

Creating a Cohesive Multilateral Framework Through a New Energy Security Initiative for Northeast Asia

Vladimir I. Ivanov, Director, Research Division, ERINA

The image of Northeast Asia¹ is of an area of predominantly cool winds and cloudy skies. ERINA was established a decade ago to study and disseminate positive, objective information about this subregion. It formulates and proposes new ideas relevant for this subregion's current needs and long-term opportunities. Thus far, its research has covered such fields as regional transportation corridors, energy security, development and environmental sustainability, as well as trade and investment promotion. These research endeavors provide the foundations for exploring new issues and perspectives relevant to the formation of an identifiable economic zone in the subregion.²

Challenges of Transition

Ours is a world in transition. As a part of this world, Northeast Asia is also changing. Over the last ten years, despite the political problems and difficulties for which this area is known, there have been major shifts towards regional reconciliation. High-level dialogues now encompass issues and areas of vital interest, including general confidence-building and exchanges involving top defense officials, the coordination of anti-terrorism initiatives, the prevention of cross-border crime and illegal migration, new and improved transportation links, the facilitation of border crossings and cooperation in transit services, as well as efforts aimed at protecting the environment and developing energy resources.

Over the past decade, logistical and bureaucratic barriers between the economies of Northeast Asia have been lowered. New air routes have been opened and the time required for issuing visas reduced. Face-to-face interactions in business and other domains have improved and intellectual and cultural contacts have intensified. An overseas business trip now can be made in three to four days. However, unlike in other mega-regions of the world, such as Europe, North America, and Southeast Asia, multilateral mechanisms for speeding up positive changes and meeting the challenges of transition have yet to be adopted.

As we make progress in discussing the future of Northeast Asia and attempt to promote material improvements, we ought to consider various conceptual issues. It seems that the most important of these is the capacity of the countries of Northeast Asia to foster mutually beneficial, multilateral cooperative bonds. Indeed, judging by the experience accumulated in other economically and politically integrated areas, multilateral coordination among neighbors demonstrates both the maturity of the societies and the leadership qualities of the political elite.

The truth however is that, compared with other areas where economic cooperation is in progress, Northeast Asia lacks a "cohesive force". This subregion is losing out due to economic and political currents that originate in other areas, including Southeast Asia and Europe. Indeed, the three most potent economies of the area - Japan, China and South Korea - are fully-fledged members of the global economic system. Furthermore, the ASEAN+3 process, which involves these three economies, makes Northeast Asia a rather low priority for policymakers and economic planners in Tokyo, Beijing and Seoul.

Russia and Mongolia, on the other hand, as post-communist societies and economies in transition, are lagging behind their neighbors in terms of international economic outreach and face the prospect of playing only a modest role in subregional exchanges. On the other hand, Russia's economic and policy dialogues with the European Union (EU) and cooperation timetable within the Commonwealth of Independent States (CIS) dominates its policy agenda. As in China, the attention of Russian policymakers is spread over a large number of other internal issues and geographic areas. Also, neither the relevant countries (Japan, China and Russia), nor international organizations clearly identify themselves with Northeast Asia in terms of their operational languages and policy priorities. All these factors pose the question of whether the economies that comprise this area will be able to establish a framework that serves their specific economic interests and needs, while being focused on the subregion.

¹ Northeast Asia represents a subregion within the larger Asia-Pacific region. It comprises China, Japan, the Koreas, Mongolia and Eastern Russia. The strong interests and presence of the United States also characterize regional security, and political and economic relations.

² The draft of ERINA's plan for 2004-2008 includes a section entitled A Concept for Northeast Asia's Economic Development and Cooperation, which says the following:

In collaboration with the central and local governments of each country, research institutions, private sector entities and NGOs, ERINA will, based on its own research activities, formulate a comprehensive vision for the economic development of Northeast Asia as a regional economic bloc through the formation and operation of desirable regional economic development projects, thereby contributing to the establishment of a Grand Design for Northeast Asia.

Why Cooperation?

In Northeast Asia, there are easily identifiable grounds for promoting multilateralism among the subregional neighbors, including (1) geographic proximity, (2) multifaceted economic complementarity, (3) interest in promoting more balanced and equitable development at the subnational level, (4) opportunities for cooperative transportation and energy projects, and (5) opportunities for multilateral initiatives for managing environmental problems.

In general, the politically interconnected regions of the world demonstrate that multilateral cross-border partnerships offer tangible economic benefits and help to handle mega-problems, i.e. trans-border crime, environmental degradation, etc. Market opportunities expand through the exploitation of economies of scale. A competitive and integrated business environment facilitates economic restructuring and helps create jobs. Cooperation benefits people who live in neighboring territories within the integrated regions, contributing to their economic and social wellbeing. Since the early 1990s, local, regional and provincial governments have been trying hard to explore the prospects for regional closeness. Accumulated experiences clearly demonstrate that most of the initiatives and proposals require the support of central bureaucracies and the national political leadership.

In this respect, what is needed is the understanding of such benefits by politicians. If and when the leaders of Northeast Asia move ahead, exploring options for multilateral linkages, they should be clear about the values and benefits of multilateral cooperation. They should be prepared to explain to their constituencies why this is important and useful. In order to approve and accept the costs of future policy steps aimed at multilateral solutions, the public should be aware of the benefits that multilateral cooperation in their neighborhood promises.

Normally, people would agree that promoting bilateral cooperation is less expensive than sustaining conflict and tension. The majority would accept the idea that a cooperative political climate expands markets and opens up new opportunities for businesses and citizens. However, as of today, almost no one in Northeast Asia is raising their voice at the national policy level in favor of multilateral engagement in Northeast Asia. In this respect, Northeast Asia's positive potential has yet to be politically acknowledged in the capitals of the subregion. Without such acknowledgement, we are bound to continue discussing the prospects for cooperation, building such deliberations on mere geographical factors, rather than pronounced policy goals.

The Agents of Change

The lack of pronounced policy goals explains the delays and lack of progress in the implementation of many proposals for how to promote subregional economic

cooperation. Quite a few ideas have already been proposed concerning the establishment of a multilateral framework in support of economic engagement in Northeast Asia. These include a proposal to establish the Northeast Asian Development Bank (NEADB) and the Tumen River Area Development Program (TRADP). Other examples include the NIRA-sponsored "Grand Design" (A Comprehensive Regional Development Plan for Northeast Asia)³, and the framework proposed for the Northern Pacific region (NORPAC) that incorporates Northeast Asia as a part of a larger region.

However, as far as pronounced policy goals are concerned, the Northeast Asian subregion remains in the shadow of larger regional frameworks, such as APEC, the ASEAN Regional Forum and the ASEAN+3 process. The difference is that these frameworks are working because they were adopted politically. These cooperative mechanisms were built on the foundations of pragmatic and well-articulated interests. In Northeast Asia too, regional institution building requires political will. For that matter, any concept of the New Northeast Asia should respond to interests rooted in present day reality, while also encompassing the most important concerns about the future and uniting all influential actors.

Skipping over the complex history that still affects the psychological climate of the area, there are at least five key sources of influence. The first such authority, focused on stability and continuity rather than change, is represented by government policies that, among other key components, incorporate military security issues.

The second influence, a source of both continuity and change, is the private sector, primarily including large corporations.

The third source of power is regional administrations, particularly those located in border areas, as far as these provincial authorities can influence decisions made by central governments.

The fourth actor is a diverse group of international organizations and multilateral agencies with their own agenda, including the UN, APEC and the Asian Development Bank. Close to this segment, there is a broad group of NGOs, research organizations and various associations.

Finally, there is the general public. This force is mostly inward looking and yet needs to be understood from the standpoint of developing closer subregional links.

A realistic approach towards cooperation at the subregional level should aim to accommodate all these groups of actors with their specific demands and expectations. If we think and act in terms of pragmatic interests and realistic proposals, we should not envision multilateralism that at all times embraces all actors. We must take a more pragmatic, more selective, and also open approach. Realistically, a viable multilateral process in this subregion should be issue-specific, allowing various

³ See "A Comprehensive Regional Development Plan for Northeast Asia," *NIRA Policy Research*, 2002, vol. 15, no. 11. See also *Hokuto Ajia Kaihatsu no Tenbo* (Prospects for Northeast Asian Development), published by Nihon Kokusaimondai Kenkyujo (Japan Institute of International Affairs) with a number of chapters contributed by ERINA staff, Tokyo, March 2003.

combinations of actors to participate, depending on the issue and their capacity.⁴

To find out how and on which grounds subregional economic cooperation can be promoted, attention should be given to policy motives that originate from the vital needs and concerns of the states of the area and other influential actors. It seems in this context that growing energy import dependency, supply security concerns and lack of competition in energy pricing provide a powerful incentive for cooperation. In other words, energy security interests can potentially serve as an integrating device for Northeast Asia, also laying the foundations for regional institution building.

Vital Needs and Concerns

Asia as a whole is emerging as the leading region in the world with regard to the growth in energy consumption. The economies of this huge region, including ASEAN, China and India, are likely to continue to demonstrate high rates of economic growth, following the paths of Japan and the ROK as large-scale energy importers. Combined, they are poised to overtake North America and the European Union in terms of total energy demand by 2020.

On the other hand, in 2001, the combined volume of energy consumption by the economies of Northeast Asia (1,650 million tons of oil equivalent) exceeded that of the 15 EU countries (1,480 million tons of oil equivalent). In 2002, Japan, the ROK and China, including Taiwan and Hong Kong, imported a total of \$180 billion worth of various fuels, nearing the energy imports of the U.S. By 2020, subregional oil imports could almost double, reaching 900 million tons. More than 70% of incremental demand will be generated by the transport sector, with most of the increase arising from motorization in China. In 2000, Japan imported 250 million tons of oil and 54 million tons of LNG. By 2020, China is expected to import 300 million tons of oil and up to 40 million tons of LNG. In addition, China's domestic oil output is projected to flatten, while its oil imports will grow rapidly. Also, in two decades, demand for natural gas in the subregion is likely to triple, reaching 240 million tons a year.

Against this background, the concept of a New Energy Security for Northeast Asia could serve as a powerful tool

for regional institution building. The first pillar of this initiative will be the shared understanding that a truly new approach to energy security in this subregion requires cross-border cooperation on a very large scale. The second pillar will depend on the capacity of leaders and legislators, central and regional governments, and the private sector - both domestic and international - to join forces in various activities, ranging from project implementation to multilateral consultations and the adjustment of energy policies. Thirdly, support from international organizations and agreements such as the Kyoto Protocol could provide building blocks for the third pillar of this concept, given that energy cooperation and future cross-border energy links will emphasize reliance on cleaner sources of energy and energy-saving technologies.

Evidence of New Policies and Outlooks

Recent changes in policies and outlooks support this proposition. The changes in security and foreign policies that have been taking place since September 11, 2001 have generated and enhanced interest in energy cooperation, albeit at the bilateral level. In May 2002, Moscow and Washington launched their "new energy dialogue". China, for its part, has been successful in promoting a high-capacity cross-border oil pipeline. On May 30, 2003, in St. Petersburg, Prime Minister Junichiro Koizumi and President Vladimir Putin continued their January 2003 discussion of an even larger oil pipeline project from Angarsk to Nakhodka.⁵

As of today, oil supplies from new sources in Eastern Russia are at the heart of these dialogues. On the other hand, the prospects for relying on natural gas, hydroelectric power and cross-border power interconnection have yet to be discussed in detail. Eastern Russia is capable of supplying at least half of the incremental projected natural gas demand of the entire subregion. In this respect, the government of Japan has made a very important step forward, proposing that the share of natural gas in the total primary energy supply should grow from the current 13% to 20% by 2020.

Furthermore, Moscow has proposed the eastward diversification of energy supplies, to the Asia-Pacific region and Northeast Asia in particular. The new plan for

⁴ Examples of approaches based on cooperative "modules" include: (1) the WTO process (Japan, ROK, China, Chinese Taipei; could later incorporate Russia), (2) the ASEAN+3 framework aimed at the formation of an FTZ (could later incorporate Russia), (3) APEC (involves four economies, could later incorporate Mongolia and the DPRK), (4) PECC (involves all economies, except the DPRK, with Mongolia as an observer), (5) UNDP TRADP (could eventually incorporate Japan), (6) UNESCAP (includes all economies of the subregion), (7) UNDESA (includes all economies of the subregion), (8) OECD/IEA (Japan and ROK are members, Russia and China participate as observers).

⁵ Two oil pipeline projects were under consideration: Angarsk-Daqing (southern route, backed by China) and Angarsk-Nakhodka (northern route, supported by Japan). Integrating these projects would reduce the total cost because the larger capacity system would use one "corridor" for about half of the total length of the Angarsk-Nakhodka route. Although the total transportation distance to Daqing would be longer, this would not affect the oil price for China. It would also require shorter pipelines from the oil fields in the northern areas of Krasnoyarskiy Krai, Irkutskaya Oblast and Yakutia to link them with the main system.

The adopted plan includes building an oil pipeline linking new oil-and-gas fields in Krasnoyarskiy Krai, Irkutskaya Oblast and Yakutia with the Trans-Siberian trunk oil pipeline. A west-east mega-pipeline system with an annual capacity of 90 million tons should be built in the direction of Nakhodka. From Tynda, a smaller pipeline with a 30 million ton capacity would turn south, crossing China's border. The estimated cost of this project is close to \$6-7 billion.

energy sector development - the Main Provisions of the Energy Strategy 2020, adopted on August 28, 2003 - reflects this change in priorities and basically assumes that, under a favorable scenario, crude oil exports to the Asia-Pacific region could reach 105 million tons a year, equivalent to half of the current oil exports by Russia, or one-third of the projected oil exports in 2020.

If Northeast Asia procures 10-15% of its imported oil from Eastern Russia, linking the oil pricing formula with the European market, the reduction/elimination of the Asian Premium could be possible. Furthermore, a regional agreement on a scheme for multilateral oil stockpiling and the lease of oil stockpiling facilities could be an important step in the right direction.

It is projected that Russian gas exports to China and the Korean Peninsula via pipelines could reach 25-35 billion cubic meters by 2020, but these volumes could be much larger, given that advanced natural gas transformation technologies could help to moderate the region's high dependence on oil. In total, the share of Northeast Asia in Russia's gas exports could reach 15-20% by 2020. Technically, a gas pipeline to the ROK could be routed via the DPRK. The development of a subregional gas pipeline network promises large-scale benefits not only in terms of reducing energy costs, but also in the area of regional development.

The integrated West-East trunk pipeline plan steered by the Russian Energy Ministry envisages building a high-capacity gas pipeline (about 33 billion cubic meters per year) in parallel with the Angarsk-Nakhodka oil pipeline, connecting the Kovykta gas field and a gas pipeline network in Western Siberia with the Pacific coast. Yet, a submarine gas pipeline between Sakhalin and Japan has been proposed by Exxon Mobil. Moreover, the Sakhalin 2 LNG project will export about 12 billion cubic meters (9.6 million tons) annually in the form of LNG by 2015 and these volumes could double, responding to the growth in demand. Finally, Eastern Russia's unique hydroelectric power potential presents an opportunity for cross-border projects that are efficient both in economic and environmental terms.

The investment needed to support these intentions and plans is estimated to be in the tens of billions of dollars. However, cross-border energy undertakings are expected to serve several strategic purposes by (1) cementing improved political relationships, (2) promoting trade, investment, and technological and manufacturing links among regional neighbors, (3) providing additional incentives for economic advancement at the local and regional levels, and (4) supporting increased efficiency and lower environmental impacts in energy use.

Energy Links and Institution Building

In Northeast Asia, similarly to Europe, the complementarity of large energy markets and untapped energy reserves available in relative geographic proximity create a powerful incentive for multilateral, cross-border partnership. As in Europe, energy security already serves as common ground for bilateral dialogue.

The benefits of energy cooperation vis-a-vis regional institution building are evident and manifold. First of all, Northeast Asia increasingly attracts attention as an area with a large projected demand for hydrocarbons. Promoting subregional energy infrastructure linkages and reliance on the plentiful cleaner sources of energy available in Eastern Russia could reduce dependence on the Middle East's energy sources.⁶ Secondly, cross-border energy links are specific and their establishment can be defined in very concrete operational terms. Thirdly, cross-border energy cooperation is measurable in terms of physical and economic inputs and outcomes, and is observable in terms of investment policies.

Progress in approaching the selected goals is detectable. Building a cross-border pipeline, for example, is something that the parties involved can do and control. Finally, if needed, a timetable-based commitment to establishing a subregional institutional framework could be adopted. For example, the first phase could be devoted to bilateral and multilateral consultations (2004-2007), the second such phase could be focused on best practice in implementing cross-border projects (2008-2015), and steps such as forming an institutional framework could follow.

Last but not least, subregional energy cooperation could also serve as a vehicle for crisis resolution and reducing humanitarian costs, while assisting the DPRK's economic recovery and opening up. All in all, energy cooperation could become an efficient tool of regional development, providing a cost effective and environmentally sound way of diversifying energy supplies and energy imports, and serving as a confidence-building device.

Compatibility with Existing Institutions

In proposing a New Energy Security Initiative for Northeast Asia, we are not crossing the boundaries of political realism. In fact, what we suggest should be seen as an implementation framework (at the subregional level) for the latest version of the APEC Energy Security Initiative,⁷ proposed at the APEC Energy Ministers meeting held on July 23, 2002, in New Mexico.⁸ Both the previous versions of this initiative and its 2002 interpretation mainly focus on oil, its price volatility, data collection and information sharing, sea-lane security and response to supply

⁶ It is important to note that the so-called "Asian Premium," a pricing phenomena that increases the cost of imported oil and natural gas, is linked to the high level of oil dependence on the Middle East. On average, the economies of Northeast Asia pay about one dollar more (compared with oil prices in Europe) per barrel of oil (\$7.33 more for one metric ton of oil, or about \$10 million on a daily basis).

⁷ APEC economic leaders, in their declaration on November 16, 2000, noted "the risks to the world economy posed by volatility in the oil market" and called "for appropriate measures to promote stability in the mutual interests of consumers and producers." See APEC Economic Leaders Declaration, Brunei Darussalam: Delivering to the Community, Bandar Seri Begawan, November 16, 2000, p. 1.

emergencies. However, in New Mexico, non-petroleum and longer-term concerns were also discussed.

We advocate the idea of focusing on such long-term issues, taking advantage of subregional opportunities to improve energy security and the sustainability of energy use. This responds to a number of points incorporated into APEC's agenda:

- * A longer-term approach to energy security in Northeast Asia should include joint exploration and development initiatives (Eastern Russia, Mongolia, and China, including offshore fields and technologies provided by the oil majors).
- * This approach should promote non-petroleum means of satisfying energy needs, including coal, natural gas and renewable energy (Russia, China, Japan, ROK and North America).
- * The economies involved should support the development of new technologies that promote non-petroleum energy sources (all countries).
- * A particular focus should be placed on alternative fuels, high-efficiency vehicles and public transport to mitigate growing oil demand (all countries).
- * Collectively, the economies of Northeast Asia should adopt best practices in energy efficiency and conservation (Japan, ROK and North America as sources of advanced technologies).
- * This longer-term approach should ensure that the energy sector development plans take into account sustainability issues and the impact on the environment (all countries).

There are solid reasons to view energy-environmental cooperation in Northeast Asia as an integrated common goal. Sustainability is an integral element of energy security and cannot be separated from it. The economies of the subregion should strive for the simultaneous achievement of the so-called "Three E's" - energy security, economic growth and environmental protection. The focus on the Japan-Russia-China 'module' is promising in terms of exploring prospects for these three countries' long-term engagements in the energy sector as the core of a future framework for economic cooperation on a subregional level. If cooperation within this 'triangle' is successful, it will become a catalyst for the economic consolidation of the entire Northeast Asian subregion.

The DPRK and Subregional Cooperation

For security experts, the most crucial issue for

Northeast Asia is North Korea, from the standpoint of the threat of proliferation and conflict that it represents. Indeed, subregional institution building requires stability and reconciliation on the Korean Peninsula. On the other hand, the current situation presents the most serious test for the main actors that border the North Pacific region. Their capacity to find a way out of the deadlock would signal the emergence of a New Northeast Asia with energy cooperation as part of a shared agenda.

It seems that subregional energy cooperation could serve as a vehicle for tackling the DPRK's energy and economic stalemate, providing an opportunity for reconciliation.⁹ Indeed, meaningful trade and investment cooperation with the DPRK is impossible without first resolving its chronic energy supply shortages. It is important that neighboring countries cooperate in involving the North in the new scheme of energy dialogues. They should also pursue policies aimed at assisting the North in overhauling its energy infrastructure.

In this context, the KEDO framework was seen as a symbiosis of energy needs and security provisions that was attained by means of multilateral efforts, but this approach has failed. At their June 2003 summit, Russia and China, expressing their support for the nuclear weapon-free status of the Korean Peninsula, proposed that security guarantees be extended to the DPRK and that the nuclear non-proliferation issue be resolved by political and diplomatic means. However, any potential framework for such a resolution would seem to be extremely complex and difficult to implement.

Indeed, a comprehensive settlement of the nuclear issue and a permanent peace treaty should contain "a major economic component", including assistance in providing an energy supply. According to the U.S. Ambassador to Russia, Moscow might offer the North some assistance in fulfilling its energy needs.¹⁰ Indeed, energy shortages are at the heart of the DPRK's economic and security dilemmas.

Russia maintains cooperative links with the North and is willing to contribute to inter-Korean reconciliation. Putin is the only G8 leader who has kept up regular, personal links with his DPRK counterpart. He has been influential in helping to set the stage for negotiations between Japan and the DPRK. According to Putin, the North is sincerely interested in developing mutually beneficial connections with neighboring states.¹¹

In 2000-2002, changing inter-Korean relations and Russia-DPRK and Russia-ROK summits prompted Moscow to consider trilateral mega-projects involving the

⁸ APEC Energy Security Initiative Recommendations endorsed by the Fifth Meeting of APEC Energy Ministers, 23 July 2002, Mexico City, p. 9. See also: Promoting International Co-operation, Communique, International Energy Agency, Meeting of the Governing Board at Ministerial Level, 28-29 April 2003.

⁹ See Maurice F. Strong, Special Advisor to the Secretary-General of the United Nations, Undersecretary-General of the United Nations and Personal Envoy of U.N. Secretary-General Kofi Annan to the Korean Peninsula, "North Korea at the Crossroads - Prospects for a Comprehensive Settlement", Notes for Remarks Delivered at the Carnegie Endowment for International Peace, June 17, 2003, Washington, D.C., p. 8.

¹⁰ Ambassador Alexander Vershbow, U.S. Ambassador to the Russian Federation, Remarks at the Carnegie Endowment for International Peace, Washington, D.C., Thursday, January 9, 2003.

¹¹ Luncheon address to business representatives of the ROK, February 27, 2001. See also: President Vladimir Putin responds to questions from participants of the APEC Business Summit, October 19, 2001.

ROK and the DPRK. The first priority venture under discussion was the interconnection of the railways of the two Koreas, followed by their linkage to the Trans-Siberian Railway (TSR). Another project under review was a trans-Korean Peninsula gas pipeline.¹² President Vladimir Putin has made explicit reference to both of these projects in his summit level dialogues with both North and South.

Conclusions

Over the last fifteen years, there has been major political change in Northeast Asia and across the entire globe, facilitating major regional shifts in economic and security linkages. The most significant outcome of these changes is the emerging opportunity for cooperation in the energy sector. This vital domain could provide a realistic trajectory to mutually beneficial engagement.

Similarly to Europe, energy security could potentially serve as common ground for dialogue, followed by adjustments in policies and economic and investment decisions. From Russia's standpoint, the merits for developing close energy links with the economies of Northeast Asia could include the following:

1. The future of the eastern provinces depends on a shift towards a sustained economic growth pattern, which is less dependent on federal support and centralized investment. This requires access to new markets in the vicinity, reduced transportation costs, new and improved products, and expansions in exports and investment inflow.
2. The available discovered reserves of oil and gas in Eastern Russia can be monetized only if neighboring markets are sufficiently accessible as to justify their recovery in such a capital-intensive environment and long-distance transportation to these markets could be assured. On the other hand, the monetization of the discovered reserves would allow investment in new exploration and development projects.
3. Energy sector development would allow eastern provinces to benefit from the infrastructure construction, factory orders, job creation, tax base expansion and lower energy prices that would improve both the living standards and the competitiveness of the local producers.

These three components could contribute to industrial upgrading, domestic energy security and stronger linkages

among the provinces, as well as their social advancement and greater population stability. Thus, regional development in Eastern Russia would gain support not only from national but also external sources.

The significance of energy cooperation for regional institution building is evident and the advantages of such cooperation manifold.

Firstly, the main directions of such cooperation are very specific. An interest in achieving a greater degree of energy security and more competitive energy pricing serves as a catalyst for policy initiatives and investment decisions.

Secondly, cross-border energy links would ensure a greater reliance on cleaner sources of energy. This provides an opportunity to define the benefits of such cooperation in environmental terms.

Thirdly, energy projects can be observed in terms of physical and economic inputs and outcomes, and are measurable in terms of investment policies.

Furthermore, subregional energy cooperation could serve as a vehicle for resolving the DPRK's energy shortages and economic deadlock.

In summary, energy cooperation could become an efficient regional development tool, providing a stable, cost-effective and environmentally sound means of diversifying the energy supply, while also serving as a confidence-building device.

Institution building normally requires persuasive policy formulations. It seems that a New Energy Security Initiative for Northeast Asia could serve as a policy tool for regional institution building.

The first pillar of this initiative should originate from a shared understanding that a truly new approach to energy security in this subregion requires cross-border cooperation on a very large scale.

The second pillar of this initiative will be the capacity of leaders and legislators, central and regional governments, as well as the private sector - domestic and international - to join forces in various activities, ranging from concrete projects to multilateral policy consultations and technology exchanges.

Thirdly, support from international organizations, such as the UN, APEC, the World Bank and Asian Development Bank could constitute the third pillar of the proposed New Energy Security Initiative, given that cross-border energy projects also emphasize reliance on cleaner sources of energy.

¹² Two current energy initiatives involving both the ROK and the DPRK could provide a framework for crafting a negotiated settlement between the DPRK and the U.S., ROK, Russia, et al. group. The proposed Korea-Russia Pipeline (KoRus) would connect Sakhalin and Far Eastern Russia with the ROK. It will go from Sakhalin to Khabarovsk to Vladivostok, then to the ROK via the DPRK.

On the other hand, the PEACE Network (Power Economy And Clean Environment) envisages power grid interconnection through which electrical power would be supplied from the ROK to Gaesong to support the development of the announced free trade zone in the DPRK. Other interconnections with the ROK, Russia and China would further support the electrical grid in the North.