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Securitization in Chinese climate and energy politics

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Abstract

This article provides an overview of securitization in Chinese climate and energy debates. Scholars have debated the merits as well as the potentially problematic implications of securitization, or framing issues as 'security', since the early 1990s. Early concern focused on the potential problems with linking environmental issues with 'security', and the debate has since also turned specifically to the climate and energy. However, it is only recently that this debate has begun to pay attention to China. Energy and climate concerns are of increasing importance to China: the sheer scale of its energy consumption and air pollution struggles dwarf the challenges seen by other states, and its policy choices play a key role in shaping global climate and energy dynamics. Thus, while securitization in the Chinese context is rarely studied, how China frames its energy and climate policy matters. Both energy and climate are taken increasingly seriously, and security plays an increasing role in debates. This review surveys the increasing popularity of linking security with climate and energy issues both in the academic debate on China and in official discourse, and some of the potential implications.

Introduction

Scholars have debated the merits as well as the potentially problematic implications of framing different problems as issues of 'security' since the early 1990s. Early concern focused on the potential problems with linking environmental issues with security, and has since also turned specifically to the climate¹⁻³, and energy⁴⁻⁶. The Copenhagen School developed the concept of 'securitization' to conceptualise what happens when particular threats are labelled as issues of security by elite actors⁷. They argued that if an issue is successfully securitized, it moves from the realm of regular politics into the realm of security, where emergency measures are legitimised and where they are treated differently: using 'threat, defense, and often state-centred solutions'⁸. Thus, while securitization can be beneficial, attracting attention and extra resources to address an issue, it can also have potentially negative consequences: this has been the focus of a growing number of studies on climate and energy politics. However, it is only recently that this debate has begun to pay attention to China. Energy and climate concerns are of increasing importance to China: the sheer scale of its energy consumption and air pollution struggles dwarf the challenges seen by other states, and its policy choices play a key role in shaping global climate and energy dynamics. So, how China frames its energy and climate policy matters.

Studies of securitization have been accompanied by a debate over the widening of the concept of security, discussing both the merits and perils of broadening the concept to include issues beyond military security, often referred to as 'non-traditional' security issues. In the climate and energy fields, security has been studied in a wide range of ways. Energy is often considered a more traditional security issue as it tends to be linked with national security⁹, and as a result securitization of energy has only been studied more recently, with key contributions from Nyman and Leung et al^{6, 10}. Meanwhile, studies of climate change and security have ranged from studying the potential for climate change to lead to conflict, to arguing that climate change should be seen as a non-traditional security issue and treated in non-militarised ways^{1-3, 11}.

This focus article provides an overview of securitization in Chinese climate and energy policy debates. It starts by reviewing scholarship on securitization theory and China, illustrating that while the dynamics of securitization are different in non-Western countries, securitization still occurs. It then briefly discusses energy security and climate concerns in China, before turning to the role of 'security' in Chinese energy and climate politics. Here, we begin with a discussion of the academic literature, reviewing nascent existing literature on security and securitization in Chinese energy and climate debates. The focus is on the internal Chinese academic debate, but some relevant literature in English is also considered. The following section looks at the official discourse of the Chinese government, considering the role of security in discussions of energy and climate issues. We conclude with some reflection on the implications. Overall, we note increasing interest and focus on security and securitization in China's energy and climate politics: we suggest that this is both interesting and important, but not necessarily a negative development. We suggest that a contextualised approach is needed for studying securitization in practice, in particular when studying securitization in a non-Western context.

Securitization theory and China

Securitization theory developed as an analytical framework to understand how issues become security, and the consequences of this process. It presents perhaps the most influential account of what security is and how it works. The Copenhagen School argued that security is a 'speechact'. Thus, securitization is a discursive process through which 'an issue is dramatized and presented as an issue of supreme priority; by labelling it as security an agent claims a need for and a right to treat it by extraordinary means'. Drawing on Austin, they suggested that security is performative: that speaking it is an *act*. Consequently, the label 'security' is not simply a reflection of a reality where something *is* a security issue. It is a political choice, with

consequences. However, a securitizing move only results in successful securitization if that move is accepted by the relevant audience, which is more likely if the issue is framed using the grammar of security, if the speaker is in a position of authority, and if the external context and features of the threat makes the designation seem realistic⁷. If and when securitization is successful, the threat tends to be addressed in specific ways: the issue is moved out of regular democratic politics and fast-tracked, it is no longer subject to rules which normally bind and can be treated by extraordinary means. As a result, the Copenhagen School suggest securitization is usually best avoided.

Securitization theory has become a popular analytical framework for studying the increasing number of issues which have been labeled 'security' 12-14. It has also been subject to a number of critiques. The limitations of securitization theory have been discussed elsewhere 15, with key critiques highlighting security constructions beyond speech (including visual representations and physical action), the problematic implications of leaving power in the hands of elites, and the need to better understand the role of audience acceptance 16-22. However, despite critiques it has remained central to attempts to understand both the processes and the consequences of security construction.

Here, the critiques worthy of more detailed consideration relate to the Western-centric nature of securitization theory. The vast majority of work drawing on securitization theory focuses on Western liberal-democratic systems and it is often assumed that the framework does not work in other contexts. The Copenhagen School define the process of securitization as one which moves issues out of regular democratic politics and debate and into fast-tracked emergency national security politics. This clearly relies on a society where liberal democratic politics represents the 'normal' state of affairs and security represents the exception, and as a result the usefulness of securitization theory in different political systems has been questioned. Most obviously, how do you identify securitization if there is no move from liberal democratic politics to fast-tracked emergency politics? Likewise, securitization is a process of legitimation, a justification to an audience for treating an issue differently. If the audience (in the form of the general public) does not have the power to influence politics, what happens to the Copenhagen School's emphasis on audience acceptance as necessary for a successful securitizing move? Wilkinson's study of Kyrgyzstan suggests that securitization theory is useable outside Europe, but that one must pay attention to local contexts and be careful not to oversimplify or generalise based on Western experience²³.

A number of issues arise when you try to study securitization in China: most importantly, because of the political system the relationship between the state and society is inevitably going to be different. There has been little in-depth research on the usefulness of securitization theory in China, with the exception of Vuori's work^{24, 25}. He found that while legitimacy and authority do work differently, securitization still occurs and securitizing moves still have to be accepted by an audience: leaders still 'have had the need and urge to appeal to the masses for support'²⁴. Securitization theory relies on an audience that needs to be convinced of the legitimacy and necessity of action. In China, this can be the general public, but depending on the issue and the context the audience can also be the elite: 'who has to be convinced of the necessity of security action changes with the cultural and political...[context]²⁴. Critiques have suggested that systems that are not liberal-democratic have no need for securitization, as there is no need to convince the audience of the need for emergency action. However, Vuori shows that the use and construction of security issues 'can be utilized for a range of political purposes, from raising an issue on the agenda of decision-making to legitimating policies, deterring threats, and controlling subordinates'; it also helps to maintain the political system in China²⁴. Here, it is important to note that the Chinese government associate security closely with national security,

the security of the state¹⁰. In that sense, it is quite closely aligned with the Copenhagen School's conception of security.

International Relations and Security Studies are still relatively young fields of study in China, and while there is much discussion of security, securitization theory has not been widely used either in China or to study Chinese politics. As Vuori has illustrated, the dynamics of securitization processes differ, but the approach can still tell us something interesting about energy and climate security politics in China.

Energy security and climate concerns in China

China was relatively late to industrialise, but with industrialisation and opening up from the late 1980s energy demand increased, and China became increasingly reliant on imports of crude and processed fuels²⁶. Energy security became an area of attention in 1993, when it went from being a net oil exporter to being a net oil importer. Energy was long characterised as a 'domestic economic development issue' rather than an issue of national security, with a few exceptions including pipeline locations or border disputes where energy resources play a part²⁷. However, as China became a net-oil importer and as energy demand continued to rise, energy security (能 安全, nengyuan anquan) has risen up the priority agenda. It has become increasingly important, and sufficient and reliable energy supplies at reasonable prices is now considered to be 'crucial to national values and objectives and underpins, in part, the party's governance'²⁸. It is increasingly framed as an issue of national security. However, as in most states, there is ongoing debate over the extent to which energy security should be left to the market or controlled more tightly by the state due to its strategic importance²⁹.

China's growing energy demand has proven difficult to satisfy. Energy security policy has emphasised self-sufficiency, which has been a big factor in the country's continuing heavy dependence on domestically available coal (alongside easy availability and cost). China's rate of self-sufficiency has remained much higher than that of most developed countries, at around 90% and it became the world's largest energy producer during the 11th Five-Year period [2005-2010]³⁰. This period also saw huge increases in domestic production of coal, doubled gas production, some increase in oil production, and a big growth in renewable energy³⁰. While coal is largely domestically produced, more than half of oil consumption relies on imports³¹. As a result, oil is often at the centre of Chinese energy security discussions: 'energy security' has been a 'buzzword' in China since 2000, when oil imports doubled²⁸. Growing oil imports have also been framed as a security risk as they represent dependence on other states and transport routes which may not be available in times of crisis.

In terms of actual policy energy is still a relatively recent priority, and the first white paper on energy did not appear until 2007. China has not had an energy ministry since 1993 and energy administration, policy and planning duties are in the hands of the National Development and Reform Commission (NDRC), a central planning agency responsible for national economic and social development. Within the NDRC, the National Energy Administration (NEA) is a sub-department in charge of energy policy since 2008³². On top of this, a National Energy Commission was established in 2010, with the Prime Minister as its head 'to step up strategic policy-making and coordination'³³. This also illustrates the growing importance of strategic and security thinking on energy.

Climate change is also an issue of growing importance in China and its impacts are already seen. Its own government assessment notes that 'China is one of the countries most vulnerable to the adverse impact of climate change' and it is an issue to which the government 'attaches great

importance³⁴. Energy consumption has risen with economic growth, which remains a key pillar of legitimacy of the Chinese Communist Party (CCP), and thus also underpins political stability. But it has also made China the biggest greenhouse gas emitter globally and alongside larger impacts on the global climate, air pollution is a growing problem in its cities. The government is increasingly aware both of the scale of the problem and the potential future risks it poses. While climate change may not directly cause conflict, it is generally regarded as a 'threat-multiplier': in China, it is likely to have a severe impact on food and water security as well as human livelihoods, with an increase in disease and growing numbers of climate refugees from the most heavily affected areas³⁵. Social stability is a constant concern of Chinese leaders, and environmental issues (particularly air pollution) are a growing source of discontent.

In Beijing, the central government is still developing its approach to the issue, as can be seen in the response to the popular 2015 documentary on smog, *Under the Dome*: the Ministry of Environmental Protection initially praised the film, but it was later removed from Chinese internet sites. It also demonstrates the diverse interests of key actors within the Chinese political system. Given that *Under the Dome* points to the monopoly of Chinese energy and urges further energy reform, it was not welcomed by, for example, China National Petroleum Corporation (CNPC), a Chinese state-owned oil and gas corporation and the largest integrated energy company. According to the Vice Chief Engineer of the CNPC Wan Zhanxiang, 'perhaps she [the producer of the film] doesn't have enough brain power, or she doesn't have adequate knowledge. Anyways, there is not much true wisdom in this film'³⁶. This debate also exposes the opposing views over approaches to energy security: market-centred or strategic²⁹. The film urges more marketization in the field of energy – which may harm the interests of the current statemonopolies. The diverse (and often vested) interests within the Chinese political system have made a coherent understanding and policy response to climate change and energy security more difficult.

Not surprisingly, the policy response has been mixed so far. A report released by the NDRC in 2013 noted that 'China is poorly prepared to tackle the impact of climate change that presents a serious threat to the country...due to a lack of planning and public awareness'³⁷. Bigger targets are set in Five Year Plans, with follow-up white papers setting more detailed targets. The first climate change plan was released by the NDRC in 2007³⁸ and it rapidly rose to become an issue of national priority. Notably, the 12th Five Year Plan (2011-2015) focuses heavily on both energy and climate issues. While policies are developed in a number of government departments including the NDRC and the Ministry of Environmental Protection, the National Leading Committee on Climate Change (formerly the National Coordination Committee on Climate Change) coordinates targets across ministries, headed by the Chinese Premier. China is setting increasingly ambitious domestic emissions and climate mitigation targets, and alongside this the rhetoric is being stepped up: in March 2014 Premier Li Keqiang declared a 'war on pollution'. Energy security has traditionally taken precedence but focus on efficiency and diversification (as policies undertaken in the name of energy security) has also had a positive impact on climate security³⁹.

Air pollution has also emerged as a separate security issue in China, especially as the haze has become more visible to ordinary people and contributed to environmental protest movements. This rising dissatisfaction is in itself a potential threat to state stability in China. However, discussions of the solutions to air pollution still focus on energy security. For example, in China's first national security bluebook, air pollution is considered as a threat to China's national security. Here, the lesson of China's haze is that 'the traditional energy security thinking – that focuses on oil security – can no longer accommodate the actual needs of China's energy development. Energy security is not only a problem of diplomacy and benefit game

internationally but also an urgent need of economic transition and improving public health domestically, 40.

Before moving on to review the Chinese academic debate and official discourse, a brief note on methodology. In terms of the secondary material surveyed, the discussion of the Chinese academic debate focuses on articles published in Chinese journals. Our sampling was carried out in April 2015 and centred on the China National Knowledge Infrastructure (CNKI) Database (http://www.cnki.net/), which is the largest journal database in China and includes most if not all Chinese journal articles published and available online. We discuss in more detail the (much smaller number of) articles which explicitly deal with either securitization and energy/climate change or which consider energy and/or climate change as security issues. The database also works as a repository of articles for Chinese researchers, which makes it a particularly important tool in our survey as they are likely to be widely read. Most of the articles surveyed are in Chinese, though some are Chinese translations of English articles appearing in Chinese journals, indicating considerable Chinese academic interests in the area. We do supplement this with some international English language articles, where these are considered particularly relevant (in most cases because these provide additional surveys of specific aspects of the literatures considered here).

In the analysis and discussion of primary material in the final section which looks at official discourse, we used focused sampling to provide a survey of key documents and statements, drawing on work from a larger study by one of the authors. Here, Neumann's selection criteria emphasising key texts as 'monuments' have been used: these play a central place in the policy debate, have broad reception, and are often cited⁴¹. One of the authors has also conducted interviews with key thinkers on China's energy security, which have informed the broader framing of this article.

The views and research focus of Chinese scholars does sometimes vary with their institutions, geographic location, and funding sources⁴². There is some connection worth noting between authors focusing on non-traditional security and relevant research centers – such as the ecological security article noted in reference 69, which was written by Wang Jiangli of the Center for Non-traditional Security and Peaceful Development. However, our sample is too small, and the information about authors' potential connections and funding too opaque, to conclude that views are shaped by the institution, location or funding.

The academic debate: security in China's climate and energy policy discussions

This section reviews the existing academic literature on security and securitization in China's energy security and climate change debates. It begins with energy security, before moving onto the literature on climate change. While there is much discussion of security, securitization theory has not been widely used. We have found some uses of the approach with energy and climate change in Chinese journals, as well as some uses in English language journals. Alongside this, we also consider articles which do not explicitly use securitization theory, but consider the role of energy or climate change specifically as *security* issues.

Security in China's energy debates

As with many other concepts that are imported from the West, energy security is very much an evolving notion in China. As such, there is no fixed definition, and officials and policy-makers use the term "energy security" in different ways. While some argue that energy supply has always been considered a security issue in China, our examination of Chinese academic journals in the CNKI database finds the term 'energy security' appearing in 1989 and only really becoming a widespread topic of interest in the early 2000s (see Figure 1). While this does not

necessarily mean that energy was not considered a security issue prior to this, it does illustrate a growing interest in the issue, and growing acceptance of the term.

[insert Figure 1 here]

Chinese academic articles on energy security can be divided into two major areas of focus. Most relevant for our discussion is the focus on China's energy security and policy analysis, which emerges in 1998. Alongside this, there is also considerable interest in how other countries protect and define their energy security, and its implications for China. Interest in the problem of energy security also goes beyond academia, with the first decade of the 2000s seeing 'a growing number of government officials, military officers, think-tank experts and academics publicly pontificating on the subject'⁴³. However, interest in how, specifically, energy is understood as a *security* issue is very recent. Most of the more high profile discussions of energy as a national security issue focus on oil supply, increasing reliance on imported oil and the possibility of interrupted oil supplies. Focus on the state and self-reliance is central: security is generally equated with preserving and ensuring the survival and existence of the PRC.

While securitization theory has not been widely used either in China or to study Chinese politics. we have found some examples relevant to energy security debates. A translated article by Øystein Tunsjø in a leading Chinese journal discusses securitization and China's energy security, noting that Hu Jintao repeatedly referred to China's oil dependence as a security issue. However, he suggests that China is also simultaneously marketizing energy⁴⁴. Leung et al. present a different perspective, sub-dividing energy security in China into relevant energy supply chains. They then survey how different energy supply chains are constructed as security issues in China, finding that oil supply chains are securitized 'at the expense of improving the reliability of domestic electricity supply' 10. Thus, they argue that oil supply in particular is constructed as an issue of national security, as opposed to other issues relevant to energy security. In an interview with an official involved in the drafting of China's 2012 energy white paper, they find that oil supply is constructed as a security issue specifically because it can threaten the "selfreliance" of China in energy terms: the security of the state again remains at the centre here¹⁰. The emphasis on national security in China's energy securitization is also noted elsewhere⁴⁵. Leung et al. further suggest that although China's energy security strategy has involved increasing engagement with the global oil market through the 'going out' strategy adopted in the early 2000s, ensuring the state's supply through diversification has remained key to energy security. Consequently, from this perspective 'risks to national energy security are something that affects the nation as a whole and is likely to originate externally, from other nations', so oil supply is more likely to be considered a security issue¹⁰.

A growing number of articles discuss the concept of energy security in China and what should be included or focused on. A survey of Chinese studies on energy security finds an overwhelming focus on oil and oil supply⁴⁶, with one author noting that oil supply is the focus as it has been China's key source of energy *insecurity*²⁸. In discussions of oil supply, the international dimension is emphasised as the factor which potentially poses a threat⁴⁷. It is notable (though not surprising) that discussions which consider *both* energy security and climate change are more likely to emphasise sustainability: Wang Tao argues that the definition and content of energy security has changed in the past decades, from security of supply and price to also emphasise sustainable development, environmental protection and social development⁴⁸. He argues that the challenge of climate change on the energy system needs to be taken into consideration. Similarly, Chen Guohua argues that energy security is a non-traditional security issue, though he still links it closely with security of supply and demand⁴⁹. Interestingly, a study

of Chinese energy consumers found that while they rate fossil fuel supply as very important to energy security, there is growing concern over environmental consequences⁵⁰.

Debates over different states' approaches to energy security tend to point to two opposing policy-paths: market-centred or strategic⁵¹. The strategic dimension of China's energy policy is often emphasised, as Chinese mainstream thinking on energy security is state-centric and heavily focused on oil supply, particularly self-sufficiency⁵² and the energy system is still only partly marketised^{53,54}. China still to a degree emphasises the 'strategic' approach more strongly because energy is considered an issue of 'high politics'⁵⁵, which suggests energy is in many ways understood in securitized terms as a priority issue. Lee also argues that the security dimension is key in internal Chinese thinking on energy security, noting that oil was singled out as a key security issue by Hu Jintao in 2003⁵⁶. However, others suggest the meaning of energy security in China is opening up to include a stronger focus on sustainability⁵⁷. More recently, it is suggested that thinking on energy security in China is opening up to a wider range of perspectives, including more focus on the market⁴³, and an emphasis on cooperation over energy^{26, 58}. A final perspective argues that China 'hedges' by using both a strategic and market approach to limit risk and maximise chances of survival (in the form of continued supplies)⁴⁴.

Lastly, it is worth noting growing Chinese media attention to energy security, especially from 2005 onwards⁵⁹. While energy security is generally covered mostly in specialist business and trade publications, it was also covered extensively in the People's Daily, the primary mouthpiece of the CCP⁵⁹. This study found a strong emphasis on the role of the state and national security in China, but also on sustainable development and the overall importance of maintaining 'our country's energy security' and guaranteeing state/national energy security [保障 国家 能源 安全, baozhang nengyuan anguan]. Links to climate change were also prominent.

Security in China's climate change debates

Overall, we have found more articles using securitization theory in the Chinese academic literature on climate change than in the literature on energy security, which suggests securitization theory has been more popular for studying climate change. However: climate change is only considered explicitly as a security issue in more recent literature, where a specifically Chinese notion of (non-traditional and non-Western) security is often emphasised. There is also a clear divide between the literature that focuses on global climate change or international climate change negotiations, and those who focus on the national level. Authors focusing on the international level tend to emphasise geopolitics and raise concerns that securitizing climate change in international negotiations may work to contain China. Meanwhile, studies of climate change which focus on the domestic or national level are more likely to be in favour of viewing climate change as a security threat in a wider sense, emphasising impact on environmental stability, human security and food/water security. This divide is often also mirrored in official discourse. It is worth noting that while a lot of literature on climate change also considers energy security, debates over energy security often overlook climate concerns⁶⁰. However, awareness of China's vulnerability to climate change has grown rapidly in the last decade, which is reflected in the expanding domestic academic literature on the topic. How to conceptualise the threat of climate change is central to this discussion, and this is where emerging literature on security and securitization fits in. Moreover, climate concerns have to be balanced with economic growth, which is also needed for social development and stability, and this makes dealing with the issue particularly difficult and potentially contentious.

Securitizing climate change in international climate change negotiations is a key area of focus. Here, the potential threat to China's economic security is emphasised. For example, Ma Jianying and Jiang Yunlei argue that securitization of global climate change is a double-edged sword⁶¹. On the one hand, it promotes global cooperation by prioritising the issue. On the other hand, it could become an excuse for strong states to intervene in weak states. Securitization is here seen as an attempt or even as a tool used by Western states to politicize climate change⁶². In a similar vein, Chen Guohua argues that the international negotiations on climate change have posed strong challenges to China's energy security⁴⁹, suggesting that the outcome of the negotiations might increase the cost of China's emission reductions. Highlighting the potential for Western states to use negotiations to control the future of global energy, Chen presents the negotiations as a threat to the economic security of developing countries including China. Thus, under this perspective, securitizing climate change on the international stage can be a threat to China's own security. Using a similar geopolitical frame, Wang et al suggest that the Obama administration attempts to use climate change to contain the energy distribution of China and Russia, but that China needs to improve cooperation with these states over climate change as well as energy⁶³. A different argument is forwarded by Pan, who argues that while securitization can facilitate international cooperation and change norms, it also risks framing other states as threats, which can harm cooperation⁶⁴. Thus, he suggests that China should oppose securitization of global warming.

Overall, the literature on the domestic aspects of climate change is more positive towards securitizing the issue or viewing it as a threat to security⁶⁵. Zhang argues in favour of China adopting a broader notion of national security to include climate change⁶⁵. Wang Tao argues that China should use a development perspective to coordinate energy security and climate security as they overlap⁴⁸. He suggests energy security involves providing sustainable, reliable energy, which needs to take future climate change into consideration, while the goal of 'climate security' is to manage climate risks and thus achieve security and sustainable development of human society, which contains the key elements of energy security. Along a similar vein, Liu Yin argues that global warming poses problems for and pressures on China's energy security, but can also bring opportunities to force China towards a more sustainable energy system⁶⁶. There is also focus on climate change as a threat to China's food security, and so by extension, to security more broadly.

A focus on climate change as a non-traditional security issue is a common theme in the domestic debate. Wang analyses how ecological issues, including climate change, are securitized⁶⁷. She notes that non-traditional issues like climate change are increasingly 'upgraded' in importance and considered issues of security in China. Na Li and Yang Nan argue that climate change is a threat to both traditional and non-traditional security⁶⁸, climate change will intensify territorial disputes among countries and also threatens non-traditional security including food security, water shortage, human health, and climate migrants. Wang et al argue that climate change is closely related with national security, and that China in fact uses a "new concept of security" which includes paying attention to increasing interaction between climate change, energy security, food and water security, as well as other emerging security concerns⁶³.

Security and securitization are increasingly important in debates over climate change in China, but a wide range of perspectives is forwarded. Alongside the split between literature focusing on the international level and those concerned with climate change at the national or domestic level, there is increasing focus on a wider notion of security or non-traditional security. While the focus is often on national security, sometimes the threat emphasised is to China's economy, energy security or resources, with food and water raised as central concerns, all of which are also at times seen as part of national security.

Official discourse: security in climate and energy policy discussions

The final section of this review considers Chinese official discourse on energy and climate change directly and the role that security plays here. In official discourse, energy security and climate change are increasingly linked. Energy consumption is key to China's air pollution problems, as 60% of China's air pollution comes from burning fossil fuels⁶⁹. In 2014, China's president Xi Jinping opened a meeting of China's new National Security Council with a speech announcing a new 'overall security outlook', including traditional and non-traditional security issues. While national security ('with Chinese characteristics') was central throughout, he also emphasised the complex nature of China's security challenges, listing 11 key areas of security, including economic security, resource security and ecological security, all of which are highly relevant here⁷⁰ and illustrate increasing emphasis on security in Chinese thinking on energy and climate issues. It also illustrates a clear broadening of the concept of security in Chinese politics.

To turn more specifically to energy, the growing popularity of the concept of 'energy security' in China has already been noted. Energy has been considered a security issue in the official sense since the early 2000s, but what this actually means is gradually changing. China's 10th Five Year Plan (2001-2005) 'officially introduced the concept of energy security'⁴⁶. Energy supply, especially oil, has long been considered central and is also explicitly linked to energy security in China's two white papers on energy (released in 2007 and 2012). However, in 2004 China experienced an energy demand shock, which started more serious changes in thinking on energy security. Consequently, there was a break between the 10th (2001-2005) and the 11th (2006-2010) Five Year Plans - by the 11th there was a new focus on changing energy consumption patterns and reducing energy intensity. The 12th Five Year Plan (2011-2015) can be seen as a continuation of this but with actual quantitative targets⁷¹.

Energy has been directly linked to national security both by Xi Jinping, and his predecessor Hu Jintao. However, there is a shift away from the early focus on oil supply and a more traditional national security approach, towards explicit focus on 'non-traditional' security issues and growing focus on the links between energy security and climate change. Climate change and energy demand in many ways work together to push China in the direction of sustainable energy supplies, as this could both ease emissions and dependence on imports. Sustainability is also increasingly noted as a security issue as a result ('ecological security' in Xi's 2014 terminology).

Oil and oil supply remain important, with focus on ensuring supply as key to maintaining energy security⁷² alongside marketization of the energy industry (though 'national energy management' is said to remain key to ensuring energy security)⁷³. The stability of international energy markets is highlighted as a central concern for Chinese energy security. China is said to be 'striving to ensure a stable supply of energy with a steady increase in domestic energy production' according to the 2007 white paper⁷². The 2012 white paper notes 'grave challenges to energy security', listing China's increasing dependence on 'foreign energy sources' in recent years, particularly oil⁷⁴. However, it also mentions the need for 'working together to maintain energy security' including managing energy to ensure a stable global market and working together to avoid disruptions to supply.

It is increasingly recognised that 'the development and use of energy, is one of the main causes of ecological destruction and environmental pollution'⁷³. Open recognition that 'climate change is interrelated with energy and should be addressed in integrated manner' represents a clear change⁷⁵. The head of the NEA has also pointed to energy security as a 'permanent concern': 'China's population, natural resources, environment and the need for sustainable development do not allow wanton consumption of energy resources'⁷⁶. Notably, the 2012 white paper goes

further than 2007 white paper on environmental issues and sustainability, saying that the state 'encourages fostering the concept of environment-friendly and low-carbon development, coordinates the development and use of energy resources with the protection of the ecoenvironment while paying equal attention to both, and actively fosters an energy development pattern that meets the requirements of ecological civilization'⁷⁴. It also notes the need to reduce consumption and pollution to provide 'economical, clean and secure development'. Even more important for this discussion, it represents sustainability as an 'important strategic task', including reducing consumption and pollution to provide 'economical, clean and secure development'. Thus, we suggest that energy remains considered a security issue in Chinese official discourse, but the meaning of security is widening.

As has already been noted, climate change is a more recent concern for China and the importance of balancing it alongside the need for continued economic growth is continually emphasised. Overall, China's official position on the extent to which climate change is a security issue is less clear. During the UN Security Council's first debate on climate change and conflict in 2007, China opposed securitization of climate change, calling it a development issue, though it did recognise that climate change could have some implications for security. In international forums, China has often framed climate change as a development issue, though this is also increasingly changing⁷⁷. Rather than explicitly labelling climate change a security issue, the terms 'sustainable security', 'environmental security' and 'ecological security' are commonly used in China, but these usually include climate issues⁷⁷.

Domestically, China's first National Climate Change program was released in 2007. This was followed by a white paper on climate change in 2008, which did not explicitly label climate change a security issue, though the introduction states that climate change has 'resulted in discernible impacts on the natural ecological systems of the Earth, and posed severe challenges to the survival and development of human society'. which mirrors what the Copenhagen School would call the grammar of security. White papers on climate change are now released on a yearly basis, which illustrates growing focus on the issue. To date, the white papers avoid using the word security. However, the 2012 white paper notes that the government attaches 'great importance' to climate change and the threat it poses to human lives and development³⁴, and the most recent (2014) version notes that the government is 'acutely aware of the problem of climate change and that China 'faces a grave ecological situation and must undertake the arduous task of addressing climate change.

Chinese official discourse tends to avoid explicitly labelling climate change an issue of national security⁸⁰. But the language used is often similar to the language of security, with a focus on the threats it poses to survival. The seriousness of the issue can also be seen in increasingly strong targets on emissions, efficiency, and energy production and consumption. Moreover, while climate change is rarely explicitly labelled an issue of national security, the term ecological security (生态安全, shengtai anquan) is emerging as an increasingly important concept. It was part of Xi Jinping's list of key security challenges in 2014, and also plays an important role in China's 2013 National Climate Change Adaptation Plan. In this document, climate change is considered as a "serious threat" to China's food security, water security, ecological security, energy security, operational security of cities and towns, and security of life and property⁸¹. Climate change is also explicitly mentioned as an increasingly prominent threat in China's 2008 Defense white paper, but China's military has so far paid less attention to climate change than say the US Defence Department⁸².

Thus, there is increasing use of security language though it's not always explicitly linked to climate change (for example in Premier Li Keqiang's declaration of a 'war' on pollution⁸³).

Declaring a war on pollution is not necessarily equivalent to securitization, and it doesn't necessarily trigger emergency action. However, it does serve an important function, signalling to the domestic public that the issue is taken seriously. China is also taking action to deal with pollution. While such policies may not be considered emergency action in the Copenhagen School sense of military threat-defense measures, it is a form of 'defense' against a non-traditional threat.

Although China tends to construct climate change as an economic or a development issue, key actors and documents increasingly draw on the language of priority and survival, emphasising the urgency of the issue. As noted in the discussion on energy, sustainability is also increasingly considered to be a 'strategic' task. It is often difficult to separate these different goals - China's sustainable development policy aims to balance economic growth with environmental protection, ultimately in the aim of national security⁸⁴. Lastly, there is perhaps less need to securitize climate change in China than in Western states. Securitization often aims to convince the audience (in the form of the general public) of the need to take action on a particular threat. However, in the Chinese political system – and given the very visible impact of air pollution in China's cities – there is less of a need to explicitly label the issue as security or to highlight the threat. Indeed, highlighting the threat may even stoke public discontent and thus be counterproductive to stability.

Implications and conclusion

'Security' and securitization play an interesting role in China's energy and climate politics. Energy is clearly more closely linked with national security overall, but the connection between the two issues is increasingly emphasised. Moreover, both energy security and climate change discussions illustrate the increasing importance of and focus on non-traditional security issues in China. Security 'with Chinese characteristics' is becoming increasingly important as a way to illustrate the uniqueness and complexity of China's challenges. We have shown bourgeoning academic interest in these issues alongside a discussion of official discourse to illustrate the importance of understanding how China approaches and understands energy security and climate change.

While securitization theory is rarely used to study non-Western contexts, we have contributed to literature showing that while the dynamics of securitization may differ, the process still occurs. Using securitization to understand the political dynamics of security in China highlights how some issues become prioritised over others: both in terms of specific energy sources, in this case oil supply, and in terms of policy areas, as energy and economic security remain prioritised above climate change. Thus, while securitization dynamics differ because authority and legitimacy work differently, the language and grammar of security still play an important role in legitimation and prioritisation. Securitization theory helps us to highlight the growing role and some of the potential implications of the growing importance of security politics in China under Xi Jinping, while the broadening of the concept of security in China could be an interesting area of further research. In the Chinese context, the common critique that securitization leads to state-centred responses could be seen to be less significant, as the responses to most problems are state-centred. Additionally, if security is not linked with emergency politics or politics deemed to be 'worse' than regular politics, the argument that securitization is best avoided no longer holds.

In real terms, China's energy consumption – in particular its coal dependence – poses an increasing threat to global environmental stability as well as the country's own ecological security. China is still developing its approaches to energy and climate change, and is also increasingly linking the two issues together. The dynamics of securitization differ, and there is

growing focus on non-traditional security issues. This also suggests that securitization may not be best avoided. Clearly, a contextualised approach is needed to study securitization in practice, in particular when studying securitization in a non-Western context. Ultimately, climate change will pose challenges to China's security – national security, environmental security and energy security, alongside human security and water security. Securitization is one potential way to approach it. But energy and climate security also have to be balanced alongside other important security concerns, including economic security and development, so there is no simple solution here.

One of the biggest challenges remains China's weak energy governance, which makes policy implementation difficult. Use of renewable energy in China is increasing, but significant obstacles remain⁸⁵. One alternative is to consider energy conservation as a security issue⁸⁶ – after all, it would ease both energy security and climate change. Energy security and climate change are two of the most serious issues facing China's continued development. Its policy choices play a key role in shaping global climate and energy dynamics. Thus, we argue that the growing importance of 'security' in China's energy and climate debates is an important area for further research, alongside the implications of securitization in these cases.

References

- 1. Podesta J, Ogden P. The Security Implications of Climate Change. *The Washington Quarterly* 2008, 31:115 138.
- 2. Trombetta MJ. Environmental security and climate change: analysing the discourse. *Cambridge Review of International Affairs* 2008, 21:585-602.
- 3. Hayes J, Knox-Hayes JJ. Security in Climate Change Discourse: Analyzing the Divergence between US and EU Approaches to Policy. *Global Environmental Politics* 2014, 14:82-101.
- 4. Simpson A. The Environment: Energy Security Nexus: Critical Analysis of an Energy 'Love Triangle' in Southeast Asia. *Third World Quarterly* 2007, 28:539-554.
- 5. Ciută F. Conceptual Notes on Energy Security: Total or Banal Security? *Security Dialogue* 2010, 41:123-145.
- 6. Nyman J. Red storm ahead: securitisation of energy in US-China relations. *Millennium* 2014, 43:43-65.
- 7. Buzan B, Wæver O, de Wilde J. *Security: a new framework for analysis*. Boulder, London: Lynne Rienner Publishers; 1998.
- 8. Wæver O. Securitization and de-securitization. In: Lipschutz R, ed. *On Security*. New York: Columbia University Press; 1995, 46-86.
- 9. Mulligan S. Energy, Environment, and Security: Critical Links in a Post-Peak World. *Global Environmental Politics* 2010, 10:79-100.
- 10. Leung GC, Cherp A, Jewell J, Wei Y-M. Securitization of energy supply chains in China. *Applied Energy* 2014, 123:316-326.
- 11. Matthew RA. Climate change and security. In: Floyd R, Matthew RA, eds. *Environmental security: approaches and issues*. London and New York: Routledge; 2013, 264-277.
- 12. Floyd R. Security and the Environment: Securitisation Theory and US Environmental Security Policy. Cambridge: Cambridge University Press; 2010.
- 13. Elbe S. Should HIV/AIDS Be Securitized? The Ethical Dilemmas of Linking HIV/AIDS and Security. *International Studies Quarterly* 2006, 50:119-144.

- 14. Huysmans J. The European Union and the securitization of migration. *JCMS: Journal of Common Market Studies* 2000, 38:751-777.
- 15. Nyman J. Securitisation theory. In: Shepherd L, ed. *Critical Approaches to Security: Theories and Methods*: Routledge; 2013.
- 16. Williams MC. Words, Images, Enemies: Securitization and International Politics. *International Studies Quarterly* 2003, 47:511-531.
- 17. McDonald M. Securitization and the Construction of Security. *European Journal of International Relations* 2008, 14:563-587.
- 18. Hansen L. The Little Mermaid's Silent Security Dilemma and the Absence of Gender in the Copenhagen School. *Millennium Journal of International Studies* 2000, 29:285-306.
- 19. Hansen L. Theorizing the image for Security Studies: Visual securitization and the Muhammad Cartoon Crisis. *European Journal of International Relations* 2011, 17:51-75.
- 20. Aradau C. Security and the democratic scene: desecuritization and emancipation. *Journal of International Relations and Development* 2004, 7:388-413.
- 21. Balzacq T. The Three Faces of Securitization: Political Agency, Audience and Context. *European Journal of International Relations* 2005, 11:171.
- 22. Balzacq T. A theory of securitisation: origins, core assumptions, and variants. In: Balzacq T, ed. *Securitization Theory*. Abingdon: Routledge; 2010, 1-30.
- 23. Wilkinson C. The Copenhagen School on Tour in Kyrgyzstan: Is Securitization Theory Useable Outside Europe? *Security Dialogue* 2007, 38:5-26.
- 24. Vuori JA. Illocutionary Logic and Strands of Securitization: Applying the Theory of Securitization to the Study of Non-Democratic Political Orders. *European Journal of International Relations* 2008, 14:65-100.
- Vuori JA. How to do security with words: a grammar of securitisation in the People's Republic of China. *Department of Political Science and Contemporary History* 2011. Vol. PhD, Page 433. Available at: http://www.doria.fi/bitstream/handle/10024/70743/AnnalesB336Vuori.pdf?sequence=1.
- 26. Zha D. China's energy security: Domestic and international issues. *Survival: Global Politics and Strategy* 2006, 48:179 190.
- 27. Zhang J. China's energy security: prospects, challenges and opportunities. *Brookings Paper*, 2011. Available at: http://www.brookings.edu/research/papers/2011/07/china-energy-zhang. (Accessed 30 November 2012)
- 28. Leung GCK. China's energy security: perception and reality. *Energy Policy* 2011, 39:1330-1337.
- 29. Andrews-Speed P. *Energy Policy and Regulation in the People's Republic of China*. The Hague, London, New York: Kluwer Law International; 2004.
- 30. Li J. Energy and Environment in China. *TEKES report* 2011, May 2011.
- 31. IEA. Oil and gas security: People's Republic of China. *International Energy Agency*, 2012. Available at: http://www.iea.org/publications/freepublications/publication/China_2012.pdf. (Accessed 30 November 2012)
- 32. PRC NDRC. National Energy Administration. *National Development and Reform Commission*, 2012. Available at: http://en.ndrc.gov.cn/mfod/t20081218_252224.htm. (Accessed 30 November 2012)

- 33. Xinhua. 2010.01.27 Xinhua China sets up new NEC. *Xinhua*, 2010. Available at: http://news.xinhuanet.com/english2010/china/2010-01/27/c_13153155.htm. (Accessed 30 November 2012)
- 34. PRC Central Government. China's Policies and Actions for Addressing Climate Change. Information Office of the State Council of the People's Republic of China, 2012. Available at: http://www.china.org.cn/government/whitepaper/node 7172407.htm. (Accessed 16 March 2015)
- 35. Lewis JI. Climate change and security: examining China's challenges in a warming world. *International Affairs* 2009, 85:1195-1213.
- 36. Wang Y. CNPC employee lambasts China's pollution documentary. *Forbes*, 2015. Available at: http://www.forbes.com/sites/ywang/2015/03/03/cnpc-employee-lambastes-chinas-pollution-documentary-says-its-producer-doenst-have-brainpower/. (Accessed 13 April 2015)
- 37. PRC Central Government. China 'poorly prepared' for climate change. *tate Council Information Office*, 2013. Available at: http://china.org.cn/environment/2013-12/10/content 30849209.htm. (Accessed 17 March 2015)
- 38. PRC NDRC. China's National Climate Change Programme. *National Development and Reform Commission*, 2007. Available at:

 http://www.c2es.org/docUploads/ChinaNationalClimateChangeProgramme-June 07.pdf. (Accessed 20 March 2015)
- 39. Lu X, Pan J, Chen Y. Sustaining Economic Growth in China under Energy and Climate Security Constraints. *China & World Economy* 2006, 14:85-97.
- 40. Li H. *National Security Bluebook: 2014 Report on China's National Security [国家安全 蓝皮书:中国国家安全研究报告 2014]*. Beijing: Social Science Literature Press [社会科学文献出版社]; 2014.
- 41. Neumann IB. Discourse analysis. In: Klotz A, Prakash D, eds. *Qualitative methods in international relations*. London, New York: Palgrave Macmillan; 2008, 61-77.
- 42. Zeng J. The Debate on Regime Legitimacy in China: bridging the wide gulf between Western and Chinese scholarship. *Journal of Contemporary China* 2014, 23:612-635.
- 43. Kennedy AB. China's New Energy-Security Debate. *Survival: Global Politics and Strategy* 2010, 52:137 158.
- 44. Tunsjø Ø. 中国能源安全的对冲战略 (China hedges it's energy security bets). 新安全 观与中国 2008:42-51.
- 45. Phillips A. A dangerous synergy: energy securitization, great power rivalry and strategic stability in the Asian century. *The Pacific Review* 2013, 26:17-38.
- 46. Cheng JYS. A Chinese View of China's Energy Security. *Journal of Contemporary China* 2008, 17:297-317.
- 47. Zhang Z. China's energy security, the Malacca dilemma and responses. *Energy Policy* 2011, 39:7612-7615.
- 48. Wang T. 用发展的眼光协调能源安全与气候安全(Use development prespective to coordinate energy security and climate security). 中国石化 (China Petrochemical Industry) 2014, 7:88-89.
- 49. Chen G. 论我国应对气候变化与国家能源安全问题的策略 (Discuss China's strategy in response to climate change and national energy security). 能源与环境 [Energy and Environment] 2011, no. 5:2-10.
- 50. Knox-Hayes J, Brown MA, Sovacool BK, Wang Y. Understanding attitudes toward energy security: Results of a cross-national survey. *Global Environmental Change* 2013, 23:609-622.

- 51. Dannreuther R. Energy Security. In: Burgess JP, ed. *The Routledge Handbook of New Security Studies*. Abingdon: Routledge; 2010, pp144-153.
- 52. Downs E. The Chinese Energy Security Debate. *The China Quarterly* 2004, 177:21-41.
- 53. Chen S. Marketization and China's energy security. *Policy and Society* 2009, 27:249-260.
- 54. Meidan M, Andrews-Speed P, Xin M. Shaping China's Energy Policy: actors and processes. *Journal of Contemporary China* 2009, 18:591-616.
- 55. Andrews-Speed P, Liao X, Dannreuther R. *The Strategic Implications of China's Energy Needs*: The International Institute for Strategic Studies; 2014.
- 56. Lee PK. China's quest for oil security: oil (wars) in the pipeline? *The Pacific Review* 2005, 18:265 301.
- 57. Constantin C. China's Conception of Energy Security: Sources and International Impacts. *Liu Institute for Global Issues Working Paper* 2005, 43:1-41.
- 58. Zha D. Energy interdependence. *China Security* 2006, Summer 2006:2-16.
- 59. Grundmann R, Scott M, Wang J. Energy security in the news: North/South perspectives. *Environmental Politics* 2013, 22:571-592.
- 60. Nyman J. Rethinking energy, climate and security. *Journal of International Relations and Development* forthcoming 2015, Volume and issue to be allocated.
- 61. Ma J, Jiang Y. 试析全球气候变化问题的安全化 (An analysis of the securitization of global climate change issue). *国际论坛 (International Forum)* 2010, 12:8-12.
- 62. Ma J. 从科学到政治:全球气候变化问题的政治化 (From science to politics, the politicization of the issue of global climate change). *国际论坛(International Forum)* 2012, 14:7-13.
- 63. Wang W, Liu H, Yu H. 全球气候变化与能源安全的地缘政治 (The geopolitical pattern of global climate change and energy security issues). *地理学报 (Acta Geographica Sinica)* 2014, 69:1259-1267.
- 64. Pan Y. 安全化,国际合作与国际规范的动态发展 (Securitization, international ccoperation, and dynamic development of international norms). 外交评论(Foreign Affairs Review) 2008, 103:51-59.
- Zhang H. Climate Change and China's National Security [Qihou bianhua yu zhongguo guojia anquan]. *Shishi chubanshe (Current Affairs Publishing House)* 2010, March 2010.
- 66. Liu Y. 气候变化对我国能源安全的影响 (The impact of climate change on China's energy security). 特区经济 (Special Zone Economy) 2010, 8:267-268.
- 67. Wang J. 安全化:生态问题如何成为一个安全问题 (Securitization: How ecological issues become a matter of security). *Journal of Zhejiang University (Humanities and Social Sciences) (浙江大学学报(人文社会科学版)* 2010, 40:36-47.
- 68. Na L, Yang N. 加强国际法对气候变化安全威胁的应对:减缓、适应、资金与技术援助 (Strengthen international law and the response to climate change). *法治研究* (Research on Rule of Law) 2010, 6:46-51.
- 69. Chai J. Chai Jing's review: Under the Dome Investigating China's Smog [穹顶之下]. 2015.
- 70. Renmin Ribao. Xi Jinping speech to National Security Council [in Chinese]. *Renmin Ribao (People's Daily) 16 April 2014*, 2014. Available at:

 http://paper.people.com.cn/rmrb/html/2014-04/16/nw.D110000renmrb 20140416 2-01.htm.16 April 2014)
- 71. Interview. Interview 2, June 2012. 2012.
- 72. PRC NDRC. 2007.12.26 White paper: China's energy conditions and policies. *National Development and Reform Commission*, 2007. Available at:

- http://en.ndrc.gov.cn/policyrelease/P020071227502260511798.pdf. (Accessed 30 November 2012)
- 73. PRC NDRC. 2007.12.27 China's sustainable development [in Chinese]. *National Development and Reform Commission*, 2007. Available at: http://xwzx.ndrc.gov.cn/mtfy/zymt/t20080104_183303.htm. (Accessed 30 November 2012)
- 74. PRC Central Government. 2012.10.01 White paper: China's energy policy 2012. *PRC Central government*, 2012. Available at: http://english.gov.cn/official/2012-10/24/content 2250497.htm. (Accessed 30 November 2012)
- 75. FMPRC. 2008.10.25 Beijing declaration on sustainable development. *FMPRC*, 2008. Available at: http://www.fmprc.gov.cn/eng/wjdt/2649/t575945.htm. (Accessed 13 March 2013)
- 76. Xinhua. 2011.07.09 Xinhua China energy official suggests energy controls. *Xinhua*, 2011. Available at: http://news.xinhuanet.com/english2010/china/2011-07/09/c 13975465.htm. (Accessed 7 December 2012)
- 77. FMPRC. Xi Jinping remarks: New Asian Security Concept For New Progress in Security Cooperation. *Ministry of Foreign Affairs of the People's Republic of China*, 2014. Available at:

 http://www.fmprc.gov.cn/mfa_eng/zxxx_662805/t1159951.shtml. (Accessed 2 April 2015)
- 78. Information Office of the State Council of the People's Republic of China. China's Policies and Actions for Addressing Climate Change. *PRC Central Government*, 2008. Available at: http://www.ccchina.gov.cn/WebSite/CCChina/UpFile/File419.pdf. (Accessed 2 April 2015)
- 79. PRC NDRC. China's Policies and Actions on Climate Change. *National Development and Reform Commission*, 2014. Available at:
 http://en.ccchina.gov.cn/archiver/ccchinaen/UpFile/Files/Default/201411261337
 http://en.ccchina.gov.cn/archiver/ccchinaen/UpFile/Files/Default/201411261337
 http://en.ccchina.gov.cn/archiver/ccchinaen/UpFile/Files/Default/201411261337
 http://en.ccchina.gov.cn/archiver/ccchinaen/UpFile/Files/Default/201411261337
 http://en.ccchina.gov.cn/archiver/ccchinaen/UpFile/Files/Default/201411261337
 http://en.ccchinaen/UpFile/Files/Default/201411261337
 http://en.ccchinaen/UpFile/F
- 80. Freeman D. The Missing Link: China, Climate Change and National Security. *BICCS Asia Paper* 2010, 8.
- 81. PRC Central Government. National climate change adaptation plan (国家适应气候变化战略). PRC Central Government, 2013. Available at: http://www.gov.cn/gzdt/att/site1/20131209/001e3741a2cc140f6a8701.pdf. (Accessed 2 April 2015)
- 82. Scott SV. The Securitization of Climate Change in World Politics: How Close have We Come and would Full Securitization Enhance the Efficacy of Global Climate Change Policy? *Review of European Community & International Environmental Law* 2012, 21:220-230.
- 83. Xinhua. China declares war against pollution. 2014. Available at: http://news.xinhuanet.com/english/special/2014-03/05/c_133163557.htm. (Accessed 2 April 2015)
- 84. Ming-Teh H, Ting Liu TT. China's Response to Climate Change: A Policy Analysis. *Journal of Alternative Perspectives in the Social Sciences* 2011, 3:362-375.
- 85. Wang F, Yin H, Li S. China's renewable energy policy: Commitments and challenges. *Energy Policy* 2010, 38:1872-1878.
- 86. Wang Q. Energy conservation as security. *WSI China Security* 2006, Summer 2006:89-105.

Figure 1:

Title: Numbers of Chinese academic articles with "energy security" (*Nengyuan anquan*) in the title from China National Knowledge Infrastructure

Figure 1 shows academic articles published in Chinese journals with the words 'energy security' (*Nengyuan anquan*) in the title. It is based on authors included in the China National Knowledge Infrastructure database in April 2015 (http://www.cnki.net/). All articles titled with "nengyuan anquan" (energy security) in the journal category are counted in this figure. In other words, it shows the total number of all Chinese academic articles with "energy security" in title during the period. The figure shows the term first appearing in Chinese journals in 1989, but only become popularly used in the early 2000s as the issue rose on the political agenda.

Related Articles

DOI	Article title
	Climate change policy in China
	Energy security in a developing world
	From climate security to climate peace