

Progress Report by Indonesia In the Energy Security Cooperation

Energy sector is one among important areas of cooperation in the forum of Asia Cooperation Dialogue/ACD. Two working group meetings on energy were held respectively in Manama, Bahrain and in Manila, the Philippines in 2004, while the 1st Energy Forum was held in Bali, Indonesia, 26-28 September 2005 in the framework of ACD.

During a period of current oil price sharp fluctuation which adversely affected the economic development and prosperity of the Asian region, the 1st ACD Energy Forum was timely convened. At the end of the Forum, a Joint Declaration containing a set of initiatives to be taken, in the spirit of voluntary cooperation, mutual respect, and sharing of benefits, in these following areas:

1. To help ensure a sustainable supply of energy by increasing energy exploration activities, facilitating energy-related innovations, and developing energy-efficient technologies;
2. To advance the sustainable development of energy resources and technologies including geothermal, bio-fuel, solar, hydro-power and wind. For interested ACD member countries, development of sustainable nuclear energy for peaceful purposes should adequately address security, seismic conditions, health concerns and trans-border effects;
3. to conduct joint research and studies toward the development of renewable energy resources as well as energy and market efficiency in order to address the increasing energy demand, shortage of energy supply, and to mitigate the negative environmental impact of energy use;
4. To enlarge the body of knowledge on energy through sharing of information, best practices, and experience in energy exploration, development, and conservation of fossil energy and renewable energy;
5. To encourage capacity building programmes in the energy sector including training and scholarship programmes;
6. to establish linkages with existing energy cooperation in the Association of Southeast Asian Nations (ASEAN), ASEAN+3, the Greater Mekong Sub-region (GMS), the Bay of Bengal Initiative on Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), the South Asia Association for Regional Cooperation (SAARC), the Gulf Cooperation Council (GCC), and other regional organizations and forums that pursue cooperation on energy;
7. to explore the possibility of setting up a consultative mechanism among ACD oil producing and consuming countries that will identify ways and means of mitigating the adverse effects of oil price fluctuations, including the possibility of re-investing the financial windfall from the recent surge in

- oil prices to ensure the sustainable economic growth, development, and welfare of the ACD member countries;
8. to explore the possibility of building a strategic oil storage system for interested ACD member countries as a way of mitigating shortfalls in oil supplies and maintaining a prudent level of energy supply for Asia in the future;
 9. to study the possibility of formulating contingency plans relevant to each ACD member country's needs as well as the needs of the region, in the event of an energy supply crisis or disruption due to natural disasters, terrorist attacks or war;
 10. To encourage a government-private sector partnership as well as to involve related enterprises, institutions, agencies, and sub-regional arrangements in the enhancement of energy cooperation in ACD member countries;
 11. to encourage closer cooperation and networking among the private sectors of ACD member countries, particularly energy companies, in addressing energy needs and promoting efficiency as well as sharing of information and best practices;
 12. to encourage closer economic ties among ACD member countries by promoting foreign direct investment and project financing in the energy sector as well as by improving their respective business climates;
 13. to enhance networking among the energy institutions of ACD member countries, eminent persons in the field of energy, technology universities, and centres of excellence so that they will explore ways of developing economical and feasible alternative energy resources that are specific to each ACD member country; and
 14. To establish a national energy focal point in each ACD member country and designate an ACD Energy Forum focal point to coordinate and enhance networking among policy and decision makers.

For the purpose of pursuing these initiatives, Indonesia has been designated as the focal point coordinator for the ACD Energy Forum. It was also agreed that the ACD Energy Forum holds regular meetings with a view to strengthening energy cooperation in Asia.

Recommendations

1. Indonesia proposes four tangible areas in the energy cooperation and projects for the future ACD cooperation, namely: research and assessment on energy, investment for energy infrastructure development, contingency plans for security of energy supply, and reinvestment of profits gained from oil trade:

a. Research and Assessment on Energy

The areas for cooperation in the research and assessment cooperation shall include 3 main areas, namely: energy alternatives to oil including renewable energy, energy management and conservation and energy intensification (exploration and production of primary energy).

- Research in energy alternatives; the focus should be given to research and development of alternative fuels for transportation and electricity generation to replace oil. The cooperation may include developing biofuels and biodiesel, ethanol, crude palm oil/CPO and jatrova oil. The development of Compressed Natural Gas/CNG and Liquefied Pressurized Gas/LPG to replace oil in transportation sector should also be strengthened while research for identification of potentials of renewable resources, like wind energy, micro hydro and solar PV also need to be intensified.

- Research and development of energy management and conservation; which may focus on energy management training for energy users (energy intensive industries, energy management in transport sector), developing more efficient energy using appliances, code, standards and labeling, including rule and regulation improvements.

- Research for energy intensification; for oil, gas, coal, hydro energy and geothermal explorations, exploitation and productions. There are still many areas in Indonesia, especially in the Eastern Indonesia that have not been explored because of GOI limited funding and investment. To increase the oil and gas reserves, research and development in this region need to be enhanced (20% increase in oil recovery still can be obtained with new EOR technology).

b. Energy Infrastructure Development (Investment)

The focus of cooperation shall be given for infrastructure development in Oil, Gas and Electricity. Building new gas pipelines as well as oil refinery and gas plants are of great importance to the certain ACD countries. Gas utilization in certain ACD countries is restricted by the lack of gas infrastructures. To reduce dependence on oil in industry, household, transport and electricity generation sectors, investment in coal and gas infrastructure is greatly needed. Electricity generation sector is heavily dependent on oil resource. The ACD countries should make planning to reduce oil dependence and to replace it with gas and coal or other alternative energy resources. The effort is mainly hampered by the lack of infrastructures as well as limited funding to finance the development of the infrastructure. Huge investment for oil, gas, coal and electricity sectors is needed through private and foreign participation. The improvements on investment climate through fiscal and non fiscal incentives and regulations are therefore needed.

c. Contingency Plans for Security of Energy Supply

The cooperation on the idea of building a strategic storage system or oil stock piling is very much needed especially for the net oil importer ACD countries. The need to secure its oil and gas supply for domestic consumption is certainly a priority for these countries. The implementation of this plan is of a long term planning which may require more than 10 years, that is why the socialization of the plan needs to be started now to ensure the realization could be ensured in the next 15 years time. The Strategic locations for oil storage system could be discussed further among the ACD members with the involvement of OPEC, which shall consider elements like, transportation cost, geographical condition, safety (terrorism), and other economic as well as political aspects. The energy security should be for the common and interested members of ACD, not for individual country. Further discussion and modalities are needed in this area of cooperation.

d. Reinvestment of Profits gained from Oil Trade (Oil Windfalls)

Cooperation on developing the infrastructure of ACD regions using the oil and gas windfall is of great importance for the benefit of both oil consuming and producing countries. The oil producing country can use the oil windfall for energy infrastructure development in the ACD countries. The fund can be use to develop refineries, gas plants and pipelines which can enhance and develop energy trade and market (enhance exports) in ACD countries, which can benefit the producing countries. Further discussion and modalities are needed in this area of cooperation.

2. In the area of cooperation in alternative energy, the Philippines has submitted a concept paper on renewable energy resources and alternative fuels seminar workshop to be held in mid-2007. Intensive development of renewable energy resources and the increased use of alternative fuels are two of the major government policy of the Philippines. In the light of the recent volatility and upward movement in oil prices, the relevance of ACD comes to the fore. As there is a growing recognition on the benefits of a regional approach, the ACD with all its geographic complementarities and diversities, is seen as an appropriate fora to address the increasing energy demand in Asia which is expected to account for 35 percent of the world energy demand by 2020. Asia's premium is its being a primary source of energy which is a critical lifeline for the global economy.

a. **Objectives:** The proposed activity aims to take stock of the ACD member countries' respective national policies, plans and programs on renewable energy resources and alternative fuels, identify possible areas and modalities of cooperation amongst ACD member countries, academe, research institutions and the private sector and determine concrete courses of future action.

b. **Seminar Methodology:** The three-day event will feature various presentations, open forum, workshops and plenary discussions to be capped by

a site visit to a wind power plant or a bio-diesel plant. Apart from the relevant national agencies of the ACD member countries, representatives from the academe, research institutions, industry stakeholders and private sector will be invited as participants or present assigned topics.

c. Matrix of the proposed Workshop:

Topical Content	Responsible Presenters	Expected Output
Policies on Renewable Energy/Alternative Fuels (to also include the demand and supply outlook)	Individual member countries	Inventory of RE Policies in Asia
Success stories in RE Development and Utilization /Alternative Fuels	Individual member countries	Compendium of success stories in RE/Alternative Fuels Development and Utilization
Business Opportunities in RE Development and Utilization	Perspectives from the private sector	Mutual agreements and other possible areas of cooperation
Research and development Initiatives on RE and Alternative Fuels	Perspectives from the academe and research institutions	Inventory of studies, innovations and researches on RE and Alternative Fuels

Prepared by Indonesia and supported by the Philippines
May, 2006