

CONFERENCE ON REGIONAL COOPERATION FOR ENERGY SECURITY IN SOUTH ASIA

KOLKATA, AUGUST 07-08, 2014

Executive Summary

Regional integration and energy trade in South Asia region lags significantly behind most of the world. The energy sector in the region has not been able to keep pace with the growth and has been continuously experiencing chronic problems of supply and poor quality of service, due to several social, political and economic differences. This also causes an adverse impact on the economic and social development.

The potential of power trade within the South Asia has been discussed for many years, especially due to their vast potential in widespread underexploited energy sources. Several successful examples of such cooperation can be found in different parts of the world, like cross border energy trade in Europe. Such cooperation help countries to strengthen their national energy security reduce the costs of energy supplies and provide electricity to all.

From the regional cooperation and energy trade perspective, an important characteristic of the region is the variation in the energy demand and supply situation. Variation in resource endowment and disparity in energy consumption pattern across the region along with the cost of non-cooperation in terms of consumer welfare gains made a strong case for the energy cooperation.

Thus, to achieve regional cooperation there is a need for strong and robust political and social mandate. The existence of well-defined, coherent/harmonious energy policies, enabling legal and regulatory framework are an essential criterion for regional trade and investment. As such, there is an urgent need to put in place related mechanism that would not only facilitate but also encourage energy trade among the South Asia region. Hence, there is a need to know the prevailing legal and regulatory frameworks that have been put in place in the region; how these mechanisms facilitate and/or impede regional energy trade and what can be done to harmonise the regulatory mechanism within the region.

Key Recommendations

1. Improved domestic sector performance is a key part of reaping full gains from regional cooperation and trade.
2. Political goodwill and economic cooperation go hand-in-hand. Both should complement each other in order to ensure there is energy trade and regional integrity.
3. Younger generation should actively take part in research and advocacy both nationally and regionally.
4. Regional grid is a must for attaining better energy cooperation. However, building and improving domestic infrastructure should be first priority among the South Asian countries.
5. Trade and cooperation on both conventional and non-conventional energy resources should be initiated and facilitated by governments in power, civil society organisations (CSOs) and non-governmental organisations (NGOs).

6. Bilateral and multilateral dialogues involving international funding agencies, such as the Asian Development Bank, The World Bank etc., need to be initiated. Formal treaties may be signed, as and when necessary.
7. Awareness generation is a vital component of the whole process. A responsible media has to take up a crucial role in this regard.
8. Consumers are one of the key sufferers of non-cooperation within the region, as it directly affects the consumer welfare cost.

Background

In spite of diverse energy resources and tremendous potential of regional cooperation, South Asia region has had very limited cross border energy trade so far, due to several social, political and economic differences between countries. Almost, all countries in the region have been experiencing chronic problems of supply and poor quality of service. Thus, to resolve such diversified social, political and economic differences in countries, there is a need for robust political, economic and social mandate from the government and NGOs for regional cooperation in the energy sector.

Several successful examples of such cooperation can be found in different parts of the world, especially cross-border energy trade in Europe and Southeast Asia. Such cooperation helps countries to strengthen their national energy security, reduce cost of energy supplies and provide electricity to all. However, to sustain achieved accelerated growth rates and progressing further with regional power trade, there are several legal and implementation hurdles, in addition to infrastructure development, technology competence and investment issues.

About the Conference

CUTS International with support from Friedrich-Ebert-Stiftung (FES India) organised this conference with the aim to create a platform for dialogue among relevant stakeholders to achieve greater cooperation, coordination and integration of energy systems. The platform allowed discussion among relevant issues, such as-natural gas pipelines, electricity, energy efficiency, renewable energy, technology transfer, energy policy and knowledge sharing- the potential, challenges involved and possibilities to overcome, among relevant stakeholders. The conference was well attended by 50 participants from varied nationalities (Nepal, Bhutan, Bangladesh and India) representing government, NGOs, academic and educational institutions and industry representatives etc.

DAY I: THURSDAY, AUGUST 07, 2014

Opening Session: Political Economy Dimensions of Trans-boundary Energy Cooperation

The opening session was based on the theme '**Political Economy Dimensions of Trans-boundary Energy Cooperation**'. In his welcome address, **Pradeep S Mehta**, Secretary General, CUTS International presented a brief overview of present situation in South Asia. He said that though resource endowment varies across the region, there is no dearth of energy resources in South Asia. However, there is lack of regional cooperation between countries which could strengthen their national energy security, reduce costs of energy supplies and provide electricity to all, affecting the regional economy adversely. Trust deficit among neighbouring countries further complicates the issue. However, he expressed hope with the changed foreign policy being implemented under Narendra Modi, the Indian Prime Minister. He concluded that unless these concerns are not taken care of, it will be difficult to generate the political will, which is the key ingredient to ensure energy trade to take place.

Mike Toman, Lead Economist, The World Bank delivered a presentation on on-going initiative by the World Bank which focussed on undertaking quantitative analysis with long-term electricity planning model. It simulate impacts, potential gains of cooperation from full regional and partial cooperation (Bangladesh, Bhutan, India, Nepal) along with qualitative analysis of institutional and policy issues.

Toman concluded his presentation and flagged three important points:

- Increased regional power cooperation and trade can improve sector performance
- Experience suggests agreement on (sub) regional power cooperation and trade is institutionally feasible for South Asian region, and can build incrementally
- The efficiency of domestic power systems/markets will have substantial influence on size and distribution of benefits from cooperation and trade – as well as being important in its own right

Mohammed Omar Farooq, First Secretary, Deputy High Commission of Bangladesh, Kolkata pointed out that Bangladesh rely heavily on the import of hydro and carbon fuel from the neighbours, due to which the balance of payment position is adversely affected. There should be more focus on exploring the renewable energy potential of the region, higher energy efficiency and energy conservation. Regional cooperation would help minimising the transportation cost of fossil fuels. The South Asian Association for Regional Cooperation (SAARC) Energy Centre should undertake a comprehensive list of activities to facilitate regional cooperation in the energy sector. Also, different institutions in the region should come forward and take active part in designing and implementing training and research programmes.

Dasho Namgyal, Consul General, Royal Bhutanese Consulate spoke about the power scenario in Bhutan, mentioning the hydro power projects undertaken in joint collaboration with the Government of India. He advocated on the need for diversification of power market and limitations in its execution. Privatisation in the sector is fading away conventional roles, giving way to the bigger investments through public-private partnership (PPP). The energy surplus nations have the capacity to supply power to its neighbours as well as the SAARC grid, provided the ecologically tender zones are managed.

Chandra Kumar Ghimire, Consul General, Consulate General of Nepal said that regional cooperation among countries should incorporate three components: supply security, sustainability and competitiveness. The SAARC can play a bigger role in ensuring smooth working of a regional power market and a grid, but unilateral dialogues are very limited in scopes. Therefore, bilateral and multilateral energy dialogues should take place in more number engaging more than one neighbouring states.

Jayant Prasad, Former Ambassador of India to Nepal mentioned that the South Asian region is the second least developed region in the world. There are a number of barriers in achieving energy sufficiency. In the recent past the world has seen the commodification of energy. Time has come for a stronger regional cooperation in the energy sector. Exchange of ideas and research outcomes across the region would facilitate the government to formulate all-inclusive energy policies giving enough space for regional cooperation. Political goodwill and unprecedented enthusiasm of civil society members are capable of facilitating such cooperation.

Access to electricity, though a fundamental rights of the consumers, is being denied by the states and instead, being exported the surplus to other regions, leading to further complications declining domestic economy. He concluded that for a universal power supply, trade and cooperation is necessary.

Bipul Chatterjee, Deputy Executive Director, CUTS International concluded that India has experienced both the best and worst examples of cross border cooperation with two of its neighbours – Bhutan and Nepal. It is quite unfortunate that we have not learnt from neither of them. The civil society and the political class are to play key role in achieving regional collaboration on energy trade.

DAY II: FRIDAY, AUGUST 08, 2014

PLENARY I – EXISTING INITIATIVES AND POLICIES

Nitya Nanda, Fellow, The Energy and Resources Institute initiated the session through a presentation which focussed on existing initiatives and policies on energy trade in the region. He briefly diverted his discussion to Eastern South Asia, as it housed one of two most important industrial/growth centres in India (South Asia), was an industrially developed sub-region and one of the most important sub-regions in terms of contribution to exports. He emphasised that as the prosperity of South Asian nations are inter-linked and that the Eastern South Asia is among the most fragmented sub-region and also among the poorest sub-region, integration of these countries/states will bring prosperity to all countries/states. Nanda mentioned about huge energy gap and energy poverty in the region. Nanda then talked about power trade and dependency of power among countries in the region.

Nanda concluded his presentation by raising few important issues, such as the broad purposes of regional energy cooperation, i.e. providing security on energy supply with cautious concern over environment impacts, the usual modes of engagement like trade in energy commodity, natural gas pipelines and renewable energy and the investment flows in the sector. He also mentioned number of measures which can be taken, including infrastructure development, financial mechanisms, regulatory frameworks, R&D, information sharing and capacity building.

Reacting to the presentation, **Rajan Dhakal**, Deputy Manager, Nepal Electricity Authority, Kathmandu, Nepal mentioned that as the time of electricity demand of various countries such as India, Nepal and Bangladesh varies from each other, that energy can be shared within the region. He also added that through energy sharing and trading an economic upscaling of the region will take place. He mentioned important requirement in the successful energy sharing, viz. exchange of ideas among regional countries; capacity building exercises and positive mind-set amongst the people.

Rajiv Ratna Panda, Senior Project Manager, Integrated Research for Action and Development, New Delhi, India invited a discussion of some specific points, such as need to enhance political consensus among countries and role of NGOs and CSOs in the same, need of cohesive and developmental environment among them to facilitate mutual trade, development of the institutional and operational structure with concern on environmental issues, the pricing issues and investment concerns. He also stressed on developing domestic power market which will be beneficial to develop a regional power market.

Aditi Mukherji, Theme Leader, International Centre for Integrated Mountain Development, Kathmandu, Nepal highlighted the role of International Centre for Integrated Mountain Development in the discussion involving energy sharing in South Asia, which is to ensure that the hydro-power generating stations located in Nepal should benefit the localities as well as the adjoining areas. She stressed on developing infrastructure and creating appropriate institutions to facilitate issues revolving around energy sharing issues. She also suggested on developing a nexus between food-water-energy security of the region.

Amulya Charan, Independent Adviser, Energy, Infrastructure and Finance, Pune, India provided few suggestions to develop the energy sharing mechanism of the South Asian countries, such as involving the younger aspirational generation; private sector; ensuring effective and improved governance on top most priority and putting an end to the inflatory economic situation to building a Regional Grid System.

PANEL DISCUSSION ON EXISTING INITIATIVES AND POLICIES

In the beginning of the panel discussion, **Anoop Singh**, Associate Professor, IIT Kanpur, India emphasised on the need to undertake an assessment on four positions in terms of market reforms in respective countries. It is crucial to make a competitive framework to initiate the process of cooperation. With different regions/institutions having different requirements, expectations and need, bridging the gaps and developing synergy is quite challenging. Infrastructural bottlenecks need to be addressed on priority to form a base for a smooth regional cooperation. Additionally, an erroneous pricing strategy due to inadequate regulatory mechanism is equally responsible for less cooperation. He mentioned the role of the political class in the whole issue. The first priority of the government should be the local needs and then exporting the surplus power to the neighbouring regions.

MollaAmzad Hossain, Editor, Energy and Power, Dhaka spoke about the recent shift in overall energy production in Bangladesh, in which production at six out of seven fertiliser factories has been shut down due to the limited and interrupted supply of natural gas. He mentioned that earlier Bangladesh electricity was highly subsidised, but the tariff was increased after it was imported from India to address the shortage of domestic supply. He mentioned about the political turmoil in the case of 'tri-nation pipeline' which was supposed to cut through India, Bangladesh and Myanmar. He stressed on the participation of the young generation in research and technology and CSO in social awareness generation. He said that there should be a firm regional voice in three areas namely water, energy and environment.

According to **Monali Hazra**, Regional Coordinator, South Asia Regional Initiative for Energy Integration (SARI), United States Agency for International Development (USAID), regional cooperation on energy generation, supply and regulation is necessary to ensure access to clean energy resources. A regional grid has the capacity to address energy issues of the given region. There are two parts that an energy dialogue – 'Hardware' part which talks about the transmission interconnectivity and 'Software' part that concentrates on capacity building of regional consumers. The SARI has been working towards enhancing the energy cooperation on a regional basis, advancement of the market strategy, providing and extending support in procurement, harmonising energy regulations, making the necessary investment and promoting bilateral programmes.

Renewable Energy expert and innovator, **S P GonChaudhuri**, President, NB Institute for Rural Technology, Kolkata, India advocated about regional cooperation on renewable energy to solve energy scarcity. He mentioned about the research being carried out in and outside of India to assess the feasibility of transporting renewable energy in deprived nations. In most of the cases, it is not the power which is exported or imported but the raw materials, such as biomass, rice husk in solid and liquid forms that is traded in the regional power market. Therefore, extensive research should be conducted to see if these raw materials could be transported in their condensed form so that the volume which is a concern can be mitigated.

The panel discussion was followed by floor discussion, in which it was discussed that a critical role is to be played by different institutions that are representing respective countries. A coherent and cohesive policy is need of the hour. The common people need to be awarded about the whole process of regional cooperation and its advantages and disadvantages.

PLENARY SESSION II: Potential Future Initiatives

Mahendra P Lama, Pro Vice Chancellor, Indira Gandhi National Open University, New Delhi, India opened up with the central question of regional cooperation for energy trading system. Borders, with its orthodox national security dynamics are hampering trade, cooperation, economic activities etc. In correspondence, comes the question of trust building among neighbours. Integration or cooperation among nations always means sharing natural resources. Thus, trust building is one of the essential ingredients to begin integration process.

Hippu Salk Kristle Nathan, Assistant Professor, National Institute of Advanced Studies, Bangalore, India delivered a presentation entitled, *'Think Global, Act Regional – Setting the Agenda through Global Grid'*. According to him, global grid should be the priority to solve world's most pressing problems, such as overpopulation and resource disparity.

Pramod Deo, Former Chairperson, Central Electricity Regulatory Commission, New Delhi, India spoke about the political, economic, technical and regulatory reforms required to enhance the scope of energy trade and barriers to improving industry investments and the way forward to increase their involvement. Everybody expects private players to involve and play a vital role in regional integration instead of bilateral trade between governments. Citing the example of Indian intra energy trade to explain the problem within the region, he explained that Electricity Act, 2003 made generation completely de-licenced and concept of trading was introduced for which there is a need of trading licence.

Professor Lama mentioned that in last 20 years seven factors which are remarkably present: level of sensitisation among stakeholders is very high; plethora of studies/literature on the subject; basic structure within the region, such as SAARC etc.; comprehensive networking and capacity building of all regulators; governments are under tremendous pressure to move fast on energy projects; substantive policy reforms in most of the government policy across South Asia with two distinct feature; and open access, which is multiplicity of players and cross border trading.

Sher Singh Bhat, Director, Power Trading Department, Nepal Electricity Authority, Kathmandu, Nepal defined energy security as ensuring adequate supply of energy requirements for present and future generation in sustainable and affordable manner. National energy security should be ensured through relying on domestic instead of imported resources. Sustainable energy plan based on renewable resources can ensure the energy security of whole region.

Taking it forward from Professor Lama's point, **Prabir Neogi**, Chief Executive, The Calcutta Electricity Supply Corporation, Kolkata, India emphasised on borderless organisations as convergence of institutions within the nations is more challenging. Bundling of conventional and non-conventional energy should also be considered when talking about regional trade. He also insisted on the energy exchange to facilitate real time and power exchange with proper regulation and knowledge sharing through platforms like South Asia Forum for Infrastructure Regulation (SAFIR). There is a need for common platform for experience sharing for cross learning.

Mashfique Ibne Akbar, Research Associate, Centre for Policy Dialogue, Dhaka, Bangladesh posed questions related to the challenges and plan of integrated grid in the South Asia region. He noted that in spite of robust GDP growth, the energy consumption of the region is quite low as compared to other regions. He also noted the energy problems in the Bangladesh including subsidy and high

tariff. He concluded by stating that a proper framework incorporating all the energy cooperation initiatives will mitigate the energy security in the region.

During the floor discussion, Neogi stated that there is a need to strike the balance between demand and supply to keep the pace with developing economy. On the question related to power cooperation between India and Nepal, Singh stated that it is possible only when need of the states are complimentary to each other.

PANEL DISCUSSION ON POTENTIAL FUTURE INITIATIVES

Shruti Sharma, India Project Coordinator, International Institute for Sustainable Development, New Delhi, India rightly pointed out that while understanding the cost of electricity one needs to understand the true cost of per unit of energy, which constitute hidden costs. The hidden cost is the subsidy that the government provides to consumers. She pointed out two types of subsidies that are being associated with conventional and renewable energy generation. The conventional energy generation consists of consumer as well as producer subsidies; while renewable energy generation comprises of only producer subsidies. Sharma wondered why the energy efficiency programmes in the region has not really taken off – as a unit saved is always equal to two units of energy generation. She suggested utility companies to create a baseline of energy savings. Pointing out to barriers, she singled out governance as the major barrier in the region. Also she stressed on having a true political willingness towards developing an energy market.

Fouzul Kabir Khan, Chairman & CEO, Keystone Business Support Company Ltd., Dhaka, Bangladesh wondered about the lack of regional energy trade in South Asia, being it successful in the Europe and US. He also stated that maintaining an equilibrium situation for a long period of time in demand-supply gap is not possible. He suggested to prioritise the energy demand and then trade the excess power generated. He also raised questions on the sort of reforms, which should be encouraged; and should the reforms be driven by demand or one should look for reforms which create demands in the market. He stated that almost half a billion of population in the region are electricity-starved. He raised serious concern on whether any other countries except Bhutan in the South Asian region will ever achieve the target of providing electricity to all. He cited an example of the Indian National Grid (in India all grids, viz, East-North East-West-North-South are interconnected, thereby having a single grid across the nation) and stressed on the importance of having the same across the region.

Prititosh Roy, Former Member, West Bengal Electricity Regulation Commission, Kolkata, India gave a suggestion to sell off surplus power to other countries and focus on the renewable energy sector, advocating the trade of solar energy He also proposed exploiting all possible sources of energy, such as hydro energy, other renewable energy forms (including solar) and nuclear energy; as coal-based thermal power plants are no longer the choice of the day.

Smriti Dahal, Senior Programme Officer, South Asia Watch on Trade, Economics and Environment, Kathmandu, Nepal pointed out that South Asia is vulnerable to food, energy and water scarcity and predominantly use firewood as a primary fuel. She commented that though India had primarily a sceptical approach towards trading electricity with Nepal and Bangladesh, she is hopeful that the newly formed government may improve the scenario. She added that maintaining energy security in energy deficient Nepal should be of the prime focus. She urged all stakeholders and agencies, such as The World Bank and The Asian Development Bank to initiate and make energy sharing in the region a reality.

Prakash Ghimire, Senior Adviser, SNV Bhutan, Thimpu, Bhutan was a proud person, being a Bhutan national, an only energy surplus country in the region. He showed his concern on the issue of increasing firewood consumption and the problems of affordability and availability of energy in poor rural areas of Bhutan. However, he stated that the people of Bhutan are now more aware of the fact that saved surplus energy can generate substantial revenue for the nation. Ghimire demanded other nations to support Bhutan to harness renewable energy.

Prasad Ranjan Ray, Former Chairman, West Bengal Electricity Regulatory Commission, Kolkata, India summed up the proceedings by stating that political mistrust has hampered the regional cooperation between countries. He also blamed a few over-hyped newspaper reports which had hurt the process. He concluded with a hope that the distribution should be liberalised and privatised.

Conclusively, all the panellists hoped that it is technically feasible to lay a single regional grid and trade surplus power (generated from a country). All the possible primary sources of energy need to be exploited to yield the maximum benefits. The benefit of energy sharing should be enjoyed by all the residents of the participant countries and power supply to all should be a national priority. A master plan should be developed and implemented accordingly. All this will be possible through harmony between the neighbouring countries. There should be political willingness which can ensure its success on a larger scale. A close network of representatives from various governments, NGOs and other stakeholders, multilateral agencies and reputed educational institutes, can help attaining the energy security of the South Asian region.

Keya Ghosh, Director, CUTS International in her closing remarks thanked all the participants, speakers for their involvement and participation in the meeting. She mentioned that as an output of the event, CUTS would be preparing a report of the event and once finalised, it will be shared with participants.
