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NON-TRADITIONAL
SECURITY STUDIES

POLICY BRIEF

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Crafting Energy Security Cooperation in East Asia

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OF INTERNATIONAL STUDIES
A Graduate School of Nanyang Technological University

No. 9, April 2011

Existing work on energy security tends to over-emphasise the prospect of competition and conflict over resources while under-exploring the promise of cooperation. This policy brief provides a framework for understanding energy security cooperation and highlights some building blocks for crafting such cooperation in East Asia. At present, instead of an integrated regime, issues related to energy security are addressed through a patchwork of loosely coupled rules, regulations and institutions, overlapping and sometimes competing, which amount to a regime complex. This policy brief stipulates that an energy security regime complex may have advantages over an integrated regime, most notably in terms of adaptability, flexibility and voice, features which are particularly pertinent in an environment of high vulnerability and uncertainty.

Existing work on energy security tends to over-emphasise the prospect of geopolitical competition and conflict over access to resources while under-exploring the promise of cooperation in securing the energy supply of global and regional economies. This policy brief provides a framework for understanding and crafting energy security cooperation in East Asia.[1] It first looks into the demand side of the issue. Second, it investigates the supply side by introducing the concept of the regime complex. Finally, it looks at the building blocks for energy security cooperation and provides policy recommendations on how to cooperate within a context of regime complexity.

Why Cooperate?

Imagining energy security with the spectre of competition and conflict effectively traps policy planners into relying on a zero-sum analysis which essentially excludes the possibility of cooperation: the energy security of one country can only be achieved at the expense of another. Yet, such an approach is fundamentally flawed, since it ignores the increasingly complex interdependence in the energy and energy-product trade chain among countries, globally and regionally. The preoccupation with energy competition obscures the real issues policymakers need to consider in crafting their national energy policies: the central role of global markets in the demand and supply of energy, particularly oil, as well as the importance of the underlying rules and principles, including institutions, that govern those markets.

Since 1980, global consumption of primary energy has doubled.[2] Much of the increase has come from Asia and the Pacific. This is due to rapid economic growth, massive investments in infrastructure and a booming construction industry, rising populations and a decline in the use of non-commercial energy, such as biomass and waste. By 2035, if current trends persist, there will be another 50 per cent increase in global energy consumption. Energy demand in East Asia will grow faster than in any other region. Governments are therefore under strong pressure to deliver effective fixes in addressing a twin challenge: providing adequate, secure and sustained supplies of energy at affordable prices, on the one hand, and mitigating environmental damage as a result of energy consumption, on the other.

For policymakers, this creates a situation best described as a security dilemma,[3] and they are confronted with a two-level strategic predicament: first, the dilemma of interpreting the motives, intentions and capabilities of others; second, the dilemma of response, which essentially boils down to the question of whether cooperation or competition should be the preferred policy choice in addressing issues related to energy security.

Underlying this strategic predicament is a situation of fundamental uncertainty. Cooperation provides a policy alternative to address and overcome conflict within a defined policy framework. In effect, cooperation reduces uncertainty. At the same time, complex interdependence significantly increases the costs of non-cooperation; pursuing a policy of complete energy independence becomes untenable within a global energy market.

The Regime Complex for Energy Security

While our economies are all highly dependent on access to, and uninterrupted supply of, energy resources, there is no central authority mandated to govern issues related to energy security. Instead, there is a patchwork of loosely coupled rules and regulations, overlapping and sometimes competing, which amount to a regime complex.[4] Energy governance is characterised by a fractured landscape.

The regime complex for energy security comprises institutions that perform essentially three ideal-type functions – rules and standards setting, correction of market failures and lowering of transaction costs – as elaborated in the following:[5]

Recommended citation: Prantl, Jochen, 2011, *Crafting Energy Security Cooperation in East Asia*, Policy Brief No. 9, Singapore: RSIS Centre for Non-Traditional Security (NTS) Studies.

- Rules and standards setting.
  - The first ideal-type function institutions may perform is the provision of rules and principles that guide or constrain the collective activities of a group. At the global level, the World Trade Organization (WTO) is of primary importance, despite the fact that energy has not yet been singled out as a specific sector of trade within the WTO. Since WTO basic rules are applicable to all forms of trade, they also apply to trade in energy goods and services. Those rules can be enforced through the WTO dispute settlement mechanism. On the softer side of the legalisation spectrum are the communiqués of club-like institutions such as the G-x groups. In particular, the G-20 has become a high-level forum for the discussion of energy security issues. The G-20's commitment to the gradual multilateral removal of existing fossil fuel subsidies by 2020, as agreed at the 2009 Pittsburgh Summit, illustrates this point.
  - At the regional level, East Asian governments have traditionally been reluctant to commit themselves to mutually binding multilateral rules and principles that effectively constrain state sovereignty. Nevertheless, recent initiatives such as the East Asia Summit's adoption of the Cebu Declaration on East Asian Energy Security (in 2007) produced voluntary action plans and targets to enhance energy efficiency.
- Correction of market failures.
  - The second function institutions may perform is the correction of market failures. A good example is the International Energy Agency (IEA). Established by the Organisation for Economic Co-operation and Development (OECD) after the 1973–1974 oil price shocks, the IEA provides a framework – via the International Energy Programme (IEP, established in 1974) and the Coordinated Emergency Response Measures (CERM, established in 1979) – to cope with short-term oil supply disruption. However, given its limited membership, the IEA does not represent the 'global energy community'. Key oil importers such as China and India are not formal members. The IEA therefore does not have the authority to develop and enforce a global system of mutually agreed energy rules.
  - East Asia has seen a number of initiatives over recent years to prepare the region for potential oil supply disruptions and subsequent impacts on regional economies. The ASEAN Council on Petroleum (ASCOPE, established in 1975), the ASEAN Petroleum Security Agreement (adopted in 2009), which includes a regional framework for Coordinated Emergency Response Measures (CERM) and the Asia-Pacific Economic Cooperation's (APEC) Energy Security Initiative (ESI, endorsed in 2001) are prime examples here.
- Lowering of transaction costs.
  - The sharing and dissemination of information on future energy trends constitutes the third essential function of the energy security regime complex. The active promotion of transparency helps reduce uncertainty in international energy markets and enhances policy planning. A prominent example is the International Energy Forum (IEF, established in 1991) – the world's largest gathering of energy ministers – comprising IEA and Organization of the Petroleum Exporting Countries (OPEC) countries as well as China, India, Mexico, Russia and South Africa. IEF countries account for more than 90 per cent of the global oil and gas supply and demand. While the Forum is now formally governed by a Charter (adopted in 2011), the document does not create any legally binding rights and obligations between or among its members.
  - At the regional level, the ASEAN Centre for Energy (ACE, established in 1999) and the Asia-Pacific Network for Energy Technology (APNet, established by APEC in 2007) have played leading roles in information sharing and the strengthening of collaboration on energy research.

Conclusions: How to Cooperate?

Despite the deep structural changes in, and challenges to, the global energy landscape, efforts to build a comprehensive energy security regime – governed by a single authority – are unlikely to succeed. Under current circumstances, the regime complex for energy security will most likely persist, primarily due to the divergence of national interests, a weak incentive structure for governments to create integrated regimes and adhere to a single set of rules, and the lack of strong hierarchies to coordinate energy policies. Such an observation has important policy implications that need to be addressed.

The three building blocks of energy security cooperation

A regime complex may in fact have advantages over an integrated regime and provide important building blocks for crafting energy security cooperation in East Asia, most notably in terms of adaptability, flexibility

and voice, features which are particularly pertinent in an environment of high vulnerability and uncertainty.

- Adaptability.

  Regime complexes may allow for a multi-speed coordination of policies. Loosely coupled regime complexes may be able to adapt more easily over time than single-authority institutions, especially when there is no clear and clearly preferred strategy among members over the best course of action.

- Flexibility.

  Without a single-authority institution that sets the rules and standards in the pursuit of energy security, there is the possibility of creating regulatory frameworks that accommodate different conditions on different issues across different regions, with different sets of actors involved. At the same time, informal institutions may provide cooperative frameworks with fewer strings attached. These may help actors develop the necessary confidence and trust over time to then commit to binding agreements.

- Voice.

  Regime complexes offer greater voice opportunities, especially for those countries that are not represented in the central decision-making bodies of major institutions.

However, the decentralised nature of the regime complex may also have negative effects, as fragmentation may inhibit innovation and produce deadlock instead. Forum-shopping is another matter of concern.

Enhancing cooperation via the regime complex

Following on from the abovementioned three building blocks, how then should actors exploit the advantages and avoid the potential pitfalls of the regime complex?

- Stakeholder bargain.

  Prior to considerations of institutional design and effectiveness, there is a need for a sea change in how the stakeholders of the regime complex conceptualise energy security – it has to be recognised that energy security is not primarily a vital national interest but a global public good that requires collective action in order for it to be achieved. Such a stakeholder bargain is the sine qua non of any effective regime complex. One of the most promising issue areas for collective action is R&D investment.

- Multilateral pluralism.

  The complexity of the energy security regime requires cooperative engagement that takes advantage of the full spectrum of policy frameworks on the formal-informal continuum. More research is needed on how to generate mutually reinforcing dynamics of formal and informal cooperation in addressing collective action problems related to energy security. The coordination of R&D investment in clean technologies, for instance, may be achieved through an informal agreement by the major R&D stakeholders – negotiated within global and regional innovation core groups – which would then be formally adopted by an R&D framework convention regulating access to clean technologies.

- Executive leadership.

  Effective cooperation requires the reconciliation of competing demands. On the one hand, we need institutions that allow for the proper framing of a policy issue and the engagement of a critical mass of stakeholders in decision-making; on the other, we need executive leadership (for example, through G-x groupings) that is committed to pushing a policy agenda forward and facilitating follow-up collective action and implementation. In the case of R&D, just six countries (US, Japan, China, Germany, France and the UK) account for 85 per cent of investments in technological innovation.[6] The obstacles in policy coordination and leadership are therefore comparatively low in this issue area.

In sum, there is no silver bullet for crafting energy security cooperation. Understanding energy security as a regime complex highlights avenues of cooperation that will often lead to a fragile achievement, requiring continuous nourishment and adjustment. This may strike some as sub-optimal and imperfect. But such an approach is clearly superior to a dead-end policy that frames energy security as a zero-sum game.

Notes

[1] East Asia shall be understood here as the geographical area covering the 10 ASEAN countries, as well as China, Japan, the Korean peninsula and Taiwan.

[2] See Economic and Social Commission for Asia and the Pacific (ESCAP), *Energy Security and Sustainable Development in Asia and the Pacific* (Bangkok: United Nations, 2008), http://www.unescap.org/publications/detail.asp?id=1286

[3] On the security dilemma, see John H. Herz, *Political Realism and Political Idealism: A Study in Theories and Realities* (Chicago, IL: Chicago University Press, 1951); Ken Booth and Nicholas J. Wheeler, *The Security Dilemma: Fear, Cooperation and Trust in World Politics* (Basingstoke: Palgrave, 2008).

[4] On the concept of the regime complex, see Kal Raustiala and David G. Victor, 'The Regime Complex for Plant Genetic Resources', *International Organization* 58, no. 2 (2004): 277–310; also Robert O. Keohane and David G. Victor, *The Regime Complex for Climate Change*, Discussion Paper 2010-33 (Cambridge, MA: Harvard Project on International Climate Agreements, January 2010), http://belfercenter.ksg.harvard.edu/files/Keohane_Victor_Final_2.pdf

[5] See Andreas Goldthau and Jan Martin Witte, eds. *Global Energy Governance: The New Rules of the Game* (Washington, DC: Brookings Institution Press, 2010).

[6] Keohane and Victor, *The Regime Complex for Climate Change*, 23.

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The RSIS Centre for NTS Studies, NTU, was inaugurated by the ASEAN Secretary-General, Dr Surin Pitsuwan, in May 2008. The Centre maintains research in the fields of Food Security, Climate Change, Energy Security, Health Security as well as Internal and Cross-Border Conflict. It produces policy-relevant analyses aimed at furthering awareness and building capacity to address NTS issues and challenges in the Asia-Pacific region and beyond. The Centre also provides a platform for scholars and policymakers within and outside Asia to discuss and analyse NTS issues in the region.

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The Centre is also a founding member of and the Secretariat for the Consortium of Non-Traditional Security (NTS) Studies in Asia (NTS-Asia). More information on the Centre can be found at www.rsis.edu.sg/nts.