

Asia-Pacific Business Forum 2008

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Energy Security: Opportunities through Regional Energy Cooperation and Public-Private Partnerships

The theme of the Asia-Pacific Business Forum (APBF) 2008 was “Energy Security: Opportunities through Regional Energy Cooperation and Public-Private Partnerships”. There were 250 participants from governments, the business community, civil society, international organizations and academics who engaged in lively debate in the course of three sessions.

Below is a selection of issues pertaining to the provision of energy security and sustainable development. It highlights the recommendations to enhance energy security through regional cooperation and public-private partnerships that emerged from the Forum. These will serve as a source of inputs for ESCAP’s future work and will be presented at the Ministerial Round Table on “Energy Security and Sustainable Development in Asia and the Pacific” of the Sixty-fourth Session of the United Nations Economic and Social Commission for Asia and the Pacific.

Key energy issues that emerged from APBF 2008 include the need to:

- Ensure that poverty and equity are drivers of energy policies that enable energy access for the poor and social inclusion;
- Decrease dependency on fossil fuels and diversify to alternative sources;
- Promote and utilize renewable energy resources;
- Improve energy efficiency in all sectors;
- Build trust and collaboration for regional and subregional cooperation;
- Shift from independent energy policies to interdependent inter-country policies;
- Develop and implement a comprehensive regional energy security programme;
- Develop an intra-regional collaborative approach such as a trans-Asian energy system;
- Develop long term visions of energy supply network systems;
- Improve energy sector governance;
- Develop the proper regulatory and fiscal frameworks that encourage private investment in energy projects;
- Utilize innovative financing to develop energy infrastructure;
- Promote to internalize ecological costs into energy prices;
- Consider fiscal reforms that encourage investment such as preferential policies for investment, particularly private investment;
- Develop with the private sector human resources for the energy sector; and
- Prioritize research and capacity building.

Key issues and the summary of discussions include the following:

Energy security in the context of sustainable development in Asia and the Pacific

Overview of energy security challenges in the Asia-Pacific region

Despite high levels of economic growth, the Asia-Pacific region still has the largest number of poor in the world. Some 1.7 billion people rely almost entirely on traditional biomass energy sources, and a billion people still do not have electricity. In spite of its surging energy demand, the region's average per capita energy consumption is well below that of the world's average.

The region is heavily dependent on fossil fuels to spur rapid industrialization and urbanization, which entails environmental threats, especially the raising of greenhouse gas emissions.

The region must find ways to provide and expand access to equitable energy services without jeopardizing long term prosperity and environmental sustainability. Energy security, energy access and energy efficiency are vital components of long term energy strategies for the region.

Among others, the following points were highlighted during the deliberations:

- The Asia-Pacific region has been experiencing rapid growth in energy demand, fueled by industrialization and a growing middle class;
- Per capita consumption is still relatively low by global standards;
- Energy demand in Asia and the Pacific is projected to grow on average by 2.75 percent a year between now and 2030, with the region accounting for half of global demand by 2030;
- Energy access is a fundamental factor to attaining the Millennium Development Goals. 1.7 billion people, however, still rely on traditional biomass fuels, such as wood and animal dung, to cook and to keep warm; nearly one billion people have no access to electricity;
- Many countries in the region are heavily dependent on fossil fuels;
- Emerging concerns about increasing global energy demand and energy supply constraints have contributed to energy price hikes;
- Market speculations and hedge funds have also been involved in driving up the oil price;
- Industrialization and increased motor vehicle use is contributing to rising energy demand;
- Increased production and transport costs have had an impact on food security due to high oil prices;
- Energy consumption contributes to climate change and other environmental problems;
- Greenhouse gas emissions from fossil fuels from Asia and the Pacific have been growing most rapidly compared to other regions, although per capita emissions in the region are lower than the average for the world;
- Insufficient recognition of all stakeholders' role on energy security issues, including civil society and non-government organizations.

Supply and demand security issues

- Resource constraints in traditional energy exporting countries;
- Concerns about growing import dependency;
- Rapid urbanization and higher energy consumption;
- Political instability and conflict in some energy resource countries;
- Lack of trust among countries;
- Economic viability of projects;
- For producers, energy security means the security of energy demand;
- High cost and uncertainties in investment for new resource development;
- Improvement needed in energy supply chain management; and
- Energy transport instability and sea lane insecurity.

Regional energy cooperation and the role of the private sector in Asia and the Pacific

Many countries have national energy policies to enhance energy security but none can achieve energy security alone. There is a need to move from independent policies to interdependent policies by building trust within the region and between energy suppliers and consumers.

A regional approach to promote enhanced energy cooperation through greater coordination and integration of the regional energy system by way of energy exchanges and trade in support of sustainable development will go far towards supporting national energy security efforts. This regional approach, however, requires strong commitment from the highest level of government, innovative financing, strategic vision among the members and coordination as well as cooperation.

Possible financing for public-private partnerships

- Traditional forms of financing will be insufficient to meet the infrastructure needs, particularly of those countries where many people lack access to modern energy services;
- Countries in the region will need to be more innovative and look to national and international financial markets. They will also be able to take advantage of environmental financing, such as the Clean Development Mechanism (CDM) under the climate change framework. Larger-scale financing, however, would need to come from other arrangements, including a proposed regional “special purpose vehicle” for energy infrastructure development;
- Financing schemes need to be developed to facilitate infrastructure development:
 - Schemes need to demonstrate the viability of a business;
 - Loan and risk guarantee schemes;
 - Risk-sharing and ownership arrangements;
 - Environmental funds (such as the CDM);
 - Regional revenue bonds;
 - Preferential taxation;
 - Public-private partnerships (PPP);
 - Special purpose vehicles for energy infrastructure financing;
 - Micro-financing for rural and renewable energy services;
 - Joint investment with private sector, venture capital and carbon financing; and
 - Fair arrangements for independent power producers.

Regional cooperation in energy security issues

- Regional energy security is built on the foundation of national energy security;
- Building trust among countries;
- Promote joint activities to reduce the transaction costs, such as bulk purchasing;
- Foster multilateral dialogues among Governments, private sector, financing agencies and international organizations to achieve:
 - Long-term agreements between producer and consumer countries on energy supplies and prices;
 - Strategic oil reserves through coordinated build-up of oil stockpiles for emergency needs;
 - Transboundary energy projects to interconnect countries/subregions for transporting fuels and transmitting electricity;
 - An integrated regional energy cooperation mechanism to build on ongoing or planned subregional energy cooperation for energy exchange and trade such as a trans-Asian energy system (TAES);
 - South-South cooperation to share vital information on technologies, project development, management and financing;
 - Resolution on border issues so that energy resources can be swiftly and efficiently developed;
 - Better oil supply chains (e.g., smooth supply path for oil from Middle East to Far East); and
 - Value-creation from refinery and stockpiling.

Towards a sustainable energy future – alternative fuels

Specific examples of alternative energy sources were highlighted, including solar power and heating systems used by various sectors in China, and a model that supported the expansion of solar heating systems, including public education, market stimulation, consultation with policy makers and reinvesting profit into both company expansion and public education.

Biofuel development was also reviewed with an emphasis on efficiency from the supply side (i.e., agriculture) to the demand side (i.e., production and refining).

Some reservations were voiced about the other impact of the biofuel industry such as on food security and the environment. Questions were also raised about the fallibility of renewable technologies. They are becoming economically viable now because of the high oil price, but there were concerns about what would happen to these renewable energy projects in developing countries if the price of oil were to decrease. The question of how to make alternative sources of energy affordable for the poor was also raised.

Way forward

Goals and strategies

There is an urgent need to shift towards a new energy security paradigm to create a virtuous cycle of sustainable energy/economy nexus that would enable countries to focus on the quality of growth rather than quantity of growth.

There are several key issues and policy options related to such a paradigm shift including energy pricing, demand side management, sustainable energy infrastructure financing and investment, as well as technology innovation and competitiveness. Both public and private sectors can play key roles in creating this new energy paradigm.

Some strategies suggested include ideas to:

- Reduce energy consumption through energy efficiency and conservation;
- Move from independent energy policies to interdependent intercountry policy framework;
- Promote a cooperative approach using existing infrastructure such as joint stockpiling or a regional energy market;
- Invest more in energy infrastructure, particularly sustainable infrastructure;
- Low carbon energy utilization including renewable energy to reduce greenhouse gas emissions;
- Reorientation of subsidy regimes;
- Concrete policy and regulatory measures on pricing of energy (electricity and petroleum products);
- Facilitate independent power producers; and
- Instill confidence in international and local financial institution;

The role of ESCAP would be to:

- Facilitate and foster regional cooperation at both the public and private levels;
- Act as a regional hub for policy dialogue and consultation with industry and stakeholders;
- Establish a regular forum on energy and food security for Asia and the Pacific;
- Act as a catalyst and facilitate multi-national developments; and
- Facilitate negotiations with a third party counsel and provide proper perspectives.

Policy options for regional energy security

- Improve the efficiency of energy production and consumption through:
 - Research and development;
 - Transfer of technology;
 - End-users' consumption patterns ;
 - Availability of and education about energy efficient appliances; and
 - Production of energy efficient appliances.
- Diversify energy resources (natural gas, coal, nuclear, renewables) to lower dependency on fossil fuels, and to develop underutilized renewable resources;
- Diversify geographical energy sources and reserves including domestic and overseas resources;

- Develop proper regulatory frameworks that would encourage private investment in energy especially sustainable energy projects;
- Consider fiscal reforms that encourage investment, such as preferential policies for investment in energy projects;
- Improve energy sector governance;
- Consider all energy options, including nuclear power plants by considering the full range of issues such as safety, technical capacity, human resources, high cost, waste disposal and environmental impacts, public acceptance, food security and terrorism;
- Internalize ecological costs into energy prices;
- Ensure energy access for the rural poor and social inclusion;
- Develop long term visions of energy supply network systems;
- Develop and implement a comprehensive regional energy security programme;
- Engage in human resource development in the energy sector with the private sector;
- Develop public mass transport infrastructure in urban areas for energy saving and environment protection;
- Prioritize research and capacity building;
- Development of energy policy should be inclusive with focus on equity building and poverty reduction for a long term vision.

For the details of the Asia-Pacific Business Forum 2008, see: www.unescap.org/apbf;