 2005). In this process, in the framework of ICCN, the principle of common but differentiated responsibility has been the catalytic force that holds together the interests of China and the global South, granting Beijing the political and diplomatic support of a large number of developing countries and emerging economies.

Chapter VI: China's Approaches and Policies towards Climate Change

"China may soon go green not because enough Chinese saw Al Gore's movie and were persuaded, but because the grim realities of daily life are persuading China's leaders that they have no other choice. They will realize that China must go green out of necessity […].
A green China will invent the wind, solar, nuclear and carbon-capture sequestration power system at a price that can, first and foremost, scale in China. And once China has perfected all those clean power systems, it will sell them to us".

Thomas Friedman, Hot, Flat & Crowded, 2009

To understand China's climate change policy is not easy, as the country itself is a paradoxical actor in the global climate political economy: historically, it took a very suspicious stand on the scientific certainty of climate change, but it finally became a signatory to and firm supporter of the Kyoto Protocol. It strongly refuses to accept any legally binding obligations to cut emissions, but is gradually investing increasing resources on the research and development of clean energy and other emission reduction technologies, taking the lead in developing renewable energies and in the carbon trading business. It accuses Western countries of hypocrisy and irresponsibility, but maintains close cooperation with them on low-carbon projects (Chen, 2012: x).

China has achieved an astonishing transformation over the past three decades. An impressive economic growth rate and several structural reforms implemented since 1978 have gained China a major role in the global, economic, and technological arenas. The country has become an industrial powerhouse, lifted hundreds of millions of citizens out of poverty, and created a growing middle class with rising levels of prosperity. On the other hand, this tremendous economic growth has also turned China into the largest emitter of GHGs and economic progress has come at a high environmental cost: air quality in hundreds of cities is worsening and water resources across the country are deteriorating.

Early studies have shown that the climate change issue in China has been intimately linked with efforts to modernise the economy and the energy strategy employed to fuel that modernisation (Hatch, 2003: 45), and potential emission reductions are mainly a by-product of measures aimed at cutting energy costs and increasing energy security. However, it may not be appropriate to portray China's climate change policies as simply a component of its

energy policy formulation, since the climate issue is generally a global environmental issue in which more complicated factors such as transnational cooperation, national image, ecological protection, and growing public awareness are closely involved (Economy, 1997: 21).

In this chapter, I present the security dimension of climate change in China, analysing in particular three key themes which are crucial for Beijing's development priorities of securing economic growth and maintaining social stability: water security, food security, and energy security. I will then analyse Chinese environmental protection and climate change policies with a specific focus on the actions and guidelines of the 12th Five Year Plan. Finally, I will present the main achievements of China within the frameworks of the instruments provided by the Kyoto Protocol.

6.1   The Security Dimension of Climate Change in China

Since the early 1990s, China's role in the global fight against climate change has increasingly become an issue of international attention. As the scientific evidence and understanding of anthropogenic climate change continues to improve, so does the understanding of the severe social and political consequences that climate change will have on specific regions of the world. In China it is very likely that future climate change will cause significant adverse consequences on the ecosystems, agriculture, water resources, and coastal zones (IPCC, 2013). Impacts already being observed include extended droughts in the north, extreme weather events and flooding in the south, glacial melting endangering vital river flows, declining crop yields, and rising sea levels along heavily populated coastlines (Lewis, 2010: 273).

In recent years, China has been affected by an increasing number of natural disasters, especially meteorological ones such as droughts, floods, and storms, that have become more frequent and severe since the 1990s and the trend is likely to continue according to the Beijing National Meteorological Centre. The consequences of these extreme weather events were mostly shortage of water as well as energy resources, heavy losses in agricultural production, a general deterioration in ecology and environment, and a continuous threat to coastal economic and social development due to coastal erosion and sea level rise.

At the same time, since China started its own reform process, and adopted Deng Xiaoping's approach, in 1992, which indicated that the market system was not incompatible with

socialism, and called for the creation of a socialist market economy "with Chinese characteristics", its economic growth increased by an average rate of 9% annually, while its energy consumption rate increased by an average rate of 4% annually.

This impressive economic growth, which is unparalleled in modern history, has been gradual and incremental, without any detailed "blueprint" or clear and agreed upon roadmap guiding the process, an approach captured by the metaphor 'crossing the river by feeling the stones under the feet' (Prasad, 2004: 2), attributed to Deng Xiaoping.

This economic boom has come at a high environmental cost: air quality in hundreds of cities has been worsening and water resources across the country have heavily deteriorated. Therefore, in the early 1990s, the Chinese government started to realise that short-term considerations and the acceptance of environmental degradation for economic reasons was not sustainable, jeopardised stability, and could not maintained China's growth in the long run (Richerzhagen & Scholz, 2007: 9).

In this context, the Chinese Government realised that the combined effects of climate change and environmental degradation were undermining its priorities of securing economic growth and maintaining social stability. Thereby, they threatened the country's development objectives and self-perception as a uniquely progressive communist welfare state and a mainstream alternative to Western economic and political hegemony. Consequently, Beijing started to invest large economic resources in adaptation and mitigation measures (both from a legislative and an infrastructural point of view) to achieve sustainable economic growth, trying from one side to maintain internal stability and from the other to possibly avoid or ultimately manage the worst consequences of climate change. Hence, China started to grant greater attention to its environmental policy and to progressively strengthen its environmental institutions.

The Chinese government has acknowledged the "security dimension" of a changing climate. However, while in developed countries the link between climate change and security has been generally address to stress the security consequences of a changing climate (what I have previously defined as the "alarmist approach"), from a Chinese perspective the security dimension of climate change is centred on the concept of sustainable development and focuses on mitigation and adaptation measures designed to reduce the negative effects of global warming.

In the document sent to the IPCC in June 2015 with its Intended Nationally Determined Contribution (INDC), the Chinese Government stated that:

"As a developing country with a population of more than 1.3 billion, China is among those countries that are most severely affected by the adverse impacts of climate change. […] To act on climate change in terms of mitigating greenhouse gas emissions and enhancing climate resilience, is not only driven by China's domestic needs for sustainable development in ensuring its economic security, energy security, ecological security, food security as well as the safety of people's life and property and to achieve sustainable development, but also driven by its sense of responsibility to fully engage in global governance" (NDRC, 2015: 2).

6.1.1 China's New Security Concept

Since the foundation of the People's Republic of China in 1949, the Security Agenda of the Chinese Communist Party has been focused on the safety of its territory, the consolidation of the new regime, and the nation's ideological unification.

The traditional national security concept emphasised the protection and strengthening of state sovereignty, territorial integrity, and regime security. As indicated by Professor Wang Zhengyi, from the School of International Studies at Peking University, national security meant to ensure independent state sovereignty and territorial integrity and was addressed to maintain the leadership of the Chinese Communist Party and the socialist system (Zhengyi, 2004: 526).

Following the collapse of the former Soviet Union and the end of the Cold War, the Western debate around the redefinition of the concept of security has also altered the context of Chinese security thinking. Chinese analysts started then to consider national security in the framework of comprehensive security, a new concept that broadens the definition of security to encompass not just national security concerns (i.e. military security), but also economic, human, and environmental concerns as well. Under this new "umbrella concept", national security was no longer equal only to national defense and diplomacy and was no longer limited to the defense of national sovereignty and territorial integrity (Yang, 2010: 141).

According to Professor Wu Baiyi, an international relations scholar at the Chinese Academy of Social Sciences, when analysing the security discourses in China, the communist era can be divided into five different periods[72]. The last period, which started in the aftermath of the

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[72] The first period was the so-called pro-Soviet period (1949-1957), the second was the period of opposition to both superpowers (1958-1970), the third period was that of a united front of counter hegemony (1971-1981), and the fourth was the period of non-aligned security stance (1982-1991). Finally, the fifth period, which is the post-

Cold War, was characterised by the "drive for a multipolar world", in which a new and more comprehensive definition of security was introduced, the so-called *New Security Concept* (Baiyi, 2001). The New Security Concept (NSC) includes non-traditional threats like environmental degradation, terrorism, energy security, as well as geopolitical, ethnic, religious, diplomatic, and, above all, economic considerations.

Former Chinese President Jiang Zemin officially incorporated the concept of multipolar world into Chinese foreign policy at the 14th Congress of the Communist Party of China in 1992 to support China's stance that a fair, just, and peaceful world was only possible through multipolarity. In this framework, Beijing recognised that an internationalisation process was a necessary step to pursue the country's modernisation. Compared to past security policies, the NSC incorporated two major changes. First, it stressed a broad field of interests to protect, including, for the first time, economic security, marking the upgrade of economic discourses from the level of "low politics" to that of "high politics". Second, it focused more on the interrelationship between external and internal security challenges (Baiyi, 2001: 281).

The New Security Concept, which remains state-centric but argues at the same time for mutual and common security, was introduced in April 1996 when the "Shanghai Five" initiative (a partnership between China, Russia, Tajikistan, Kyrgyz and Kazakhstan) was initiated. However, it was officially endorsed during the 15th Communist Party Congress in September 1997. In that period, after the collapse of the former USSR, the end of the Washington-Beijing-Moscow triangle[73] reduced China's strategic importance to the United States, which was emerging as the only superpower in the world, strengthening their military alliances (such as Eastern Europe enlargement of NATO and Japan-US security cooperation), and practicing military intervention (i.e. in the Balkans war) (Yang, 2006: 88).

In February 1997, Deng Xiaoping, paramount leader[74] of the People's Republic of China from 1978 and main architect of the Chinese economic reform, died. A few months later, in July, China regained the sovereignty over Hong Kong from the UK and, in September, the "third

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Cold War period, has been described as the drive for a multipolar world (as from 1992), in which China pursues a security of sustained development.

[73] During the Cold War, the United States enjoyed a privileged situation that relied on the difficult political relationship between Moscow and Beijing, especially from the end of the 1960s until the collapse of the Soviet Union. Ideological differences, regional conflicts, and territorial disputes allowed Washington to occupy a privileged position within this complicated diplomatic triangular relationship. It was in this context that Nixon's visit to China took place in 1972.

[74] In modern Chinese politics, the paramount leader of the Communist Party is an informal term that refers to the most prominent political leader in the People's Republic of China.

generation" of communist leaders led by Jiang Zemin[75] agreed at the 15th Party Congress to pursue the path of national reforms and to strengthen the international and diplomatic relations of the country. This decision represented a major step forward for Chinese foreign policy.

In the 29 years from its founding in 1949 to 1977, the PRC was party to a total of 31 international treaties. In contrast, in the 27 years from 1978 to the end of 2004, China signed 236 international treaties (Yang, 2010: 149). This was the geopolitical context in which the New Security Concept was developed and implemented. The launch of the NSC was considered by some IR scholars and security analysts as the primary Chinese policy towards security cooperation with Southeast Asia to counterbalance the role of the US in an increasingly globalised world, laying the foundations to play a leadership role in a multipolar world (Garrett & Glaser, 1994; Goldestein, 1998; Swaine & Tellis, 2000; Thayer, 2003; Finkelstein, 2003; Yang, 2010).

In early 2000, China renewed its efforts to promote its NSC in Southeast Asia and the concept has become recurrent in several government international statements and white papers. In 2002, at the Association of Southeast Asian Nations (ASEAN) Regional Forum, the Chinese government presented two keynote documents: (1) *China's Position Paper on the New Security Concept* and (2) *China's Position Paper on Enhanced Cooperation in the Field of Non-traditional Security Issues*. This move marks an initial conclusion of Chinese re-conceptualisation of security (Xin, 2004: 11). Since then, non-traditional security threats, such as uncontrolled population growth, disparities in economic opportunities, migration pressures, environmental degradation, and international terrorism, have received unprecedented attention in Chinese security discourses and were also further analysed in the 2008 China's Defence white paper[76]. The security threats presented in the NSC were fundamentally of five different types: (1) military security, (2) political/regime security, (3) scientific and technological security, (4) economic security, and (5) environmental degradation.

Although the official New Chinese Security Concept has undergone changes in its content and implications for policy, it has retained a major preoccupation with sovereignty and territorial integrity. As a consequence, the definition of military security was focused on defending the state's territorial sovereignty and integrity, resisting foreign aggression and safeguarding state

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[75] In the Communist Party of China career advancements proceed mainly according to seniority, therefore it is possible to discern 5 distinct generations of Chinese leadership. The "third generation" lasted from 1992 to 2003, with Jiang Zemin as leader.

[76] Found at http://www.china.org.cn/government/whitepaper/node_7060059.htm [accessed 30 July 2016].

unification (Finkelstein, 2003: 202). Almost the same was true for the definition of political/regime security. Internal instability has always been Beijing's core security concern as it threatens its legitimacy. Being an undemocratically elected government, security measures were (and still are) aimed at maintaining domestic political, order with a particular focus on terrorism (Yang, 2010: 142). In this regard, the Shanghai Five initiative, which successively became the Shanghai Cooperation Organization (adding Uzbekistan) in 2001, with the support of the The Shanghai Convention on Combating Terrorism, Separatism and Extremism and The Agreement on Regional Counter-terrorism Agency, took the lead in opposing the so-called "three evil forces" on China's western frontier: terrorism, ethnic separatism, and religious extremism[77]. The instability of Tibet and Xinjiang poses, in fact, a significant security challenge to Beijing. While Beijing has the military instruments to control the separatist movement in both autonomous regions, the social instability in these regions could have a negative impact on the Chinese image at an international level and, consequently, on Beijing's foreign policy.

The third dimension of the NSC was the scientific and technological security, defined as a fundamental instrument for China's socio-economic development. The transformation of the country from a socialist economy into a market economy required an increasing number of skilled workers to improve the international competitiveness of Chinese industries. This was considered by the third generation of PRC leaders as a priority and therefore included in the new security agenda.

The most important dimension of the post-Cold War concept of security incorporated in the NSC was economic security. Chinese security analysts understood that without a strong economy, the military dimension of national security was not sustainable (Yang, 2010: 154). Following the economic breakdown of the former Soviet Union and the collapse of communism in Eastern Europe, President Jiang Zemin linked economic security to regime survival stating that:

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[77] Beijing uses the phrase "three evil forces" referring to counter-terrorism operations undertaken within the Shanghai Cooperation Organization and to rally China's western neighbors against independence movements, like the one in Xinjiang province. Muslim separatists in Xinjiang present China with its most significant terrorist threat, which emerged in the late 1980s (Yang, 2010: 144). The latest suicide attack on October 29th, 2013 in Tiananmen Square, just a few days before the closed-door four day conclave of 370 senior party leaders, is only the latest of a number of terrorist attacks that the Chinese authorities ascribe to the East Turkistan Islamic Movement (ETIM), which is listed as a terrorist organisation by China, the United States, and the United Nations.

"If we fail to develop our economy rapidly, it will be very difficult for us to consolidate the socialist system and maintain long-term social stability. Whether we can accelerate economic growth is therefore an important question both economically and politically" (Zemin, 1992).

Economic security is understood as a measure to ensure the country's economic stability and sustained development and, thereby, to guarantee and support its economic growth through full access to overseas markets. Moreover, economic security is not only relevant for the national economy but it is also related to societal security and social stability. In fact, the problem of a growing population, worsened by increasing waves of migrants moving from the countryside to urban areas, from economically underdeveloped central and western regions to the more prosperous and developed eastern and costal ones, is exacerbating social tensions and consequently undermining social stability.

According to the Ministry of Public Security, in 2003 there were more than 58,000 "mass incidents"— the term the Chinese government uses to describe public protests — involving three million people, an increase of almost 15% over the year before (Lim, 2004). In recent years the number of recorded mass incidentsin China has increased steadily, from 32,000 in 1999 to 87,000 in 2005 and even more significantly between 2006 and 2010, when over 180,000 were reported. Most large-scale social riots in China revolve around economic or social grievances, which are generated by the rapid socio-economic transformation, increasing levels of social imbalance, and the poor quality of local governance.

Social instability is strongly interlinked with the fifth dimension of the NSC, which is environmental degradation. In fact, as previously anticipated in chapter I, in recent years China has been witnessing - especially in rural areas - an alarming increase in societal unrests linked to environmental degradation and pollution, the so-called "environmental mass incidents"[78].

Between the end of the 1990s and the early 2000s, the Chinese leadership realised that not tackling environmental degradation would undermine the stability and legitimacy of the Communist Party. Therefore, implementing a path toward sustainable development was becoming an imperative, not an option.

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[78] Chapter I, page 16.

6.1.2 The Impact of Climate Change on China's Security

In the framework of environmental protection and climate change, three themes are particularly relevant for the Chinese government: water security, food security, and energy security, because they threaten the vision of stable economic development. If the current projections presented by environmental scientists and research analysts are correct, the economic and social impact of climate change would be very relevant for a country like China, which is currently in the process of rapid industrialisation and urbanisation, confronting multiple challenges including economic development, poverty eradication, and improvement of living standards, and where internal stability is strongly linked to an high level of economic growth. In this context, climate change is both an environmental and a development issue.

In the first edition of its National Climate Change Program, Beijing recognised that climate change had already caused changes in the distribution of water resources across the country, highlighting in particular an increase of hydrological extreme events, such as drought in the north and flooding in the south (NDRC, 2007: 18). These findings were in line with the IPCC's Fourth Assessment Report, which stated that climate change would impinge on the sustainable development of most developing countries in Asia, as it compounds the pressures on natural resources and the environment associated with rapid urbanisation, industrialisation, and economic development. As a consequence, the report stated, the effects of climate change would potentially threaten not only the natural environment and ecosystems, but also disturbed the social, economic, and political stability of a nation. Storm surges and flooding disasters derived from global warming and sea level rise will not only threaten regional industries, agriculture, cities, and harbour constructions, but will also pose a serious and concrete threat to national economic development (IPCC, 2007a).

Since China became one of the key players of the world economy and the most populous country in the world, with more than 1.3 billion people, its impact on global warming has increased exponentially. Economic growth, structural changes, and integration into world markets were unleashed by the post-1978 reforms, which transformed China's centrally planned economy into a market-based economy. This led China to become, in 2007, the world's largest emitter of greenhouse gases, surpassing the United States of America (Figure 6.1 below).

In 2010, China's CO2 emissions increased 10.4% over 2009, much higher than the world average level of 5.8% (BP, 2011). China's CO2 emissions made up 25.1% of the world total share in 2010, but this share was only 5.7% in 1973 and 1.13% in 1950.

This data can be understood by considering that, over recent years, China has somehow taken up the carbon emissions of several countries in the Western developed world, mostly from the US, Europe, and Japan, becoming what has been labelled as the "world's factory". From the early 1990s, developed countries have, indeed, significantly exported their manufacturing activities to developing countries, together with the carbon emission and other related pollution (Wen, 2009).

In an interview with the *New York Times* in June 2007, responding to the rising international criticism about Chinese carbon emissions, the Chinese Foreign Ministry Spokesman Qin Gang said, "The developed countries moved a lot of manufacturing industry into China [...] A lot of the things you wear, you use, you eat are produced in China. On the one hand, you shall increase the production in China, on the other hand, you criticize China on the emission reduction issue" (The New York Times, 2007).

Figure 6.1: CO2 emission, total (MtCO2) of EU, US, and China from 1990 to 2009
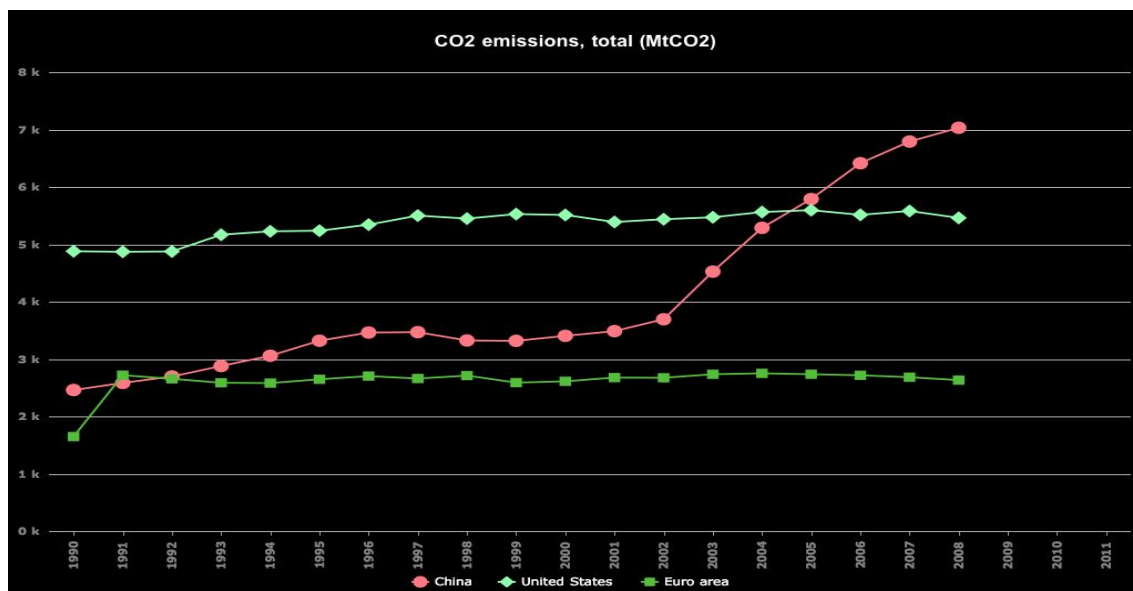
Source: Carbon Dioxide Information Analysis Center, Environmental Sciences Division, Oak ridge Laboratory, Tennessee, United States and World Bank and UN population data, WB 2012

According to estimates calculated by Tao Wang from the Tyndall Centre for Climate Change Research of the University of Sussex, the emissions from exports from China in 2004 accounted for 1,490 million tonnes of CO2 while emissions avoided due to imports were 381

million tonnes of CO2 (Wang, 2007). This shows that 23% of China's emissions were due to net exports. Other data provided by government officials and researchers are even higher, claiming that one third of China's emissions are due to exports (Bina & Soromenho-Marques, 2008). Indeed, a key driver of the rapid economic growth in China over recent decades has been the great expansion in the production of goods for export (Guan et al., 2009) and, although growth has slowed since the global financial crisis, between 2000 and 2007 the volume of Chinese exports grew by 390% (NBS, 2001-2010).

As the Chinese economy has grown, the economic structure has also changed, transitioning from a net importer to a large net exporter of energy-intensive industrial products (NBS, 2001-2010). The energy needed to support this massive economic growth has come from combustion of fossil fuels, primarily coal, which has contributed to a global increase in emissions of carbon dioxide (CO2) (Minx et al., 2011; Fan and Xia, 2012). Fossil fuel-intensive manufacturing, large manufacturing volume, and relatively weak emission controls have meant that China emits far more pollutants per unit GDP than countries with more advanced industrial and emission control technologies. At the same time, increased combustion of fossil fuels, relatively low combustion efficiency, and weak emission control measures have also led to drastic increases in air pollutants (Ohara et al., 2007; Lu et al, 2011; Lin et al., 2010).

In the same period, in terms of CO2 emissions per capita, China's emissions reached the world's average level of 4.3 ton/person in 2006, and this number increased to 4.6 tCO2/person in 2007, 5.1 tCO2/person in 2008, and 6.1 tCO2/person in 2009. From 1990-2009, China's CO2 emissions per capita increased by 113%, ranked the fastest in the world (Oliver & Peters, 2010). As predicted by the International Energy Agency (IEA), China's CO2 emissions per capita would overtake the EU by 2030 at 8.0 tCO2/person (2009a). However, as illustrated in the Figure 6.2, below, notwithstanding this relevant growth rate, Chinese emission per capita are still far away from the levels of the United States or Europe.

Figure 6.2: CO2 Emission per capita of the EU, US, and China from 1990 to 2009

CO2 emissions per capita (metric tons)

Source: Carbon Dioxide Information Analysis Center, Environmental Sciences Division, Oak ridge Laboratory, Tennessee, United States and World Bank and UN population data, WB 2012
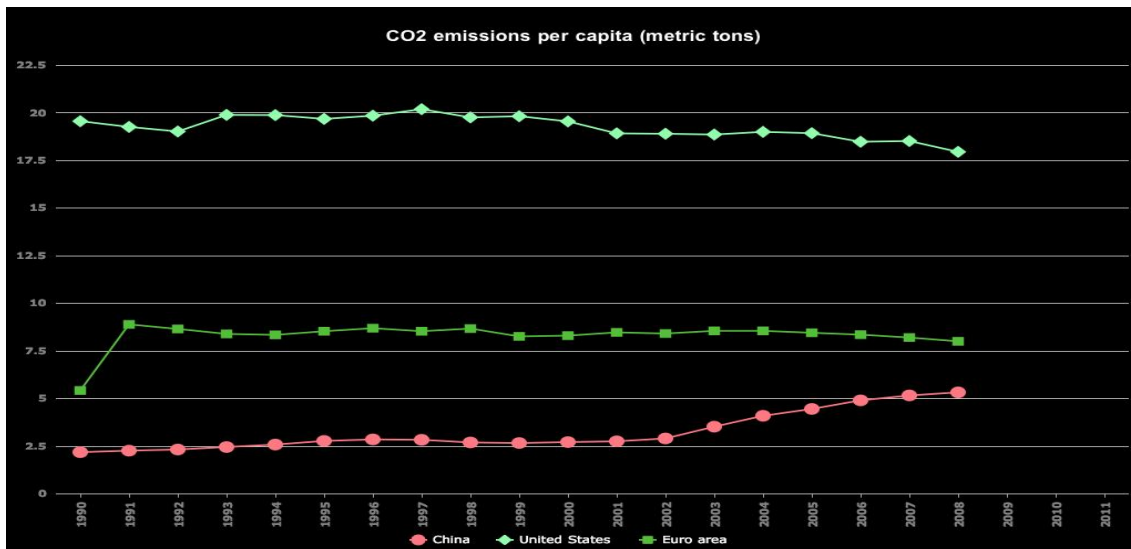
Although the correlation between the rise of global temperature and the frequency of extreme weather events is still a controversial issue among meteorology scientists, scientific evidence indicates that human activities do contribute to extreme weather events; human factors have been found to account for 75% of the European heat waves in 2003 (Stott et al., 2004). Although there are still uncertainties, differing perspectives, and contradicting theories regarding climate change science and anthropogenic climate change, scientific evidence has revealed that global warming is mainly caused by human-induced GHG emissions (such as CO_2). According to the IPCC's 2013 Fifth Assessment Report[79], the majority of climate scientists today agreed that there is a probability between 90 to 100% that human influence has been the dominant cause of the observed warming temperatures, at least since the mid-20th century[80]. Burning fossil fuels, changing land-use patterns, and cutting forests have greatly contributed to the accumulation of GHG in the atmosphere. The Earth's average surface temperature has risen by 0.76 degrees Celsius since the late 1800s, and the effects are evident at a global level in extreme weather events, changed weather patterns, floods, droughts, glacial and Arctic ice melt, rising sea levels, and reduced biodiversity (IPCC, 2007).

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[79] The IPCC, as an intergovernmental body jointly established in 1988 by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP), has provided policymakers with the most authoritative and objective scientific and technical assessments in the field of climate change sciences.

[80] The exact term used in the IPCC report is "very likely" which is defined as a probability above 95%. The IPCC has used the following terms to indicate the assessed likelihood of an outcome or a result: Virtually certain 99–100% probability, Very likely 90–100%, Likely 66–100%, About as likely as not 33–66%, Unlikely 0–33%, Very unlikely 0–10%, Exceptionally unlikely 0–1%. Additional terms (Extremely likely: 95–100%, More likely than not >50–100%, and Extremely unlikely 0–5%) (IPCC - SPM, 2013, p. 4).

According to the *Beijing Review*, China's average temperature in 2007 was 10.3 degrees Celsius, which made 2007 the warmest year since the establishment of a national climate observation network in 1951. This record high temperature, which marked the 11th year in a row that the national average temperature has been higher than in a normal year, was remarkably higher than the second highest figure of 9.9 degrees Celsius in 2006 (Beijing Review, 2008). The frequency and intensity of extreme weather events across China have increased relevantly in the last 50 years. Drought in northern and north-eastern China, and flood in the middle and lower reaches of the Yangtze River and south-eastern China have become more severe. The country can be divided into two main meteorological regions: the "dry North," referring to all areas north of the Yangtze basin, and the "humid South," which includes the Yangtze River basin and everything south of it.

The north possesses two-thirds of the country's cropland, and one-fifth of the water. The south has one-third of the cropland and four-fifths of the water. Climate change may stress this imbalance because it will have a relevant impact on the hydrological cycle (Figure 6.3 below).

Rainfall is likely to increase around the poles and the tropics while in the sub-tropics average precipitation is likely to decrease. Climate models predict that global warming would cause less rainfall in northern China and more rainfall in southern China (Wen, 2009: 10). Indeed, there has been a continuous drought in the North China Plain since the 1980s, while flooding disasters have happened more and more frequently in southern China.

Figure 6.3: China's main rivers

Source: Stratfor, 2009

In 2010, from the beginning of April, when the flood season started, the levels of more than 230 rivers passed the danger threshold and some areas along the Yangtze River experienced the worst flooding in 30 years. Floods hit 27 provinces and municipalities, affecting 110 million people and 8.06 million people were displaced and relocated. Floods also affected more than 7 million hectares of farmland and destroyed 645,000 houses, with a direct economic losses of about 20.88 billion US dollars (Xinhua, 2010b). This trend has been especially enhanced since the 1990s and droughts and floods are expected to become more severe in many areas while the melting of Himalayan glaciers is expected to exacerbate water shortages in several Chinese areas. The glaciers in the Qinghai-Tibetan Plateau and the Tianshan Mountains are retreating at an accelerated rate, and some smaller glaciers are close to disappearing. Because the melting of snow coincides with the summer monsoon season, any intensification of the monsoon and/or increase in ice melting is likely to contribute to flood disasters in Himalayan catchments. In the longer term, global warming could lead to a rise in the snowline and disappearance of many glaciers, causing serious impacts on the populations relying on the seven main rivers in Asia – the Ganges, the Indus, the Brahmaputra, the Salween, the Mekong, the Yangtze, and the Yellow River – fed by melt water from the Himalayas (UNFCCC, 2007). Combined, these rivers provide the water needs for irrigation, industry, and the daily use of about three billion people in Asia. Many glaciers are retreating rapidly at 15-25 meters per year and this trend is dangerously increasing, exacerbating China's already serious water shortages.

Water security is a critical problem in China, and rapid economic development and an incremental population growth, combined with the adverse effects of climate change, exacerbates water shortages. Northern China faces the greatest threat in this respect, as it will be subject to heat waves and droughts that will worsen existing water shortages. Sociological studies have found that an increasing number of farmers in Gansu province in northern China have already abandoned their lands as a result of the rapid deterioration of their water environment (Kang et al., 2008: 446). In fact, climate change is just the latest variable in a system that has forced them to seek better opportunities elsewhere.

China is water-rich in absolute terms, but given the number of people, the levels of pollution, and the location of China's water resources, water is scarce throughout much of the country, and China's leaders fear serious future shortages due to rapidly growing household and industrial demand. Moreover, global warming would enhance the frequency of floods and droughts, causing an unstable situation in water sources supply and water shortages (IPCC, 2007; Erda et al., 2007). Mado County, in Qinghai Province (where the Yellow River

originates), used to have more than 1,000 lakes: now there are less than 300. As a consequence, the disappearance of high-land wetlands and the degradation of grassland have had a negative impact on the livelihood of many nomadic herders. In Mado County, it is estimated that around one fourth of the herders have become "ecological refugees": they have been relocated and are totally dependent on government welfare now (Wen, 2009: 8).

In a country where entire villages and communities are forcibly obliged by the central or regional authority to move from their homeland and household in order to make space for huge public infrastructures, it is surely not a problem to relocate a small community of pastors, but this will no longer be the case if the current trend continues. As mentioned by Mr Pan Yue, Deputy Minister of China's State Environmental Protection Agency, in his interview with *Der Spiegel* in 2005:

> "*In the future, we will need to resettle 186 million residents from 22 provinces and cities. However, the other provinces and cities can only absorb some 33 million people. That means China will have more than 150 million ecological migrants, or, if you like, environmental refugees*" (Der Spiegel, 2005).

The water security issue in China is not only determined by the consequences of climate change but, most importantly, by an increasing water demand and water pollution from economic development and population growth. A study on the Qinhe River, one of the most important tributaries of the Yellow River, indicated that from 1970 to 2006, the average runoff of the Qinhe Basin has reduced by 84.1mm, with climate change contributing to 46.1% of the change and human activities accounting for 53.9% of the change (Fu et al., 2010). According to a 2007 report conducted jointly by the WB and the Chinese Government on the cost of pollution in China, from 2001 to 2005, an average of about 54% of the seven main rivers in China contained water deemed unsafe for human consumption (WB, 2007: xi). The same year, the Yellow River Conservancy Commission, a Chinese governmental agency, surveyed 13,000 kilometres of the river and its tributaries and concluded that a third of the water was unfit even for agriculture, due mostly to the pollution generated by the four thousand petrochemical plants built on its banks (The Economist, 2013).

Another key aspect in the framework of environmental protection and climate change is food security[81]. Agriculture is at the nexus of three of the greatest challenges of the 21st century in China: achieving food security, adapting to climate change, and mitigating climate change while critical resources, such as water, energy, and land become increasingly scarce (Beddington et al., 2012: 6).

Over the past 50 years, increased water demand for industry and agriculture in the Yellow River watershed and climate change have caused the Yellow River to dry up frequently downstream, and to diminish its flow into the sea. In the arid and semi-arid regions of western China, climate change and overuse of surface water for agricultural irrigation have led to severe decreasing of runoff into the inland lakes, resulting in salinisation and shrinkage of those lakes. In eastern China, water quality in lakes and rivers is getting worse due to serious pollution caused by the development of industry, agriculture, and rapid urbanisation (Yongchao et al., 2005).

Lin Erda, director of the Meteorology Institute of the China Academy of Agricultural Sciences, argued that the threat posed by retreating glaciers and water shortages to the agricultural sector directly threaten China's food security because it would reduce output of agricultural commodities such as wheat, rice, and maize by the second half of this century (Moore, 2009). With a population of more than 1.3 billion people, food security is an especially sensitive issue in China. According to China's National Meteorology Centre, the hard winter drought of 2008 and 2009, which was classified as an extreme weather event attributable to climate change, illustrates these security implications. This drought was the worst in 30 years and affected China's principal wheat-growing areas, damaging several areas of farmland (Ackerman et al., 2012: 59).

Global climate change would impact food production through a range of pathways: changing overall growing conditions in rainfall distribution and temperature regime, and disturbing the regular agricultural processes due to extreme weather such as floods, drought, and storms. Countries with an agricultural employment rate above 40% are considered to be highly sensitive to climate change (Dev, 2011) and, given the large number of people employed in agricultural sector, this is definitely a sensitive issue for China.

Moreover, China is severely affected by desertification, and the UN Framework Convention on Climate Change (UNFCCC) notes that desertification-prone countries are "particularly

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[81] Food security is defined by the Food and Agriculture Organization (FAO) as a "situation that exists when all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life", World Food Summit, 1996.

vulnerable to the adverse effects of climate change" (UNFCCC, 2007). More than one-quarter of China is already desert, and the Gobi desert is steadily expanding, growing by 10,400 square kilometres a year. According to the data provided by the United Nations, it grew some 52,400 square kilometres between 1994 and 1999 (UN, 2004). This desertification threatens the livelihoods of some 400 million people, exacerbating not only the problem of availability of arable land, but also that of Internally Displaced People (UNCCD, 2000: 5). Water shortages, desertification, and the consequent reduction of arable land have also imposed serious socioeconomic costs on Chinese western regions that, compared to central and eastern regions, are relatively poor and underdeveloped. These regions are strategically very important for the central government, being home to ethnic minorities who have long mounted challenges to Beijing's rule, and the potential negative impacts of extreme weather events is a reason of high concern for the central government. In fact, instability in one of them, like, for example, Xinjiang or Gansu, could also bring instability to Tibet and Inner Mongolia and destabilise an entire area where social tensions are always ready to explode. The root causes of social tensions in those regions are a complex mix of history, ethnicity and religion, poverty, and underdevelopment, fuelled lately by environmental degradation and climate change (Van Wie Davis, 2008).

While, according to the scientists, it is unclear whether climate change will actually threaten China's total domestic food supply (Xiong et al. 2007), for the Chinese authorities it is clear that they cannot afford to ignore the security implications that a changing climate, such as large scale intrastate migration, decreasing agricultural water availability, and increased risk of catastrophic flooding, poses to China's development priorities and objectives.

6.1.3 Climate Change and China's Energy Security

Another primary source of concern, most probably the main one, for the Chinese Government in the framework of the country's development priorities of securing economic growth and maintaining social stability, is related to energy security.

The relationship between economic growth and energy utilisation matters greatly, not only from an emission perspective, but also from an energy security perspective. This means that climate change is not only an environmental issue for China, but also an opportunity to address the country's serious energy shortage problems caused by growing demand,

inefficient use, and limited energy reserves (Lewis, 2008; Chen, 2012: 70). In the framework of national security policy, energy security is considered as a part of the Chinese homeland security system, meaning that the nation has the ability to control energy resources and obtain resources to ensure the country's need for competitiveness and sustainability in a certain period of time. In this regard, stable energy supply and reasonable energy prices are the core of energy security (Craig, 2007: 120-129).

Concerns about energy security are now at the forefront of many current international debates on energy policy, profoundly influencing the approach of decision-makers and policy makers about a range of issues from national and economic security to international diplomacy, and energy security has become a fundamental issue in international politics.

After the 1973 oil crisis, experts and policy makers used to refer to "energy security" as "security of oil supplies" focusing primarily on how to handle any disruption of oil supplies from producing countries (OECD/IEA, 2011). Until 1993, when China became a net oil importer, the energy security concept entered China's politics with a traditional understanding that energy security refers to oil security of supply. However, in the last two decades, in parallel with its impressive economic growth, the concept of energy security for the Chinese establishment has changed and expanded and now lies on its own ability to rapidly adjust to its new dependence on global markets, which represents a major shift away from its former commitments to self-sufficiency. In a broad and long-term perspective, energy security now is related to the prices and quantities that can provide enough oil for social and economic development in a sustainable manner, avoiding supply disruptions, shortages of supply, and soaring prices that will damage China's economy[82]. The primary concern for China is to ensure it has sufficient energy to support economic growth and prevent debilitating energy shortfalls that could trigger social and political turbulence (Wang & Zheng, 2013: 508).

Oil dependence has always been the biggest concern in the framework of energy security. In 1993, China became a net oil importer (Table 6.1), and its foreign oil import dependence was 22.6%, rising to an alarming level of 52% in 2004, which is a globally recognised level for an energy security alert (Qian, 2010).

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[82] Research Group on Chinese Homeland Security, Oil Safety - the Key of China's Energy Issues, China's Land Resource Newspaper, 2005.

Table 6.1: China's foreign oil reliance

YEAR	Oil (Thousand barrels per day)		
	Import	Consumption	Foreign oil dependence
1990	123	2296.4	5.4%
1991	210.8	2498.8	8.4%
1992	375.8	2661.6	14.1%
1993	667.7	2959.5	22.6%
1994	617.5	3160.6	19.5%
1995	772.4	3363.2	23.0%
1996	893.7	3610.1	24.8%
1997	1343.3	3916.3	34.3%
1998	1200.4	4105.8	29.2%
1999	1376.6	4363.6	31.5%
2000	1965.5	4795.7	41.0%
2001	1942.5	4917.9	39.5%
2002	2093.4	5160.7	40.6%
2003	2602.3	5578.1	46.7%
2004	3360.1	6437.5	52.2%
2005	3470.2	6795.4	51.1%
2006	3819.9	7263.3	52.6%
2007	4137.1	7479.9	55.3%
2008	4519.2	7697.1	58.7%
2009	5184.2	8069.8	64.2%
2010	5777.3	8938.4	64.6%
2011	6123.5	9504.0	64.4%
2012	5188.4	10175.1	51.0%

Source: USEIA, 2015

While China was becoming more dependent on imported oil, the questions that followed were where to get oil resources and how to import them back to China and, above all, how to secure its energy supply deals by relying on commercial interest – the standard approach for all the biggest industrial energy users over the last two decades – rather than by locking up supplies in direct bilateral deals with producing countries. China's push into Africa, Central Asia, and other energy-rich regions, which usually involves special government-to-government deals, is a rejection of the reigning market-based approach to energy security (Victor & Yueh, 2010).

In this context, from 1993, the Chinese government started an aggressive policy for the acquisition of equity stakes of oil assets and energy assets overseas, in the framework of its new energy security policy. The three major Chinese National Owed Companies (NOCs), including the China National Petroleum Corporation (CNPC), the China Petroleum &

Chemical Corporation (Sinopec), and the China National Offshore Oil Corporation (CNOOC), have been the key players in the practice of doing business abroad, especially in global mergers and acquisitions in upstream oil and natural gas. According to the IEA, in 2010, Chinese oil companies were already operating in 31 countries and had equity in production in 20 of those countries, mostly in Kazakhstan, Sudan, Venezuela and Angola (IEA, 2010). Chinese companies have been further encouraged to internationalise since the "going abroad" policy of the 10th FYP (2001-2005), and the early wave of Chinese investment abroad has been augmented by Chinese investment in the renewable energy sector following the 12 FYP (2011-2015) and the recently inaugurated 13 FYP (2016 -2020). Moreover, to secure oil supply from the international markets, China also considered the diversification of oil suppliers and transport routes as an important energy security policy, investing also in transnational oil pipelines in North, Central, and Southeast Asia[83].

From 1990-2010, China's aforementioned economic increase at an average rate of about 9% each year was mainly driven by the burning of fossil fuels, especially by a coal-dominated energy system. Rapid economic development leads to a soaring demand on energy and resources, challenging China's development towards a sustainable, stable, and healthy pathway. In 2010, China's primary energy consumption was 2432.2Mtoe, increasing by 11.2% over 2009, and it accounted for 20.3% of the world's total primary consumption. In the energy mix, coal consumption accounted for 48.2% of the world's coal consumption, oil 10.6%, and natural gas 3.4% (BP, 2011).

China is currently the largest commercial energy user in the world and is projected to consume more than twice as much energy as the United States in 2040. It has been the world's largest primary energy producer since 2007 and consumer since 2010. It is the second largest oil importing country, behind the United States, and the largest greenhouse gases emitter from energy since 2007. It is also estimated that by 2030, the total amount of Chinese demand will grow by 60%, based on the level of 2014, and 76% by 2040 (USEIA, 2013).

Given this scenario, energy security has been at the top of China's policy agenda because of the increasing energy demand, required to fuel its strong economic growth and development. In 2006, President Hu Jingtao proposed a "new energy security concept" when he talked about energy security issues at the G8 Summit in St Petersburg. He called for close

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[83] Like, for example, the Kazakhstan-China oil pipeline, a multi-phase 400,000 bbl/d pipeline from Atyrau in western Kazakhstan to Alashankou in western China, which is a joint venture between the CNPC and the Kazakh oil company KazMunayGas, or the Russian-China oil pipeline, known as the Eastern Siberia-Pacific Ocean Pipeline (ESPO).

international cooperation to increase oil and gas supplies and addressed the need of controlling domestic demand for "sustainable development of human society". This new energy security concept was expressed by other Chinese leaders in international meetings in the framework of constructing a "resource-conserving and environmentally friendly society" (Kennedy, 2010).

As outlined in Chapter I, Downs (2006) identified three key elements in Chinese approach to energy security: sufficient energy supplies to protect the Chinese government's core objectives of prioritising economic development and social stability, affordable energy prices, and reliability for oil and natural gas to have the safe delivery of imports to China (Downs, 2006). However, lately, another element entered into this scheme: stability of the network. In fact, a nation's energy system is a complex, interconnected network in which a disruption in one part of the infrastructure can easily cause disruptions elsewhere in the system. After September 11, many policymakers and industry experts dedicated increasing attention to the system's vulnerability to intentional attacks, accidents, or natural disasters. Power blackouts as well as chronic shortages of electric power in China have raised worries about the reliability of electricity supply systems. Today, the concept of energy security needs to be expanded to include the protection of the entire energy supply chain and infrastructure (Yergin, 2006).

Climate change, especially through extreme weather events, has, in recent years, threatened China's energy security by damaging energy infrastructure and directly cutting off energy services. Given the impact of climate change, an energy system supported by strong, stable, and reliable infrastructure emerges as a concern to ensure safe energy supply. Indeed, as happened in the United States with hurricanes Katrina and Rita, after the storms, the Gulf Coast refineries and the big US pipelines were unable to operate, not because they were damaged, but because they could not get enough power. This brought a new perspective to the security question, highlighting the fundamental role of the electric grid in the system. In early June 2010, several provinces in South China were hit hard by heavy rainstorms, and energy supply was disrupted due to the damage of energy infrastructure.

From mid-January to early February 2008, South China was affected by extremely lower temperatures and strong snowstorms, which affected power transmission lines and distribution systems across the country. Extremely cold weather and snowstorms blocked coal transportation by railways, and coal reserves sharply decreased in most coal-fired power plants. Some installations stopped to operate due to lack of feedstock. Across the country, 19

provinces either have had to limit electricity use or have experienced electricity cut-offs, being affected by the extreme weather event (NDRC, 2008).

Traditionally, China is a coal self-sufficient country and belongs to the group of six countries (the US, Russia, India, Australia and South Africa) that hold 81% of global coal reserves. These reserves are expected to last for more than 160 years, which means that coal will be a fixed element in the Chinese fuel mix (Baumert et al., 2005). Moreover, starting from 2005, China has become a net steam coal importer for the first time. Coal imports in China mainly meet demand in coastal areas, as 80% of China's coal resources are located in the inland areas, such as Shanxi, Inner Mongolia, and Shaanxi, and only 6% of coal resources lie in coastal areas where there is high demand for energy resources for advanced economic development. This unbalanced distribution of coal production and consumption means that not only does China's railway have to undertake much of the transportation of coal to coastal areas, but China is also vulnerable to the potential risks of coal supply disruptions to thermal power generation. The risk of these energy supply disruptions caused by extreme weather events warn that simply acquiring adequate energy resources is not enough to secure China's energy supply, and building up a stronger and firmer energy system capable of managing emerging climate risks and unexpected disruptions is a fundamental element of energy security.

In recent decades, China's energy security policy has focused on the supply side of obtaining more resources, but it has now realised that taking measures to expand supply only is not sufficient to meet China's energy security needs. Therefore, more efforts have had to be put on the demand side to reduce energy consumption and increase energy efficiency, meaning China's energy security is managed on both the supply and demand sides in order to cope with the risks of energy shortage and supply disruptions due to extreme weather events. Indeed, regardless of the models, calculations, and assumptions, the Chinese government have identified two fundamental steps toward energy security: the improvement of energy intensity (the total amount of energy consumed per unit of GDP) in order to increase the efficiency of energy consumption, and the transformation of the domestic energy consumption pattern, encouraging the development of renewable and clean energy.

In this regard, an important role in reducing CO_2 emissions will be played by renewable and clean energies. In the carbon constrained world, renewable and clean energies play a critical role for energy security and CO_2 emission reductions. With the double aim of diversifying its own energy mix and implementing climate mitigation policies, China has implemented an ambitious long-term program of investment in renewable energy that has positioned the

country as a world leader in manufacturing renewable energy parts, coinciding with a global surge in wind and solar power.

The challenge of energy security will grow more urgent in the years ahead because the scale of the global trade in energy will grow substantially as world markets become more integrated. Current and future advances in technology could therefore allow very large additional gains (Yergin, 2006). This implies that the interlinked energy demand of China and CO_2 emissions trend will be a function of policy options and development pathways that China will take in the next decades.

6.2   China's Climate Change Policies and Actions

China's climate change policy is part of its energy and environmental strategy, which in turn is driven by the country's overall economy growth targets. Inside the Chinese government, overwhelmed by the strategic priority of modernising the economy, economic and energy departments have played a predominant role in shaping the country's climate policy, while environmental administration from central to local government is subordinate in the policy process (Chen, 2012: 24).

China's first engagement with international environmental protection frameworks was in 1972, when it sent a delegation to the UN Conference on the Human Environment in Stockholm. Political factors associated with the Cultural Revolution (1966-1976) and, after 1978, the imperative of growth maximisation, later weakened its commitment to environmental protection and, in the late 1980s, Chinese climate change policies were mostly limited to scientific investigations.

Climate Change as a policy issue was brought to China from the international arena, when the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP) founded the IPCC in 1988. Initially, the Chinese government viewed climate change policy as a highly scientific issue, mainly from the realm of foreign affairs (Stensdal, 2012: 5). The first institutionalisation of climate change in China came in 1987 when the then State Science and Technology Commission (SSTC) founded the Chinese National Climate Committee (CNCC) with the objective of coordinating research on climate change (Beuermann, 1997: 225). In 1990, the State Council's Environmental Protection Commission issued a paper on China's position on global environmental problems, emphasising the

responsibility of developed countries for the deterioration of the global environment, and the sovereignty of developing countries over their natural resources and their rights to economic development. Climate change was viewed in this context.

In 1992, former Chinese Premier Li Peng stated at the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro that if the goal of environmental protection were to come into conflict with the goal of economic growth, priority would have been given to the economy (Beuermann, 1997: 226). Following the world conference in Rio, sustainable development was incorporated into national policy programmes but, as anticipated by the Chinese Premier, economic growth took priority. Since then, from the late 1990s until 2006, economic development grew tremendously, bringing more wealth but also increasing the demand for natural resources and, above all, energy sources, which in turn meant more GHG emissions.

The ratification of the Kyoto Protocol in 2002 marked a turning point in the development path undertaken by Chinese authority. By ratifying the protocol, China showed the international community that it was ready to take on mitigation actions and play its part in the global fight against climate change. The watershed for domestic climate change policy came five years later in 2007, with the National Climate Change Programme, the first ever comprehensive policy paper in the context of growing global climate concerns produced/presented by a developing country. The 62-page document states China's basic standing, current achievements, challenges, and details key areas of actions, policies, and measures China would take to mitigate the effects of climate change. Even though the majority of the policies and programs mentioned in the plan were not specific climate change policies, those policies do have impacts on reducing GHG emissions while addressing, de facto, energy security.

In later 2007, the State Council issued an official document requiring local governments to perform and implement the Climate Change Programme according to their specific situations. Moreover, in March 2008, the government elevated the status of the State Environmental Protection Agency into a fully-fledged Cabinet Ministry, with more staff and a bigger budget.

An analysis of the Chinese institutions that have been responsible for climate change policy over time is necessary to understand how the government has approached this issue. Since the early 1980s the Chinese government, in order to address the topic of climate change, which involves issues related to environmental protection, energy, meteorology, research and development, technology, and foreign affairs, established an ad hoc inter-ministerial structure to manage and coordinate actions and initiatives between all majors actors involved in the development of the national and international climate change regime.

Following the imperative "development first", China's national climate change policies were necessarily influenced and determined by the importance of the different agencies involved in the inter-ministerial coordination, in which the National and Development Reform Commission (NDRC), a sort of macroeconomic and energy agency, has been playing a pivotal role, while the Ministry of Environmental Protection, the former State Environmental Administration (SEPA), and the China Meteorological Administration (CMA) has been marginalized (Fifure 6.4).

Figure 6.4: China's inter-agency mechanism on climate change

National Coordination Committee on Climate Change

- National Development and Reform Commission - NDRC
- Foreign Ministry
- Ministry of Science and Technology - MOST
- China Meteorological Administration - CMA
- State Environmental Protection Administration - SEPA
- Ministry of Science
- Ministry of Commerce
- Ministry of Agricolture
- Ministry of Construction
- Ministry of Communications
- Ministry of Water Resources
- State Forestry Administration
- Chinese Academy of Sciences
- State Oceanic Administration
- Civil Aviation Administration

Source: Chen, 2012: 26

At the very beginning, when the Chinese government started to manage climate change as a scientific issue, the CMA was appointed to be responsible for advising the government on policy options in the international arena involving the UNFCCC. As political awareness and

economic sensitivity surrounding climate change increased in the late 1990s, this role was shifted to the more powerful State Development and Planning Commission, which has since evolved into the NDRC (Lewis, 2007: 158). In 1998, the Chinese government established the National Coordination Committee on Climate Change (NCCCC), an ad hoc inter-agency organisation that later included representatives from the NDRC, the Foreign Ministry, the Ministry of Science and Technology, the CMA, the SEPA, and ten other ministerial-level departments. The NCCCC appointed the director of the NDRC as its chairman.

As clearly illustrated in the Figure 6.4 below, within the highly bureaucratic Chinese architecture for environmental protection, responsibilities were scattered among several ministries, governmental agencies, and the National Department, and the State Environmental Protection Administration, ranking fifth in the agency order, had very limited powers in dealing with pollution controls and other environmental issues.

China's political system is made up of five interconnected levels: national, provincial, municipal, county, and township. To their counterparts one level down, leading officials effectively say throughout this system, "We will permit you sufficient flexibility to devise creative ways to make the GDP in your jurisdiction grow." Success is rewarded in two ways. Formally, annual performance evaluations are pegged primarily to GDP growth in each jurisdiction. Informally, local officials personally benefit financially from that growth by investing in, or holding positions in key firms (Economy and Lieberthal, 2007). In this context, it is the local government, not the higher level of the environmental protection apparatus, that provides local environmental agencies with their annual budgetary funds, approves institutional promotions, and determines increases in personnel and even allocation of resources such as cars, office buildings, and employee housing (Jahiel, 1998: 35). Because GDP growth was the most relevant index employed to measure local administrators' performance and was at the basis of their future promotions, local leaders treated economic growth as top priority and were unwilling to see local economy and new investments hampered by the implementation of strict environmental regulations.

In 2004, in an attempt to improve the environmental protection performance at local level, the Chinese government introduced the Green GDP initiative. This initiative was addressed to measure the performance of local administrators and local communist party leaders, taking into consideration their achievement in environmental protection policies, deducting points from their GDP growth numbers in relation to environmental damages. However, facing the resistance of local officials and considering that there was no internationally accepted standard for calculating "Green GDP" to be used uniformly for the 31 Chinese regions, the

initiative never had any impact (WSJ, 2007).

Between 2002 and 2006, China developed its first National Climate Change Assessment (MOST, 2006), which highlighted existing knowledge and key knowledge gaps and, in spring 2006, SEPA announced that only about 500 out of the 70,000 violations of environmental regulations reported from 2003 through to 2005 had been dealt with. The agency attributed this abysmal record to the fact that local governments around the country actively encourage enterprises to violate environmental regulations and then protect them from punishment when they do (Economy and Lieberthal, 2007). In the same year, the review of the results of China's tenth Five Year Plan (2001-2005), highlighted the very poor performance achieved on environmental protection. The plan, which began in 2001, called for a 10% reduction in sulphur dioxide in China's air, but when the plan concluded in 2005, sulphur dioxide pollution in China had increased by 27%.

In 2007, following the poor performances of its environmental protection policies and being increasingly under pressure, both at a national level for the rising number and intensity of incidents of social unrest due to environmental degradation, and at an international level following its rapidly growing emissions, the Chinese government upgraded the level of the National Coordination Committee on Climate Change, and established the National Leading Group on Climate Change, headed by former Premier Wen Jiabao. The National Leading Group, which brought together 27 member government agencies working on climate change, was aimed at devising national climate change strategies, directions, and measures, to unify national actions on climate change, to research international cooperation and negotiation processes, and to coordinate solutions to the key issues in responding to climate change.

This was the starting point of a "new deal" in China's environmental protection policies and was mainly reflected in the actions and targets of the 11th Five-Year Plan. In 2007, the same year, China became the largest GHG-emitting country and the IPCC released its Fourth Assessment Report; climate change became a domestic policy issue in its own right, no longer merely part of the larger "environmental protection umbrella". From this year on, the central government elevated the importance of climate change, making it a more prominent part of domestic policies.

The outline of the 11th Plan for National Economic and Social Development (2006-2010) considered climate change as a major strategic task for China to build an energy-conserving and environmental-friendly society (SCIO, 2008). The first major policy statement concerning climate change was made in the National Climate Change Program, released in June 2007 (NDRC, 2007a). China's National Climate Change Program, which took the Chinese

government two years to formulate, set the general objectives of addressing climate change up to 2010: improve the capacity of public administration in controlling greenhouse gas emissions, enhance the capability of adaptation to climate change, and promote climate-change-related research. In addition, it was also instructed that public awareness of climate change should be enhanced, and the institutions and mechanisms for dealing with climate change should be further strengthened (SCIO, 2008). Despite its refusal to shoulder internationally imposed quantified emissions reduction targets, China, in its national program, was putting forward some voluntary targets in energy conservation and fuel switching that could ensure emissions cutting.

A National Science and Technology Plan for climate change was also released that specifies areas and measures for addressing key knowledge and capacity gaps related to climate change mitigation, impacts, and adaptation (NDRC, 2007b). China's Science and Technology Program on Climate Change, in 2007, set targeted phased goals for scientific work as a response to climate change during the 11th Five-year Plan period (2006-2010) and long-term goals up to the year 2020. Areas such as the science of climate change, R&D of greenhouse gas control technologies, adaptation technologies and measures, and major strategies and policies to cope with climate change were identified as priorities (SCIO, 2008).

During the 10th Five-year Plan period (2001-2005), the government invested more than 2.5 billion yuan in scientific and technological research on climate change through national science and technology programs such as the National Key Technologies R&D Program, National High-Tech R&D Program (863 program), and National Basic Research Program (973 program). By the end of 2007, more than 7 billion yuan from the national science and technology programs for the 11th Five-year Plan period (2006-2010) had been invested in R&D programs on energy conservation and emission reduction. In addition, through other channels, the country has invested large amounts of funds for R&D on climate change.

In the 11th FYP the performance assessment of local administrators was also reviewed. In November 2007, the Chinese government released an internal note addressed to public administrators that used green figures per unit of GDP energy consumption and major pollutants reduction to assess provincial officials' performances. Instead of pure economic figures, the Chinese government was trying to measure local official achievement through a much more complicated system that also included environmental indexes. According to the Implementation Plan for Unit GDP Energy Consumption Assessment System, approved by the State Council and included in the note, local administrators as well as leaders of the top 1000 state-owned or controlled energy consumption enterprises were to be assessed by per-

unit GDP energy consumption measures, calculated through a quantified scored methodology. For all provincial governments, energy conservation assessment results would be provided to the personnel department, and would be regarded as an important basis for a comprehensive assessment of the National Leading Group and leading officials of the government. According to the new rules, within those provincial governments that were evaluated as failing to meet those targets, the leading officials were excluded from any incentive treatments (such as annual productivity premium, honorary title, etc.). Moreover, the central government would temporarily stop the verification and approval of newly constructed high-energy consuming projects in the region. The top 1000 key state-owned enterprises that were evaluated as failing to meet targets would be subject to a notice of criticism, and would not be granted any incentive treatments or facilitations (such as being granted an "inspection free" period of time). Moreover, the verification and approval of their newly constructed high-energy consuming investment projects and newly added industrial land would be suspended. In 2007, the State Council made it a requirement for each province to implement the National Climate Change Action Plan in light of local conditions by establishing coordination mechanism and climate change agencies, and by making locally relevant policies and regulations (NDRC, 2007b).

In 2008, the NDRC set up the Department of Climate Change, the most powerful body in charge of climate change and related social development issues. The major work of the climate department focuses on analysing the social and economic impact of climate change, making strategies, plans and policies, coordinating international cooperation and capacity building, and facilitating implementation of energy conservation and emission reductions. In the same year, China also released the first white paper called China's Policies and Actions for Addressing Climate Change, which presents policies and actions to adapt to climate change (SCIO, 2008). In the white paper, the Chinese government acknowledges the impacts and risks of climate change for the country's development. This document, which devoted a special section to technological innovation, outlined the basic principle for addressing climate change, highlighting strategic areas of action, and listing specific targets and actions to support adaptation. The Climate Change Programme and the white paper are essential for understanding China's climate change policy. Following the white paper, the NDRC released annual reports on the progress of China's Climate Change Actions and Policies to summarise the yearly achievements on policies, actions, and solutions to the climate issues.

The year 2009 saw further expansion of climate change polices in China. Prior to the COP 15 in Copenhagen, China's State Council adopted the country's first carbon-specific goal. The

State Council decided that China would lower its carbon intensity[84] by 40–45% by 2020 compared to 2005 levels (Reuters, 2009). Earlier reduction in China had been measured in terms of energy saved, not in terms of emissions. In 2009, Premier Wen Jiabao declared: "In the years ahead, China will further integrate actions on climate change into its economic and social development plan…' (NDRC, 2009). The term "low-carbon" began to appear in official statements, reports, and policy texts. Together with the continued emphasis on long-term research and energy conservation efforts, there has been a slow but steady diversification of China's policies on climate change, often using pilot projects[85]. During the 11th Five-Year Plan period, China accelerated the transformation of its economic development model, and achieved remarkable results in controlling greenhouse gas emission by promoting industrial restructuring, energy restructuring, and energy conservation, improving energy efficiency, and increasing carbon sink. To achieve this goal, in 2006 China's government presented the fifteen year Medium and Long Term Plan for the Development of Science and Technology and, in 2007, the Medium and Long Term Development Plan for Renewable Energy in China.

In November 2007, the Chinese Ministry for Science and Technology (MOST) and National Development and Reform Commission (NDRC) jointly launched the International Science and Technology Cooperation Program on New and Renewable Energy. The program's goals were twofold: diversifying the sources of technology imports, and expediting technology transfer processes between China and other countries (Tan & Gang, 2009: 5).

With the ambition of becoming a global power in clean technology, China's major enterprises are actively pursuing opportunities around the world, with a specific focus on developing countries and emerging economies. In order to support the private sector's efforts, the Chinese Ministry of Commerce established the Department of Scientific and Technological Development and Trade in Technology. Under its guidance, governments at different levels have been deeply involved in technology transfer to other developing countries. This outreach includes supporting Chinese firms to build a presence overseas through capacity-building programs aimed at training local staff in partner countries, and mandating "all-in-one service" as the way to transfer technology to local partners. The China Council for the Promotion of

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[84] Amount of carbon emitted per unit of GDP.

[85] In 2010, China launched a national "low-carbon province and low-carbon city" experimental project. The first batch of selected localities included five provinces, namely, Guangdong, Hubei, Liaoning, Shaanxi, and Yunnan, and eight cities, namely, Tianjin, Chongqing, Hangzhou, Xiamen, Shenzhen, Guiyang, Nanchang, and Baoding. Currently, all the pilot provinces and cities have established leading work teams, formulated implementation schemes, and promulgated their respective goals for carbon intensity reduction in the 12th Five-Year Plan period and 2020.

International Trade, for example, has hosted training workshops for government employees and workers from 91 developing countries in the past decades (CCPIT, 2009).

For developing countries, the bulk of technological progress comes from the adoption and adaptation of pre-existing but new-to-market technologies and through the spread of such technologies across sectors, within a country (WB, 2008). In the decades ahead, most of the growth in global energy demand will move decisively towards emerging economies, which will account for more than 90% of net energy demand growth in 2035 (IEA, 2013). Therefore, in order to achieve a low carbon economy, large-scale clean technology deployment is a key requirement in the developing world.

China's comprehensive efforts to lay the groundwork, both to achieve a domestic low carbon economy, and to assist other developing countries to do so, indicate its commitment to becoming a global player in the clean technology revolution. Moreover, its efforts also manifest in policy approaches, funding, and partnership models from which other developing countries can learn. The latest phase of domestic climate change policies occurred in 2009 with the announcement of a carbon-intensity target, followed in 2011 by the 12th Five Year Plan's widening of policies, in measure and in scope (Stensdal, 2012: 5).

Energy policies have dominated China's development strategy for a long time and today the government exploits global concern about climate change as a golden opportunity to improve energy efficiency and boost clean energy production. When such "no regret"[86] policies were designed, policy makers might have placed emphasis on economic factors such as energy supply and jobs, rather than the environment. However, in practice, these no regret options, assisted through CDM[87] projects and subsequently the new energy strategy, have functioned as an efficient means to help the country slow down its greenhouse gas emissions growth and gain a competitive position in the clean energy sector (Chen, 2012: xiii).

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[86] No regrets options are by definition GHG emissions reduction options that have negative net costs, because they generate direct or indirect benefits that are large enough to offset the costs of implementing the options. The costs and benefits included in the assessment, in principle, are all internal and external impacts of the options, UNFCCC (.http://www.ipcc.ch/ipccreports/tar/wg3/index.php?idp=292).

[87] The Clean Development Mechanism (CDM) is one of the Flexible Mechanisms defined in the Kyoto Protocol (IPCC, 2007). The CDM allows emission-reduction projects in developing countries to earn certified emission reduction (CER) credits, each equivalent to one tonne of CO_2. These CERs can be traded and sold, and used by industrialised countries to a meet a part of their emission reduction targets under the Kyoto Protocol.

6.3 China's 12th Five Year Plan and Climate Policy

Since the Chinese government launched its 1st Five Year Plan (FYP) on National Economic and Social Development in 1953, the plans have become milestones for identifying the government's strategic policy priorities over a multi-year time horizon. The plans are overarching strategies that shape the nation's economic and social development objectives and determine the allocation of resources among different sectors and industries. Despite China's significant progress towards becoming a market economy, FYPs remain the benchmark by which the government measures its own success. In this view, delivering the FYP is a crucial source of legitimacy for the Chinese leadership. In the early years of the People's Republic of China, successive plans revealed some very different priorities and also reflected the political situation of the time (Figure 6.2).

Table 6.2: China's Five-Year Plan

PLAN	DATES	KEY FEATURE
First	1953 - 1957	Stalinist Central Plan
Second	1958 - 1962	Great Leap Forward
Third	1966 - 1970	Agricultural Push
Fourth	1971 - 1975	Cultural Revolution
Fifth	1976 - 1980	Post-Mao (Reforms and Opening up)
Sixth	1981 - 1985	Readjustment and Recovery
Seventh	1986 - 1990	Socialism with Chinese Characteristics
Eightn	1991 - 1995	Technical development
Ninth	1996 - 2000	SOE Reforms
Tenth	2001 - 2005	Strategic Restructuring
Eleventh	2006 - 2010	Rebalance Alert
Thwelft	2011 - 2015	Pro (sustainable) Consumption
Thirteenth	2016 - 2020	China New Normal

Source: China's 12th Five Year Plan: Strategy vs. Tactics, Morgan Stanley Asia, 2011 – further elaborated by the author

The 1st FYP (1953 – 1957) had been drawn up with the support of the Former Soviet Union and focused on large-scale construction, rapid heavy industrialisation under increasing state control, and the planning of an agricultural economy based on the soviet model. The 2nd FYP (1958 – 1962) moved on from the previous one, focusing on addressing growth in heavy industry, but is widely known as the Plan of the Great Leap Forward, a socioeconomic plan designed to transform China's agrarian socioeconomic culture towards an industrialised one.

The program, which was grounded upon the Marxian prescription for the advancement of industrial technology, has been considered by a number of scholars and researchers the main cause of the Great Famine which yielded the deaths of twenty to forty-three million people (Meng et al., 2010; Kung & Lin, 2003; Johnson, 1998; Riskin, 1998). The 3rd FYP (1966 - 1970), with a new emphasis on national defence and state sovereignty, reflected increased international tensions following Sino-Soviet split in 1961. The 4th FYP (1971 – 1975) was the last of the Mao era, and from 1976 onward China changed course, entering the period officially known as reform and opening up. This strategic shift was reflected in the Ten Year National Economic Development Plan for 1976-1985, and marked the beginning of three decades of impressive growth and tremendous transformation of Chinese economic and social structure.

The 10th FYP (2000 – 2005) was the first to include some environmental targets and the 11th plan (2006 – 2011), even with development as its underlying primary goal, reflected, for the first time, the government's growing concern with the environmental costs of China's development model. The tensions between the growth imperative and sustainability were in evidence throughout the 10th and 11th Five-Year Plans, especially with regards to environmental targets. While the 10th FYP stressed the need for energy efficiency and set targets for the reduction of pollution, most of them were missed. The government renewed its efforts to balance headline GDP growth and environmental protection in the 11th FYP and, included within the most high profile environmental targets of the plan, there was a 20% energy intensity target by 2010 and a 15% renewable energy target by 2020. This was mostly driven by the need to enhance China's energy efficiency and energy security.

The Chinese Renewable Energy Law, which took effect on 1st January 2006, sets out the framework for promoting the development and utilisation of renewable energy from non-fossil fuel sources such as wind, solar, water, biomass, geothermal, and ocean, and requires electricity grid companies to purchase power produced by renewable power generators in China (Ma, 2010). Since the promulgation of the Chinese Renewable Energy Law, Beijing investments in clean coal technologies, carbon capture and sequestration, and smart grid have been increasing exponentially.

In an effort to weed out polluting and energy intensive industries, China has also instituted a differential pricing system, whereby state power companies now charge higher electricity prices to the least efficient industrial concerns and lower prices to the more efficient ones, in an effort to reward the most efficient producers and force the least efficient to either change or shut down (Friedman, 2009: 411).

By the end of 2010, the target of 20% energy efficiency reduction, on the basis of 2005, was achieved by 19.06%, and this resulted in a 0.63 billion ton coal equivalent energy saving and 1.46 Gt CO_2 emissions reduction. To achieve these targets, the Chinese government adopted drastic, top-down measures including closing down thousands of outdated and inefficient plants in its power and heavy industry sectors. Small plants were also consolidated to improve efficiency, and restrictions were introduced to discourage the production and export of energy-intensive products such as steel and cement (Ng & Mabey, 2011: 9).

The challenge of implementing both the target of energy efficiency and renewable energy was a balancing of job creation and growth with environmental protection, and the main difficulty was maintaining sectorial targets against a background of other variables. The level of achievement suffered for a number of reasons: the lack of clear pathways was certainly one, but the ambition was also affected by higher than anticipated economic growth and the impacts of China's stimulus measures, taken in response to the global economic crisis (Hilton, 2011: 7-8). In the closing months of the 11th FYP, many local government officials, whose political careers had become dependent upon achieving energy intensity targets, started to take desperate measures, including closing down power plants, cutting electricity supplies to hospitals, traffic lights, and factories. These "emergency" measures had highly counter-productive results and negative consequences, such as unanticipated pressure on diesel supplies as factory owners reached for their generators, generating pollution along with the electricity.

The 12th FYP, which was endorsed by the National People's Congress in March 2011, represents the first clear elaboration of China's climate-change policies, and lay down the basis for China's new model of economic development. In the 12th FYP, Chinese focus switched from the "quantity of growth" to the quality of development, summarised into seven key themes: sustainable growth, moving up the value chain, reducing disparities, scientific development, domestic consumption, energy efficiency, and environmental protection.

In this Five Year Plan, for the first time, the targets of economic development, carbon intensity reduction, and energy efficiency improvement, along with other environmental related indicators for 2015 appeared together, implying that China's climate-energy policy framework is shifting towards an integrated approach to meet the challenges of sustainable development. According to Professor Hu Hangang, Professor at the Chinese Academy of Sciences and Tsinghua University and the Director of the Centre for China Study, one of the most innovative characteristics of this 12th FYP is the theme of green development putting forward an "ecological security" strategy. In fact, emphasis was put on the need to "construct

a resource-conserving and environmentally friendly society". The plan explicitly says that, faced with ever-stronger environmental and resource constraints, China must increase its sense of urgency and accelerate the transition from a brown economy model to a green and low-carbon development one (Hu & Liang, 2011).

The developed world has vastly reduced air pollution over the past several decades through ever-tougher regulations on conventional pollutants like soot and acid rain, which cause sulfur dioxide. The need for developing countries and emerging economies to reduce air pollution is no different.

Conventional air pollution is a tremendous threat to public health, and the costs of air and water pollution amass to an increasing percentage of GDP every year, (potentially) damaging China's growth rate.

Any policies or efforts that divert investment from the dirtiest sources towards cleaner alternatives, like natural gas and renewables, will benefit public health, while helping the climate as well.

The Chinese economy, despite the slowdown in its growth rate, continues to require a growing share of energy, which produces increasing air pollution. In 2013, China was the world's biggest greenhouse gas emitter (29% of global emissions), the world's second-largest consumer of oil, and moved from second-largest net importer of oil to the largest in 2014 (US EIA, 2015). China's dependency on imported oil and its air pollution problem give the country two key reasons to reduce its reliance on fossil fuels. To reduce air pollution, cross-sectorial and long-term policies are needed to address the multiple key sources of pollution: energy, transportation, housing, and management of urban areas. The common necessitation of such policies is mostly the reduction of fossil fuel consumption.

China's efforts to reduce poverty and expand energy access, keep pace with rapid economic development, and implement policies aimed at tackling severe air pollution in its major cities have propelled its rapid rise to the front of the world's clean energy race. Moreover, the Chinese government has put significant public investment into energy technology innovation, moving it up the value chain, and into policy efforts such as encouraging renewable financing, simplifying administrative procedures, and promoting "green credit"[88].

In 2013, China increased its CO_2 emissions by 3%, which is low compared with its annual increases of about 10% over the last decades. This was primarily due to three key actions

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[88] Can China Get the World to 80% Renewables by 2050? [May 13, 2014]. Available from: https://www.thethirdpole.net/2014/05/13/can-china-get-the-world-to-80-renewables-by-2050/ [Accessed 30 July 2016].

implemented by the Chinese government: (1) the large increase of renewables (hydropower generation, wind, and solar), (2) improvement in energy efficiency, and (3) structural changes in the economic model of growth. Wind is growing in China more than nuclear, and, in a few years, solar and wind power could be the stronger drivers that push down the price of Chinese electricity. New renewable power capacity surpassed new fossil fuel and nuclear capacity in China for the first time in 2013 (REN21, 2014). China is now home to about 24% of the world's renewable power capacity, including an estimated 260 gigawatts of hydropower. China's renewable energy investment is part of its 12th Five-Year Plan for Economic and Social Development, which called for the country to spend $473.1 billion on clean energy investments between 2011 and 2015. China's goal is to have 20% of its total energy demand sourced from renewable energy by 2020.

The government's decisive actions to support and subsidise the clean-energy industry have received remarkable payoffs. As a result of the Renewable Energy Law, the Medium and Long-Term Development Plan for Renewable Energy (2007), and other detailed implementation regulations, China's renewable energy industry has been booming as a new source of economic growth. Having taken a leading position in the sector of renewable energy, China is now the world's largest market of wind turbines and solar panels, as well as the largest producer of wind power (Chen, 2012: 51).

The energy efficiency improvement, a decline in electricity and fuel demand by the basic materials industry due to a slowdown in the growth rate, as well as the development of low-carbon technologies in the final uses, have driven the reduction of carbon intensity of about 4% (twice as fast as in 2012). In terms of energy efficiency, one of the most relevant targets of China's 11th Five-Year Plan was to decrease the overall energy intensity of the economy by 20%. To this aim, the government mobilised a national campaign to promote energy efficiency, targeting in particular the largest and least efficient energy consuming enterprises. The Top 1,000 Program targeted approximately 1,000 companies, which consume about one-third of the country's energy, for efficiency improvements.

The 12th FYP builds directly on the 11th FYP's energy intensity target and its associated programs, setting a new target to reduce energy intensity by an additional 16% by 2015. The lower target, in respect to the 11th FYP, can be justified by the fact that the largest and least efficient enterprises had already undertaken efficiency improvements, leaving smaller, more efficient plants to be targeted in this second round. Other key targets include an increasing of non-fossil energy to 11.4% of total energy use and a 17% reduction in carbon intensity.

Finally, the continuation of structural changes in the growth model of the Chinese economy

has played a key role in slowing down GHG emissions. In recent years, China has closed down over 9,000 inefficient coal plants, and has committed to cap coal use starting from 2015. Up until now the alternative to an inefficient coal plant in China has generally been a more efficient modern coal plant, but renewables are now a valid competitor in many regions. Moreover, the increasing role of "soft tech" and engineering services in the Chinese economy and the large investments and deployment in high-speed electric trains, electric buses, electric cars, and electric bikes, used by the millions, have played a relevant role.

In addition, the Chinese government approved an energy consumption control target with the aim of bringing total energy consumption below 4 billion tonnes in standard coal equivalents by 2015 (NEAA, 2013). The 12th FYP's advocacy of sustainable development is stronger than in any previous FYP: "In transforming the economic development mode, the importance of building a resource-saving and environment-friendly society should be stressed to save energy, reduce greenhouse emissions and actively tackle global climate change" (EC, 2011: 7).

In January 2011, the NDRC initiated the National Climate Change Planning, as one of the most important elements of the 12th Five Year Plan. The National Climate Change Planning aims to improve mechanisms and policy frameworks required to adapt to climate change and to help reach the 2020 emissions reduction target set by the Chinese government. The main focus of environmental concerns in the 12th FYP has been climate change and the creation of a green economy. In this view, the Chinese government recognises that "greening the economy" is an emerging global aspiration and has embraced the strategic goals of boosting the country's economic growth while also enhancing environmental protection. Over the past decades, and especially during the 11th Five-Year Plan period of 2006 – 2010, China has prioritised green development in almost all leading economic sectors. Efforts have been undertaken to boost energy efficiency in industry, transportation, and building; to develop wind, solar, and other renewable energy sources; to create a resource-saving "circular" economy; and to transform traditional sectors through the use of energy-efficient and environmentally sound technologies (Pan et. al, 2012). Another goal of the 12th FYP is an improved system for monitoring greenhouse gas emissions, which will be needed to assess compliance with the carbon intensity target, and to prepare the national GHG inventories.

Central to the 12th FYP is China's new "green" industrial strategy, where the development of seven new strategic industries has been prioritised: alternative energy, biotechnology, new generation information technology, high-end equipment manufacturing, advanced materials, alternative fuel cars, and energy saving and environmental protection. The total value added

output of the new industries is expected to account for around 8% of China's GDP in 2015 and 15% by 2020 (Xinhua, 2010a; Xinhua, 2012a). As presented in Figure 6.3 below, these "strategic and emerging" industries are being promoted to replace the "old" strategic industries, such as coal and telecom, often referred to as China's pillar industries.

This move to rebrand China's strategic industries likely signals the start of a new wave of industrial policy support for the new strategic industries, which may include access to dedicated state industrial funds, increased access to private capital, or industrial policy support through access to preferential loans or R&D funds (Lewis, 2011).

Table 6.3: From old pillar industries to new strategic industries

	The Old Pillar Industries	*The New Strategic and Emerging Industries*
1	National Defence	Energy Saving and Environmental Protection
2	Telecom	Next Generation Information Technology
3	Electricity	Biotechnology
4	Oil	High-end Manufacturing (e.g. aeronautics, high speed rail
5	Coal	New Energy (nuclear, solar, wind, biomass)
6	Airlines	New Materials (special and high performance composites
7	Marine Shipping	Clean Energy Vehicles (PHEVs and electric cars)

Source: Joanna Lewis, Energy and Climate Goals of China's 12th FYP, March 2011

Indeed, the Chinese government has implemented a number of policies to prioritise, fund, and deploy clean technology R&D and innovation. In a comparative assessment of public investment in energy research, development, and demonstration (RD&D) in the major emerging economies, China stood out as the largest government investor with public investments of approximately US $11.8 billion, plus an additional US $1.3 billion from state and local governments and partially state owned enterprises as of 2008 (Gallagher, 2014: 42).

In pursuing global leadership in clean technology development, China has identified partnerships in the private industry, research sectors, and academia as a key approach. Through various channels (including forums, dialogues, seminars, and workshops), China's universities and research institutes have started to play active roles in major collaborative projects in the fields of energy efficiency and clean technology. China is keenly aware that the next phase of the science and technology revolution will centre on clean energy, and is determined to emerge as a global power in science and technology development. By staying at the forefront of the clean energy revolution, China hopes to transform the label "made in

China" to the moniker "created in China" (Tan & Gang, 2009: 2-7).

The 12th FYP represented a radical shift from administrative to market-based instruments and innovation. Low carbon and clean energy industries have been placed at the heart of China's forward strategy for growth, exports, and industrial modernisation. China's new strategic sectors are expected to grow to 15% of GDP by 2020, and will be supported by an increased Chinese public innovation spending of 2.2% of GDP (Ng & Mabey, 2011: 4) mostly in R&D.

Another important feature of the 12th FYP was the concept of "inclusive growth" emphasising "higher quality growth" with the double aim of raising sustainability and attempting to solve increasing wealth disparity.

The 12th Five-Year Plan provided a powerful starting point for addressing these challenges and achieving these ambitious, but, what is more, provided clear targets, direction, and momentum for moving towards a more sustainable model of development.

6.4 China's Achievement and Performance under the Kyoto Protocol

Since the first Earth Summit in Rio de Janeiro in 1991, China has played a key role in defining the architecture of the current climate change regime and has been one of the "Non Annex I" countries which largely benefitted from it, being the recipient of investments and transfer of know-how under significantly favourable conditions (usually reserved for much poorer nations) within the framework of the instruments provided by the Kyoto Protocol.

The Kyoto Protocol required industrialised countries[89] to reduce their GHG emissions by 5.2% on average below aggregate 1990 emission levels during the first commitment period

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[89] The United Nations Framework Convention on Climate Change (UNFCCC) divides countries into three main groups according to differing commitments: Annex I Parties, Annex II Parties and Non-Annex I Parties. Annex I Parties include the industrialized countries that were members of the OECD (Organisation for Economic Co-operation and Development) in 1992, plus countries with economies in transition, including the Russian Federation, the Baltic States, and several Central and Eastern European States. Annex II Parties consist of the OECD members of Annex I, but not the EIT Parties. They are required to provide financial resources to enable developing countries to undertake emissions reduction activities under the Convention and to help them adapt to adverse effects of climate change. In addition, they have to "take all practicable steps" to promote the development and transfer of environmentally friendly technologies to EIT Parties and developing countries. Funding provided by Annex II Parties is channeled mostly through the Convention's financial mechanism. Non-Annex I Parties are mostly developing countries. Certain groups of developing countries are recognized by the Convention as being especially vulnerable to the adverse impacts of climate change, including countries with low-lying coastal areas and those prone to desertification and drought. Others feel more vulnerable to the potential economic impacts of climate change response measures. The Convention emphasizes activities that promise to answer the special needs and concerns of these vulnerable countries, such as investment, insurance and technology transfer (http://unfccc.int/). Therefore, greater responsibility for reducing greenhouse gas

2008-2012 (Bohringer, 2003: 10). Due to the huge uncertainties in the science of climate change, the targets and timetables underlying the Kyoto Protocol were not derived from a clear-cut cost benefit analysis, but rather emerged from a political process involving hard bargaining on the scope, timing, and distribution of emission reduction (Bohringer, 2003: 15), based on a global carbon market artificially created to mitigate climate change.

Even if, in general, economists are quite uncomfortable when decision-making is not based on a comprehensive cost-benefit analysis, the protocol constitutes the first international environmental agreement that seeks to achieve environmental targets using market-based instruments. As anticipated in Chapter V, this is achieved by creating a demand for carbon credits by putting a price on carbon dioxide (CO_2) and demanding that certain sectors hold CO_2 permits, corresponding to their emission levels, to be allowed to operate. To this aim, in order for each country to fulfil its commitment, together with national policies and programmes, three market mechanisms, known as flexible mechanisms, were identified and implemented: International Emission Trading (IET), Joint Implementation (JI) and the Clean Development Mechanism (CDM). These instruments allow industrialised countries to meet their emission reductions targets and non-industrialised countries to gain in terms of technology transfer and know-how. Any Country that has ratified the Kyoto Protocol, regardless of emissions reduction commitments, is allowed to use one or more of this mechanisms.

According to the IET, Annex B countries[90] may alter their GHG cutback responsibilities by buying or selling emission quantities among themselves. Thus, one country could cut emission by more than is required and sell the excess to another country, which may then cut back by a smaller amount. Both JI and CDM involve the development of projects that reduce levels of emissions compared to what they would have been in a 'business-as-usual' scenario (known as the 'baseline'). These projects range from energy efficiency and fuel switches in existing power plants, to the construction of small renewable plants or the capture of methane from landfill sites to generate power. A project that reduces its emissions to below its "baseline" can claim credits for every tons of Carbon Dioxide equivalent (tCO2e) it does not emit. The main difference is that, while JI is an instrument to be used just between Annex B countries, CDM can finance emission reduction in non-Annex B countries and gain credits toward their GHG cutback responsibilities.

emissions in the short term was put on industrialized countries and under the Kyoto Protocol developing countries like China were only needed to report their emissions.

[90] Annex B countries are those who have committed to some cutback in GHG emissions.

The CDM was the first of the flexible mechanisms to come into effect with the launch of the regulatory body, the CDM Executive Board in late 2002, and the approval and registration of the first project, based in Brazil, in late 2004. Welcomed as the "Kyoto surprise", the CDM enjoyed unexpected support from developing countries, and was the compromise solution between Brazil's proposed creation of an adaptation fund for climate-vulnerable countries – the Clean Development Fund – and the USA's demand for a market mechanism similar to the Joint Implementation scheme, but with developing countries.

The Clean Development Mechanism is a project-based financing mechanism, whereby eligible industrialised countries may purchase carbon credits generated by projects hosted in eligible developing countries. However, according to UN rules, any CDM project must respect the principle of "additionally", which means that the project must demonstrate that any activities would not have occurred under normal technical and economic conditions in the host country without certified emission reduction (CER) revenues. The Kyoto Protocol mandates that each CER issued for a CDM project should represent a real, measurable, and additional emission reduction. Emission reductions under the CDM must be "additional to any that would occur in the absence of the certified project activity" (Article 12(5)(c) Kyoto Protocol) in at least two areas: (i) the additionality of financial contributions of developed countries to mitigate climate change in developing countries; and (ii) the additionality of greenhouse gas (GHG) emissions generated by mitigation activities (Streck, 2010). The rule of "economic additionality" requires that the resources from the Annex I investors are in addition to the financial obligations of the Annex I Party under the convention, and to current official development flows. The principle of "environmental additionality" requires that the CDM project activity brings about long-term environmental benefits related to the mitigation of climate change that would not have occurred in the absence of the project (Muller, 2009).

The compromise that lay in the design of the CDM instruments was accepted by both developing and developed countries because they do not only provide emissions reductions for industrialised countries, but also accelerated sustainable development in developing ones.

The advantages of the Clean Development Mechanism projects are threefold: (1) an environmental advantage on both a local and global level, derived from the reduction in GHG emissions resulting from the project; (2) a development advantage, both economic and social for the host country, which benefits from the location of the project and the transfer of technology; and (3) an economic advantage due to the improved financial viability of low GHG emission technologies, which favours their application, and, for entities with GHG emission reduction commitments, the possibility of satisfying these commitments at less cost.

Moreover, industrialised countries that face difficulties in meeting the requirements set by the protocol can invest in environmental projects in developing countries that have no emission reduction obligations and then buy certified emission reductions (CERs) to offset their obligations. In addition, although the first commitment period of the Kyoto Protocol started in 2008, under the CDM, projects started to generate emission credits as from the year 2000. In this view, besides fund injection and technology transfer, the CDM is also a source of income, as any CDM projects generate CERs, which are issued by the CDM Executive Board, and can be sold on the international market to foreign organisations.

Due to the mix of industrial activities and the levels of development across countries, developing nations tend to offer more opportunities for low-cost abatement. Under a carbon-constrained future, the CDM concept ideally provides a "soft landing" for industrialised countries by slowing their required rate of abatement, and encourages developing nations into a more sustainable growth path. Moreover, even if some industrialised countries are able to fulfil their required emission reduction goals on their own, they still have incentives to buy CERs because the emission reduction costs in developing countries is much lower than that seen in developed countries: an industrialised country seeking to reduce emissions domestically is likely to face substantially higher costs, compared to investment in Clean Development Mechanism projects to cut emissions overseas. By providing investment incentives, the Clean Development Mechanism acts as an aid to project finance in host countries, encouraging sustainable development through the adoption of cleaner energy sources, or more efficient industrial processes.

Host countries that tax the revenue from local projects, as is the case in China, will also be able to build a national fund that may be used for local adaptation to climate change. Thanks to the flexible mechanisms, China not only gained international support to improve its environmental governance domestically, but also had a very significant economic reward under the CDM.

As shown in Figures 6.5 and 6.6 below, the People's Republic of China, the worlds largest emitter of GHGs, is the "giant" in the CDM world and enjoys the highest CDM project potential because its marginal cost of emissions reduction is relatively low compared to that of many other developing countries. This is mainly due to its low (although improving) technological level and to the inefficient use of energy equipment.

As the profit of CDM project developers from selling CERs to international buyers is additional to the original project revenue, the project's internal rate of return (IRR) will be increased with carbon finance. This means that some environmentally friendly projects,

previously regarded as financially infeasible and not worth investing in (such as renewable energy projects vs. traditional power projects), suddenly become profitable after being authorised as a CDM project, due to the additional revenue available through selling carbon emission reductions produced by the project (Chen, 2012: 40). As a consequence, the CDM, based on a complex institutional framework that involved both UN agencies as well as national administrations, has modified the underlying economic trade-offs of environmentally-friendly economic activities.

Figure 6.5: Distribution of registered project by host party
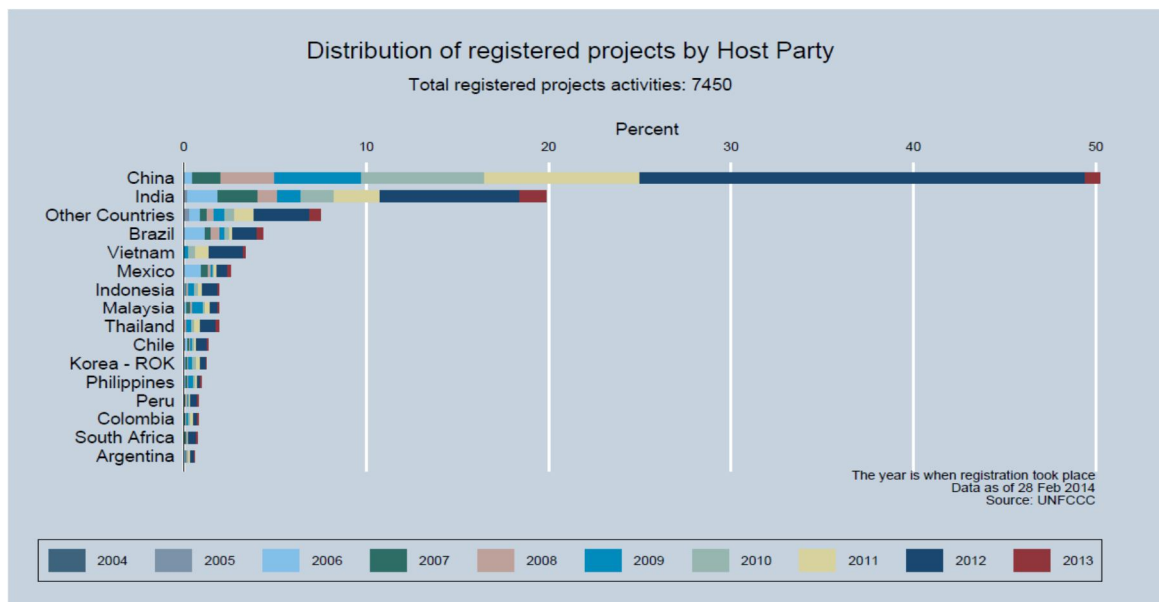
Source: UNFCCC, 2014

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Figure 6.6: Distribution of CERs issued by host party
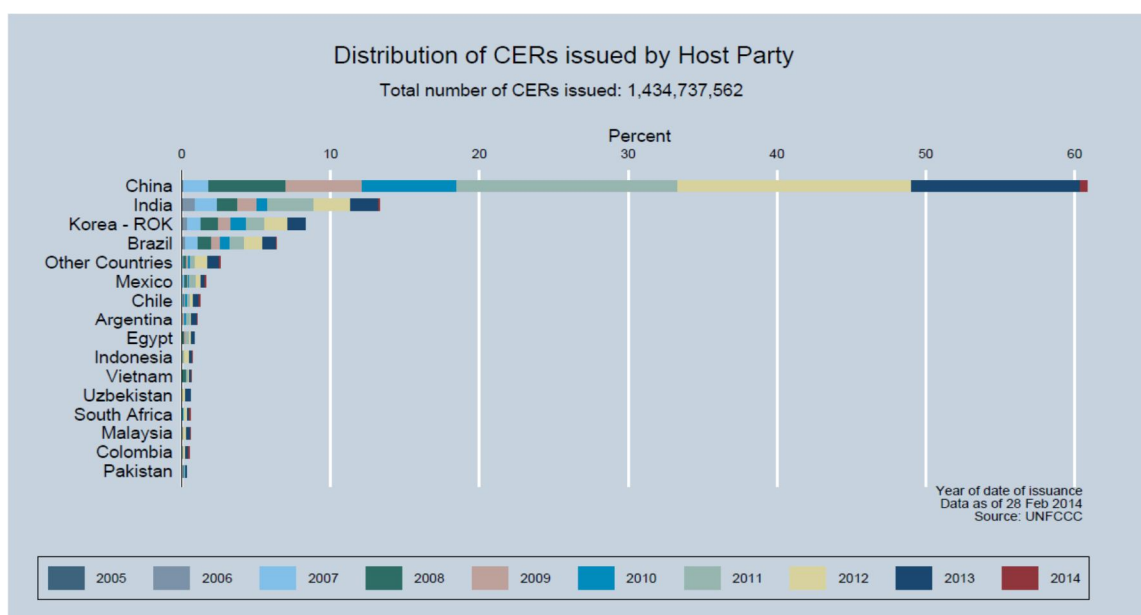
Source: UNFCCC, 2014

In China, the CDM is a fundamental element of the national climate policy mix and, in June 2004, seven months before the implementation of the Kyoto Protocol, the Chinese government enacted a draft regulation on the management of CDM projects, showing that it was prepared and eager to gain from the protocol, which was seen as a starting point for a more comprehensive plan to address global climate change. A few months later, in October 2005, the NDRC, the Ministry of Science and Technology, the Ministry of Foreign Affairs, and the Ministry of Finance jointly issued the Measures for Operation and Management of CDM projects in China to replace the draft regulation[91].

In all key official Chinese documents outlining the national strategy on climate change, such as the Chinese National Climate Change Programme (NCCP), the Science and Technology Actions on Climate Change, and the 2008 white paper on Climate Change Policies and Actions, the CDM is always mentioned as an important element of national mitigation efforts and is also identified as a key link to international cooperation. According to the white paper, CDM projects have "effectively boosted the development of China's renewable energy, accelerated the improvement of energy intensity, and greatly enhanced the awareness of the seriousness of climate change" (SCIO, 2008).

Each country involved in the Kyoto Protocol has established government bodies to promote and support the development of CDM and JI projects, producing guidelines for designing and structuring projects that detail the processes and permissions required. In this context, the Chinese government, keeping all its traditional concerns about foreign involvement in Chinese strategic sectors such as energy, agriculture, steel, and iron, has developed a legal framework to govern the CDM project cycle in order to heavily favour Chinese interests and to ensure Chinese "resources" are protected. According to Chinese regulation, CDM project developers should be Chinese-funded or Chinese-controlled enterprises in China. Moreover, the government has also identified a number of CDM priority areas to encourage the development of so-called "relevant" CDM projects anticipated to lead the transition to a low-carbon economy and has also implemented a levy on CERs, applying differentiated rates for different categories of CDM projects, arguing that CDM projects must support the national sustainable development strategy.

Finally, in order to boost the development of CDM projects at home as a central pillar of China's policy toward sustainable development, the Chinese government, with the support of

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[91] Office of the National Coordination Committee on Climate Change and Institute of Nuclear and New Energy Technology of Tsinghua University, 2006: 55.

UNDP, has established a CDM fund that started to operate in September 2010. The China Clean Development Mechanism Fund (CCDMF) is a national climate fund that integrates government and market functions. The mandate of the fund is to support China's effort to address climate change and promote social and economic sustainable development, focusing on low carbon growth and climate resilience in China. It is a revolving fund that receives regular capital injections from levies collected by the government on CDM projects in China. The CDM cooperation under Kyoto Protocol has generated additional income and advanced opportunities for several enterprises. However, without an effective financing mechanism, it would have been difficult to bring the CDM cooperation from project level to country level and better contribute to the sustainable development of the country. In this regard, managing the revenues collected from CDM projects through the CCDMF, the government ensures that all collected levies are used to directly support projects and initiatives that address climate change in China.

The revenues collected by the CCDMF are specifically earmarked to finance climate actions in China and to support the private sector to test innovative financial and economic instruments to address climate change. To this aim, the CCDMF also partners with various international institutions, including the WB, as well as domestic public and commercial entities to explore innovative ways to support low-carbon development in China. Through the CCDMF, the main objective of the government is to leverage private sector engagement in order to finance climate actions and ensure that the fund will play a long-term role in China's climate finance, because national budget support cannot cover the financial burden of low-carbon development and the enormous costs of switching from a brown economy to a green one.

Although the government attempts to manage and govern the CDM by intervening in the market has generated a number of complaints by many potential foreign investors at the beginning, particularly regarding the rule that only majority-owned Chinese enterprises may serve as project owners (Szymanski, 2006: 2), this has not discouraged foreign investments in Chinese CDM market. On the contrary, political direction and government action seem to have created a perception among business representatives of a well-functioning market characterised by stability (Buhr et al., 2012). CER buyers have cited the predictability of the Chinese regulatory system as a key factor in making their CDM investment decisions (WB, 2008a).

The CDM has become a vehicle for China to help stimulate investment in projects that mitigate greenhouse gas emissions and to help cover the incremental cost of higher-efficiency

or low-carbon technology (Lewis, 2007: 165). By adding its own requirements to internationally sponsored projects, China has managed to frame international cooperation through CDM to support its domestic priorities, obtaining substantial economic gains. The active role of the government has played a fundamental role in attracting foreign investment and investors and contributing to the leading position of China on the global CDM market. In this context, over the past few years, supported by a number of state subsidies and a relevant stimulus package (Economic Observer, 2009; McKissack and Xu, 2011), China's capabilities in the areas related to climate change (e.g. energy efficiency, renewable energy) have grown dramatically, allowing China's firms to dominate the list of top renewable energy manufacturers from solar panels to wind turbines. The 12th Five-Year Plan (2011-2015) dedicates an entire section to green development.

In general, the CDM project instrument has significantly benefited China in several ways by financing emission reduction projects, bringing China huge profits by selling CERs, providing new channels for environmentally friendly technology transfer, improving energy efficiency and energy conservation and, finally, by improving local environmental and social conditions. The Kyoto Protocol, the first international treaty including detailed obligations for industrialised nations to reduce their GHG emissions by 2012, has yielded huge benefits for China instead of imposing afflictive restraint upon the world's fastest-growing economy (Chen, 2012: 34). Moreover, it has also contributed to raising its international profile; China is now proactive in international climate policy and hosts the largest share of CDM projects. In this view, the active participation in the Clean Development Mechanism of the Kyoto Protocol and the relevant positive externalities which derive from it have significantly supported China's decision to undertake the "no regret" strategy that emphasised mitigation actions, which provide fringe benefits like profitability and employment to the country.

6.5   Conclusion

In the past 20 years, China has implemented several policies and actions to address climate change through adaptation and mitigation measures. Like for any other country in the world, China's climate change policy reflects its domestic circumstances, its national interest, and its social, economic, and development priorities. For Beijing, climate change is a threat as much

as an "opportunity" to accelerate its economic development by investing in low-carbon technologies and in the existing renewable energy market.

In some cases, mostly related to Western countries, the equation of national security and climate change can arguably be ascribed to a need by advocates and politicians to provide arguments for taking action in political environments that are fundamentally hostile to any efforts to tackle climate change. This type of rhetoric has been especially common in the US, where some members of the US Congress still deny the existence of climate change, despite overwhelming evidence to the contrary.

In China, there has been no such need. Beijing is acting on climate changes in terms of mitigating GHG emissions and enhancing climate resilience, driven not only by its domestic needs for sustainable development in ensuring its ecological security and energy security, but also driven by its self-perception as a leading developing nation within the global South.

In this context, Beijing's sharp opposition to applying a direct link between climate change and security after having already implemented a number of domestic policies to securitise water, food, and energy issues, represents somehow a paradox. In fact, while water, food, energy, and natural disasters as a result of extreme weather events are all perceived as security issues, climate change is classified solely as a development one, remaining the only one global concern that has not been securitised yet by official Chinese discourse.

This Chinese position can be understood in the framework of some clear but also implicit reasons that combined with each other do not allow China to embrace the Western vision of considering climate change as a security risk. First of all, as previously mentioned, the development of the climate security paradigm may result in the creation of international policies which, using global warming as a tool, could impose economic policies or political constraints aimed at slowing down or, at least, interfering with China's impressive economic growth. Another reason is related to the basic principle of state sovereignty, territorial integrity, and regime security highlighted in the NSC. In fact, notwithstanding the recognition of the potential threats that the combined effect of environmental degradation and climate change could pose to the country's development, the securitisation of climate change represents a clear threat to one of the most important principles of China's politics: non-interference with the sovereignty and the internal affairs of states. Finally, another reason is related to the Chinese concern over maintaining its leverage in global climate change negotiations; engaging in global climate governance as a leading fast-growing developing nation within the global South.

Thanks to its aggressive green policy, Beijing has been making active and remarkable efforts

to address climate change issues. During the 11th (2006-2010) and 12th (2011-2015) Five-Year Plan China has done a lot to invest in renewable energy, improve energy efficiency, and decrease energy consumption and, through crucial economic and political reforms, has implemented several domestic policies toward a low carbon economic growth. Increasing investments in adaptation measures, using engineering, technical, and institutional instruments, have progressively upgraded China's capacity to deal with the impact of climate change. Furthermore, economic and political reforms implemented in the last 40 years have supported capacity development in China and the country has been able to developed domestic policies and climate-relevant capacities, which produced mitigative effects. In this framework, the Chinese government has been pushing for the transformation towards a low carbon economy which is now a "must" of Chinese policy because it is simultaneously a response to global climate change, a key solution to address China's air pollution problem, and a compulsory step towards achieving energy security.

However, although reducing carbon emission intensity in China is a tough target, it is also one with relatively limited potential results. Even if carbon intensity has been reduced significantly, China's GHG emissions would still increase in the next years due to the process of rapid industrialisation and urbanisation (Pan & Zhang, 2013). Notwithstanding the shift from "quantity" of growth to quality of development, as well as from a labour-intensive to a capital-intensive model, it is very difficult to imagine a significant change in this trend.

Therefore, Beijing's strategy towards the development of a low-carbon economy model of growth has been driven by two main priorities: (1) the drawing up of global financial mechanisms to support the development and supply of clean technologies; (2) the development of innovative and low carbon energy technologies to meet the increasing energy demand to support its economic growth.

Chapter VII: China and International Climate Change Negotiations

"… the planet is just too small for these developing countries to repeat the economic growth in the same way that the rich countries have done it in the past. We don't have enough natural resources, we don't have enough atmosphere. Clearly, something has to change."

Mario José Molina-Pasquel Henríquez, 1995 Nobel Laureate

Mitigating climate change is one of today's major global environmental problems. Its interconnected natural dynamics and disregard for nation-state sovereignties has increased interdependencies in problems and policy solutions across borders. That has, in turn, compelled pundits and scholars from a range of academic disciplines to argue that structural mitigation can only be achieved by substantial collaboration across countries (Sprinz & Luterbacher, 1996). By implication, international climate change negotiations have been deemed crucial to meeting a number of purposes. They are expected to help propel a green economy model of growth, achieve an acceptable balance between social welfare in developed countries, sustainable economic growth in emerging economies, and poverty eradication in developing and least developed societies. This concept is synthesised by the CBDR principle, which clarifies that the nature of climate change negotiations is fundamentally a negotiation among different and competing economic interests.

In the broader international literature, two major models are employed to explain how a country behaves and develops its position in international environmental negotiations. The first is the "Interest-Based Explanation of International Environmental Policy" – model developed by Detlef Sprinz and Tapani Vaahtoranta in 1994. The second is the "Logic of Two-Level Games" model developed by Robert D. Putnam in 1988. The interest-based explanation of the international environmental policy focuses on those domestic factors that shape a country's position in international environmental negotiations. According to this model, the country's ecological vulnerability toward environmental degradation and pollution and the economic costs of environmental protection and pollution abatement are the two crucial factors that shape a country's behaviour in international environmental negotiations. The more vulnerable a country is to environmental problems, the more willing it is to participate in international negotiations; the higher the cost a country is going to have to pay for solving its

environmental problems, the less willing it is to participate in international environmental negotiations. By combining indicators of a country's ecological vulnerability (low and high) with abatement costs (low and high), countries can be classified into four categories: "pushers," "intermediates," "draggers," and "bystanders". The interest-based perspective on international environmental regulation offers a partial but parsimonious view of how a country's preferences for international regulations are shaped (Sprinz & Vaahtoranta, 1994). While this model could be applicable to understanding the behaviour of countries in international negotiations related to atmospheric pollution, such as at the negotiations for the Montreal Protocol, it could be only partially applicable to understanding the different negotiating positions within the Kyoto Protocol because the negotiating parties of the protocol bear differentiated responsibilities and commitments under the framework of the protocol.

The two-level approach instead recognises that central decision-makers strive to reconcile domestic and international imperatives simultaneously. The politics of many international negotiations can usefully be conceived as a two-level game. At the national level, domestic groups pursue their interests by pressing the government to adopt favourable policies, and politicians seek power by constructing coalitions among those groups. At the international level, national governments seek to maximise their own ability to satisfy domestic pressures, while minimising the adverse consequences of foreign developments. Neither of the two games can be ignored by central decision-makers, so long as their countries remain interdependent, yet sovereign. According to this model, a synthesised research agenda that considers the interactions between domestic and international politics is the key to understanding a country's behaviour in international negotiations (Putnam, 1988). However, this model bears some significant limitation when applied to understanding China's behaviour towards ICCN. In fact, the model was developed in the context of US policy, a liberal democratic country with a seeming preference for a "free market" economy, and could hardly be applied to a socialist country with a centrally planned economy. As explained by Dougherty and Pfaltzgraff in their *Survey of Contending Theories of International Relations*, decision-making patterns in countries with different political institutions are markedly dissimilar and, therefore, applying a generic model is likely to lead to misleading conclusions (Dougherty & Pfaltzgraff, 2001: 645-6). Furthermore, neither of the two models addresses adequately how elite and wider perceptions of social issues, domestic and international norms, political and other expectations, or self-conceptions of key state and non-state actors impact a nation's strategy and behaviour in ICCN. Much of this inadequacy comes from the two models' one-sidedly positivist commitments.

At present, after more than twenty years of international climate change negotiations, 21 United Nations Climate Change Conferences, and a considerable amount of money devoted to creating an artificial carbon market, somewhat modest results have been achieved in climate change mitigation. According to the International Energy Agency's special report *Redrawing the Energy-Climate Map*, released in November 2013, the world is not on track to meet the target agreed by governments to limit the long-term rise in the average global temperature to 2 degrees Celsius (IEA, 2013). Global emissions are increasing, despite the economic crisis, the reduction of US emissions, driven by the switch from coal to gas in power generation, and the lowest growth of emissions in China in a decade, driven mostly by the deployment of renewables and the improvement in the energy intensity of its economy. Therefore, in the words of Mario José Molina, the planet is just too small to carry the economic growth of developing countries in the same way that the developed countries have done in the past.

A key deadlock point in climate change negotiations is about finding an agreed "decoupling strategy" between the right to growth of the developing world and the CO_2 energy related emissions reduction. According to climate scientists, a drastic reduction in aggregate emissions is necessary if the international community wants to achieve a reasonable probability of keeping global temperatures at liveable levels (i.e. keeping the 2°C target). In this framework, considering the pressing need of carbon emissions space for emerging economies such as China, India, and Brazil to support their economic growth and the forthcoming need of other fast-growing developing countries such as Brazil, Mexico, Indonesia, and South Africa to lift their citizens out of poverty, under the current scheme this drastic reduction can be achieved only if either developed countries dramatically reduce their current emissions in favour of developing ones, or developing countries and emerging economies accept a drastic limit to their emissions reductions, consequently imposing a dramatic slowdown to their economic growth. Therefore, the key question is how to address the decoupling of growth and emissions reduction without effecting the economic growth of emerging economies and developing countries.

In this chapter, I analyse the development of the global climate regime from the late 1960s until the 2015 Paris 21st Conference of the Parties (COP 21), evaluating China's behaviour and investigating how Beijing's role in global climate governance may shape an alternative global vision, bringing a new perspective to the international debate for meeting the challenge of climate change.

7.1 The Rise of Global Climate Policy and International Climate Change Negotiations

A few years ago, the idea that a global climate policy could exist would have seemed strange or simply absurd because any change in climate was considered a part of the normal patterns of weather over time. However, more than a century ago, a Swedish scientist had already taken the first step in the anthropogenic climate change debate, with the publication of a paper that earned him the Nobel Prize[92]. In 1896, Svante Arrhenious undertook lengthy calculations of how carbon dioxide intercepts radiation in the atmosphere. He discovered that doubling the amount of carbon dioxide would have raised the planet's average surface temperature some 5-6°, while halving the amount of gas would have lowered the temperature about as much. Despite the scientific interest provoked by his research, for more than half a century after 1896 almost no other scientific research was undertaken on global warming, and only in recent years has earth systems science advanced rapidly, helping to transform climate change into major political issues.

Concerns about the environment and development are not new. The ongoing global environmental debate has been formed around the strategies needed to address the inter-related challenges of building healthy societies, economies, and environment. This dialogue has its roots in the gradual merging of the environmental movement and the post-World War II international development community. Many people consider 1962 as the seminal year in which people began to understand the interconnection between environment and development with the publication of Rachel Carson's *Silent Spring*, which shattered the assumption that the environment had an infinite capacity to absorb pollutants. In 1968, the publication of Paul Ehrlich's *The Population Bomb* on the connection between human population, resource exploitation, and the environment, and the research undertaken by the Club of Rome further strengthened the process of raising awareness about the environment, which reached its peak in 1972 with the UN General Conference on Human Environment.

A detailed analysis about how the climate became a global governance subject can be found in Paul N. Edwards' *A Vast Machine Computer Models, Climate Data, and the Politics of Global Warming* (Edwards, 2010), in which he describes the science behind the consensus on climate change, arguing that, over the years, data and models have converged to create a stable,

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[92] In 1903 The Nobel Prize in Chemistry was awarded to Svante Arrhenius *"in recognition of the extraordinary services he has rendered to the advancement of chemistry by his electrolytic theory of dissociation"*.

reliable, and trustworthy basis for establishing the reality of global warming. According to Edwards, climate science systematically produces knowledge of the climate. It is a "vast machine": a sociotechnical system that collects data, models, physical processes, tests theories, and ultimately generates a widely shared understanding of the climate and climate change. This knowledge production begins with observations, but these are only raw materials. Transforming them into widely accepted knowledge requires complex activity involving scientific expertise, technological systems, political influence, economic interests, mass media, and cultural reception. This knowledge production system delivers not only specifics about the past and likely future of Earth's climate, but also the very idea of a planetary climate as something that can be observed, understood, affected by human behaviours, debated in political processes, cared about by the general public, and conceivably managed by deliberate manmade interventions. Ultimately, this knowledge infrastructure is the reason we can 'think globally' about climatic change (Edwards, 2010: 8).

The development of climate change as a global issue took place initially in the scientific arena, as understanding of global warming and the greenhouse problem improved, but it is only in the last three decades that climate change has evolved from an environmental concern to a matter of geopolitics. The first major global environmental meeting was held in Stockholm in 1972, driven by increasing international concerns about global warming, and, for the first time, climate change started to emerge as a global issue. The 1972 UN Conference on Human Environment was the first step in the long process that led to the creation of the present climate regime.

The development of the climate change regime can be divided into five periods: (1) the foundational period, during which scientific concern about global warming developed; (2) the agenda-setting phase, from 1985-1988, when climate change was transformed from a scientific to a policy issue; (3) the pre-negotiation period, from 1988- 1990, when governments became heavily involved in the process; (4) the formal intergovernmental negotiations phase, leading to the adoption of the UNFCCC in May 1992; and (5) the post-agreement phase, focusing on the elaboration and implementation of the UNFCCC and the initiation of negotiations on additional and updated commitments (Sprinz & Luterbacher, 1996).

From the early stages of the development of the present climate regime, it was clear that, notwithstanding the fact that the regional effects of global warming would be different across the world, all nations would be affected by it, and the related costs in any given nation would be independent of whether that nation had or had not contributed to greenhouse gas emissions.

In the same way, the benefit that one country obtains in a reduction of its own global emissions does not reduce its risk of being affected by global warming if other countries do not act as well, and other countries cannot be excluded from enjoying the benefits of mitigation, even if they do not contribute toward the mitigation. Therefore, considering that the supply of a public good like climate change mitigation is highly vulnerable to free-riding, the negotiation of a new international ad hoc climate treaty was considered a necessary step to define and implement legal actions to address climate change at global level.

This process began in December 1990, when the UN General Assembly established the Intergovernmental Negotiating Committee for a Framework Convention on Climate Change (INC/FCCC) to negotiate a convention containing "appropriate commitments" to be signed in June 1992 at the World Conference on Environment and Development (UNCED) that took place in Rio de Janerio (UNGA, 1990). In May 1992, the Framework Convention on Climate Change was adopted and the Convention entered into force two years later on 21st April 1994 as a result of its ratification by 50 states.

In December 1997, at the third session of the Conference of the Parties (COP 3) held in Kyoto, Japan, the Kyoto Protocol was adopted, strengthening the 1992 Climate Change Convention by mandating that industrial countries cut their carbon dioxide emissions by 6% to 8% from 1990 levels during the first commitment period starting in 2008 and ending in 2012. The rules for the implementation of the protocol were adopted at the COP 7 in Marrakech in 2001 and the Kyoto Protocol entered into force in February 2005 after the ratification of the Treaty by the Russian Parliament in late 2004. The treaty needed at least 55 industrialised countries, representing 55% of the world's greenhouse gas emissions in 1990, to sign it before it could come into effect and, with the withdrawal of the United States, which was responsible for 36% of emissions in 1990, in the early stage of negotiations, the ratification of Russia was the only chance for the treaty to come into force. The United Nations Framework Convention on Climate Change was a political compromise between the different and competing positions of the several stakeholders involved in the negotiation process, and the Kyoto Protocol was the outcome of this compromise.

Countries, multilateral institutions, civil society organisations, and private stakeholders have different concerns, different mandates, different historical backgrounds, and different capacities and strategies when they engage in climate change negotiations. Nevertheless, as from the earlier stage of the climate regime formation, it was possible to identify two distinctive categories of countries with clearly different approaches to international climate change negotiations: the "global North" and the "global South".

These two fronts, however, were not two monolithic negotiating blocs but rather two heterogeneous groups of countries with similar economic interests and political aspirations.

In the early 1990s, when developed countries were still the main actors and directors of the international discussions on climate change, two main positions emerged within them. From one side, the position of European countries together with Canada, Australia, and New Zealand, advocated the establishment of clear targets and timetables on greenhouse gasses reduction. From the other side, the United States of America, the Former Soviet Union, and Japan argued that targets and timetables would be too strict and, in the end, largely symbolic, and they instead advocated a focus on scientific research and on developing national, rather than international, strategies and programs.

The front of the developing countries was much more fragmented: Small Island and Atoll States, which later became the Alliance of Small Island States (AOSIS), strongly supported the creation of a climate regime based on clear targets and timetables, whereas oil producing states held all economic interest in opposing and slowing down any climate regime based on emission reductions. Thirdly, between these two positions, another group of emerging economies, such as India, Brazil, and China, emphasised that they would not support any climate regime that could have a negative impact on their economic growth or could somehow limit their sovereignty.

However, all together, developing countries and emerging economies stressed that climate change should not be regarded exclusively as an environmental issue but as a development issue as well. Fundamentally, following the call for a New International Economic Order proposed at Algiers Conference in September 1973 and formally adopted in April 1974 by the United Nations Conference on Trade and Development (UNCTAD), developing countries argued that the creation of a new climate regime should consider overall economic strategies and social policies and programs aimed to achieve sustainable development (Najam, 2005; Krasner, 1987; Murphy, 1984).

A compromise between the different negotiating positions was found by including emissions targets for developed countries and some basic principles concerning sustainable development for developing countries: a precautionary principle, common but differentiated responsibilities of countries, an open economic order, and the principle of taking into account those countries most vulnerable to climate change. The architecture of the treaty was then conceptualised in terms of the mutual rights and obligations of polluting and "victim states", highlighting the nature of climate change largely being "produced" in the North and "experienced" in the South (Engberg-Pedersen, 2011). However, the principles detailed in Article 3 of the Climate

Treaty allow for different interpretations according to the competing interests and positions of the parties.

From the scientific side, some 20 years after the adoption of the UNFCCC and the creation of the present climate regime, a greater global consensus on the science underlying climate change has emerged. The conclusions of such scientific research continue to be verified by large numbers of scientists in the reports of the Intergovernmental Panel on Climate Change (IPCC). The Summary for Policymakers for each IPCC Report is scrutinised and approved, line by line, by policy-makers, thereby providing greater ownership of the IPCC results in the policy community. Thanks to the close scrutiny of its work and despite some occasional faults (e.g. the so called Climategate scandal) the basic science advocated by the IPCC is internationally recognised (GUPTA, 2012; NAS, 2007; IAC, 2010).

In 2007, after the worldwide enthusiasm arisen from the United Nations IPCC and Al Gore sharing the Nobel Peace Prize, expectations were high that the world would finally take action on global warming and the Copenhagen summit was expected to be a milestone in global climate policy. However, that was not what followed, and when the fifteenth session of the Conference of the Parties (COP 15) held in Copenhagen in December 2009 was concluded with a disappointing and poor negotiation outcome, in contrast to the high expectations which had preceded the meeting, the sharp division of the two negotiating fronts of Northern and Southern countries was as clear as ever.

Most developing countries have refused to agree to anything that they consider to contravene the CBDR principle while, on the other side, some developed countries have refused to take additional commitments to reduce emissions, arguing that it would reduce their ability to compete with rapidly growing developing countries. The US from one side and China from the other emerged to play crucial roles for the two competing fronts during the Copenhagen negotiations. China, which became the biggest emitter of GHG in absolute terms in 2007, being a developing country, was not obliged to take any legally binding commitments, while was in the position to demand, under the UNFCCC rules, strong commitments from the developed countries. According to the United States, as long as this so called "firewall" between Annex 1 and the developing world remains, China can occupy a convenient position, namely that the world's biggest emitter of CO_2 is allowed to free-ride on the effort of other countries while being able to criticise the developed world (van der Goltz, 2009: 11).

Finally, after two weeks of harsh confrontation between the two negotiating blocs of the global North and the global South – led respectively by the US and China – the climate summit ended with an agreement that provided for explicit emission pledges by all the major

economies – including, for the first time, China and other major developing countries. However, as a result of the strong opposition of China, there was no indication of a treaty with binding commitments. Key elements of the Copenhagen Accord, the outcome of the Climate Summit, included: (1) an aspirational goal of limiting global temperature increase to 2 degrees Celsius; (2) a process for countries to enter their specific mitigation pledges by 31st January 2010; (3) broad terms for the reporting and verification of countries' actions; (4) a collective commitment by developed countries for $30 billion in "new and additional" resources in 2010-2012 to help developing countries reduce emissions, preserve forests, and adapt to climate change; and (5) a goal of mobilising $100 billion a year in public and private finance by 2020 to address the needs of developing countries. The accord also calls for the establishment of a Copenhagen Green Climate Fund (GCF), a High Level Panel to examine ways of meeting the 2020 finance goal.

The substantial failure of the Copenhagen Climate conference to effectively limit GHG emissions and provide new impetuous for ICCN had started to generate increasing concerns over the capacity of multilateral climate negotiations to respond properly to the climate change challenge. As a consequence, the foundation principles of the UNFCCC became contested and the wording of the targets made the targets themselves questionable. Critics of the UNFCCC negotiation process have argued that it has become fatally cumbersome because it requires the impossible: consensus decision-making by 194 parties on every line of a complex and lengthy treaty (Eckersley, 2012).

The changing attitude of the parties regarding the basic principles that were identified in 1992 as a compromise between rights and duties to achieve a global deal on climate change can be attributed mainly to two reasons. First of all, the policies and measures designed to address climate change and to promote sustainable development were slowed down or shelved particularly sharply in the aftermath of the global economic crisis. In this context, the leading role played by the EU in the development of the international climate regime was severely undermined by the economic crisis, which weakened the capacity of EU countries to achieve long-term commitments. The EU, already impaired by the heavy influence of competing national interests, struggled with a mix-up of national policies, conflicting and expensive subsidies, a fragmented energy market, and an ever-growing reliance on fuel imports. Overwhelmed by the economic crisis, European countries seem to be more concerned with the cost of climate change policies than with their benefits.

Secondly, the economic and geopolitical context in which sustainability has been discussed at a multilateral level has progressively changed since the Climate Convention was negotiated in

1992, and the evolution of ICCN has been influenced by the changing global economic order. The breakup of the USSR was accompanied by a gradual reduction of US global dominance and the shift to a multipolar world, above all in respect of the role that emerging economies have assumed in the global economic order. Brazil, Russia, India, and China, the so-called BRIC countries, now account for around half of the world's foreign exchange reserves, while the world's largest economy, the United States of America, runs a current account deficit that, to a substantial extent, is financed by capital exports from emerging market nations. The reserves of the BRIC countries are increasingly being channelled into foreign direct investments, thus strengthening the international influence of these countries.

In December 2010, the outcome of the 16th Conference of the Parties (COP 16) was the Cancun Agreement, which sets out a package of decisions on how to reach GHG reduction. The agreement represented a critical step in creating trust after the failure of Copenhagen, and, by reaching an agreement with some substance at all, the Cancun conference succeeded in keeping the UN climate process alive.

When the Cancun Climate Talks ended in mid-December 2010, it was clear for all the negotiating parties that the real and concrete outcome of COP 16 was the rescue of the UN climate negotiations process from an imminent collapse. It was also clear to all negotiating parties that this result was made possible by the more cooperative attitude of China and the United States, the two major GHG emitters, and by a large part, because of a Chinese compromise on two key points. The first was that China had shifted from a position focused on domestic voluntary mitigation actions to measurable, reportable, and verifiable nationally appropriate mitigation commitments (Zhang, H., 2013). In fact, China, India, and the United States agreed on provisions for the measurement, reporting, and verification (MRV) of mitigation actions undertaken by developing countries, which was a sticking point at Copenhagen, with China concerned with avoiding infringements on sovereignty. The second compromise made by China was agreeing to submit national mitigations actions under the Cancun Agreements (as it did under the non-binding Copenhagen Accord), by which Chinese emissions reduction plans were incorporated into the UN process for the first time (Minas, 2010).

From a technical perspective the Cancun Agreement very much constitutes a "Copenhagen Accord plus". Indeed, for the majority of countries supporting the Copenhagen Accord elaborated a year before (but not accepted by the conference then), Cancun provided the opportunity to incorporate the substance of the Copenhagen Accord into the UN process (Oberthür, 2011).

Moreover, the compromise reached in COP 16 has largely managed to invert the top-down, differentiated architecture based on targets and timetables that was the characteristic feature of the UNFCCC and its Kyoto Protocol. This architecture has been replaced with a much more bottom-up, undifferentiated system based on pledge and review that requires developing countries, especially the emerging economies, to be treated in much the same way as the developed world with regard to their climate mitigation and reporting obligations.

The logic of ending differentiation between North and South was further consolidated at the seventeenth session of the Conference of the Parties (COP 17) held in 2011 in Durban, South Africa. COP 17 in Durban represents a turning point in ICCN. Unlike the Copenhagen Accord and the Cancun Agreements, which explicitly reaffirmed the core UNFCCC principles of "equity" – i.e. global policy should recognise that climate change hits poor countries hardest and that rich countries carry the major responsibility for past emissions - and "common but differentiated responsibilities", the Durban Platform text makes no reference whatsoever to these foundational regime principles. Although it can be argued that since this new process has been launched under the premises of the Convention, all its principles and provisions will automatically apply, their absence from a key decision for the first time in 20 years of international climate talks is nevertheless relevant (Hurrel & Sengupta, 2012: 472).

During the COP 17, a number of relevant agreements were reached among the parties, including an agreement on a second commitment period for the Kyoto Protocol starting on 1st January 2013, the establishment of the so-called Durban Platform for Enhanced Action to lead to a post-2020 international climate agreement, and the launching of the Green Climate Fund. The Green Climate Fund was incorporated in the Copenhagen Accord and established in Cancun as an operating entity of the Financial Mechanism of the Convention to support projects, programmes, policies, and other activities in developing country parties. The fund should channel some of the $100 billion that rich countries promised to make available to poor ones by 2020 in COP 15, to help them cut emissions and adapt to climate change.

The Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP) was established to develop a new protocol, another legal instrument, or an agreed outcome with legal force under the Convention, applicable to all parties no later than 2015, in order to be implemented at the end of the Kyoto second commitment period in 2020. The phrasing used for the post-Kyoto global deal to be reached in 2015 was deliberately unclear, leaving a large bargaining margin open to the negotiating parties. In fact, the terms "protocol", "legal instrument", and "agreed outcome" are quite different from one another in nature and would produce considerably different results.

During the negotiations at COP 17, the new geopolitical and economic context somehow abated the traditionally sharp divide between the negotiating positions of the global North and the global South with the emergence of new alliances and initiatives. At the Durban Conference, the EU, the AOSIS, and the Least Developing Countries Group released a joint statement in terms of operating Durban mandate, while many developing countries had not reached a consensus. During the negotiations, the EU and the AOSIS expressed similar positions in terms of emissions reduction, finance, and the legal form of the future instrument to be defined. In terms of trade and unilateral measures, the range of consensus between the AOSIS and the EU was wider than that between the AOSIS and most developing countries, and the EU and the AOSIS converged to become the most positive power to promote and support the Durban Platform negotiations.

At the same time, the more cooperative negotiating position of Beijing weakened the bargaining power of the G77 negotiating block. In fact, the increasing economic divide between China and the Least Developed Countries (LDCs) and the growing level of the GHG emissions from China made, to several LDCs, the Chinese government negotiating interests seem closer to those of the US than to those of the G77. In this regard, it is worth mentioning that when Germany organised the second Security Council Meeting on Climate Change and Security in July 2011, Bolivia's representative at the UN asserted that while climate change could be understood as a real threat to humanity and the Earth, the security implications of climate change should be dealt with in a forum where the guilty parties do not have seats for life or the right to veto (UNSC 6587th meeting, 2011). In fact, out of the five countries that possess veto power, four (the US, the UK, France, and the Russian Federation) are Annex I countries with historical responsibility, and the fifth country (China) is the largest emitter of GHGs. Consequently, during the negotiations held in COP 17, the three main developing countries groups – the AOSIS, the Africa Group of Negotiators, and the LDCs – supported by the EU, became a coalition, leading to more pressure on China and the US to agree to binding emission cuts.

In December 2012 in Doha, Qatar, during the eighteenth session of the Conference of the Parties (COP 18), the Doha Amendment to the Kyoto Protocol was adopted, providing new commitments to the Kyoto Protocol for Annex I Parties who agreed to engage for the second commitment period. Parties committed to reducing GHG emissions by at least 18% below 1990 levels in the 2013-2020 period. By ensuring the prolongation of the Kyoto Protocol for a further eight years, the Doha deal preserves the vital framework of international law and retains hard-won rules on accounting for emissions and trading between countries.

The nineteenth session of the Conference of the Parties (COP 19), held in Warsaw in November 2013, was mainly focused on the demands of developing countries for increased climate finance, and for a new mechanism to help especially vulnerable nations cope with unavoidable "loss and damage" resulting from climate change.

The real step forward towards the achievement of a global post-2020 climate regime was made in COP 20 in Lima, following the deal achieved a few weeks before the conference between China and the United States at the Asia Pacific Economic Cooperation Summit. As it happened in COP 16, four years earlier, the significant step forward at COP 20 for the positive conclusion of the conference was due to a compromise achieved between the US and China, largely thanks to China's more cooperative attitude and constructive support for the negotiations. The progresses made in Lima laid down the groundwork for a successful international climate agreement in Paris in 2015.

7.2   The Paris Agreement

The international agreement on climate change adopted at the twenty-first Conference of the Parties (COP 21) held in Paris on December 2015, is widely considered an historic milestone in multilateral climate diplomacy.

The Paris Climate Agreement was reached largely on the back of the 2014 China-US deal aimed at strengthening cooperation on emission reductions. In fact, the pledge laid the foundation for other countries to present their own reductions and was a key determinant for the political and diplomatic success of the conference in Paris. Unlike COP 15, which failed to deliver a new climate treaty, at COP 21 over 195 parties agreed upon a common goal and the attendance of more than 150 world leaders at the conference firmly established climate politics in the sphere of high politics.

The Paris Agreement establishes a long-term, multilateral framework under which countries, or "Parties to the Paris Agreement", commit to undertake domestic actions to address climate change. It provides a comprehensive and rules-based approach to climate action containing a number of elements that parties consider critical to addressing climate change, including technology, finance, transparency, capacity building, and mitigation, as well as adaptation measures. The deal requires any country that ratifies it to act to stem GHG emissions in the coming century, with the goal of peaking GHG emission as soon as possible and continuing

the reduction as the century progresses. Two critical components of the Paris Agreement are: (a) limiting the temperature increase to "well below" 2°C and pursuing "efforts" to limit such increase to 1.5°C, and (b) achieving a balance between "sources and removal by sinks" – or net-zero emissions – in the second half of this century.

That which is new and different in the Paris Agreement is that it allows the parties who have ratified it to define their own mitigation measures; it overcomes the strict binary differentiation of the Kyoto Protocol between developed and developing countries. Nevertheless, many developing countries and emerging economies, led by China, wanted to somehow preserve this dichotomy in order to grant different climate protection responsibilities to different countries according to their level of development. To this aim, the final formulation of Article 4 of the Paris Agreement preserves some degree of differentiation, stating:

> "*Developed country Parties should continue taking the lead by undertaking economy-wide absolute emission reduction targets. Developing country Parties should continue enhancing their mitigation efforts, and are encouraged to move over time towards economy-wide emission reduction or limitation targets in the light of different national circumstances*" (UNFCCC, 2015: art 4, para 4, p. 22).

This formulation was agreed upon in order to find a compromise between China's desire for differentiation and the United States' requests to overcome the strict, out-dated binary division between developed and developing countries which, ultimately, was one of the factors that determined the US's step back from the Kyoto Protocol.

One of the key components of the Paris Agreement is that it adopts a "bottom-up" framework, meaning that all parties independently determine how much they will reduce their greenhouse gas emissions. While these commitments are not legally binding, the Paris Agreement does impose a legal obligation on parties to report their commitments and steps taken towards implementation, and these reports are subject to monitoring and verification.

The national commitments of parties are currently expressed through 'Intended Nationally Determined Contributions' (INDCs), many of which were submitted to the UNFCCC prior to COP 21 and include national strategies and policies to assist their implementation. Specifically, 187 out of 195 parties submitted their INDCs before the Paris Conference, outlining the steps they would take to fight climate change, and this was considered – at the eve of the conference – a clear signal of support for this new approach.

With respect to the issue of "loss and damage" discussed in COP 19 in Warsaw, the Paris Agreement formally accepts, for the first time, that many developing countries and least developed countries will suffer "loss and damage" as a result of climate change even if the more stringent target of 1.5 degree Celsius will be met. In this regard, Article 8, states:

> "*Parties recognize the importance of averting, minimizing and addressing loss and damage associated with the adverse effects of climate change, including extreme weather events and slow onset events, and the role of sustainable development in reducing the risk of loss and damage*" (UNFCCC, 2015: art 8, para1, p. 26).

However, at the same time, the Paris decision clearly states that, "Article 8 of the Agreement does not involve or provide a basis for any liability or compensation" (UNFCCC, 2015: 8). Regarding the long debated issue of climate finance, the Paris Agreement stresses the need for the "Green Climate Fund to expedite support for the least developed countries and other developing countries" in formulating and implementing adaptation and mitigation measures (UNFCCC, 2015: 7).

The GCF is the main UNFCCC fund for investing in low-emissions and climate-resilient developments; it can award substantial sums of funding for clean energy technology projects with the aim of leveraging additional funds from the private sector. At COP 15 in 2009, developed country parties committed to mobilising US $100 billion a year by 2020 from both public and private sources to assist climate action in developing countries. The Paris Agreement reaffirms this funding commitment by developed countries, and continues to strongly encourage the mobilisation of this scale of climate finance until 2025, with a view to set a new and more progressive goal prior to 2025. Article 9 of the agreement states:

> "*Developed country Parties shall provide financial resources to assist developing country Parties with respect to both mitigation and adaptation in continuation of their existing obligations under the Convention and Other Parties are encouraged to provide or continue to provide such support voluntarily*" (UNFCCC 2015: art.9, para 1 & 2, p. 26)

Notwithstanding, the Paris Agreement does not provide "per se" new specific figures on climate finance. However, following the targets and commitments announced at the UN Climate Summit, climate action from investors, bankers, and insurers has increased significantly, highlighting the business opportunities represented by climate change for the

future of the financial sector. Financial institutions and private investors made significant commitments to upscale their investments in renewable and clean energy, green bonds, low-emission transport, and agriculture.

The Paris Agreement also recognised that capacity-building efforts should facilitate technology development, dissemination, and deployment. In this regard, recognising that technology transfer and development alone would be insufficient to give effect to the necessary structural changes to energy systems required by the low-carbon strategies of many countries, especially in developing countries, new initiatives to support the transition towards low carbon economy development were created. Among them, the "Mission Innovation", an initiative launched by 20 countries, including both the US and Saudi Arabia, which aims to reinvigorate and accelerate global clean energy innovation with the objective of making clean energy widely affordable, supporting clean energy innovation, and doubling investment in energy research and development from current levels of about $10 billion. These commitments recognise both the need to switch towards clean energy and, above all, the business opportunities that addressing climate change can offer.

Further to climate finance coming from bilateral and multilateral cooperation, the EU Member States have also pledged about half of the initial capitalisation of US $10 billion to the GCF. In the first days of the conference, the US government announced a contribution of $30 million to climate risk insurance schemes in the Pacific, Central America, and Africa, and a contribution of over $51 million to the Least Developed Countries Fund (LDCF), hosted by the Global Environment Facility (EC, 2015; Rowling, 2015). From its side, before the Paris Summit, the People's Republic of China announced the establishment of an RMB 20 billion ($3.1 billion) South-South Climate Cooperation Fund, to help developing countries to deal with climate change and to enable them to better access capital from the Green Climate Fund. China's South-South Climate Cooperation Fund will coordinate and cooperate with the Green Climate Fund and other institutions to improve developing countries' ability to cope with climate change (MoFa, 2015a).

China's Foreign Ministry praised the agreement, calling it 'comprehensive, balanced, and ambitious', emphasising the positive role undertaken by the Chinese delegation in bringing the Paris conference to a final deal and adding, "This gives full expression to China's sense of responsibility as a major country in tackling climate change" (Mofa, 2015b). Indeed, before the Paris Conference, China had signed a number of bilateral statements on climate change with India, Brazil, the European Union, the United States, and many others in an attempt to

pave the way for the global deal to be reached in Paris. In this regard, in presenting its INDC[93] Beijing demonstrated that tackling climate change is an intrinsic requirement of China's sustainable development strategy as well as the obligation of a responsible major country (NDRC, 2015).

While the Paris Agreement is mostly focused on the post-2020 period, its support of decision-implementation strengthens voluntary efforts to enhance climate actions in the pre-2020 period by encouraging developed countries to increase the provision of finance, technology, and capacity-building to developing countries. Therefore, the policies and actions all countries are currently taking to address climate change, as well as planned efforts up to the year 2020, will be crucial for the sustainability of the future climate regime.

7.3   China and International Climate Change Negotiations

China is a rising global power with a growing impact on international climate change negotiations, and its relevance in global efforts to reduce greenhouse gas emission is widely acknowledged. China plays a key role mainly for two reasons: first, it is the world's leading carbon polluter and the second largest (and rapidly growing) economy of the world. Second, its position within the G77 enhances its role in climate negotiations. Despite not having the problem of limited weight in acting alone, China has historically associated itself with the G77, using the group as protection against being singled out. As the largest developing country emitter within the Group, this has allowed China to take a leadership role in formulating the positions of the G77, while ensuring the political support of a large number of developing countries on its stances (Lewis, 2008).

Chinese climate policy is determined by both domestic and international considerations. Key domestic interests are linked to the country's economic development, ecological vulnerability, and energy issues. China's climate strategy is intimately linked to its energy development strategy and driven by the country's overall economic development goals of growth, poverty alleviation, and social stability. At international level, China's climate policy is framed in respect to the principles of sovereignty, equity, and enhancing its international image.

Since joining the United Nations in 1971, China has ratified more than 50 multilateral

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[93] China offered to reduce CO2 emissions per unit of GDP by 60-65% from 2005, to raise the share of non-fossil fuels in primary energy consumption to around 20% by 2030, and to achieve peak CO2 emissions around 2030.

environmental agreements and its climate change policy has been developed in parallel with the evolution of the United Nations Framework Convention on Climate Change, which was ratified by China in 1993. China has been participating in international climate negotiations from the beginning. It signed the Kyoto Protocol in 1998 and, since then, has, from one side, upheld the UNFCCC as the most authoritative, universal, and comprehensive international framework for coping with climate change (SCIO, 2008) and, from the other, has labelled the Kyoto Protocol as the basic framework and legal foundation of international cooperation for addressing climate change (SCIO, 2011).

In the earlier stages, the Chinese government interpreted climate change policy as a highly scientific issue to be managed by environmental agencies and institutions. This approach has changed in the last two decades, mainly due to the ecological vulnerability of the country, the economic ramifications of environmental policy, and the increasing sense of responsibility to fully engage in global environmental governance due to its increasing role as leading developing nation within the global South. However, while framing climate change as a global challenge that can be addressed by extensive international cooperation between the developed and developing world (SCIO, 2008), China has always opposed any discussion about binding emissions levels for emerging economies and developing countries in respect of the principle of CBDR. Being a fast-growing developing country, China's international negotiation stances has been focusing on opposing any binding emissions reduction which could harm the country's social and economic development as well as its modernisation. In China, almost 70% of the electricity generated goes to industrial production and any reduction in emissions would have a direct impact on economic growth and poverty eradication.

In July 1990 at its 18th meeting, the Environmental Protection Commission (EPC) of China's State Council issued a proclamation entitled "China's Principles and Positions on Global Environmental Problems". The declaration highlights several principles: the responsibility of developed countries for global environmental deterioration, the harmony of both environmental protection and economic development, the recognition of developing countries' right to develop, the sovereign equality of all states, and the need for new and additional funds for developing countries. These principles formed the basis for China's stance throughout the international negotiations (Jeon & Yoon, 2006: 850-1)

Up until the mid-1990s, China consistently opposed any environmental diplomatic initiatives that threatened its economic development and interfered with its domestic affairs. At the 1992 United Nations Conference on Environment and Development (UNCED), China chaired a session of 41 developing countries, acknowledging the need for international cooperation to

promote environmental protection and sustainable development, but demanding, at the same time, financial assistance, respect to the right to development, and no interference in the internal affairs of developing countries (Ross, 1998).

In 1998, Benjamin Gilman, Chairman of the US House of Representatives' Committee on International Relations, characterised China's position on climate change at the 1997 Kyoto conference (COP 3) as a "policy of the Three Nos: no obligations on China, no voluntary commitments by China, and no future negotiations to bind China" (USHC on IR, 1998). However, over the last two decades, while China's commitments and participation in global environmental agreements increased, the government's position towards ICCN has progressively changed. Although resistance to mandatory targets remain unchanged, China started to apply an increasingly flexible and cooperative attitude towards ICCN since COP 3. This change was primarily due to the consideration that emission reductions would not only affected the global environment, but would also impact the country's economic development. Therefore, rather than solely an environmental issue, climate change started to be considered a core energy issue as well.

At the fifth Conference of the Parties (COP 5) held in Bonn in 1999, the head of the Chinese delegation emphasised that, although China would move on with its national strategy aimed at limiting the growth of greenhouse gas emissions in line with its own sustainable development strategy, and would continue actively promoting and participating in international climate cooperation, it would be impossible for the Chinese government to undertake any obligation of greenhouse gas emission reduction before China attains the level of a medium-developed country (Zhang, 2003). In his official speech at the Copenhagen Climate Change Summit, Premier Wen stated that:

> "*The Chinese government has set the target for mitigating greenhouse gas emissions. This is a voluntary action China has taken in light of its national circumstances. We have not attached any condition to the target, nor have we linked it to the target of any other country. We will honor our word with real action. Whatever outcome this conference may produce, we will be fully committed to achieving and even exceeding the target*" (MoFA, 2009).

Furthermore, in the aftermath of the failure of the Copenhagen Conference, in January 2010, China notified the UN of its nationally appropriate mitigation actions to be undertaken under the Copenhagen Accord. While stressing that the actions were autonomous and domestic, Chinese authorities stated that China would endeavour to lower CO_2 emissions per GDP unit

by 40-45% by 2020 on a 2005 baseline, together with other actions (Minas, 2010; Kopra, 2012).

These remarks reflected the growing involvement of Chinese authorities in ICCN, and when China hosted, for the first time, the UNFCCC talks in Tianjing in October 2010 for the final meeting before the Cancun Conference the Chinese commitment to the ongoing international negotiation process was once again demonstrated. The choice of venue seemed designed to showcase China's commitment to addressing global warming: Tianjin is, in fact, the site of both a carbon exchange and an eco-city that China has been developing together with Singapore and with significant private sector investments.

In this research, I argue that the evolution of Beijing's position in the framework of ICCN could be ascribed to the threefold identity shift China has experienced since the early 2000s. The three elements of China's identity shift are strictly interconnected and, combined with each other, have determined the Chinese shift towards a more active role in global environmental governance. The first element of this identity shift is related to the ambition of the Chinese government to enhance its national image, playing the role of responsible developing country stakeholder in the ICCN, and maximising at the same time its role as a leading fast-growing developing nation within the global South. The second element arises from the acknowledgment of the country's vulnerability to climate change and the growing understanding that climate change will bear significant political, economic, and social costs for China. In 2006, the Ministry for Environmental Protection stated that the cost of environmental degradation in 2004 was more than $62 billion, or 3.05% of GDP. In 2010 the cost of environmental degradation was about $230 billion, or 3.5% of the nation's GDP, more than three times that in 2004. According to some foreign scholars that have criticised the methods by which Chinese researchers have reached those numbers, suggesting that some crucial measures of environmental degradation were not included in the calculations, the figure could be even worse (Li & Graeme, 2010). Finally, the third element of this identity shift is related to China's increasing concerns over its energy security. Beijing's rapid development is driving increasing energy consumption in all economic sectors. Energy is therefore the key to China's economic development and is one of the main reasons for China's unwillingness to take on binding emission reduction targets; because an increase in emissions will be necessary to allow Chinese economy and industry to be developed further.

From the Chinese perspective, one of the key challenges in the framework of ICCN remains the question of how the mitigation burden will be translated into a new climate regime. In a world of unequal states that have different historical responsibilities for causing climate

change, and different capacities to respond to climate change, equity should be one of the basic principles of the climate regime (Winkler et al., 2011). From an historical perspective, the principle of equity has had the greater influence over the Chinese government's attitude toward ICCN. The key global climate policy (or equity) issue is that without developed countries sharply reducing their emissions, other countries will not receive their fair share of the carbon budget for sustainable development and the eradication of poverty. In this regard, developing countries advocated per capita emission rights, which significantly challenges the Northern way of living, requiring a long-term structural change. In fact, this change has been always excluded from the negotiation table by developed countries as of the first Rio Earth Summit in 1992, and was clearly synthesised by President George Bush Sr. at the Earth Summit: "The American way of life is not up for negotiation. Period".

For this reason, Chinese climate change negotiators have repeatedly drawn attention to the "survival emissions" of developing countries and the "luxury emissions" of developed countries, stressing the need for developed countries to change their own patterns of production and consumption, rather than transferring their responsibility to developing countries. Burden-sharing has been always a central issue in climate negotiations, and it is very likely that any future climate policy that could be perceived as obstructing economic progress will fail, especially in large developing countries and emerging economies that are counting on rapid economic growth to lift their citizens out of poverty.

The histories and trends of the development of different countries has shown that to approach the development level of industrialised countries necessarily means higher per capita energy consumption. To date, there is no historic precedent for achieving high per capita GDP with low per capita energy consumption (Zhang, 2013). Lack of electricity impacts public health and slows down economic growth, and energy and ecological services are directly related to human well-being. The development of infrastructure, urbanisation, manufacturing, and food production are essential for economic growth, and for the alleviation of poverty, and all of them need "carbon space". Estimates suggest that currently worldwide 1.6 billion people lack virtually any access to electricity, which has a direct impact on public health and economic growth. The backward energy development and utilisation technology has been (and partially still is) one of the main reasons for the low energy efficiency and high intensity of greenhouse gas emissions in China and, notwithstanding the impressive progresses made by government policies, outdated technology still occupies a relevant share in China's basic industries.

Energy is a common denominator in the climate change discussion for China: it is the basis for economic development but, at the same time, energy use is also the main cause of rising

emission and domestic pollution. In this framework, to control greenhouse gas emissions and reduce energy intensity is not only considered to be relevant to fight climate change, but also an important tool to achieve energy security. As a consequence, China and other emerging economies, such as India and Brazil, have begun to implement policies aimed at decoupling economic development from carbon emissions and, in particular, the Chinese government has started to consider air pollution and climate change as a single challenge. China is playing a key role in decoupling energy consumption from the carbon emissions because in China climate change is becoming a driving force to address both energy security and air quality restoration, as previously mentioned in Chapter I. As with its overall economy, the Chinese clean energy sector is reorienting from an emphasis on exports toward greater domestic consumption. This shift is evident in record-setting deployments of wind and small hydro capacity in recent years and especially by China's dramatic growth in solar power capacity: solar deployment increased almost fourfold in 2013 (PEW, 2014: 13). According to Phyllis Cuttino, Director of Pew's Clean Energy Program, no other clean energy market in the world is operating at that scale. The Pew report says China's efforts to slash poverty, expand economic development, and solve its air pollution problems have driven the country to invest heavily in clean energy (Magill, 2014).

China's domestic energy policies are driving it towards the reduction of the carbon footprint of its economy in the internal market, combining energy security and air pollution prevention. At a global level, China's carbon footprint should be considered according to two main indicators: the per capita emissions and the spatial perspective. With regards to the former, China, which is the bigger emitter in absolute terms, had much smaller per capita emissions than the US: 7.1 tons versus 16.4 tons (Roberts, 2013). Regarding the spatial perspective of China's carbon foot print, estimates attributed more than 30% of China's emissions to goods it manufactured for export (Peters et al, 2012). In 2012, the UK's Energy and Climate Change Committee stated that:

> *"Successive governments have claimed to be cutting climate change emissions, but in fact a lot of pollution has simply been outsourced. We get through more consumer goods than ever before in the UK and this is pushing up emissions in manufacturing countries like China"*[94].

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[94] The Energy and Climate Change Committee, Report on *Consumption-Based Emissions Reporting*, (HC 1653), 2012.

Despite the economic growth, and although China is the world's second largest economy, the country is still a developing one, as well, as illustrated in Figure 7.1 below by the *per capita footprint*. The spatial perspective of China's carbon footprint is a key driver of one of the most controversial issues in climate negotiations: who should carry the cost of decarbonising Chinese industry? Should the developed economies, which have outsourced their own manufacturing and associated emissions play a part in reducing China's emissions?

Fig. 7.1: World per Capita Carbon footprint
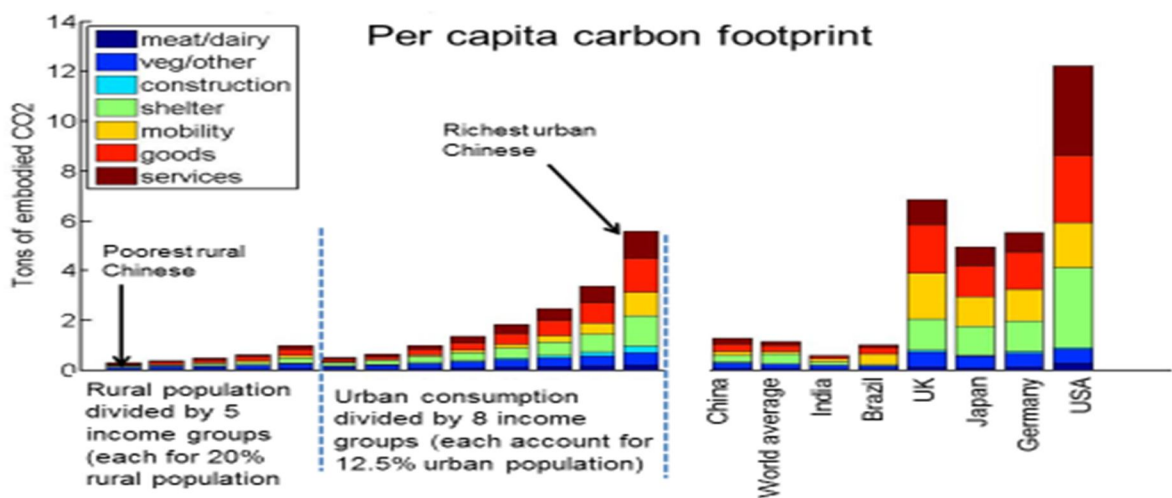
Source: Zhu Liu – Harvard Kennedy School, 2013

The private sector is taking the responsibility to promote low carbon development in China; following the principles of Corporate Social Responsibility, and according to the Chinese programs and rules, many global corporations are placing China at the centre of research and development on sustainable production and consumption patterns of the whole supply chain. Businesses such as Walmart and Microsoft have already acknowledged that, having driven the expansion of China's manufacturing sector, the developed world can now support the country to decarbonise, delivering global benefits that outweigh concerns over competition. The West's support for China's low-carbon energy development will have a global benefit: it is a combination that has the potential to deliver a significant change in global emission reductions, as emissions from anywhere in the world affect climate globally – meaning the benefits of the West helping China to decarbonise are greater than the sum of its parts. China strongly believes that the development and the dissemination of clean energy should be

supported by financial resources, as well as by financial and trade mechanisms in all the markets, starting with the developing world. Particularly, the spatial perspective of China's carbon footprint suggests that China could share global targets and commitments on emissions reduction in exchange for the financial and technological support for both Chinese and the developing economies' decarbonisation.

In this context, equity is a crucial issue to be considered for the implementation of the new climate regime as well as a critical point for developing countries and emerging economies' sustainable development. China is highly investing in decarbonising its economy, and this is the strongest driver for the decarbonisation of the world economy, considering the key role China plays both in the global economy and in the global race to reduce emissions. Without China, it is not possible to reduce the global emissions.

Yet, China cannot address this immense challenge on its own. Following the path of global corporations, developed countries should share the efforts of China's low-carbon development in the framework of common rules to optimise intellectual property and fair competition in order to strengthen innovation in the Chinese industry with mutual global benefits. However, governments of developed countries and the international financial institutions seem unready to support the decarbonisation of the Chinese economy, because of the risk of China's increasing competitiveness on the world market.

For this reason, China has, on the one hand, been pushing for the linkage of the Paris Agreement with policies to support the development and the dissemination of clean energy technologies as the only gateway for building an effective agreement for the reduction of global emissions, and, on the other hand, has simultaneously opposed binding emissions reduction targets because they could severely hamper its development perspectives with serious consequences for its political stability.

7.4 International Relations and Global Climate Change: the Role of Climate Policy as a "Game-Changer" in International Relations

The geopolitical context in which the international climate change negotiations for the adoption of the Paris Agreement has taken place is significantly different compared to 20 years ago, and the evolution of ICCN has been highly influenced by the changing global economic and political order.

India, China, and Brazil have risen as new powers and have gained political, economic, and financial influence and confidence vis-à-vis the old powers of Europe and the United States. As illustrated in Table 7.1 below, the BASIC countries have more than doubled their economic weight in the international system over the last 20 years, with a consequent increase in their political and negotiating power.

The BASIC countries' emergence has affected the equilibrium of the climate regime and destabilised the compromise achieved in Rio in 1992 on sustainable development. The "Rio compromise" between environment and development, embodied in the Kyoto Protocol in 1997, transposed the relation between environment and development to a system of rights and obligations. A compromise can be defined as "an agreement implying mutual concessions" with a view to reach a common solution that the parties must jointly implement (Van Parijs, 2012). However, when the positions of the negotiating parties change, the basis of the compromise no longer holds, and this is exactly what has happened to the climate regime. After 20 years of ICCN, the political and economic context in which negotiations take place has changed dramatically, as well as the power, preferences, and stances of the negotiating parties.

Table 7.1: The weight of BASIC in 1990 and 2012. Share of global GDP (in PPP: 2005) as % of global total

	1990	**2012***
Brazil	3	2.9
China	3.5	14.8
India	3	6
South Africa	0.8	0.8
BASIC	**10.3**	**24.5**
USA	*21.4*	*19*
European Union (27)	*18.4*	*19.4*
Japan	*8.9*	*5.5*

*CHELEM-CEPII estimations

Source: CEPII, 2011

Traditionally, countries have been divided into two categories: developing countries were grouped together under "Annex I" and developed countries, judged responsible for climate

change to a greater extent, were grouped under "Annex II". Today, the previously clear demarcation between Northern and Southern countries used in past climate negotiations is becoming blurred and the economic divides between developing countries are widening, making the negotiating interests of emerging economies closer to that of the G7, rather than that of the G77.

Emerging economies are fast-developing countries, and, while they have begun to decouple economic development from carbon emissions, their emissions continue to increase rapidly. The relative share of the emissions of the developing world is continuously increasing, and their absolute emissions will soon overtake those of the developed world. The increased relevance of developing country economies as global polluters goes hand in hand with a shift in the global balance of power – economic, military, and political – away from the West, towards the emerging economies of the developing world.

Over the last ten years, China and India have become the world's second and third largest economies, Brazil has risen to seventh, Mexico to tenth (WB, 2015a). This increase in economic influence has been accompanied by growing political assertiveness. India and China have discarded the low profile they kept in international climate negotiations in the 1990s and are now even more willing to actively defend their interests, make their voice heard, and veto decisions that are in contrast with their national interests (Streck & Terhalle, 2013). At the same time, linking the domestic and international agenda on climate change progressively, the approach adopted by China in ICCN is that one of proposing targets backed up by coherent policy framework to be implemented at national level.

China's rapid development in both investment and the production of renewable energy has received increasing international attention and China is now the world's leading investor in renewable energy. Certain business sectors regard low-carbon and clean technology as a field in which China has opportunities for comparative advantage, and Chinese companies have already reached leading positions in manufacturing a number of low-carbon technologies. Clean technologies is a domain in which China wants to reach a world leadership position, and China has considerable potential to be inspired by, and in turn to drive, a global transition to a low carbon future (Hallding et al., 2009: 51-52).

In recent years, Chinese leaders have implemented a number of impressive reforms, which include aggressive efforts to transform the country into a leading centre of innovation and a low carbon economy. Beijing is supporting research and development, recruiting Chinese born and foreign trained scientists to return to China to head labs and manage research centers, and is analysing models of innovation that have become successful in the West.

Beijing has invested hundreds of billions of dollars in the clean-energy sector and is providing subsidies to domestic manufacturers to encourage and support the development of the clean-energy industry (Sanwal, 2013; Economy, 2010). These efforts, aimed at making a shift towards a more sustainable energy base, started to delivered promising results in 2012, and China announced significant further steps in early 2013.

According to the International Energy Agency's (IEA) 2014 *Technology Roadmap – Solar Photovoltaic Energy Report*, the largest growth in solar PV power will come from China. As shown in Fig. 7.2 below, at its peak China will contribute about 40% of electricity generation from solar PV in the world in 2030. China is expected to overtake Europe as the largest producer of PV electricity soon after 2020, with its share regularly increasing from 18% of global generation in 2015 to 40% by 2030, then slowly declining to 35% by 2050. From 2030 to 2050, the share of India and other Asian countries is expected to rise from 13% to 25%. By contrast, the United States' share is expected to remain at about 15% from 2020 on, and Europe's share to decrease constantly from 44% in 2015 to 4% in 2045 (IEA, 2014: 21).

These forecasts will probably be revised, considering the progresses that can happen in the technology field over the next 40 years, but they are a reliable indicator of the future trend.

Fig. 7.2: Forecast regional production of solar PV electricity
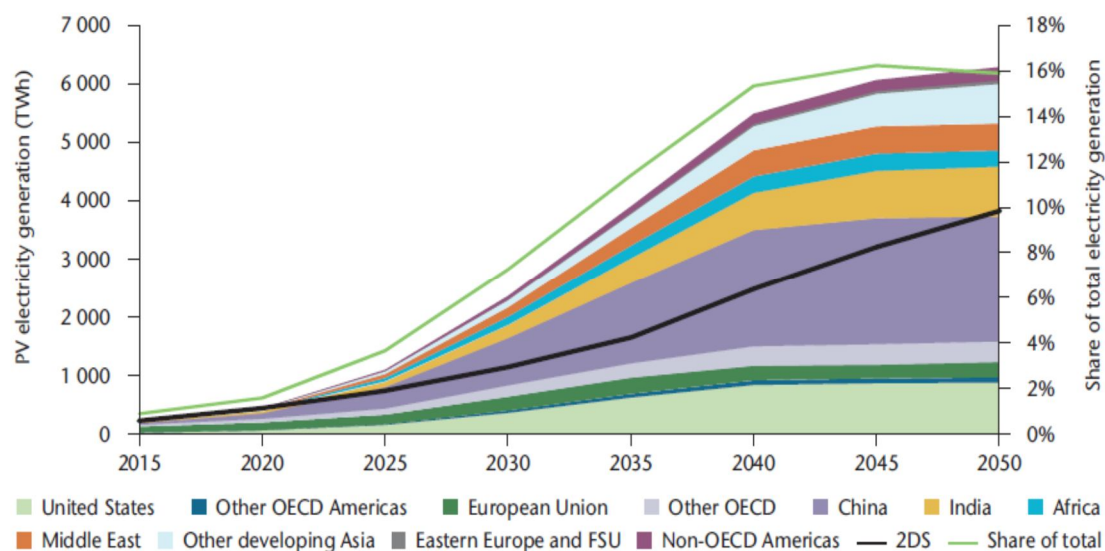
Source: IEA, 2014

This data suggests that in the near future China will help change the world. However, that future has already started because in 2013 China was already the largest single market for solar PV installations in the world, accounting for 30% of net installations (new installations

less facilities retired from service).

Given that the 13th Chinese Five Year Plan further strengthens the path towards green growth, it seems likely that China's shift towards low-carbon development – and a more positive stance in climate negotiations – is intended to be both structural and long term. Beijing invested more than $103 billion in renewable energy in 2015, almost $88 billion in 2016 (one-third more than the US), and plans to invest $361 billion in clean energy by 2020, pursuing its goal to become a "clean energy super power".

The "One Belt, One Road" initiative launched by President Xi Jinping in 2014 is further driving the increasingly outward-looking nature of Chinese infrastructure companies. Under this initiative, smaller and developing Asian countries, like Myanmar, Laos, or Cambodia, are seeing accelerated economic growth driven by Chinese investment, which in turn is developing new markets for Chinese exports (Roman, 2016). As a consequence, any reduced US commitment to Asia could allow China's share of development to expand more.

For the time being, Latin America is currently one of the most attractive regions in the world for renewable energy development, and Chinese companies are already highly active in renewables investment in Mexico, Brazil, Argentina, and other countries in the region. Chinese investment in Latin America has reached US $237 billion yearly, compared with the US's investment of US $268 billion. However, with an agreement in place to increase Chinese investment in the region to US $500 billion, and the concrete possibility of the US leaving the Trans Pacific Partnership (which includes Mexico, Peru, and Chile), China seems better positioned to capitalise on the renewables boom taking place across South and Central America (MoFA, 2015).

Only a few years ago China accounted for a negligible share of installations. In 2009, China's share of new solar PV installations was only 2%. The key driver of this change has been the relevant and growing support of the Chinese government for the solar PV generation sector, in contrast, for example, to what has happened in the European Union. In early 2010, the EU was estimated to account for about 80% of global installations, but it has now become a minor market. In 2013, the three leading markets were China, the US, and Japan, which together accounted for 61% of installations. In 2009, Germany installed over 50% of the solar PV added in the world, but in 2013 it accounted for only 9% (Freeman, 2014). One of the main reasons for this has been a sharp reduction in support for the sector across Europe, especially in the eurozone, due to the persistent effect of the economic crisis.

Today, countries such as Brazil, Russia, India, China, and South Africa (BRICS) play a major role on the global stage. A second group of emerging countries, such as Indonesia, Mexico,

Nigeria, and Turkey, are rapidly gaining importance as economic and political players, especially in their respective regions. The rise of these countries shapes the nature of global development challenges and the instruments used to address them. Issues of environmental sustainability and social inequality have become even more pressing today than at the end of the 1990s, and the role of development assistance as an instrument to engage with emerging economies is in a fundamental transition period. The future negotiations for the implementation of the Paris Agreement holds the potential to generate momentum for a "new bargain" among developing countries, emerging economies, and industrialised countries.

The climate treaty negotiated at the first Rio Earth Summit in 1992 was an attempt to bring together environment and development to reconcile a growing global economy within a finite global ecosystem. However, competing interests within 20 years of ICCN has not been able to resolve how to manage the rising living standards of all those who have so far been excluded from the benefits of globalisation, and developed countries have slowly moved towards a policy of burden shifting rather than burden sharing. Moreover, responding to the scientific evidence of climate change, political concerns, and geopolitical shifts in a multi-polar world, developed countries recognise climate change and sustainable development as "mutually reinforcing", while also qualifying climate change as a security treat.

The construction of an international climate regime after 2020 is of great significance for planning the global governance of greenhouse gases, and it is also the necessary institutional arrangement for global environmental security. A redefinition of national security is being pushed by raising the question, among others, of whether traditional roles of national states and international agreements will prove to be adequate to achieve human security. However, the essential question in considering climate change as a geopolitical threat is the nature of the threat – environmental or developmental – and whether the correlated risks are addressed better by promoting cooperation or by preventing conflict. The choice to be made is between implementing new rules for intervention to meet environmental risks, advocating the RTP, or new rules for societal and technological transformations, following the approach that China has been pushing forward in recent years.

In this context, the policy issue for China, India, and other emerging economies is whether to continue with the principle of common but differentiated responsibilities agreed in 1992, or acknowledge the significance of the different concerns coming together around human well-being and take a more forward looking approach to sustainable development as a tool to achieve human security.

By shifting the global agenda from environmental risk as the principal concern to seeking

human wellbeing within ecological limits, emerging economies can shape new global goals to focus on the implementation of sustainable development. Poverty reduction in recent decades has been significantly achieved by the rapid growth in China, which alone accounts for three quarters of the global reduction. A review of past trends suggests that two-thirds of poverty reduction depends on growth, and one-third on equality. In this regard, the key global concern should be modifying longer-term trends in production and consumption patterns to determine how standards of living can be raised within ecological limits. As developing countries shift to urbanisation and manufacturing to provide employment and services, limiting the use of natural resources while still achieving high standards of living will require a review of existing global rules and the definition of new rules. The Paris Agreement is a good starting point. In his keynote speech at the United Nations Office in in early January 2017, President Xi labelled The Paris Agreement a milestone in the history of climate governance, and stated "We must ensure this endeavour is not derailed. All parties should work together to implement the Paris Agreement. China will continue to take steps to tackle climate change and fully honour its obligations"[95].

The design of the post-2020 international climate agenda now takes into consideration that keeping global emissions within agreed limits has very different implications for fast growing economies and in areas where growth has stabilised. Economic analyses suggest that the most rapid growth of the middle class will occur in Asia, particularly in China and India. During the next four decades, new and expanded middle classes in the developing world could create as many as four billion additional consumers and the volume of related infrastructures will be huge. China and India are still building their infrastructure and their energy use per capita is predicted to increase at a similar rate to that one of the industrialised countries in the period 1970-2011, and despite energy intensity of GDP in 2030 being less than half of the level in 1970, incomes and population are expected to drive a 40% increase in global primary energy use (Sanwal, 2013). Therefore, the transition towards a low carbon economy is the only possible way to (try to) achieve the targets foreseen in the Paris Agreement.

How to build a green economy to achieve sustainable development and lift people out of poverty and how to improve international coordination for sustainable development were the two key themes of the UN Conference for Sustainable Development (Rio+20) held in Rio de Janeiro in June 2012, aimed at further eliminating poverty, changing unsustainable production

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[95] Speech by H.E. Xi Jinping, President of the People's Republic of China At the United Nations Office at Geneva, 18th January 2017 - http://news.xinhuanet.com/english/2017-01/19/c_135994707.htm?from=singlemessage [Accessed 1 April 2017].

and consumption patterns, and protecting and managing natural resources.

Given the complexity and uncertainty surrounding the environmental, social, and economic processes upon which pathways to sustainable development depend, the guiding principle for the new international climate regime should be to update the principle of common but differentiated responsibilities to instead emphasise "sharing responsibility and prosperity". International cooperation will then be seen in terms of sharing technological development and exchanging experiences on societal transformations that will lead to emissions reduction, and not the other way around (Sanwal, 2013).

7.5   Conclusion

International Climate Change Negotiations started in the early 1990s, based on the outcomes of the White House Conference on Climate Change, the first report of the IPCC, and the Second World Climate Conference in Geneva. The UN Convention on Climate Change was signed at the Rio de Janeiro world summit on Environment and Development in 1992. In 1997 the Conference of the Parties of the Convention approved the Kyoto Protocol and the emissions reduction commitments of industrialised countries based on the principle of common but differentiated responsibilities.

Nevertheless, in 2000, at the end of the Aja Conference of the Parties, the conflict between the EU and the US on the application of the principle of common but differentiated responsibilities "killed" the Kyoto Protocol, and the failure of the Copenhagen Conference in 2009 disclosed the real nature of international climate change negotiations, which is primarily the negotiation of different and competing economic interests, as well as domestic political priorities, between the several stakeholders involved in the process.

China's framework policies on climate change reflected, similarly to the United States, its domestic circumstances and socially-embedded conception of its national interest. Simplistic accounts blamed China for being selfish, whereas more complex analyses pointed out that the interests of major players were fundamentally too far apart to be reconciled (Dimitrov, 2010). From one side, the US were not keen to undertake any emission reductions burden without a clear parallel engagement from China and other emerging economies, while, from the other side, China and other emerging economies claimed more emissions allocations to support their economic growth and were united in opposing any emissions reduction not complied

with the principle of equity.

The rise of China and other emerging economies has changed the balance of power between the global South and the global North, as well as the negotiating roles of individual actors in the two blocs. The evolving geopolitical context has been reflected in the framework of International Climate Change Negotiations. Thereby, emerging economies have exercised their newly achieved economic role in world affairs to safeguard their national priorities and interests, as well as to reinforce their transforming identities.

The Paris Agreement has followed from apparently cooperative behaviour of the US and China. They played a key role in facilitating the negotiations on the basis of the deal agreed a few weeks before the COP 20 in Lima. The new agreement seems to mark the opening of a new era in global climate action based on the Chinese perspective that climate change cannot be tackled as an independent variable. Instead, according to Beijing, it has to be viewed as intrinsically linked to one's economic growth, domesticaly mediated welfare needs, and social development, with the implementation of target policies and greater investments in R&D and innovation.

Chapter VIII: China's Rise in Global Environmental Governance

"There is detectable a causal relationship between the shifts which have occurred over time in the general economic and productive balances and the position occupied by individual powers in the international system...economic shifts heralded the rise of new Great Powers which would one day have a decisive impact upon the military/territorial order. This is why the move in global productive balances toward the "Pacific rim" which has taken place over the past few decades cannot be of interest merely to economists alone".

Paul Kennedy, The Rise and Fall of Great Powers, 1988

Twenty years after the end of the cold war and the demise of the bipolar world, a lack of consensus remains on the status of the distribution and exercise of power in today's world. The term *global power* is a more contemporary term for *great power*, which refers to the ranking of states, primarily in terms of their military and economic capabilities, and is a better fit for 21st century conditions than *superpower,* a term first coined in 1944 by William Fox in his book *The Superpowers: The United States, Britain and the Soviet Union – Their Responsibility for Peace* (Fox, 1944). During the Cold War, the use of the term "superpower" denoted the emergence of a new class of power that was clearly superior in military and economic terms to the traditional European great powers of the 19th century, distinguished by the possession of the nuclear power of ultimate destruction. The processes of globalisation, which has been said characterises the present world politics, has brought about a further change in the ranking of international power, so that a great power now needs more than nuclear capabilities: beyond being merely great, or super, it now needs to operate on a global level (Dellios, 2005).

That which is clear, however, is the rise of new powers seeking a global political role comparable with their increased economic impact on world economy. In this new framework, rising powers are changing the dynamics of power in the international system by seeking a greater voice in international institutions as they try to achieve a global political role commensurate with their growing economic capabilities and clout (Tank, 2012). In this context, China and other emerging economies, such as India and Brazil, are clearly set to play a much more relevant role in the next decade, and there have been several different predictions about their impact on international politics.

The rapid rise of China has made its relationship with the world increasingly interactive; any action undertaken by China would be relevant for the rest of the world. Some forecasts suggest that, as China represents the developing countries, and the United States the developed ones, China and the US should co-lead the world under some sort of G2 arrangement. David Shambaugh, Professor of International Affairs and Director of the China Policy Program at George Washington University, notes that the relationship between the United States and the PRC has rightly been described by officials on both sides as the most important, as well as complex, bilateral relationship in the world (Shambaugh, 2013). This complexity is often undervalued in the media as experts seek to portray the relationship in the simple arithmetic of China's rise and America's decline (Levine, 2014). China-US relations are among the most important bilateral ties in the international community, as demonstrated by the climate deal reached in November 2014 during the APEC Summit, just before the COP 20 in Lima, and calling on the United States and China to cooperate has an undeniable logic. However, while both Washington and Beijing are destined to fail if they confront the world's problems by themselves, the narrative of a G2 is not consistent with the Chinese foreign policy of a multipolar world, presented by Jiang Zemin in 1992 at the 14th Congress of the Communist Party (Turner, 2009). Encouraging multipolarity is a means by which China believes it can advance its quest for great power status (Tien & Zhu: 175) and leading development nation within the global South.

It has been more than 15 years since China's accession to WTO and China's rapid economic growth has been parallel with its engagement in the globalisation process. In the past thirty years, China has moved from the periphery to the centre of the international system, transforming itself from an impoverished country, where peasants comprised the largest portion of the population, to an "economic powerhouse" with an expanding middle class and more megacities than any other country in the world. This remarkable transformation has required, and will continue to demand, massive quantities of resources. Today, given its resource endowments, the size of its economy, and its status as world's manufacturing plant, China is increasingly dependent on foreign resources to feed its greedy industries. With the increasing demand for foreign resources and the growth of overseas investment, a key question is whether China's quest for natural resources – pursued through a mix of trade, investment, and military means – is changing the world, be it for good or ill, or if this quest is, in fact, changing China, bringing it into the fold of existing international rules, practices, and institutions (Economy & Levi, p: 7).

As discussed in Chapter II, in International Relations, competing theoretical perspectives offer different answers to this question. In this Chapter, I argue that China's participation in the Western-led global governance system is based in its identity-driven calculus of national interest. Thereby, while this participation has informed China's experience with the United States and the European Union and has further shaped mutual expectations, it did not "Westernise" the country in a top-down manner. Therefore, while continuing to work within the present global system, China has already pursued the same approach the US has long taken (and may proceed to do so): picking and choosing among multilateral treaties, institutions, and initiatives and occasionally acting alone or opting out to preserve its sovereignty or freedom of action (Patrick, 2010). Pursuing this strategy, China is slowly working on a parallel structure of global governance, expanding its regional political and cultural influence enabled by the South-South cooperation and the projection of a Chinese brand of soft power that engages countries who do not feel represented by today's global governance system, or those who seek to increase autonomy from the US.

In this complex international reality, fixed alliances and old Western-led international structures may count less than shifting coalitions of interest, shared developing world and postcolonial identities, and new regional networks. Chinese climate change policy and negotiation strategy at an international level reflect this trend.

8.1 The Challenge of China's Rise

In 1803, Napoleon allegedly said: "China is a sleeping lion. Let her sleep, for when she wakes she will shake the world" (Ng & Chen, 2014).

In the post-Cold War era, especially in the beginning of the 21st century, the "rise of China" has become a recurrent topic between scholars, pundits, and policy makers in the West, and much has been written on what this "rise" implies for the rest of East Asia, the United States, and the world as a whole (Zhang, 2011: 235-6). China's economic rise has been largely viewed with uncertainty and anxiety in the Western world. Its rapid economic growth, military modernisation, and increasing appetite for energy has prompted many in the United States and Europe to talk about a "China Threat"[96]. Over the past decades, there has been an intensive debate in Europe, North America, and Japan over whether a rising China should be

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[96] See: among others: Kristof, 1993; Roy, 1994; Roy, 1996; Segal, 1996.

considered an opportunity or a threat; a conservative status quo power to be engaged with or a rising revisionist state to be contained (Shambaugh, 1996). The People's Republic of China has the largest population in the world, the fastest growing economy, the largest army, the largest middle class, a permanent seat on the United Nations Security Council, a manned space programme, a nuclear arsenal, and so on (Callahan, 2005). However, for policy analysts, economists, policy makers, historians, and scholars it is still difficult to understand and define the impact of a rising China on global governance.

In recent years, within the growing international debate on environmental security, scholars, pundits, and politicians raised warnings on potential resource wars due to the unprecedented Chinese demand to fuel its impressive economic growth. In this framework, the securitisation of environmental issues with the development of the climate security paradigm has been read by some researchers[97] as a tool to slow down or, at least, to interfere with China's impressive economic growth. In this regard, there is now overwhelming evidence that human-induced climate change is altering the natural world and, at the same time, shifting the dynamics of international politics (Habib, 2011; Roberts, 2011).

Materialist accounts of China's actions abroad assert that its behaviour is primarily propelled by its need to secure energy, metals, and strategic minerals in order to fuel its economic growth and to support the rising living standards of its immense population, which amounts to about one-fifth of the world's total (Kaplan, 2010). In these accounts, natural resources are portrayed as a historical flashpoint between emerging and established powers. England and Spain are said to have built and maintained colonies partially to satisfy their resource demand and after World War II (WWII), the United States of America extended its influence over distant resource-producing lands and spent relevant resources to protect seaborne commerce, in part to assure itself of reliable access to the resources lacking at home (Economy & Levi, 2014: 2). In the 1950s and 1960s, as Japan emerged from WWII, the country consistently achieved growth rates similar to those seen more recently in China (Gordon, 2003: 245-6) and this was seen as an economic threat by American manufacturers, who experienced great anxiety over the popularity of Japanese cars and electronics.

Therefore, as China's political and economic relevance continues to rise in world affairs, it will become increasingly important for political analysts to evaluate China's international relations discourse in order to fully understand China's intentions.

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[97] See: Gupta & Dutta, 2009; Hartmann, 2010; Boas, 2012; Mayer et al. 2013.

From Bush administration-era exhortations that Beijing act as a "responsible stakeholder", to Obama administration hopes that China would become a "partner in underwriting the international order", American leaders have consistently called on China to join the prevailing global system. In essence, according to David Shambaugh, the Western strategy towards China from the 1970s through to the 1990s was premised on integrating China into the existing international institutional system, so as to both strengthen the system by giving China a deserved "place at the table" but also to "socialise" China into the prevailing rules and norms of the system (Shambaugh, 2013: 130), inviting the country to join global governance institutions and play the role of a responsible stakeholder.

From the early 1970s, over the course of the last four decades, China slowly entered the global institutional order. According to Shambaugh, this process passed through four broad phases of *system challenger, system studying, system exploitation, and system altering* (Shambaugh, 2013: p 132-136).

During the first three phases, the guiding principles for Beijing's participation in global governance institutions were dictated by Deng Xiaoping's doctrine:

> "*At present, we are still a relatively poor nation. It is impossible for us to undertake many international proletarian obligations, so our contributions remain small. However, once we have accomplished the four modernizations[98] and the national economy has expanded, our contributions to mankind, and especially to the Third World, will be greater. As a socialist country, China shall always belong to the Third World and shall never seek hegemony*" (Deng, 1978).

Therefore, the two main guidelines were: (1) any international obligations were dependent on Chinese economic development; and (2) notwithstanding the level of its economic development, Beijing should always present itself and, consequently, be considered in any international forums, as a country belonging to the Third World. Thus, modernisation was highlighted as the essential condition for solving China's domestic problems as well as the cornerstone for achieving international status, since the role China plays in international affairs would depend on the extent of its economic growth.

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[98] The *Four Modernizations* were the essential economic and development goals first set forth by Zhou Enlai in 1963, and enacted by Deng Xiaoping in 1978, to strengthen the target areas of Chinese industrial modernisation: agriculture, industry, national defence, and science and technology.

The first phase, upon joining the UN and throughout most of the 1970s, was characterised by an attempt to challenge the existing order that had excluded China's participation in global governance institutions over the previous two decades. In the late 1970s, with the ascension to power by Deng Xiaoping and other reformist leaders in 1978, China's stance in the UN and international bodies shifted from a system challenger to a *system studying phase* (1978–1984), in which China mainly sought to study and learn how these international institutions operated. In the mid-1980s, the third phase started. During this phase, China further integrated into the international institutional order and learned how to benefit from it. In parallel, as Beijing learned how to "play the system", its presence and voice also grew, launching the fourth phase in the early 2000s, during which China started to became a more proactive international actor.

Since the adoption of the policy of reform and opening up in 1978, the main objective of China's foreign policy had been to create conditions that were advantageous for economic development in the framework of the guiding principles of national sovereignty and security, as stated in the Five Principles of Peaceful Coexistence. When Deng Xiaoping became the paramount leader of the PRC in December 1978, China was still struggling with the social and political chaos of the Cultural Revolution. Per capita annual income was less than US $100. By the time he stepped down in 1992, several hundred million Chinese citizens had been lifted out of poverty, and China was rapidly becoming stronger, richer, and more modern (Vogel, 2011).

Among all the tasks that Deng performed between 1978 and 1992, the most important was probably the reworking of the Maoist discourse of the New China, providing it with both continuity and verisimilitude in order to establish it as an ideological brace for his reform and opening up. (Solé-Farràs, 2016). In this regard, Deng's guiding principles in foreign affairs, such as the Five Principles of Peaceful Coexistence, the socialism with Chinese characteristic, the narratives on China's Peaceful Development, or the discourse about China being a permanent country of the Third World, notwithstanding the level of its economic development, arise from an attempt to seek legitimacy for its reform and opening up policy, looking back on Chinese tradition.

Chinese debates over international relations and China's role in the world are inextricably linked to Chinese domestic politics. China's economic priority is ensuring access to its goods, expanding outward investments, and consolidating its position as a regional and global hub of advanced production networks. Upgrading China's industrial structure takes priority in its 12th Five Year Plan, where the PRC, among other priorities, enabled itself to manufacture industry

products in the high-end chain, which has always been monopolised by the West. Therefore, the over-arching driving factor behind China's foreign policy, and the common denominator in most of China's global activities, is China's own domestic economic development, and any efforts are geared towards the safeguarding of its national sovereignty, security, and development interests.

In this framework, in parallel with the attempt to modernise its economy and achieve its development goals, China's leadership has been engaged, since the early 1990s, in reassuring the international community about China's peaceful rise. The term 'China's peaceful rise' calls for a harmonious international environment for China's growth, promising great benefits for the Chinese people, its neighbours, and the entire world. The term was forged in early 2000 by Chinese Communist Party theoretician Zheng Bijian, and was replaced soon after by the more nuanced term "China's peaceful development".

The concept of peaceful development was presented in a 2005 State Council White Paper and immediately became one of the key discourses in China's foreign strategy. The White Paper recalled that, since the policies of reform and opening up were introduced at the end of the 1970s, China has successfully embarked on a road of peaceful development, compatible with its national conditions and characteristics of the times (SCIO, 2005).

Since becoming a member of the WTO in 2001, China has followed a more cooperative attitude in foreign policy, actively promoting multi-polarisation, equality in international relations, and the empowerment of developing countries. In this framework, China's contribution with more than 3000 troops to serve in UN peacekeeping operations, its active participation in non-proliferation diplomacy (including hosting the Six-Party Talks on North Korea), and its willingness to settle territorial disputes with its neighbours represent an evolution in China's international commitments. By becoming a WTO member and supporter of the UN peacekeeping forces, China has come a long way from its former reactive and obstructive stereotype (He, 2007; Guo, 2008).

This new foreign policy approach was synthesised by former Premier Wen Jiabao on the occasion of the 2010 official visit of former EU President Barroso, when he affirmed that China would shoulder more international responsibilities as it was the aspiration of the international community and in China's own interest too.

In this context, the major issue for Western powers is how to a manage relationship with a rising power, such as China, which contains elements of both partnership and rivalry. The ideal scenario would be for the rising powers to embrace Western principles, norms, and rules, just as candidate countries to the European Union adopt its *acquis communautaire* - the

whole body of EU laws. In this view, the US tried to increasingly involve China's participation in the Western system in an attempt to "westernise" the country. Hence, it was in September 2005 that former US Deputy Secretary of State Robert Zoellick spoke of how it was in both American and Chinese interests that China become a 'responsible stakeholder' in the international system (Zoellick, 2005). Explicit in this construct is the idea that, because China has so richly benefited from its steady integration into the global order over the past three decades, it therefore has a self-interested "stake" in strengthening and sustaining that order (Gill & Schiffer, 2008). In 2010, the United States National Security Strategy argued that 'new and emerging powers who seek greater voice and representation will need to accept greater responsibility for meeting global challenges' (White House, 2010). Indeed, in a globalised world, none of today's international problem such as global financial stability, terrorism, nuclear proliferation, climate change, or energy security can be managed without engaging new and emerging powers, and the US has no choice but to rely on rising powers to help address today's global challenges. However, even if Washington may want them to do more on the world stage, it cannot control their choices and it will not always like the results of their participation (Patrick, 2010). In fact, even if the basic interests of established and emerging powers could reach a parallel on such global issues, national perspectives and priorities on the same issue may differ, and the path undertaken by emerging countries is increasingly not that of implementing existing rules and follow them blindly.

This trend emerged very clearly and was strengthened in the wake of the financial crisis, when China's central bank governor, Zhou Xiaochuan, called for the creation of a new "super-sovereign reserve currency" to replace the dollar. In a paper published on the People's Bank of China's website, Zhou stated that "the outbreak of the crisis and its spillover to the entire world reflected the inherent vulnerabilities and systemic risks in the existing international monetary system". Therefore, an international reserve currency "disconnected from individual nations" and "able to remain stable in the long run" would benefit the global financial system more than the current reliance on the US dollar (Zhou, 2009).

Even if the statement was not followed up by any formal action from the Chinese government, it was read by international political observers as an attempt to challenge the dollar's role as the world's reserve currency and, at the same time, as a tool to support China's strategy to gain a greater voice in international financial institutions. As a consequence, in the aftermath of the crisis, a number of policy analysts and politicians across the world started to talk about the beginning of the end of the Wall Street Model and the American Power (Pew Research Center, 2009; Lowestin, 2010).

Between the end of 2009 and early 2010, the common narrative on an international power shift focused around the rise of China and the decline of the United States. Former Russian President Medvedev called the 2008 financial crisis a sign that the United States' global leadership was coming to an end (Kramer, 2008). And even the former Canadian leader of the Liberal Party, Michael Ignatieff, suggested that Canada should look beyond North America because ''the noon hour of the United States and its global dominance were over'' (The Economist, 2009).

In this context, leaving behind Deng Xiaoping's mantra "hide brightness, cherish obscurity", even some Chinese policy analysts began discussing China's rise as a world power, arguing that the United States had begun an inevitable decline that would leave room for China at the top of the global pecking order (Economy, 2014).

Even before the financial crisis, some scholars were questioning US dominance on the grounds that the Afghanistan and Iraq wars had damaged it both financially and morally. In 2006, Wang Yiwei, a scholar at Fudan University in Shanghai, published an article in the Global Times with the provocative title: "How we can prevent the US from declining too quickly". The article, which suggested that a precipitous decline in U.S. power would harm Chinese investments, predicted the United States would soon fall to the status of a regional power rather than a global one and advised Washington to 'learn to accept Chinese power on the world stage' (Wang, 2006).

Wang's article generated a tremendous response from readers and intellectuals, which spurred further debate within China about whether U.S. power was in decline (Glaser & Morris, 2009). Fu Mengzi, a professor at the Beijing think-tank China Institutes of Contemporary International Relations, believes that the high point for US power projection was 2000 and that US power has been declining since then, especially with Iraq and Afghanistan. According to Mengzi, 'the financial crisis has made it seem more and more obvious' (Dyer, 2009).

The financial crisis had, indeed, significantly weakened the US and its security presence in Asia, and several China-watchers started to explain a number of international confrontations involving China, above all with Japan and other neighbours on outstanding territorial and maritime disputes, with the claim that Chinese foreign policy had suddenly shifted toward a hard line posture, labelling 2010 as China's year of assertiveness (Shambaugh, 2013). From 2010, the long-discussed topic of China's rise has come to be dominated by a new theme among both Chinese and foreign observers: the image of the supposedly cautious, low-profile Beijing of the past giving way to one of a more confident, assertive (some say arrogant), anti–status quo power that is pushing back against the West, promoting its own alternative norms

and policies in many areas, and generally seeking to test the leadership capacity of the United States. This new image has prompted many Western pundits to assert that the Chinese are finally "revealing their true colors" (Swaine, 2010).

Beijing's foreign policy attitude, pressing harder on some of its core interests, from climate change to territorial issues, was interpreted by many Western policy makers as an indicator that China wanted to maximise its own comprehensive power and, as a consequence, refuelled the debate over the negative international consequences of China's rise, revitalising the so-called China Threat Theories.

However, as underlined by Nye in his Washington Quarterly article *American and Chinese Power after The Financial Crisis,* extrapolating the wrong long-term projections from short-term cyclical events like the recent financial crisis can lead to costly policy miscalculations (Nye, 2010). In Joseph Nye's words, analysing the challenge that China poses to the United States and, more generally, to the Western world using the narratives of the rise and fall of great powers underlying the supposed new assertiveness of Chinese foreign policy, as well as the supposed belief of the United States' decline, tells us a lot more about psychology than it does about reality (Nye, 2011: 157).

Alastair Johnston, in his article *How new and Assertive is China's New Assertiveness*, reviewing examples of PRC assertiveness prior to 2010 to contextualise the emergence of the new assertiveness meme in 2010, argued that the historical records of the last decades seem not to support the claim of a more assertive China (Johnston, 2013). China has simply never stopped confronting the US and its Asian allies over a number of issues that question its national sovereignty and domestic priorities. Some examples of this in recent history are: the Taiwan Strait crisis in 1995/1996, the detention of 24 crew members of an American surveillance plane after a collision with a Chinese fighter jet in 2001, the border closing with Mongolia to protest the Dalai Lama visiting Ulan Bator in 2002, the killing of nine Vietnamese fishermen in the South China Sea in 2005, or the blowing up of an old weather satellite in 2007.

On the other hand, the narrative of the United States' decline has appeared cyclically, starting from 1958 when the former Soviet Union won the first battle of the space race with Sputnik, contininuing through to the oil embargo and the closing of the gold window in 1973, the 1980s rust belt economy, and the 2008 outbreak of the financial crisis. According to Nye, it will be important for security analysts not to mistake their simple theories for reality, to avoid misleading historical analogies and to avoid letting exaggerated fears create a self-fulfilling prophecy (Nye, 2006).

In his lecture *China's Challenge to American Hegemony* at the London 2010 Global Strategy Forum, former US Ambassador Charles W. Freeman Jr. (the chief interpreter during President Nixon's trip to China in 1972) stated that:

"*The more likely prospect is that China will take its place alongside the US and others at the head of a multilateral system of global governance. In such an oligarchic world order, China will have great prestige but no monopoly on power comparable to that which the US has recently enjoyed. The world in future will be more "democratic" and, likely, more muddled than in the past because many countries, not just the United States or China, will share power in it. There will be ample opportunities for countries with trusted relationships with Washington and Beijing to influence how they participate in global affairs. There will be no hegemon, and there will be no 'G-2'* " (Freeman, 2010).

The likely near future will not see one or two countries play a hegemonic role upon the other, but rather a multipolar balance of economic power. In this sense, the primacy of the United States in the world economy has come to an end. China is joining the US, the EU, and Japan at the top, and India, Brazil, and other G-20 countries will most probably follow in the years to come.

The first and most significant feature of rising powers is their economic stature and their attempt to achieve a global political role comparable with their increased economic relevance. In this view, China could perhaps have become more confident in defending its national priorities on the international stage but it will hardly become more aggressive and surely will try to avoid any open confrontation with the United States. In fact, an aggressive foreign policy will have a direct impact on its commercial relations with a devastating effect on its economic growth and, consequently, on its political stability.

The current generation of Chinese leaders, realising that rapid economic growth is the key to domestic political stability, has focused on economic development and what they call an ''harmonious'' international environment that will not disrupt China's growth (Nye, 2010). Beijing's response to this new awakening of the China Threat was to publish a second white paper, *China's Peaceful Development*, in 2011. In this new paper, which was primarily an update of the previous one published in 2005, Beijing presented Chinese historical and cultural tradition as being aligned with the principle of peaceful development, with the aim of reassuring the international community, stating that:

"China has declared to the rest of the world on many occasions that it takes a path of peaceful development and is committed to upholding world peace and promoting common development and prosperity for all countries. [...] China declared solemnly again to the world that peaceful development is a strategic choice made by China to realize modernization, make itself strong and prosperous, and make more contribution to the progress of human civilization. China will unswervingly follow the path of peaceful development" (SCIO, 2011a).

Moreover, the concept of peaceful development was highlighted two years later by Mr Wang Yi China's Minister of Foreign Affairs at the UN General Assembly, when he once again presented China's peaceful culture and history as reassuring factors, stating that "The culture of a country determines its values, and its history points the way to its future[99]".

8.2 The Beijing Consensus and Chinese Soft Power

China's economic success generated a lot of discussion about a Chinese Model of development, and from the early 1990s economists and policy makers started to analyse the "case study" of Chinese economic development. For the past three decades, China's leaders have managed a hugely complex transition from a centralised, Soviet-style planned economy to a more dynamically open one, and have done so with some success. Chinese leaders not only reformed China's inefficient state-owned enterprises, but also managed, under the close scrutiny of the Communist Party, to comply with WTO rules and procedures, facilitating China's joining in December 2001. A few years later, in 2004, with the publication of a paper by Joshua Cooper Ramo, a UK Foreign Policy Center scholar, entitled *The Beijing Consensus* (Ramo, 2004), the Chinese Model started to be discussed as an alternative to a Western-based model of development for developing countries. According to Ramo:

"China is marking a path for other nations around the world who are trying to figure out not simply how to develop their countries, but also how to fit into the international order in a way that allows them to be truly independent, to protect their way of life and political choices in a world with a single massively powerful centre of gravity. I call this new centre and physics of power and development the Beijing Consensus" (Ramo, 2004: 3-4).

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[99] https://gadebate.un.org/sites/default/files/gastatements/68/CN_en.pdf [accessed 22 January 2017].

The name "Beijing Consensus" emerged from a comparison with the Washington Consensus, which became the dominant model of international development during the 1980s and particularly after the end of the Cold War. The term "Washington Consensus" was coined in 1989 by the English economist John Williamson, referring to a set of specific economic policy prescriptions promoted by Washington-based institutions such as the IMF and the WB, which were believed to be necessary for the recovery of Latin American countries after the economic and financial crises of the 1980s (Williamson, 2000).

Since the early 1990s, the term "Washington Consensus" has been largely used and widely accepted as the most effective model to be implemented to enhance growth in developing countries. However, this model, prescribing a neo-liberal approach to economic development that includes reducing the role of the state in the economy and maximising the role of the "free market", eliminating government subsidies, privatising government industries and public utilities, and removing barriers to foreign trade and foreign investment, became less attractive with the outbreak of the financial crisis in 2008.

In the period that followed, China's impressive economic performance and capability to promptly react to the hit of the financial crisis captured the attention of an increasing number of emerging economies and developing countries, providing a completely new path to reflect upon as an alternative model of development. Positioned in contrast with the Washington Consensus, Ramo stated:

"*China's new development approach is […] flexible enough that it is barely classifiable as a doctrine. It does not believe in uniform solutions for every situation. It is defined by a ruthless willingness to innovate and experiment, by a lively defend of national borders and interests, and by the increasingly thoughtful accumulation of tools of asymmetric power projections […]. Change, newness and innovation are the essential words of power in this consensus*" (Ramo, 2004: 3-6)

For many international observers, above all from developing countries and emerging economies, the Chinese system is not just fascinating for its economic record but also because it can achieve far reaching complex decisions quickly, in contrast to the slow and complicated policy system that has plagued both the European Union and the United States, especially in the years of the global financial crisis.

The critical difference between a socialist market economy (i.e. the Beijing Consensus) and a capitalist market economy (i.e. the Washington Consensus) seems largely to be a matter of

who has political power in the country. In Deng Xiaoping's view, in a capitalist country, the wealthy capitalists dominate both the economy and the political systems. In a socialist system, political power is in the hands of the vanguard communist party that represents the interest of the "people". It is the party that will make sure that the socialist market economy does not lead to the kind of exploitation and inequalities that result from a truly capitalist system, and that the market part of the economy ultimately serves the goal of building socialism and achieving communism (Joseph, 2014: 179).

The Beijing Consensus has been widely discussed at international level and has attracted the interest of various countries, from Latin America, Africa, South Asia, and the former Soviet republics, making it a major source of China's soft power. However, internally, the Chinese have refrained from endorsing the idea of a Chinese Model, nor have they shown much interest in the debate about the subject. As early as 1985, in a conversation with Jerry Rawlings, former President of Ghana, Chinese leader Deng Xiaoping said: "Please do not copy our model. If we have any experience to introduce, it is that we make policies according to our own national conditions" (Men & Shen, 2014: 34-35).

Indeed, mainstream Chinese scholars continue to hold the view that China's development model should not be propagated abroad because doing so would fuel further fears about China's rise revitalising the so-called China Threat Theory (Jacques, 2012). It is for this reason that the influential public intellectual and commentator Hu Angang has argued for the substitution of the label "Beijing Consensus" with "Beijing Proposal". According to him, the latter term offers a better illustration of the relational character of China's security governance (Kavalski, 2012: 105). As Hu suggests:

"*The significance of such renaming is that the expression Beijing Consensus implies that China is imposing its way on others. If anything, it should be known as the Beijing Proposal. Other countries can choose whether or not they would like to accept it. In addition, they may accept it wholesale or accept it only in part*" (Hu, 2011: 7).

Moreover, the relevance and exportability of China's own experience is limited because of its unique characteristics. In this regard, as underlined by Professor Arif Dirlik, a Kai Feng Scholar expert on modern Chinese history, it is important to draw a distinction between a Beijing Consensus, which points to an alternative global organisation, and a Chinese model that answers to the particular needs of Chinese society (Dirlik, 2006: 7).

Main critics of the Beijing Consensus blame that it ignores not only the devastating negative environmental, social, and health externalities of China's development, but also issues such as social welfare for workers, human rights abuses, corruption, and huge wealth disparities among citizens. When Hu Jintao took over from Jiang Zemin as General Secretary of the Central Committee at the Sixteenth National Congress of the Communist Party of China in November 2002, the development paradigm of Chinese politics was still "GDP first and Welfare Second". Hu started then to advocate policies aimed at addressing some of the main socio-economic downsides of China's three decades of spectacular growth, particularly the country's very serious environmental problems and the necessity for sustainable development. The overall goal of these policy priorities was to create an "harmonious socialist society", which was formally endorsed by the seventeenth CCP Congress in late 2007 and presented as a "scientific outlook on development" that "calls for comprehensive, balanced and sustainable development" (Wang & Zheng, 2007; Xinhua, 2007).

During the Hu mandate, the downsides of China's emphasis on economic growth – above all income inequality, huge regional disparities, and environmental degradation – and the social unrest it produced became increasingly clear and sparked a major debate on China's development strategy, calling the leadership to undertake wider political and socioeconomic reforms. In the opinion of Shi Yinhong, Professor of International Relations at Renmin University in Beijing, for China to be an inspiration to the world, China first needs to be an inspiration to its own people (Glaser & Murphy, 2009). This is probably one of the reason why Premier Xi Jiping, within two weeks of taking over as party leader in 2012, began exposing his vision of the "China Dream", which involved a combination of a much higher standard of living and the ascent of China to Global Power status.

The China Dream integrates national and personal aspirations, with the twin goals of reclaiming national pride and achieving personal well-being. It requires sustained economic growth, expanded equality, and an infusion of cultural values to balance materialism. In its initial formulation, this concept clearly has strong elements of nationalism at its core. In advancing the Chinese Dream, the government is trying to draw citizens together around a shared mission and driving change, especially people in lower-tier cities and rural areas, as they experience increased affluence and opportunity[100].

Chinese media almost immediately began playing up the slogan. The party propaganda chief, Liu Yunshan, ordered the idea to be written into school textbooks and the government raised

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[100] http://www.chinadaily.com.cn/china/Chinese-dream.html [accessed 22 January 2017].

awareness of its view of the Chinese Dream with a poster campaign and other publicity. Chinese social media quickly became full of postings about the Chinese Dream, in which people express their demand for free education, better air quality, and safe food (China Daily, 2014). A ballad with the title "Chinese Dream" performed by Chinese singer Chen Sisi became a hit and more than 1.1 million fans follow her microblog, where she tweets about the Chinese Dream (The Economist, 2013a).

Premier Xi's first major address to Chinese citizens, after being appointed President of the People's Republic of China by the National People's Congress in March 2013, was given the title "The China Dream, The People's Dream". Dreams are indeed powerful, and the vague definition of the Chinese Dream allows people to project their own dreams onto the concept'. As pointed out by Yang Jiechi, former Ambassador to the US and Chinese Minister of Foreign Affairs from 2007 to 2013, the Chinese Dream is a purposeful tool to boost China's influence in international affairs, and one which demonstrates a high level of integration and synergy between China's domestic and foreign policies (Yang, 2014). Therefore, the China Dream can be considered another element of Chinese soft power, because it should raise the image of China as a fast-growing nation, striving to improve the welfare of its people, and secure its place as a respected leader in the international community.

In its search for status as a global power, China indeed discovered long ago the importance of international image building and soft power. In the 1960s, Hans Morgenthau stated that the national image 'determinates what we are as members of society'. Individuals and states seek to raise their reputation because 'in the struggle for existence and power […] what others think about us is as important as what we actually are'. Hence, a 'policy of prestige' is 'an indispensable element of a rational foreign policy; states strive to impress other nations with the power one's own nation actually possesses, or with the power it believes, or wants the other nations to believe, it possesses' (Morgenthau, 1993: 84–93). The image of a state is a key factor in determining 'whether and how easily the state can reach its goal', perhaps even more significant than the expansion of military and economic power (Jervis, 1970: 5–8).

The Chinese leadership seems to have appropriated and internalized a specific reading of power and history: genuine global powers possess multidimensional strength. They grasp the idea that power is comprehensive and integrative, not atomistic. Nor is power today the same as in the nineteenth or twentieth century, according to this narrative, when industrial and military power prevailed. Today, it must reflect a strong cultural and normative dimension ("soft power") as well (Shambaugh, 2013: 5-6). Using the words of Joseph Nye:

"We need a new narrative if we are to understand power in the 21st century. It is not just prevailing at war, even though military power is still important. The narrative of power is now not so much concerned with whose army wins; it is especially about whose story wins. Therefore we are impelled to think more in terms of narratives and whose narrative is going to be effective" (Nye, 2011a: 22).

The concept of soft power entered the Chinese academic discourse two decades ago with an article published by Professor Wang Huning of Fudan University on culture as the main source of a state's soft power: "If a country has an admirable culture and ideological system, other countries will tend to follow it [...] It does not have to use its hard power which is expensive and less efficient" (Wang, 1993).

Coined by Joseph Nye in the late 1980s, the term "soft power" refers to a country's ability to persuade others to do what it wants them to do through attraction rather than coercion or payment. It arises from the attractiveness of a country's culture, political ideals, social institutions, and policies (Nye, 2004: X). In *Soft Power: The Means to Success in World Politics*, Joseph Nye argues that successful states need both hard and soft power (and "smart power"), the combined ability to coerce others and shape their long-term attitudes and preferences (Nye, 2004). The idea of soft power features crucially in the story of China's emergence as a global power. Another means for achieving recognition as a rising power is in fact through the projection of soft power (Tank, 2012).

Most of the discussion about soft power in China has focused on culture and the idea that the best way to make the country seem more attractive to the outside world was through the potential magnetism of Chinese civilisation (Dyer, 2014: 178). President Hu Jintao, in his keynote speech to the 17th National Congress of the Communist Party in 2007, stressed the need to enhance Chinese culture as the country's soft power, emphasising that 'Chinese culture has been an unfailing driving force for the Chinese nations':

"*Culture has become a more and more important source of national cohesion and creativity and a factor of growing significance in the competition in overall national strength. We must enhance culture as part of the soft power of our country to better guarantee the people's basic cultural rights and interests*" (Hu, 2007).

As a consequence, since the late 2000s, the Chinese leadership has progressively increased government funding for the development of China's soft power, both domestically and

abroad, in order to achieve mainly two goals. The first is to present a positive and less threatening image to the world, otherwise fuelled by the country's rise. The second is to support Beijing's cultural diplomacy as a tool to promote an understanding of the nation's ideals and values in an effort to build broad support for its economic and political goals.

The Beijing Olympics, the Shanghai Expo, the growing number of international channels offered by CCTV, the Xinhua News Agency, the China Daily and the Global Times, the Chinese films industry, and the many hundreds of Confucius Institutes around the world, are part of what might be described as China's going out cultural strategy aimed to expand the Chinese global cultural footprint (Jacques, 2012; Shambaugh, 2013; Dyer, 2014). The big media investments are the most visible elements of China's soft power project, but beneath the surface there are two central ideas about the attractiveness of Chinese culture: an attempt to establish a sort of modern Chinese aesthetic that the rest of the world might find enticing, and an effort to tap into the wisdom of ancient thinkers to flesh out a non-Western worldview. China wants to present itself to the world as a culture that is both new and old (Dyer, 2014: 178). In fact, if trying to revive a Chinese intellectual tradition is one pillar of the government's plan to enhance the country's soft power, another one is the effort to present China as a modern and advanced country in the field of green growth and clean technology development, as illustrated previously in Chapter VI. China is presenting itself to the world as the source of ancient wisdom and high technology, which together form an alternative model of progress and development (Callahan & Barabantseva, 2011: 3).

However, even if wealth, economic strength, and technological innovations are preconditions for the exercise of soft power and cultural influence, as underlined by Yan Xuetong, one of the most prominent public intellectuals in China and Professor of International Relations at Tsinghua University in Beijing, an increase in wealth can raise China's power status but it does not necessarily enable China to become a country respected by others (Xuetong, 2013: 100). According to him, the CCP, together with other steps, should open up the channels of public discussion to ensure that party cadres and the general public realise China will need more than economic growth to secure lasting national power. Everyone must understand that some of Chinese society's less-than-attractive elements must change if the country's rise in cultural terms, essential to consolidating its military and economic rise, is to succeed (Lynch, 2013: 635).

In this regard, several Western scholars argue that, despite its economic successes, China's international influence will remain limited as long as it fails to evolve in an attractive political system. If the authoritarian growth model produces soft power for China in authoritarian

countries, it definitely does not produce attraction in democratic countries (d'Hooghe, 2010). Joseph Nye has criticised Beijing's efforts to acquire soft power through a centralised scheme, emphasising that despite spending billions of dollars to increase its soft power, China has had a limited return on its investment. According to him, what China seems not to appreciate is that using culture and historical narrative to create soft power is not easy when they are inconsistent with domestic realities (Nye, 2012). In David Shambaugh's words, the Chinese government is approaching soft power and public diplomacy in the same way that it approaches constructing high-speed rail or long-distance highways: by investing money and expecting to see the development (Shambaugh, 2013: 267).

As a consequence, notwithstanding the positive results achieved by the country during Hu's mandate and the encouraging signals of the new Xi leadership, while China already enjoys considerable and increasing influence among developing and least developed countries, the Beijing Consensus still exercises very little soft power in the Western world. However, as stated by Jian Wang in his 2010 book *Soft Power in China: Public Diplomacy through Communication*, "while the debate on the intentions and merits of its global outreach continues, China has embarked on its quest for a massive image makeover" (Wang, 2011: 10). Most important, political and academic adoption and self-initiated use of the term *soft power* reflect certain national self-imaginaries and roles that China's party-state leadership believe their country is entitled to, should reinforce, live up to, and perform globally. Such self-conceptions enable a range of foreign, environmental, energy, and climate change policies and practices: from aggressive investments in clean energy and renewables to the promotion and defence of the CBDR principle on behalf of the global South.

China's soft power push indicates a self-confidence that the country now represents something that can be introduced in other countries; that it has things to teach the rest of the world (Dyer, 2014: 180). Even though academic and political elites have criticized China's understanding of the concept of soft power as merely strategic and, consequently, highly ineffective Beijing experience is crafting an innovative model for an increasing number of developing countries because it fits their particular political and development context.

In fact, not everyone sees China through Western eyes, and China looks very different depending on which part of the world you are observing it from. Looking at China from an African perspective surely provides the best vantage point. Moreover, Africa is not the only place from which China looks appealing, its soft power also draws people in Latin America, Eastern Europe, and parts of Asia, where the popular impression of China might contrast

favourably with the general perception of the West, or where Beijing might be seen as a welcome partner in tough financial times, or as a trusted long-time ally (Moss, 2013). 7

8.3 The Combined Action of Soft Power and Public Diplomacy: China and South–South Cooperation

South-South cooperation has existed since the late 1950s but only in recent years has it become a recurrent issue in discussions on international cooperation for development, following the rapid economic growth experienced by some emerging economies such as China, Brazil, India, and South Africa. The idea of South-South cooperation (SSC) evokes a positive image of solidarity between developing countries providing a context for understanding development differently. According to this narrative, donors take interest in the unique historical, political, and cultural experiences of the recipient country before making aid commitments, which is something that traditional North-South cooperation often overlooks (Sotero, 2009). As such, SSC is an attractive proposition, intended to help developing nations break away from aid dependence on the West and achieve true emancipation from former colonial powers (Carmody, 2013; Stuenkel, 2013).

In this framework, the terms used are "cooperation" and "partnership", as they appear to offer the possibility of building a horizontal relationship between the so-called donors and recipients. The element of cooperation is critical to the extent that it enables a particular country to progress on its own, which, in turn, presupposes horizontal supportive flows in the form of trade, technology, and investment. These processes are interlinked and may in turn generate forward and backward linkages, which eventually may produce positive synergies across Southern economies. This phenomenon is underlined by the he sharp expansion in trade and investment linkages among Southern countries (RIS, 2013).

In recent years, China has become the most important trading partner for Brazil, South Africa, and Africa. Each of the BASIC has seen its share of exports heading to emerging markets increase meaningfully over the course of the past decades. In 2012, more than half of all exports from China, India and Brazil, and 48% from South Africa, were destined for emerging markets (Stevens et al., 2013). At the same time, the rise of BASIC countries as key actors in the global political economy has boosted prospects for changing the conventional practice of development cooperation, which has been dominated by multilateral institutions and bilateral aid agencies since the "invention" of development in the 1950s (Rist, 2008).

In fact China, India, and Brazil have begun to redefine their role in development cooperation by intensifying their efforts to support various development activities undertaken by countries in the global South, especially in Africa and in their respective geographical areas, leading to an unprecedented growth of so-called "South-South aid" in recent years. Over the past decades the field of development has undergone deep changes as emerging powers expand their South–South cooperation and increasingly contest the norms set through established Western-led development institutions, particularly the IMF, the WB and the Asian Development Bank (ADB). The world of development assistance is being shaken by a shift occurring across the global economy. More than fifty years of Western aid have not succeeded in bringing much prosperity to Africa and other poor but resource rich countries. At the same time, emerging economies, with rapidly growing strength and size in the global economy, moved primarily by a quest for energy security, new trading opportunities, and new economic partnerships, are beginning to change the rules of the game, providing aid on their own terms and norms. In fact, much of their financing options appear to be less conditional and less concerned with the broader structural economic and political issues that often dominate the official North–South aid agenda (Eisenman & Kurlantzick, 2006) and, as a consequence, more attractive for recipient countries. Common to most of these new donors is that none of them belong to the donors' club established within the OECD, the so-called Development Assistance Committee.

At the head of this group of emerging donors is China, which combines grants, zero-interest loans, debt relief, and concessional loans as well as preferential export credits, market-rate export buyers' credits, and commercial loans from Chinese banks. Outside the framework of international regulated development assistance, China expanded its bilateral cooperation with developing countries, including newly independent states in Asia and Africa. What appears to have won Beijing significant credit in Central Asia and Africa is its commitment to the practice of non-interference in the domestic affairs of states.

In Central Asia, Russia's invasive policies in the post-Soviet spaces have contributed to Beijing's prominence in the region, which has been consolidated through the establishment of the Shanghai Cooperation Organization (SCO) in 2001 (Kavalski, 2012: 23). The founding documents of the SCO underline the central role of good neighbourly friendship in order to achieve an efficient regional cooperation in a number of fields such as trade, scientific development, environmental protection, energy, transportation, tourism, as well as safeguard regional peace, security and stability.

In Africa, the Chinese EXIM bank, a state bank solely owned by the Chinese government and the country's official credit agency, is the world's largest provider of loans, ahead of the WB (Carmody, 2013: 5). On this continent, China's development assistance programmes have witnessed spectacular growth since 2002 and development aid increased from just $1 billion in 2002 to $10 billion in 2004. In 2007, the country's Official Development Assistance amounted, according to a report published by the US Congressional Research Service, to some $25 billion (Quadir, 2013: 322-324).

The Chinese government officially outlined its foreign aid policy towards Africa in a 2006 white paper, *China's African Policy*, which underlined Africa's strategic importance to China and clarified China's ambition to play a greater role in the African continent based on its relevant amount of foreign aid coupled with trade and investment activities. According to the white paper, China seeks to establish and to develop a new type of strategic partnership with Africa, characterised by equality and mutual confidence in political affairs, mutually beneficial cooperation in the economic realm, and the strengthening of exchanges in cultural affairs (PRC, 2006).

Nevertheless, China is not a new power in Africa and its engagement with the continent is long standing, being the development partner of many African countries since the late 1950s. During the early period of Sino-African relations, China was ideologically motivated, providing support for national liberation movements as well as direct state aid, most noticeably for Tanzania. The huge *TanZam* railway construction project that connects Zambia, through Tanzania, to the Indian Ocean has been an important milestone in Sino-African relations implemented thanks to a Chinese interest free loan of $406 million. This was Beijing's first major infrastructure project on the continent, demonstrating the political interest of China in collaborating with postcolonial states in Africa through a non-Western model of development (Garner, 2007: 8).

Indeed, by the mid-1970s, China had a greater number of aid projects in Africa than did the United States (Taylor, 2009: 13) and had established diplomatic relations with 43 African countries. From the late 1970s onwards, after the UN seat was achieved in 1971 and mutual diplomatic recognition between China and USA was established in 1979, China's policy towards Africa shifted from an ideological interest to an economic one, following Deng Xiaoping's agenda of economic growth and modernisation. The 12th CCP National Assembly in 1982 officially marked a shift from a policy that emphasised "economy serves diplomacy" to policies based on "diplomacy serves the economy" (Anshan, 2007). Chinese ties with Africa were strengthened in the late 1980s, partly due to the strong Western reactions

provoked by the Tiananmen brutal repression, which lead Beijing to seek political support in the developing world (the Foreign Minister Qian Qichen visited 14 African countries between 1989 and 1992), and partly due to Africa's economic reform programs launched in the early 1990s.

However, the renewed Chinese interest in the African continent is not only motivated by temporary political constraints or ideological considerations but it is the result of a clear and coherent political and economic strategy towards development and modernisation. Thanks to the diplomatic ability of the Chinese government, Beijing has developed an overall approach to *African Affairs*, which places the country on the same level as those Western powers that have consolidated political and economic ties with the African continent. Simultaneously, Beijing has achieved more, in regards to both the ideology that has driven Western diplomatic moves in Africa and the traditional instruments used to implement them (Gardelli, 2009: 1).

China's engagement in Africa has expanded dramatically in recent years, most notably since China turn from a net energy exporter to a net importer in the mid-1990s. In this new expanded phase of engagement in Africa, China has placed special emphasis on the soft power aspects of its engagement, playing both to African audiences and to a broader international stage, where it seeks to portray itself as a nonthreatening, responsible global power (Cooke, 2009: 29). Analysing the strategy and the remarkable results achieved by Beijing, it is possible to identify three major areas of interest behind the diplomatic efforts of China in Africa. First of all, its expansion in Africa is linked most directly to the requirements of China's rapidly growing economy, especially in energy resources, minerals, and other commodities. Secondly, this expansion is also aimed at creating new markets for Chinese goods and services. Finally, the overall diplomatic and economic efforts of China in Africa are accompanied by a strong diplomatic push to build friendly partnerships and strategic alliances with African governments.

The abundance of natural resources in Africa has led Beijing to seek long-term deals with African governments that ensure continued access to all its raw materials and sources of energy and, at the same time, allow China to gain support from African countries in international forums. Chinese officials have explicitly claimed that foreign aid is designed to create a strategic platform for Chinese companies to go global. China mainly provides three types of economic assistance to countries with which Chinese companies do business: grants, interest free loans, and concessional loans (Economy & Levi, 2014: 54).

The second key reason that drives China's expansion towards Africa is the need to open up new markets to absorb the overproduction of the Chinese economic system, and the African

continent, having achieved an unprecedented growth rate in recent decades, is one of the world's last attractive economic frontiers. According to the data presented in a 2010 McKinsey report on the progress and potential of African economies, real GDP rose from 4.9% per year from 2000 through to 2008, more than twice its pace in the 1980s and 1990s, and several sectors, such as telecom, banking, retail, and constructions, are booming (Roxburg et al., 2010). Until recently, China concentrated on a few big resource rich countries, but now places like Congo or Ethiopia, where minerals are scarce or hard to extract, are also getting more attention.

The decision by the Huajian shoe company to establish a production facility in Ethiopia is a reflection of China's new thinking with regards to Africa and China's use of certain markets as manufacturing platforms to export to global markets. It is projected that rising labor costs could cause China to export 80 million manufacturing jobs, and both Chinese manufacturers and African governments understand the opportunity that exists to relocate many of those jobs to the African continent (Hamlin et al., 2014). A growing number of Chinese firms want to be close to Africa's fast growing consumer class. Africa is now more often seen by Chinese firms as a place to do business rather than a site from which to gather resources. An IMF study in 2011 found that only 29% of foreign direct investment in Africa was in mining (The Economist, 2013: 35-36).

The third key reason that motivates the Beijing government towards Africa is the need to find affordable and reliable diplomatic support for Chinese stances in international forums. The strategic importance of the African continent is rooted in the fact that it is the largest group of states which tend to vote as a block in multilateral contexts. The support of African countries has been fundamental for Beijing on several occasions: from the blockage of Taiwan's accession to the WHO, to the rejection of the proposed sanctions against Beijing for domestic human rights abuses. The political leverage of African countries was determinant in awarding Beijing the Olympic Games in 2008 and the Shanghai Expo in 2010 (Gardelli, 2009: 12). Moreover, since the Copenhagen Climate Conference in 2009, the diplomatic support of several African Countries has become a fundamental asset for the Chinese negotiation strategy in the framework of ICCN.

However, Chinese expansion into Africa has been subject to criticism, both from Western and African policy makers and scholars. Critics have claimed that, for the most part, Africa is exporting oil and other raw materials to China, while importing cheap manufactured Chinese goods - an exchange remarkably similar to that of the colonial era. In June 2011, Secretary of

State Hillary Rodham Clinton gave a speech in Zambia warning of a "new colonialism" threatening the African continent:

> "*We saw that during colonial times, it is easy to come in, take out natural resources, pay off leaders and leave. And when you leave, you don't leave much behind for the people who are there. We don't want to see a new colonialism in Africa*" (Phillips, 2013: 504).

Clinton did not refer to China by name, but her remarks were clearly aimed, in particular, to growing Chinese investments in Africa.

Since China began seriously investing in Africa in 2005, it has been routinely cast as a stealthy imperialist with a voracious appetite for commodities and no qualms about exploiting Africans to get them (Moyo, 2012). Indeed, the accusation that China is a new colonising power, exploiting Africa's natural resources and flooding the continent with low-priced manufactured products while turning a blind eye to its autocracies, is at the core of most critiques of China's current engagement with Africa (Taylor, 2009: 1-2). The most common complaint is that Beijing, in its drive to secure reliable supplies of raw materials, has encouraged investments in states that the West has overlooked, providing assistance to some of Africa's most repressive and corrupt regimes, such as Robert Mugabe in Zimbabwe and Omar al-Bashir in Sudan.

This policy, according to the critics, has undermined the efforts made by other international donors to either ostracise such regimes or leverage "tied aid" to the implementation of specific domestic governance reforms (Shambaugh, 2013: 110). This approach to secure access to African resources is what David Zweig and Bi Jianhai have defined a 'resource-based foreign policy', which by its very nature has 'little room for morality' (Zweig & Jianhai, 2005: 31).

There is extensive academic literature covering the involvement of China in Africa and the way in which China has managed to establish its influence on the African continent. Chinese involvement in Africa is either interpreted cynically as an extraction of resources, which is undermining the West's effort to promote good governance throughout the African continent (Collier, 2007), or the long-awaited ally needed to break the vicious circle of "dead aid" which is the disease of which it pretends to be the cure (Moyo, 2009: IX-X).

On the whole, however, African nations welcome China's engagement and public opinion polling in Africa shows the most positive perceptions of China anywhere in the world

(Shambaugh, 2013: 111). In an interview with *Foreign Affairs* in October 2013, Senegal President Macky Sall stated that:

"*The cooperation with China is much more direct and faster than the cooperation we have with Western countries and other bilateral donors. There are a lot of criteria on governance, on this and that, and a lot of procedures. That's one of the obstacles to effective cooperation: too many procedures. Each partner has its own list of these procedures, and so countries spend a lot of time dealing with procedures. I'm not saying that what China is doing is better, but at least it's faster. And we need speed*" (Reid, 2013: 8).

In fact, in recent decades, China has managed to increase and strengthen its influence in Africa, using both development aid and FDI, and China's alternative path is attractive because it provides alternative sources of economic opportunities (Breslin, 2007: 2). In 2008, former Senegalese President Abdoulaye Wade wrote in the *Financial Times* that: "China's approach to our needs is simply better adapted than the slow and sometimes patronizing post-colonial approach of European investors, donor organizations and non-governmental organizations" (Economy & Levi, 2014: 72).

To a large extent, this is the result of China's successful foreign policy towards Africa. In fact, China's rising trade and investments in Africa have been matched by a major diplomatic push to foster closer ties with African governments, win support for China's worldview, and reassure Africans (and the world) of China's friendly intentions. Beijing, which has diplomatic relations with forty-nine African countries, maintains an embassy with an accredited ambassador in forty-eight of them, commercial counsellors in forty of those countries, and seven consulate generals in five of them (Cooke, 2009: 31-33). Moreover, there is a custom in Chinese diplomacy that the Foreign Minister's first overseas trip of the year always begins in Africa. This is a kind of diplomacy that African countries, generally marginalised in the international arena, are very sensitive towards.

Building partnership is a distinctive feature of China's diplomacy and, according to Brantly Womack, Professor of Foreign Affairs at the Woodrow Wilson Department of Politics and expert of Chinese national and international politics, in the post-Cold War period, there is no country that has made more friends than China (Womack, 2008). The most comprehensive of China's diplomatic efforts towards Africa is the triennial Forum on China-Africa Cooperation (FOCAC), established in 2000. China and African countries agreed to meet every three years to seek mutual economic development and cooperation, enhancing reciprocal understanding,

expanding consensus, strengthening friendship, and promoting cooperation. According to David Shambaugh, no non-African nation had ever previously initiated anything like FOCAC (Shambaugh, 2013: 109).

The implementation of South-South cooperation activities has taken different and evolving forms, which include capacity-building, training, technology transfer, and financial assistance. South-South cooperation has developed in such a way that the process has become a multifaceted engagement.

As previously anticipated in Chapter I, the message that Beijing is channelling through SSC has been built upon its adherence to the the Five Principles of Peaceful Coexistence. Among them, the principle of mutual respect for territorial integrity and sovereignty, as well as the principle of non-interference in the domestic affairs of states has supported China's position as an international actor that can both be trusted and emulated. In its worldwide "charm offensive", China is using soft power to project an image of a responsible as well as reliable international player, to position itself as a model of social and economic success, and to develop stronger international alliances (Kurlantzick, 2007).

8.4   China's New Role in Global Climate Governance

Traditionally, the relationship between emerging and established powers (and institutions) is understood as being either confrontational or cooperative: emerging powers might either revolt against the West or be integrated into the Western-led liberal order (Pu, 2012: 360).

In social sciences, socialisation is a process whereby the values, norms, and beliefs of a specific social space (or "culture") are internalised by the members of that society (Suchinmayee, 2008: 8). International Relations scholars have borrowed the concept of socialisation to conceptualise the interaction between states and international society, focusing mostly on how emerging powers are learning and internalising the existing norms. However, this conceptualisation has largely ignored the role of non-Western powers in shaping the evolution of international norms.

From a theoretical perspective, socialisation is not a static process in which newcomers only receive the imprint of the organisation. It is a dynamic process in which newcomers bring experiences, values, and ideas into the organisation (Austin, 2002). Therefore, in order to understand international political change it is necessary to investigate the attitudes,

behaviours, and perspectives of emerging powers towards international norms by conceptualising socialisation as a two-way process (Pu, 2012). Understanding socialisation as a two way process, or as a reciprocal process, allows one to investigate how rising powers are socialised into the existing order of global governance, internalising certain norms while, at the same time, reshaping some others when they join (Terhalle, 2011: 345).

In this view, what has been labeled as China's new assertiveness could be understood instead as the distinctiveness of China's perspective in its external relationships. As argued by Andrew Hurrell, Director of the Centre for International Studies in the Department of Politics and International Relations at the University of Oxford, being an active member of global multilateral bodies is perfectly compatible with a willingness to challenge the status quo and to favor new forms of global governance (Hurrell, 2010: 11). In this regard, the much discussed redistribution of voting rights within the IMF, agreed upon in 2010 but not yet ratified by the US[101], is not aimed at undermining the Bretton Woods institution but it is addressed at achieving an updated balance of voting power that reflects the economic power of the members of the board. However, at the end of 2016, China still had a smaller share than Japan, even though its economy is more than twice the size[102] (Summers, 2016).

The process undertaken by emerging economies in reshaping the structure of international governance has gained momentum in the aftermath of the global financial crisis when, while Western countries were overwhelmingly concerned with the question of how to address the domestic implications of the crisis, emerging economies were able to react more promptly.

Dealing with the global financial crisis, the Chinese government has shown stronger political mobilisation and economic development capability than the United States or Europe, and this greatly expanded the country's global influence (Yan, 2011: 258-259). Moreover, the proliferation of norm-setting forums such as FOCAC, SCO, the annual BRICS Summit, and other international forums initiated in the framework of SSC, has granted emerging powers new ways to contest norm-setting efforts that are perceived to be Northern-led (Erthal Abdenur, 2014: 1878).

As China has grown as an economic power, its self-confidence has increased and this shifting balance of material power is changing the landscape of diplomatic influence and normative order. The recentring of the global economy in Asia, a feature of the current phase of global capitalism (Dirlik, 2014), has created the space for Chinese policy moves to shift the power

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[101] In 2010 the G20 countries agreed to increase China's IMF quota from 3.65% to 6.19% but the US Congress has refused to ratify the agreement, preventing the reforms from being implemented.

[102] Calculated in US dollars, market exchange rates.

relations within the structures and institutions of global capitalism towards China (and Asia more broadly). The hosting of the G20 by emerging economies is symbolic of their enhanced global influence when compared to the pre-crisis dominance of the G7/8 (Summers, 2016). This new scenario, coupled with a more proactive role in several multilateral forums, has allowed China to start influencing the evolution of international norms and, as a consequence, it has started to move from the role of *norm taker* to that of *norm maker*.

International Climate Change Negotiations is one of the key examples in which the normative preferences of emerging economies – led by China – are shaping crucial issues in global governance. The 2009 Copenhagen climate summit can be considered a turning point in global climate governance, where Western ambitions to define the agenda of world politics were no longer merely criticised by non-Western players, but rather 'effectively put to an abrupt halt' (Terhalle, 2011: 341). During the fifteenth session of the Conference of the Parties to the UNFCCC (COP 15), it was clear that emerging economies were not willing to grant the old Western powers sole authority to define the limits of responsible sovereignty, wanting instead to exercise their new economic power, reshaping international arrangements in a way that could suit themselves and their national priorities and economic interests. Essentially, bolstered by their increased economic power, the BASIC states apply a hard conception of national sovereignty and, correspondingly, resist the effective delegation of authority to international bodies, which is one of the key characteristics of their view of international order (Hurrell, 2007: 291).

In Copenhagen it become clear that Western leadership in global governance was eroding and geopolitical power was moving towards major emerging economies, such as China, India, South Africa, and Brazil (Hurrell & Sengupta 2012) with the PRC playing a key role in the process. In this context, emerging powers demonstrated their solidarity by rejecting the Western agenda (Pu, 2012: 342-3) and imposing their own guidelines for the Summit. China established a close alliance with India, Brazil, and South Africa and, with the exception of the Small Island and Atoll states, also constructed a common cause with developing countries in the G77 who took China as their representative. For the first time in a major global conference in the modern era, neither the United States nor Europe was leading the process. The arbiters of the conference and the authors of the final agreement were the BASIC countries led by China, with the United States playing a secondary role (Jacques, 2012: 211).

The coordinated action of the BASIC group was prepared in a pre-summit organised and hosted by the Chinese government in Beijing in late November 2009. China's policy makers invited the representatives of India, Brazil, South Africa, and Sudan, being the chair of the

G77, with the aim of agreeing on a common negotiating position. Officially, the four countries and the chair of the G77 said they were keen to make a contribution towards a consensus in Copenhagen but the key topic of the pre-Copenhagen summit called by China was the establishment of a second commitment period under the Kyoto Protocol, binding only Western states[103]. In order to lock down their negotiating position, the four countries and the chair of the G77 agreed to a strategy that involved jointly walking out of the conference if the developed nations tried to force their own terms on the developing world.

Once their position was finalised, China was accepted as spokesperson for the BASIC states' proposal, and the four nations issued a joint press release which made it clear that the developed nations should be ready to contribute funds and share green technology if they expected emerging economies and developing nations to take major actions on environmental protection (Dasgupta, 2009; Steven, 2010). This negotiating line was successful. In fact, one of the outcomes of the Copenhagen Accord was the creation of the Green Climate Fund (GCF), with the goal of mobilising $100 billion a year in public and private finances by 2020 to address the needs of developing countries. While governments never agreed to any particular immediate level of funding for the GCF, the UN stated that the minimum goal for the initial public capitalisation of the fund was at least $10 billion by the end of 2014, which was actually reached at COP20 in Lima. However, even if the Executive Director of the fund signalled this result as a landmark achievement, a large gap still existed between the achieved amount and the 2020 target of $100 billion a year agreed upon at the Copenhagen Accord. For this reasons, the effectiveness of the fund was openly questioned by the head of China's delegation at the following COP 16 in Lima, describing the 10 billion US dollar achievement "far from adequate" (RTCC, 2014).

In December 2014, during a South-South Cooperation Forum on Climate Change held in parallel to the Lima Climate Change Conference, Minister Xie Zhenhua, Vice Chairman of the NDRC, made two announcements. Firstly, he stated that China would double its financial contribution to the South–South cooperation. Secondly, he announced that China would not contribute to the Green Climate Fund, preferring instead to establish a South-South Cooperation Fund in order to provide a longer-lasting and more formal mechanism to support developing countries address climate change, based on the principle of mutual respect and win-win cooperation (Hongqiao, 2014). The forum, which brought together more than 200

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[103] As reported by *The Times of India* the pre-summit was organised after reports suggested that rich nations led by Denmark were working to set the agenda of the conference by presenting a draft containing a set of specific proposals (Dasgupta, 2009).

participants from developing countries, emerging economies, and international organisations, highlighted the importance of South-South cooperation as a key element of the cooperation on environmental challenges and, at the same time, enhanced the role of China as a leading country in the field.

Since 2001, China has trained nearly 2000 climate change officials and professionals from developing countries and, above all, has contributed a total of about 270 million yuan ($44 million) to helping other developing countries enhance their capacity to address climate change (Beijing Review, 2014: 17). Financing climate change mitigation and adaptation measures through North-to-South finance has always been a critical issue in the framework of UN climate talks. However, since the early 2000s, South-South financing for climate change has increased significantly and was strengthened even further in the aftermath of the global financial crisis. This was made possible thanks to several policy cooperation and cross-border financing institutions within the global South, which were established in recent years by emerging economies, with China playing a leading role.

In the past decade, in the framework of ICCN, China has been the main architect of the negotiating position of developing countries and emerging economies within the G77, progressively acquiring a leading role within the group. Moreover, thanks to the several policies implemented domestically to support the transition of its economy towards the development of a low carbon economic model of growth, as well as its remarkably economic achievements, Beijing has been increasingly regarded by a growing number of developing countries as a model to follow and emulate.

In the first stages of its participation in the global climate regime, China acted mostly as a defensive player against its Western counterparts, but during the last decade – above all after COP 15 – Beijing's position has slowly shifted from defensive to active engagement in global environmental governance. Beijing was previously against any measurable, reportable, verifiable, and nationally appropriate mitigation commitments (MRV) for developing countries and emerging economies, preferring instead domestic voluntary mitigation actions. However, at COP 16, in Cancun, China agreed on provisions for the measurement, reporting, and verification (MRV) of mitigation actions undertaken by developing countries.

Beijing was strongly against the proposal, offered by the developed countries, of an evolving and dynamic interpretation of the convention principles. Furthermore, following Beijing's interpretation of the CBDR principle, its negotiating position in ICCN firmly emphasised that developed countries should take the lead in addressing climate change; to provide financial, technological, and other assistance to help developing countries fulfil their sustainable

development responsibilities. Today, with its key role in establishing new sources of financing for climate change policies in the global South, as well as its significant investments in clean energy and low carbon technologies, both domestically and abroad, China has become a world leader in green finance and clean energy development. Due to its strong and effective policy of energy reforms – supported by massive state-led investments in green growth – Beijing has achieved remarkable results in the share of renewables in its energy mix and the improvement of its energy intensity.

Such progress has helped China make increasingly ambitious pledges in the framework of ICCN, leading to the pledge made in Lima, in 2014, to achieve peak CO_2 emissions around 2030 and to increase the share of non-fossil fuels in primary energy consumption to around 20% by 2030. This pledge was made few weeks after the "climate deal" achieved between Chinese President Xi Jinping and US President Barack Obama during the last 22nd Asia-Pacific Economic Cooperation summit held in Beijing in November 2014, which was crucial for facilitating the conclusion of the Paris agreement at COP 21 in December 2015.

The deal achieved between China and the US represented, therefore, the endorsement of Beijing as a leading fast-growing developing nation within the global South as well as the endorsement of its role as norm maker (or *its normative power*) in global environmental governance. In fact, this deal shifted the criteria upon which actions taken by developing countries are reviewed, from emissions reduction to longer-term transformations, which acknowledges the importance of social and economic development to emerging economies. With this deal, the United States recognised the effectiveness of China's sustainable development policies and, at the same time, acknowledged that the country needs more time (and "carbon space") to achieve the status of a mature industrial economy.

China's shift towards low carbon development is intended to be both structural and long-term, and but the increasing alignment of Beijing's economic and environmental agenda has been reflected in a more positive stance in ICCN and has been one of the key contributing factors to the positive conclusion of COP 21 in Paris.

8.5   Conclusions

A world that, in the aftermath of the Cold War, seemed to be firmly framed under the American unipolar moment is now a world where progress in arenas from economic stability

to environmental protection to development assistance requires not only China's agreement but also its active engagement (Florini, 2011: 1).

In his 1933 inaugural address to the United States, President Roosevelt stated that the greatest thing Americans had to fear was fear itself. Sixty years later, President Clinton asserted that the United States have much more to fear from a weak China than a strong China. Given the global challenges that both China and the United States face, they have much to gain from working together (Nye, 2010).

The prospect of an influential Chinese wealth and military power, coupled with America's devaluation of its own political and economic prestige, has led to growing speculation about China's emergence as a global hegemonic player to rival and, maybe surpass, the United States. However, China has still a long way to catch up in military, economic, and soft power resources in order to be a global power. In the military field, there is no comparison between the military capability of China and the United States (Yan, 2011: 260).

Despite its impressive economic figures, and its successful and rapid economic recovery from the financial crisis, it is misleading to think that China's rise means that it will soon take over the US position in global governance, and analogies to other rising powers with shallower histories – France, the United States, Germany, Japan, the USSR – are not helpful in predicting the consequences of China's rise (Freeman, 2014). Either way, China's leadership has, couched the nation's international beavior in a purprtedly vital interest to perpetuate a global economic order open to trade and investments in its economic development and, modernisation.

Chapter IX: Conclusions

"A one-thousand-mile journey starts from the first step. To achieve the nationally determined action objectives on climate change by 2030, China needs, building on actions already taken, to make a sustained effort in further implementing enhanced policies and measures in areas such as regime building, production mode and consumption pattern, economic policy, science and technology innovation and international cooperation".

China's Intended Nationally Determined Contributions, NDRC, June 30, 2015

9.1   Thesis structure and how it helps answer the research question

The objective of this research has been to investigate the driving factors and forces behind China's increasing engagement in global environmental policy and, ultimately, Beijing's shift towards a norm-making role in global environmental governance.

Since the substantial failure of the Copenhagen Climate Summit, convened in the framework of international climate talks, Western governments have criticized Beijing's environmental policy as inadequate in the global fight against climate change. The country's purportedly intransigent negotiating position – labelled as the "policy of 3 Nos" by the former US Chairmen of the Committee on International Relations[104] – has been identified as the main obstacle in the global fight against climate change. However, since the early 2000s, Beijing has gradually designed and implemented an increasing number of programs and policies aimed at mitigating the effects of domestic environmental degradation and global climate change.

My research question has focused on identifying the determinants behind China's shift in environmental and climate change policy from a defensive attitude towards an active engagement, which, ultimately, has led the country to play a leading role in global environmental governance.

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[104] In 1998 Benjamin Gilman, Chairman of the US House of Representatives' Committee on International Relations, characterized China's position on climate change at the 1997 Kyoto conference (COP 3) as a "policy of the Three Nos: no obligations on China, no voluntary commitments by China, and no future negotiations to bind China (USHC on IR, 1998).

This research has examined whether the different policy perspectives between China and the developed countries in the framework of International Climate Talks reflect China's reluctance to adopt internationally shared obligations, or if the PRC is rather attempting to create an alternative development model, firmly anchored to the CBDR. The latter would mean that China has not been simply disengaged, but that it has rather introduced a distinct perspective into the international debate on how to respond to this global challenge. In so doing, I argue that China's identity and self-perception shifted from being a recipient of international norms (a "norm taker") to assuming the role of a global norm entrepreneur ("norm maker").

To this end, a threefold document, literature, and discourse-analysis approach has been employed to investigate the evolution of China's environmental policy both at domestic and international levels. To examine and substantiate the hypothesized norm-making evolution, this study has tied its dynamics to underlying shifts in China's collective social identities along three key and interconnected dimensions.

A first dimension is related to the evolution of China's self-perception within the international political-economic system as a leading developing nation within the Global South. A second dimension refers to China's concerns over the growing economic, social, and political costs of its environmental degradation and pollution, mostly due to its impressive economic and industrial development based on fossil fuels. Finally, a third dimension of this identity shift is related to China's increasing concerns over its energy security.

These three dimensions of China's identity shift are mutually reinforcing and, combined, at least partially account for Beijing's shift towards a leading role in global environmental governance.

This research has employed a social constructivist conceptual lens. This has enabled a coherent analytical framework following the underlying theme of the research: China's identity construction and national interest. By drawing on social constructivist ideas and their identity-based approach, this research shows how China's climate diplomacy (understood as a combination of South-South Cooperation and China's brand of "soft power") has worked to secure broad political support within the Global South for Chinese climate change and development policy. Thereby, with the aim to (1) reconvert its "brown" and energy-intensive economy toward a more efficient and low-carbon one, (2) to oppose the development of environmental norms which could negatively impact its economic growth and, finally, (3) to enhance its international image of a responsible rising power, Beijing has started to act as a

norm-driven actor behaving in accordance with and building consensus around the CBDR principle.

The first chapter has introduced the topic of this research, its central and organizing question, and its core argument. Thereby, Chapter I has situated the dissertation in academic and policy discourses of China's role in international climate change negotiations, in particular at the intersection of the climate change securitisation debate and China's broader rise to power in international affairs.

The second chapter contextualizes the leading role of China as a fast-growing developing nation for the Global South within the North-South divide debate. By analysing the rise of China through the lens of three principal International Relations theories, I explain why the limitations of realism and liberalism in understanding the shift in China's environmental and climate change policy call for an identity-based contribution to address the central research question. Finally, the chapter introduces the concept of Normative Power China understood as the capacity of Beijing to act as a global norm entrepreneur in the framework of international environmental governance.

The third chapter is dedicated to presenting the methodology of the research.

The fourth chapter has analysed the discourse on environmental security and climate change investigating both the scientific findings as well as the Western-led narrative on climate change securitization towards the development of the climate security paradigm. Considering that norms constitute and redefine state interests and approaches, norms about the environment, climate security or sustainable development not only regulate what states do, but they can also be connected to their identities and are thus expressive of how they define themselves and their interests. Analysing the Western discourse on environmental security through a social constructivist approach has shed light on China's response to what it encounters internationally as a North-driven securitization of climate change. The chapter has embedded China's response in a broader process of identity construction and performance both domestically and abroad. In responding to the securitization of climate change, China has strengthened progressively its normative power and, accordingly, played a crucial role in framing the global debate on climate change as a subject of North-South politics.

The fifth chapter discusses the development of the "common but differentiated responsibilities" (CBDR) principle within the framework of ICCN and its relevance in China's identity shift. I argue that China's adherence to the CBDR has been integral to creating a network of partners built on the collective identity of the Global South. This has been instrumental for Beijing in promoting an alternative model of development that allows

for an opposition to the securitization of climate change. Accordingly, the CBDR principle has enabled the Chinese government to de-escalate the issue of climate security and switch the international focus from security discourses to development ones. In so doing, China has engaged diplomatically and politically those countries that do not feel represented by today's global governance system, reinforcing its (much-discussed) alternative model of economic development, the so-called "Beijing Consensus".

Chapter VI is centred on the analysis of China's approaches and policies towards climate change. The relevance of this chapter in answering the research question is twofold. First, it deconstructs the narrative of China as the "climate villain" in global environmental governance by analysing some motivations behind the PRC's resistance to applying the climate security paradigm. On the other hand, the chapter helps examine China's domestic policy framework on converting its "brown" and energy-intensive economy into a "low carbon" model of growth. In tackling the domestic societal experience of Chinese economic growth as intertwined with the sense of national environmental degradation and economic insecurity, this chapter helps substantiate the proposition on China's threefold collective identity shift as constitutive of its evolving ICCN leadership.

The seventh chapter summarizes the history and development of the climate change regime from the first international environmental conference in Stockholm (1972) to the 2015 Paris Climate Summit, investigating the evolution of China's behaviour in ICCN. While environmental studies have investigated national climate change policies and their determinants over the last few decades, little attention has been paid to what constitutes the bargaining positions that governments assume in climate negotiations and the strategies they thereby deploy (Bailer & Weiler, 2014: 43). Such positions and strategies reflect structural economic and domestic factors and they arise from intertwined cost-benefit calculations and a sense of historical and social appropriateness.

In this framework, the international focus on emission reductions has, according to China, overshadowed the core issue of international climate change negotiations: finding a socially acceptable balance between (1) a consistent level of welfare in developed countries, (2) sustainable economic growth in emerging economies, and (3) the eradication of poverty in developing countries. In other words, Chinese governmental discourses associate the manner in which international climate change negotiations have unfolded in the last three decades with their purported failure to address the relationship between climate change policies and local and global economic development. The analysis thus focused on the role of climate change policy as a game changer in international relations, whereby emerging and developing

economies have started to play a more active role arguably since the beginning of the century, and certainly in the aftermath of the 2008 financial crisis.

Chapter VIII discusses the elements of China's identity shift as a leading fast-growing developing nation within the Global South, namely: the so-called Beijing Consensus, South-South cooperation, and Chinese conception of "soft power". The Chinese government has extensively resorted to South-South cooperation discourses and practices and has declaratively embedded them in its "soft power". This has strengthen its leading role in a coalition of developing countries and emerging economies towards the development of a new climate regime based on the understanding of climate change as a socio-economic development issue.

9.2   China's evolving role in global climate action: Offering a competing narrative of recent history by way of general conclusions

The rise of China and other emerging economies has changed the economic, political, and diplomatic balance of power between the Global South and the Global North. This changing geopolitical context has been reflected in ICCN. Thereby, emerging economies are looking for a global political role congruent with their self-conception and sense of increased economic relevance in world affairs. Accordingly, they have exercised the newly attained economic relevance to safeguard their own national priorities and interests.

The different and competing negotiating positions of developed and developing countries were clearly summarized by the sharp division between the two negotiating fronts of the Global North and the Global South, led respectively by the United States and China at the 2009 Copenhagen international climate change conference (COP 15). During COP 15, emerging economies were not willing to grant the old Western powers the sole authority to define the limits of "responsible sovereignty". Accordingly, they wanted to exercise their growing economic clout by reshaping international arrangements in a way that could suit them and their national priorities and economic interests.

Bolstered by self-perceptions of increased economic relevance, the BASIC countries have been able to impose their own guidelines and agenda for the Summit. For the first time in a major global conference in the modern era, neither the United States nor Europe occupied a leading position. Therefore, the Copenhagen climate summit represents a turning point in

recent international politics where Western ambitions to define the agenda of world politics were no longer merely criticized by non-western players. Rather, they were effectively put to an abrupt halt thanks to the newly achieved global weight of coalitions of developing nations (Terhalle, 2011: 341) and the prominence of development for their national identities. Among them, China has played a key role in designing and implementing the negotiating strategy as well as acting as global south leader in the negotiations.

Several factors can be ascribed to this game changer in international climate talks. The economic and geopolitical context in which sustainability has been discussed at multilateral level has progressively changed since the climate convention was negotiated in 1992. Moreover, the evolution of ICCN has been influenced by the changing global economic order. During the last 20 years, starting in the late 1990s, a significant shift in the global distribution of economic power has occurred (Roberts, 2011). The political and economic rise of emerging economies has been paralleled by a relative decline of Western powers, the EU and the US. Brazil, Russia, India and China (the so-called BRIC) have today not only almost 42 per cent of the global population[105], but also almost 30 per cent of the global gross domestic product[106], among them, China's economy has risen exponentially since the late 1990s. At the same time, the EU's share of the global population is around 7 per cent while North America amounts to 5 per cent[107].

Chinese governmental discourses surveyed in this research imply that this gradual increase in the aggregate power of the emerging economies should also be reflected in the influence they exert in various global institutional settings, including climate change negotiations (Qi 2011: 313). Moreover, at times, they seek to reinforce the taken-for-granted nature of North/South and developed/emerging binaries.

Among the BRICS, China stands out as a giant growth-wise with an economy equal to the other BRICS countries combined. It has the largest army, the largest military budget, and the

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[105] Available from: http://www.worldometers.info/world-population/population-by-country/ [Accessed 20 May 2017].

[106] China: share of global GDP adjusted for PPP from 2010 to 2021. Available from: http://www.statista.com/statistics/270439/chinas-share-of-global-gross-domestic-product-gdp/; Brazil: Share in global GDP adjusted for PPP from 2010 to 2020. Available from: http://www.statista.com/statistics/259307/brazil-share-in-global-gdp-adjusted-for-ppp/; Russia: Share of global GDP adjusted for PPP from 2010 to 2020. Available from: http://www.statista.com/statistics/271379/russias-share-of-global-gross-domestic-product-gdp/; India: Share of global GDP adjusted for PPP from 2010 to 2020. Available from: http://www.statista.com/statistics/271328/indias-share-of-global-gross-domestic-product-gdp/ [Accessed 20 May 2017].

[107] Population Comparison: China, EU, USA. Available from: http://www.worldometers.info/population/china-eu-usa-japan-comparison/ [Accessed 20 May 2017].

highest rate of economic growth. China lags behind Russia and Brazil in income per capita, but this is bound to change if China maintains roughly its current growth rates. At any figure of GDP growth above 7 percent per year, the Chinese economy will double in a decade (Nye, 2015: 44). The change in macroeconomic variables has ostensibly stood out among the factors that have changed the dynamics of international climate talks. Improved diplomatic and economic relations across the Global South have also played a role, and they have been carefully built and strengthened in the past decades by the Chinese Government.

However, I have argued that the newly attained economic relevance in world affairs as well as the new geopolitical context in which ICCN have taken place are not sufficient to account for the changing role of China in international environmental governance. Instead, in juncture with the factors mentioned above, I argue that China's behaviour in global environmental governance comes from an identity shift based on three dimensions related to the country's new role and self-conception as a fast-growing developing nation within the Global South, and its sense of environmental crisis and volatile energy security.

In the last two decades, through climate change negotiations, the People's Republic of China has developed a large number of partnership and cooperative frameworks with other developed and developing countries, which have significantly improved its diplomatic credentials. At the same time, it has played an increasingly pivotal role in international relations in the field of climate change, influencing significantly global negotiating strategy and discourse, and has been successful in building large coalitions in support of its positions, becoming an unavoidable player in climate change diplomacy. Moreover, by anchoring its foreign policy and diplomacy to a "developing country" rhetoric vis-à-vis developed nations, while simultaneously acting as an aid donor toward least developed countries, Beijing has been able to raise its international profile and expand its influence on both ends.

In this context, while still participating in Western-led international institutions, China has begun to invest growing diplomatic and economic resources into building alternative institutional options to the "Bretton Woods" system in several different fields to provide new sources for financing climate change policies in the Global South.

This trend has gained momentum in the aftermath of the 2008 financial crisis, which has largely diverted the attention and efforts of the United States and European Union in ICCN. In the aftermath of the financial crisis, the European Union's ICCN role has been weakened by the conflicting positions of its Member States concerned with the cost of climate change policies more than with their benefits. The EU's retrenchment in ICCN has come after a brief

period of its global leadership on the issue following the United States' decision to not take up the Kyoto Protocol for ratification in the Senate.

In this context, weak financial commitments by the Global North to support developing and emerging economies in the decarbonisation process (requested by the scientific community to meet the 2°C target) are negatively correlated with the pressing need of developing nations for "carbon space" (i.e. increasing emissions) to support their economic growth and lift their populations out of poverty. The interaction of these two variables ("Northern" financial commitments and "Southern" need for carbon space) underline the declining leadership of developed countries in policies and measures able to "decouple" the right to growth and the CO2 emissions.

As a consequence, since the COP 15, Western countries have been overwhelmingly concerned with the question of how to address the domestic implications of the crisis. Meanwhile, emerging economies have been able to react more promptly, catalysing the attention of the vast majority of developing countries for climate change policies. China has been able to push forward a new narrative that enables a new focus, approach and a set of actions toward the development of a low carbon economy. From the Chinese perspective, climate change cannot be tackle as an independent variable but has to be view as intrinsically linked to economic growth and social development, with the implementation of target policies and greater investments in R&D and innovation.

In this respect, alongside official North-to-South transfers, South-to-South financing for climate change mitigation and adaptation has increased in recent years under the framework of the so-called South-South cooperation (Minas, 2014). The past two decades have seen a surge in South-South economic cooperation including trade, investment, development assistance, and other financial flows. China has been the main architect and leader of this trend promoting a number of high profile institutions of policy cooperation and cross-border financing within the Global South. The BRICS' New Development Bank, the Asian Infrastructure Investment Bank, the Silk Road Fund, the China Insurance Investment Fund, and the China-Africa Production Capacity Cooperation Fund have significantly enhanced the fundraising capacity of developing countries. All these new instruments have been spearheaded by emerging powers, with a leading role of China, which symbolizes its growing influence in development funding and potential new sources of financing for climate change policies in the Global South.

Combined with China's long-term efforts to develop trade and aid ties with Africa, these new instruments form the basis of Chinese strategy to build consensus around its ambitions to exercise a role of the Global South's leader in global environmental governance.

In its domestic policy, China has introduced policies predicated on reducing dependence on energy-intensive industries and developing more efficient ones by defining targets in its Five Year Plans and promulgating new laws, standards, and rules. In the past years, Chinese government has implemented a number of policies to prioritize, fund, and deploy clean technology R&D and innovation. In a comparative assessment of public investment in energy research, development, and demonstration (RD&D) in the major emerging economies, China stood out as the largest government investor with public investments of approximately US$ 11,8 billion, plus an additional US$ 1,3 billion from state and local governments and partially state owned enterprises as of 2008 (Gallagher, 2014: 42).

In pursuing global leadership in clean technology development, China has identified partnerships between private industry, research sectors, and academia as a key approach. Through various channels (including forums, dialogues, seminars and workshops), China's universities and research institutes have begun to play an active role in major collaborative projects in the fields of clean technology (Tan & Gang, 2009). China seems to believe that the next phase of the science and technology revolution will center on clean energy, and is determined to emerge as a global power in science and technology development (Tan, 2010). In this framework, the promotion of low-carbon and energy cooperation under the One Belt and One Road initiative (involving a number of developing countries) reinforces Chinese political and diplomatic strategies and leadership in ICCN.

Since the first Rio Earth Summit in 1992, international cooperation on climate change has been centred on technology transfers and technical assistance accompanying financial aid from developed to developing countries. However, this strategy has not yet delivered the desired results as the current rate of decupling energy use from GDP and population growth needs to double to achieve the 2 Degree scenario [IEA, 2015]. One of the key deadlock points in climate change negotiations has always been about finding an agreed "decoupling strategy" between the right to growth of the developing world and the CO2 energy related emissions. Moreover, in recent years, developed countries' investments in clean and low carbon technologies do not keep up with those from Chinese. Simultaneously, their commitments and pledges on climate finance have often failed to materialize.

In this context, emerging economies have started to invest own funds, particularly on climate adaptation measures. Their "green" (private or public-private) sectors continue to invest in

low-carbon technologies like renewable energy. In the fields of solar power generation, hydropower, and other areas, China has progressively become internationally competitive. Essentially, to tackle its environmental crisis and overcome its energy security concerns, Beijing has developed a new approach of linking up climate policy with green growth. The Chinese approach has garnered the attention of other emerging and developing economies in part because it provides a concrete alternative model of climate action that moves away from a Western-led vision of climate security to a wider vision of climate change as a socio-economic and development issue. The Beijing approach is bound to be attractive not only to developing countries but also for other industrializing countries such India and Brazil which have already embarked on adopting the "Beijing Consensus" on building alternative pathways to industrialization. This emergent model is not being driven by 'Kyoto-style rhetorical statements as to anticipated carbon emission reductions, nor as a moral imperative as seen by the West' (Mathews, 2014: xii; 48). Instead, it has come about through an extraordinary development challenge for China and other newly industrializing nations looking to join the club of industrialized and post-industrial societies whose economies are based on services and innovation rather than manufacturing. In this framework, in John Mathews' words, as a matter of necessity, a new approach to environmentally conscious development has emerged in the East, with China leading the way (Mathews, 2014: 46-48).

The new role of China as a climate leader for the Global South was reinforced during the 22nd Asia-Pacific Economic Cooperation summit held in Beijing from 8th to 10th November 2014, where Chinese President Xi Jinping and US President Barack Obama reached – as deemed by several international observers – an unprecedented climate change deal.

The relevance of the agreement lays in the fact that it shifts the criteria upon which actions taken by developing countries are reviewed: from strict goals of emissions reduction – which constituted previous negotiations – to long-term policy transformations. Moreover, for the first time, it acknowledges the importance of social and economic development for emerging economies, thus moving away from the earlier sole emphasis on environmental security to a focus on human security as well. The agreement recognises that countries will have different time frames for peaking GHG emissions due to their different starting points[108].

The unfolding leading role of China in global environmental governance was consolidated a year later at the COP 21 in December 2015, when 196 Parties of the UNFCCC adopted the

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[108] Full text of the agreement can be found at: https://www.whitehouse.gov/the-press-office/2014/11/11/fact-sheet-us-china-joint-announcement-climate-change-and-clean-energy-c [Accessed 1 April 2017].

Paris Agreement which sets a target to maintain the global average rise in temperatures up to 2 degrees Celsius above pre-industrial levels, and preferably below 1.5 degrees. China's shift toward a more active participation in the international climate change negotiations has been deemed a key contribution for the diplomatic success of the Paris Climate Talks (The White House, 2015; Xinhua, 2015; Li, 2016; Hilton & Kerr, 2017).

The Paris Climate Agreement drew on the 2014 China-U.S. pledge to cooperate on emissions reductions. That pledge laid the foundation for other countries to present their own reductions. China's special representative on climate change Xie Zhenhua called the conference "a crucial point in the global climate governance process." Soon after the announcement of the Paris deal, a commentary from Xinhua news agency called the deal 'a particularly sweet victory for China, which emerged to take a leading role in the negotiations', highlighting China's recent commitments on climate change as a sign of its new role as a world leader in climate governance (Xinhua, 2015).

9.3   Summary of other key findings

Two additional key findings stand out in this research. They concern (1) the epistemologically unstable status of the climate security paradigm understood as a direct link unstable status of the climate security paradigm understood as a direct link between climate change and conflict; and (2) China's changing role from a heavily criticized polluter to a global leader in clean technology development.

9.3.1   The narrative of China as the "Climate Villain" in international Environmental Governance and the Development of the Climate Security Paradigm

In some cases, mostly observable in Western countries, the equation of national security and climate change can arguably be ascribed to a need by advocates, politicians, and public servants to provide arguments for climate action in political environments that are hostile to or sceptical of efforts to tackle climate change. This type of rhetoric has been especially common in the US, where some members of the U.S. Congress still deny the existence of climate change or its anthropogenic character, despite overwhelming evidence to the contrary.

Nonetheless, in the framework of ICCN, the intransigent negotiating position of Beijing has been historically identified (in Environmental and Political Science literatures) as the main obstacle undermining major achievements in the global fight against climate change. In this context, the increasing emphasis by the Global North on the security dimension of climate change has been read by many researchers, academics and policy makers in the Global South as an excuse to use global warming to impose economic and political constraints on China and other emerging economies and interfere with their development, as well as undermine the role that they are starting to play globally (Gupta & Dutta, 2009: 36; Boas, 2012; Mayer et al. 2013).

In fact, casting climate change as an existential and urgent threat for national and international security may consequently sideline the CBDR principle. This would be consequential, since the principle represents the key compromise between the different negotiating positions of developed and developing countries, and one that serves to undergird the present international climate regime. The architecture of the Kyoto Protocol was conceptualized in terms of mutual rights and obligations of polluting and "victim states" underlining the nature of climate change as largely "produced" in the North and "experienced" in the South (Engberg-Pedersen, 2011). According to the Chinese government, the principle of "common but differentiated responsibilities" represents the bedrock of international climate change negotiations and action on climate change must be taken within the framework of sustainable development and should by no means compromise the efforts of developing countries to alleviate poverty and backwardness (MoFa, 2009; Xinhua, 2009). China has argued that applying binding emission reductions for all countries, even if adjusted for their levels of economic development, would impose a screeching halt to any possibility for developing countries to lift their citizens out of poverty. Regarding larger emerging economies, it would inhibit their ability to sustain their fast economic growth, which is needed for massive expansions in energy, transport, and urban infrastructures (Ma, 2010; Chen, 2012).

Moreover, research on climate security has predominantly investigated the causal links between climate change and conflict, thereby addressing the need for military intervention (the so-called Green Helmets) to stabilize failing states and ungoverned territories. Thus, the securitization of climate change represents another clear threat to one of the most important principles of China's foreign policy and international relations: non-interference with the sovereignty and internal affairs of states (Sanwal, 2013). This norm also allows China to enhance its role in several African countries (Kopinski et al., 2012: 1-8) as an international actor that can be both trusted and emulated. One view of the climate security paradigm has

tied it to bureaucratic agendas of policy-makers intent on advancing particularistic national interests, or to internal strategies of international organizations looking for new rationales for their existence after the Cold War. Academics and pundits advancing this criticism are sceptical of theoretical and empirical insights produced via this scholarly and policy paradigm (Scheffran & Battaglini, 2011; Bernauer et al., 2012; Gleditsch, 2012; Scheffran et al., 2012; Theisen et al., 2013). Rival accounts understand climate change more accurately as a "threat multiplier" (Cousins, 2013: 200), which exacerbates existing sources of conflict and insecurity, rather than an independent variable.

For several years, researchers have been analysing links between climate change and violent conflict, starting with the work of the Toronto Group, led by the Canadian political scientist Thomas Homer-Dixon, and the Environment and Conflict Project (ENCOP) in the 1990s, to the more recent analyses of Hsiang, Meng and Kane (2011) and Hsiang, Burke and Miguel (2013). The dominant form of analysis is a quantitative one, correlating extreme weather events, or temperature and precipitation data with conflict records. Yet the ambiguous findings of several studies have led to controversy within the research community (Schilling, 2014). A decade of generalizable quantitative research on climate change and armed conflict appears to have produced more confusion than widely accepted knowledge (Buhaugh, 2015: 269).

The relationship between climate, climate change, and conflict has been empirically tested in a wide variety of studies, but the literature has not yet converged around a commonly accepted set of results (Salehyan, 2014). The battle line is mainly between quantitative and qualitative research. On one side are the 'quants' whose methods identify correlations between conflict and climate in global or regional data sets. Conversely, the 'quals' study individual conflicts in depth (Solow, 2013). The most comprehensive assessment of the scientific literature to date, the Human Security chapter of the UN Intergovernmental Panel on Climate Change's Fifth Assessment Report, states that while individual studies vary in their conclusions, collectively, the research does not conclude that there is a strong positive relationship between global warming and armed conflict (IPCC, 2014: 772).

The climate security paradigm has always been rejected by China and other emerging economies. From their perspective, any international climate agreement must reflect the needs of developing countries to gain more carbon emission space. Focusing on the security consequences of climate change will just divert political attention and financial resources from the common goal of sustainable development. China recognises and is directly experiencing the adverse effects of climate change. However, according to the government,

this is a matter of sustainable development policies and investments towards mitigation and adaptation measures to a changing climate, rather than a matter of national or international security.

9.3.2 China's green growth: recent achievements and future perspectives

China has come to perceive itself as a new science and technology leader globally. Moreover, its state-party leadership and businesses believe that the next industrial revolution will centre on clean energy. Therefore, their determination to reinforce and advance China's global role in science and technology development seems only logical (Tan, 2010).

China's shift toward a more active participation in the international climate change negotiations has been deemed a key contribution for the diplomatic success of the Paris Climate Talks (The White House, 2015; Xinhua, 2015; Li, 2016; Hilton & Kerr, 2017).

Over the past decade, there has been a steady increase in both the scope and ambition of China's domestic environmental and climate policies. China's evolving policies and programmes on domestic environmental governance implemented following the guidelines of the 11th and 12th Five Year Plan (FYP) gave China the opportunity to re-formulate its priorities in international climate negotiations. They also helped pave the way for increased climate cooperation at the international level.

The 12th FYP, which outlined China's new model of economic development, included explicit energy and carbon intensity targets, investments in low-carbon industries, increased targets for R&D spending, pilot carbon markets, and measures to boost renewables in order to reduce dependency on coal in the energy mix (Zhang, 2015). These measures must be seen in the context of a radical shift in Beijing's economic policy, which became linked explicitly with the climate agenda (Stern, 2011; SCIO, 2014). Prior to the 11th FYP, China's policies on climate change were driven mainly by concerns over competitiveness and energy security rather than climate vulnerability. The focus was typically on meeting domestic imperatives such as economic development, poverty alleviation and pollution abatement rather than solely emission reductions.

Starting with the 11th FYP, the balance of China's environmental and economic policy began to change: the costs imposed on China's population arising from the traditional industrial model of development were tangible and reflected in the worsening air and water quality and soil pollution. These considerations have led the state and party leaderships in Beijing to

acknowledge that a systemic change toward a low carbon economic model of growth was perhaps inevitable (Li & Wang, 2012). Furthermore, China was beginning to feel not only the domestically mounting social pressure (i.e. the so-called mass incidents), but also an increasing sense of responsibility to fully engage in global environmental policy to strengthen its role as a leading developing nation within the Global South. Moreover, Beijing has come to perceive the traditional development model as unsustainable in the long run due to diminishing returns as rising labour costs drove up production costs, and over-investment began to generate surplus capacity and redundant developments rather than growth (Cai, 2012; Garnaut & Huang, 2005; Zhu & Kotz, 2011).

The Third Plenary Session of the 18th Chinese Communist Party Congress in November 2013 marked a change in economic policy compared to the previous decade. The new model of development designed by the Chinese leadership was characterized by a lower target of GDP growth in comparison with the previous years, gradual transition from heavy industry to services, increased productivity through innovation, and a greater role for domestic consumption to decrease over-reliance on investment (EC, 2011; Stern & Green, 2015).

At the same time, environmental sustainability was also prioritized as an instrument aimed at 'accelerating economic restructuring' (SCIO, 2014). Consequently, emissions reduction would come from the combined effect of slower growth and a more balanced economy, in addition to specific measures promoted through targeted policies (Green & Stern, 2016). In 2015, after enacting the revised Environmental Protection Law, the Chinese government issued a series of regulations and policies address to the "Ecological Civilization"[109] as a key slogan that would inform future government planning. Furthermore, the 13th Five-Year Plan (2016-2020) for Economic and Social Development further outlined a comprehensive plan for promoting the unique "ecological civilization" in the next five years. Climate targets have been incorporated into the 13FYP and, for the first time, "Green Development" became one of the five major principles underpinning China's long-term growth.

By the end of the 12th FYP, the positive results of Beijing's as progressive alignment of domestic economic and political development agendas provided the government with a larger manoeuvring space within international climate talks. As noted by Green and Stern, before

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[109] The concept of ecological civilization first appeared in official government documents at the 17th National Congress of the Communist Party (CPC) in October 2007. In his report to the CPC, General Secretary and President, Hu Jintao, proposed China 'build an ecological civilizations and a model of growth and consumption, as well as industries, which are frugal in their use of energy and resources and protect the environment [China Daily, 24 October 2007]. Available from: http://www.chinadaily.com.cn/opinion/2007-10/24/content_6201964.htm [Accessed 1 April 2017].

COP 21, thanks to domestic reforms, China was in the enviable position of being able to propose a target that could potentially allow it to 'under-promise and over deliver' (Green & Stern, 2016: 436). Hence, on the eve of the Paris Climate Talks, the "going low carbon" policy that China was not ready to assume in Copenhagen – considering it a constraint on its economic development – was instead the key message Beijing was proposing to the world.

9.4   This Study's Innovative Contribution

According to Kelly Sims Gallagher in "*The Globalization of Clean Energy Technology – Lessons for China*":

> 'China is intrinsically interesting as an enormous country with 20 percent of the world population, the second largest economy, the largest energy production and consumption, and the largest greenhouse gas emissions on the planet. China is also worth examining because of the polarizing perceptions many have about this rapidly industrializing country' Gallagher, 2014: 27).

The rise of China has become a recurrent topic among scholars, pundits and policy makers in the West and much ink has been spilled analysing what this "rise" implies for the rest of East Asia, for the United States, and the world (Zhang, 2011: 235-6). The original contribution of this research is multifaceted.

First, it lies in the analysis China's evolving international role as a Normative Power, in particular in contextualizing its rise in the framework of International Climate Change Negotiations and in tying its normative role to a somewhat unexpected domain of international politics and global governance – climate change and climate action. Thereby, this thesis has expanded the application of the norm-taking/norm-making matrix to a relatively new actor (China) in a novel way (by analysing its role and behaviour in global climate change politics). In doing so, it has also problematized the dominant criticisms of China's role in ICCN as obstructive, reactive, or difficult.

Second, this research contributes to interpretive and identity-based analyses of climate governance and it approaches China's evolving climate behaviour and international leadership as driven by intertwined cost-benefit calculi and a sense of appropriateness. This study has analysed the evolving role of Beijing in ICCN as more than just a consequence of its

economic performance. Otherwise, this link could be explained by, for example, applying the Kuznets curve model under specific hypotheses. Instead, this research has explored more fully the qualitative and social nuance of politics and public policy. Accordingly, it has embedded China's evolving global role in development and climate governance in (1) the material variables of economic power as well as (2) an identity shift that has taken place gradually since the early 1990s. In fact, this study has argued that the former would be impossible to understand without the latter. In other words, it has consistently demonstrated how the 'useful and 'right' (or 'appropriate') have been mutually constitutive throughout the process of China's behavioural change in international development and global environmental governance. In doing so, this thesis helps to address the relative lack of identity-based and sociological explanations of China's globally changing role and behaviour in ICCN[110].

Third and more broadly, this research makes a combined theoretical and empirical contribution to interpretive, constructivist, and sociological-organizational accounts of great power behaviour, power transition, and institutional participation – areas of study traditionally dominated by the 'neo-neo debate' in International Relations. This analysis shows that identity dynamics play a tangible role in practices that may be otherwise interpreted as 'power grabs', 'increased assertiveness', and 'strategic' or 'instrumental' behaviour focused on utility maximization

Over the past five decades, academic and policy discourses on climate change, sustainable development, conflict and security have been largely climate-centric (i.e. focusing mainly on emission targets). Little attention has been devoted to the contextualization of climate policy impact within the broader processes of economic, social, and geopolitical changes. While the concept of "Normative Power Europe (NPE)", has been widely recognized by scholars and policy makers and is today a consolidated concept in International Studies, there are few discussions of emerging powers *as* normative powers. In particular, the notion of a "Normative Power China" might appear provocative and controversial if applied to the field of global environmental governance. In fact, even before the failure of Copenhagen, in Western environmental and Political Science literature, the intransigent negotiating position of Beijing has been identified as the key factor that has undermined major achievements within ICCN.

However, reforms implemented with the 10th, 11th and, above all, the 12 FYP marked the shift toward a low-carbon economic model of growth which was seen as a strategic

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[110] For a review of current literature see Zhang Haibin, 2013.

opportunity for China to (1) address its growing domestic environmental crisis; (2) mitigate the negative impact of ever-increasing GHG emissions on China's international image, and (3) develop technologies in increasing demand as the world gradually accepted carbon constraints. Following this path, six months before the Paris Summit, China communicated to the UNFCCC its ambitious Intended Nationally Determined Contributions (INDC).

The new course of the Chinese state-party leadership, the more cooperative and flexible attitude in ICCN, and political support of a growing number of developing countries and emerging economies (secured by Beijing through its climate diplomacy) has allowed China to play a key role in the conclusion of the Paris agreement, achieving its normative goals:

- The consolidation of the CBDR in the Paris Agreement;
- Finance and technology transfer from developed countries to support mitigation and adaptation measures in developing countries, and
- Flexibility in five years reviews for developing nations.

Given that the 13th FYP reinforces the importance of 'green' and low-carbon development growth, it seems likely that China's shift toward low-carbon development – and a more proactive stance in climate negotiations – is bound to be structural and long term.

9.4.1 Brief reflections on possible avenues for further research

Based on this dissertation's argument, a few avenues for further research can be suggested.

First, future research could analyse the impact of Chinese Soft Power at the global level, in particular its influence on the global politics of climate change and development and more specific issues therein. In the past years, China has positioned itself as a cautious champion of economic globalization and integration, signalling a desire to take on a greater international leadership role. The country is doing this in several ways, but China's active and conscious promotion of its Soft Power (as a measure of its international attractiveness and ability to influence other countries' preferences and behaviour) stands out.

In 2014 Xi Jinping affirmed that "We should increase China's soft power, give a good Chinese narrative, and better communicate China's message to the world," calling for a stronger national effort to link China's popularity and likeability to its economic rise.

According to David Shambaugh, in the last decade, the PRC has invested some $10bn a year to expand its foreign-language media abroad, create more Confucius Institutes and foster educational exchanges, boost aid outflows, sponsor cultural festivals abroad and, generally,

portray Beijing as a defender of the international order, trade, and globalization (Shambaugh, 2015). Nevertheless, according to a large number of western scholars (including the "father" of the notion of Soft Power, Harvard professor Joseph S. Nye who coined the term in 1990), Beijing's Soft Power has a limited impact worldwide. Experts such as David Shambaugh, Elizabeth Economy, or Joshua Kurlantzick affirm – among others – that China's soft power campaign is limited by the dissonance between the image that China aspires to project and the country's actions. According to their analysis, rising nationalism, crackdowns on nongovernmental organizations, censorship of domestic and international media and political repression, definitely constrain China's soft power (Albert, 2017; Shambaugh, 2013; Nye, 2012; Kurlantzick, 2006, Pan, 2006).

Notwithstanding these criticisms, the PRC is pushing even harder on its Soft Power Strategy and the latest initiative of Beijing, the massive Belt and Road Initiative, also known as "One Belt, One Road," fits into this soft power offensive. Beijing plans to spend and raise as much as $1 trillion in an effort to create a vast new road and rail infrastructure, energy projects, and other needed infrastructure across many parts of Eurasia and even in Africa and parts of Western Europe. One Belt, One Road is by far the largest economic spending plan in the world today. The infrastructure creation, aid, and jobs that may come with the initiative could boost growth from Laos and Pakistan to many parts of Eastern Europe, and could potentially improve China's public image in these countries and regions. Is it possible that this new massive investments plan will be able to increase the attractiveness of Beijing not only in the already favourable African and South American Countries but also across the Global North?

Another extension of this dissertation's research could be in the growing field of literature on resistance to (western) norms. In this regard – for example – the ODA can be taken as a point of departure for future research. Starting from the growing involvement of the PRC in the African Continent, the analysis can be focused on how the PRC, instead of claiming superiority over Western ideals, may adopt a strategy of "social creativity" by promoting alternative standards to justify China's aid programs (Larson & Shevchenko, 2010). In fact, as highlighted by Reilly, achieving international acceptance of such standards is a critical goal for Beijing in advancing the two core objectives pursued throught its aid program: (a) defending PRC strategic interests; while also (b) bolstering Beijing's credibility as a responsible contributor to global and regional governance (Reilly, 2012).

Another interesting field of potential research lies in the so-called "Beijing Consensus" and his juxtaposition versus the "Washington Consensus" and this would effectively draw on this dissertation's argument on China's norm-making behaviour. Beginning in the early 1990s

(with roots in the 1980s), the Washington Consensus (advocating orthodox market liberalization measures and institutions of liberal-democratic government) imposed itself as the dominant way for developing countries to achieve successful economic development. Private companies, international financial institutions, and the US government have actively promoted market liberalization and liberal-democratic formulations of the "rule of law" as successful-development prerequisites and, more importantly, as a fundamental condition for obtaining International Monetary Fund (IMF) and World Bank (WB) assistance. At the same time, China's market-authoritarian development has produced two-decades of double-digit economic growth and is increasingly challenging free-market liberal democratic precepts, becoming progressively more attractive in several developing countries and emerging economies. In recent years, the "China Model" has become shorthand for economic liberalization without political liberalization. While the U.S.-led Bretton Woods system, centred on the IMF and the WB, has long driven the operation and ideals of finance and economy in the second half of the past century, China and other emerging economies who seek to expand their influence are attempting to revise the means for governing the global economy by establishing systems of their own. One particularly noteworthy development is the successful establishment of the AIIB, the multilateral development bank initiated by China in 2013. The AIIB, being a Chinese initiative, is an important vehicle to spread Chinese norms of financial governance, which, since the early 2000s, have been a major target of Western criticism in relation to its foreign aid, above all in Africa.

In a 2013 article published on "ChinaUSfocus", Joshua Kurlantzick, senior fellow for Southeast Asia at the Council on Foreign Relations, reported that the so-called Chinese model has gained considerable ground in Southeast Asia (Kurlantzick, 2013). Moreover, examining the political trajectory of the ten states that belong to the Association of Southeast Asian Nations, it seems that some of them have moved in the direction of arguably more authoritarian China and away from liberal democracy over the past decade. How related is this to China's perceived successes in national economic development, in contrast to the West's failures since the 2008 global financial crisis?

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