

Shebonti Ray Dadwal

CAN REGIONAL ENERGY COOPERATION IN SOUTH ASIA BE ENHANCED?

Abstract

The pace of economic development of South Asian countries, albeit unevenly distributed has been impressive in the recent times. The future growth prospects however, would to a large extent be determined by access to adequate and affordable supplies of energy resources. Despite the tremendous scope and potential for energy cooperation, there is very little energy trade taking place within the region due to a number of technical, financial and political factors. As a result, much of this energy potential remains untapped and/or underdeveloped. This has an impact on the quality of lives of the peoples of the region, besides contributing to environmental degradation and pollution. Consequently, the region, which is home to a third of the world's population, is coming under increasing international pressure for aggravating global warming and climate change. This paper looks at why, despite the many regional initiatives/projects that have been undertaken, few have succeeded in improving the energy situation. The paper will also attempt to identify the problems and impediments to regional energy trade and look at various options to overcome them.

1. Introduction

With the recent volatility in prices of fossil fuels, combined with factors such as increasing concentration of oil and gas resources in fewer countries and regions, depletion of surplus capacity in (conventional) oil, bottlenecks in refining, imposition of sanctions on some producing States as well as barriers imposed by some of these States on access to their energy sectors, have contributed to concerns on the security of energy supplies, and indeed the issue of energy security per se.

For the developing, industrialising countries, which have witnessed significant economic growth over the past few years, the need for ensuring their energy security to sustain their growth levels has made the issue a matter of national security. Till recently, most countries had been adopting a more or less

Shebonti Ray Dadwal is Research Fellow at the Institute for Defence Studies and Analyses (IDSA) in India. Her e-mail address is srdadwal@gmail.com

© Bangladesh Institute of International and Strategic Studies (BISS), 2011.

ad hoc policy towards energy, which was premised on purchasing their energy as and when required. However, with the transition in the global energy sector and the unprecedented rise in prices of almost all energy commodities, the need to secure energy supplies, particularly for the consuming countries, has assumed a sense of urgency.

For the countries of South Asian region, the pace of development, though unevenly distributed amongst the countries, has been impressive. However, they realise that their future growth prospects would, to a large extent, be determined by access to adequate and affordable supplies of energy resources, given that the demand for energy is growing at a rate of 6 per cent per annum, and is set to double over the next two decades. Many of the countries can no longer meet their energy requirements from domestic resources and have to import increasingly large quantities of energy.

Ironically, the region has tremendous scope and potential for energy cooperation. For instance, Nepal and Bhutan have excess capacity for hydropower generation while Bangladesh and Myanmar have large natural gas reserves. On the other hand, India and Pakistan are large and growing energy markets, if not the only one for many of their neighbouring countries and even from a global perspective. Yet there is very little energy resources that are traded within the region due to reasons that are mentioned subsequently. Hence, much of this energy potential remains untapped and/or underdeveloped. As a result, more than half of the population of the region has little or no access to modern forms of energy and the people continue to be dependent on traditional fuels such as firewood, agri-waste and animal waste. This not only affects the quality of their lives, but also contributes to environmental degradation and pollution. Consequently, the region, which is home to a third of the world's population, is coming under increasing international pressure for aggravating global warming and climate change.

Moreover, this current unprecedented rise in oil and other energy prices are impacting negatively on the economies of these countries. In fact, according to a United Nations Development Programme (UNDP) report, titled 'Overcoming Vulnerability to Rising Oil Prices' released in October 2007, the rise in oil (energy) prices will affect countries that have "low economic strength, low economic performance and high oil dependency", and names Afghanistan, Bangladesh, the Maldives, Nepal, Pakistan and Sri Lanka as the worst off states in the region.¹ Though India has not been named as one of the most vulnerable states, the Indian Planning Commission's Deputy Chairman, Montek Singh Ahluwalia, said that the prevailing high level of global energy prices was posing

¹ Oil prices hit hard on Asia's poor, United Nations Development Programme, October 25, 2007, available at <http://content.undp.org/go/newsroom/2007/october/soaring-oil-prices-asia-20071025.en>, accessed on November 30, 2011

a serious constraint on the Indian economy and hoped that there would not be any further sharp rises.²

Given that the region is deficient in hydrocarbons, the dependence of most of the South Asian countries on imported oil and gas will remain, and is, in fact, expected to increase over time. However, some of this import dependence can be reduced if the countries develop a cooperative framework with regard to energy trade within the region. Over the years, the need for cooperation in the energy sector has been gaining ground, based on the rationale that while individually, none of the countries produced enough energy to meet the growing demand and were becoming increasingly dependent on imports, often at high costs, the situation could be improved if an integrated approach to energy security could be adopted. A cooperative, collective action would help maximise economies of scale, reduce costs and assure guaranteed energy supplies, as well as encourage the adoption of new, renewable energy technologies for sustainable development in the region. This was the rationale behind the initiative of South Asian Association for Regional Cooperation (SAARC) when it set up a task-force to facilitate an integrated energy system. In 2005, at the 13th SAARC summit in Dhaka, the decision was taken to set up an Energy Centre in Islamabad, which would collectively address regional and global energy issues to identify areas of cooperation in the energy sectors within the region and to enhance more efficient use of the same. The Asian Development Bank (ADB) was tasked with preparing a regional energy technical study (SRETS) on the scope for cooperation with the objective of creating an enabling environment for optimising supply-demand for energy as well as to identify mutually beneficial investment options.

However, despite several initiatives, the energy scenario in the region remains poor, with countries like Pakistan and Bangladesh facing crisis-like situations with regard to energy availability.³ Other countries in the region, including India, are also facing an energy crunch. This, in turn, has led to scepticism about whether the regional states will be able to transcend their political differences and mutual suspicions and harness the benefit from a collective regional approach to energy cooperation.

This paper looks at why, despite the many regional initiatives/projects that have been undertaken, few have succeeded in improving the energy situation,

² "Energy prices, a drag on economy: Montek", *The Hindu*, Business, December 22, 2007, available at www.hindu.com/2007/12/22/stories/2007122256561800/htm, accessed on November 30, 2011

³ Khaleeq Kiani, "Loadshedding back as power sector faces cash crunch again", *Dawn*, 18 October 2011, available at www.dawn.com/2011/10/8/loadshedding-back-as-power-sector-faces-cash-crunch-again.html, accessed on 30 November 2011 and Engr. Khondkar A Saleque, "Bangladesh's Energy Crisis: Anatomy of Failure", *Energy Bangla*, 9 May 2011, available at www.energybangla.com/index.php?mod=article&cat=SomethingtoSay&article=13515, accessed on 30 November 2011.

and will try and identify the problems and impediments to regional energy trade, and look at options to overcome these impediments. The paper has been organised in seven sections including the introductory one. Section Two delves into why regional cooperation is needed, Section Three highlights on the agenda of regional cooperation, Section Four discusses the rationale for regional cooperation, Section Five identifies the impediments to regional energy trade, and Section Six looks at options to overcome these impediments. Section Seven is the Conclusion.

2. Why Regional Cooperation

The rationale for energy trade in the region is clear. Despite a paucity of hydrocarbons in the South Asian countries, some of the countries have huge surpluses in energy resources such as hydropower. Energy exports could contribute significantly to earnings of these energy-exporting economies like Bhutan and Nepal. For example, Druk Green Power Corporation (DGPC) is the biggest contributor to the Bhutan government revenues in the form of dividends and taxes. It earned a pre-tax profit of US\$ 134.3 million (Nu 6.5 billion) in 2009 out of a total revenue of US\$ 206.5 million (Nu 10 billion), of which US\$ 204.5 million (Nu. 9.9 billion) alone accrued from exports to India.⁴ Similarly, some of the countries neighbouring the subcontinent such as the Central Asian Republics, Myanmar and Iran have substantial hydrocarbon resources that exceed their domestic demand, and therefore can be exported to South Asia.

Moreover, in the event of trade in hydropower picks up, this can contribute significantly in bringing down the use of fossil fuels. This would not only assist individual countries in bringing down forex outflow for hydrocarbon imports, but would also benefit the region as a whole from a climate change perspective. By tying the regional neighbours in energy trade could increase regional peace and bring down hostilities. That countries can gain economically from regional cooperation in the energy sector has been proved by successful regional energy cooperation initiatives. Given that, fossil fuels are expected to remain the primary source for energy supply for most countries, the rationale for cooperation lies in the fact that energy resources are not evenly distributed among countries. As economies grow and the demand for energy grows as well, the countries are faced with the consequences of environmental degradations as a result of the increased use of fossil fuel-based energy as well as the long-term challenges of availability and for some, affordability. As a result, countries are coming together to combat energy insecurities by pooling, sharing, and interconnecting resources as they realised that regional energy cooperation offers the opportunity of not

⁴ Medha Bisht, "India-Bhutan Power Cooperation: Between Policy Overtures and Local Debates", *IDSA Issue Brief*, 7 October 2011, available at www.idsa.in/system/files/IB_IndiaBhutanPowerCooperation.pdf, accessed on 30 November 2011.

only economies of scale for the importing countries but preferential access to energy resources as well from exporting countries due to the creation of a large regional energy market.

The best known example of successful regional cooperation in energy is the Union for the Coordination of the Transmission of Electricity (UCTE) in Europe. Its success can be assessed by the fact that while the current UCTE covers most of West Europe, many East European countries have recently joined the union. Some other examples of successful regional electricity grids are the South African Power Pool (SAPP), West African Power Pool, and the Central American Interconnected Electricity System.⁵ The ASEAN countries too have begun the process of constructing a regional gas pipeline network, called the trans-ASEAN Gas Pipeline (TAGP) and ASEAN power grid (APG), where some 11 bilateral power inter-connection projects are being pursued, to enhance the availability and accessibility of energy in the region by 2020.⁶

3. The Agenda

The South Asian governments have, albeit belatedly, recognised the need for a more regional approach to cooperation in the energy sector and a small amount of trading in energy is taking place, albeit in a bilateral mode rather than in a regional context. At the 12th SAARC summit in January 2004, held in Islamabad, the member states agreed to set up a Working Group on Energy, and the first such meeting was held in June of the same year wherein a number of areas for regional cooperation were identified. These included, among others, promotion of non-conventional and renewable sources of energy through sharing of manpower, expertise, know-how and training programmes; feasibility of establishing a Regional Fund for promoting non-conventional energy; promoting energy efficiency and conservation; and the possibility of setting up a SAARC Energy Centre to be located in Islamabad. The Centre became operational in March 2006⁷ although as early as the organisation's first Session in December 1985, the SAARC member countries approved the recommendation of the then Technical Committee on Science and Technology to hold a workshop on Renewable Energy. Since then, various activities were held in the energy sector

⁵ "Potential and Prospects for Regional Energy Trade in the South Asian Region", Report by Sustainable Development Department, South Asian Region, World Bank, June 2007, available at http://siteresources.worldbank.org/SOUTHASIAEXT/Resources/223546-1192413140459/4281804-1192413178157/4281806-1194474073434/SAR_Energy_Trade_Nov_07.pdf, accessed on 02 December 2011.

⁶ Ensuring Energy Security in ASEAN, ASEAN Secretariat, 01 February 2008, available at [www.aseansec.org/Fact%20 Sheet/AEC/2008-AEC-011.pdf](http://www.aseansec.org/Fact%20Sheet/AEC/2008-AEC-011.pdf), accessed on 02 December 2011.

⁷ "Energy", SAARC Secretariat, available at www.saarc-sec.org/main.php?t=2.2, accessed on 02 December 2011.

under the auspices of the Technical Committee on Science and Technology. Subsequently, cooperation in the energy sector was brought directly under the purview of the SAARC Integrated Programme of Action (SIPA) in January 2000 by establishing a new Technical Committee on Energy.⁸

Since then several rounds of meetings on energy issues have taken place. At its third meeting in Colombo in January 2009, the energy ministers approved of the concept of Energy Ring that was developed by an expert group, while the latest ministerial meeting in September 2011, focused on areas of cooperation in energy amongst member countries.

The activities of the Energy Centre include a study on renewable energy projects, a study on instituting a regional energy database, holding training workshops on biofuels, energy efficiency and conservation, etc. Though various aspects of cooperation in energy are being looked at, the issue that has mainly caught the interest of all the SAARC countries is the concept of the Energy Ring. In fact, an Expert Group has been set up to facilitate the creation of the same. The leitmotif behind such a “ring” is the lack of sufficient power generation capacity in most of the member states which in turn has contributed to lower growth rates across the region. The basic concept behind this initiative is to purchase surplus energy, both renewable and non-renewable as well as electricity, from other countries in and outside the region and distribute it amongst the member states to maximise economies of scale, reduce capital and transport costs, and guarantee steady supplies of energy. Once this is successfully implemented, there is a possibility of broadening the scope of the Energy Ring to include Southeast Asia as well.

However, as of now, very little progress on this front has taken place given the vast potential, although some joint projects at a bilateral as well as sub-regional level have been initiated. For instance, India and Sri Lanka are also planning to construct a 285 km undersea power transmission line that is likely to cost around US\$ 450 million. A feasibility study for the proposed project is under way. If the project is deemed feasible, it will allow India to export an initial power capacity of around 500 MW to Sri Lanka, which will subsequently be increased to 1000 MW. The feasibility study is being done by the Power Grid Corporation of India Ltd (PGCIL). The link is likely to connect Madurai in Tamil Nadu and Anuradhapura in Sri Lanka’s North Central Province. Power Grid is also executing projects to bring electricity from Nepal and Bhutan and is looking at developing two transmission lines to Myanmar.⁹ India and Nepal have also initiated negotiations on a cross-country pipeline project for supplying petroleum

⁸ *Ibid.*

⁹ “Undersea power link to Sri Lanka planned”, *Hindu*, 26 October 2008 and Sudheer Pal Singh, “India-Sri Lanka power link feasible: PGCIL”, *Business Standard*, 08 August 2008.

products from India to Nepal. Currently, petroleum products are transported by road, whereas a pipeline, if implemented, would reduce transportation cost by 40% besides facilitating the movement of fuels to the land-locked Himalayan country, which often faces shortages of fuel.¹⁰

The World Bank has also identified some projects for potential regional energy cooperation. These are: Increasing and broadening the existing India-Nepal transmission connections as well as the West Seti hydropower project in Nepal; a four-border project linking the power systems of Bangladesh, Bhutan, India and Nepal; power trade between Central Asian Republics and South Asia (viz. CASA 1000¹¹) and possibly the Turkmenistan-Afghanistan-Pakistan-India Gas Pipeline (TAPI) project, although the Indian participation in the Iran-Pakistan-India (IPI) gas pipeline project has been put in cold storage for the time being. On the other hand, the shelved Myanmar-Bangladesh-India gas pipeline project may be resurrected following the improvement in ties between Dhaka and New Delhi recently.¹²

However, none of these projects have been able to exploit the full potential of a truly regional cooperative model. Moreover, each of the South Asian countries are under immense social and political pressure to secure reliable, sustainable, and reasonably priced energy supplies to meet increasing demand for commercial energy, and there is a growing realisation of the need to address energy security from a regional perspective, as this facilitates a more comprehensive, cost-effective, and sustainable set of solutions to the challenges of energy security. According to a study by some eminent energy experts from the region, regional cooperation will enhance the energy security of the region as a whole, without compromising the energy security of individual countries.¹³

¹⁰ "India reviews progress on oil project with Nepal", *India Today*, 07 December 2011, available at <http://indiatoday.intoday.in/story/india-reviews-progress-on-oil-project-with-nepal/1/163173.html>, accessed on 05 December 2011.

¹¹The governments of Afghanistan, Kyrgyzstan, Pakistan and Tajikistan signed a Memorandum of Understanding in November 2007 in Kabul and agreed on the scope of the transmission project. The project envisages the transmission of 1300 MW of electricity from Kyrgyzstan and Tajikistan to Afghanistan (300 MW) and Pakistan (1000 MW).

¹² Nizam Ahmed, "Tri-nation gas pipeline project set to be revived", *The Financial Express*, 19 November 2011, available at www.thefinancialexpress-bd.com/more.php?news_id=156489&date=2011-11-19, accessed on 30 November 2011

¹³ T.L. Sankar, Hilal A. Raza, Abul Barkat, Priyantha Wijayatunga, Mahesh Acharya, D.N. Raina, "Regional Energy Security for South Asia", SARI/Energy Program, available at www.sari-energy.org/ProjectReports/RegionalEnergySecurity_RegionalReport_Complete.pdf, accessed on 05 December 2011.

4. Rationale for Cooperation Through Regional Energy Trade

The basic rationale for energy cooperation in the region is that while all the countries of the region suffer from inadequate supplies/production in some energy resources, a few have supplies that are far in excess of their demand, current as well as potential.¹⁴ However, they do not have the wherewithal, be it financial or technical to exploit the same, as well as markets. For instance, Nepal and Bhutan, as well as India, have huge hydropower potential. However, the former two are unable to exploit this potential because of the lack of investment and markets. Having comparatively low incomes and small market sizes, they are unable to benefit from economies of scale accruing from major infrastructure investments.¹⁵ On the other hand, the larger economies, like India, Pakistan and Sri Lanka, have to rely increasingly on imports from outside the region to meet their energy requirements. In this situation, they realised that if they could cooperate, including trade in energy resources, it would be beneficial for all. Hence, regional cooperation would be a win-win situation for all.

If examples of other energy cooperation models are looked at, there is much to gain from cooperation and trade in energy and power resources. Apart from the revenues that can be earned from sale of fuels/electricity, interconnections facilitate substitution in seasonal shortfalls from one source, whether in fuels or power, as well as reduce development and operating costs, and increase the reliability of supplies.

Nonetheless, almost all the countries suffer from power outages and underdeveloped power and energy infrastructures. Even those countries that have surplus energy derived from hydropower suffer from seasonal shortages. None of them have been able to supply electricity to all the households with a large number of villages yet to be electrified through power grid interconnections. Yet all the countries have plans to provide electricity to all their citizens, many of whom will be unable to pay for the service. To address this problem, either electricity costs must be drastically reduced or substantial funds must be

¹⁴ India has oil resource potential of 5,576 mtoe, Pakistan has 3,600 mtoe and Bangladesh 0.96 mtoe. Pakistan, Bangladesh, India and Afghanistan have gas resources ranging from 120 bcm in Afghanistan to 38 tcf in India (1.08 tcm) and 7,985 bcm in Pakistan. On the coal front, the resource potential for India is 245,690 m.t., Pakistan 185,000 m.t., and Bangladesh 2,715 m.t. Other countries do not have viable coal resources. Hydropower potential represents one of the largest energy resources in the region. India's potential is 301,000 MW, Bhutan, 50,000 MW, Nepal 42,915 MW, Pakistan 40,000 MW, Sri Lanka 2,000 MW, and Bangladesh 775 MW, totaling 437,000MW, of which only 9 per cent has been exploited.

¹⁵ Mahendra Lama, "Energy Cooperation in South Asia", Paper presented in SAFMA Conference on Regional Cooperation in South Asia, available at [www.southasianmedia.net/conference/Regional_Cooperation/energy .htm](http://www.southasianmedia.net/conference/Regional_Cooperation/energy.htm), accessed on 03 December 2011

provided by the governments to subsidise poor households. Under power sector reforms, most governments aim to transfer the responsibility for power sector ownership/management to the private sector. If the foregoing issues are to be resolved, policies and plans formulated at the respective national levels would need to be coordinated at the regional level through cooperative initiatives to reduce the cost of power generation and supply to the poor. At the same time, given that even power-surplus states experience seasonal shortages, a common power grid using multiple energy resources from several sources could ensure uninterrupted power supply.

For most South Asian states, India provides the largest and most practical market for export of energy, that is, gas and hydropower, for countries like Nepal, Bhutan and Bangladesh, as they all share a common border with India. At the same time, due to its geographical location, India is the only country that can facilitate power trading among the smaller countries in the eastern sector. By so doing, India could also benefit from wheeling charges for the use of its transmission system between these countries.¹⁶

Even in terms of simple intra-regional trade in energy, it would immensely benefit the countries. India has increased its refinery capacity to the extent that it has become a net exporter of petroleum products. It is ironical that while the UAE and Singapore are importers of Indian petroleum products, they are the biggest exporters of petroleum products to Pakistan and Bangladesh. If the South Asian neighbours import oil products from India at concessional rates, instead of buying the same at higher rates from third countries, it would result in huge savings for them and beneficial for India.

If the South Asian countries cooperate, the region as a whole would provide a larger and hence more attractive energy market for potential investors and energy producers. The region's neighbouring countries are endowed with huge energy reserves. Iran and other West Asian states and the Central Asian Republics to the west of the region have some of the largest reserves of oil and gas as well as hydropower potential, while Myanmar and Southeast Asian countries in the east are rich in gas. Given their geographical contiguity, these countries could supply the South Asian countries for much of their energy needs. Some amount of power trading is already taking place between Afghanistan and the Central Asian states as well as Pakistan and Iran. However, under a common energy ring, gas as well as electricity could be imported from the region's neighbouring states for the collective use of all the South Asian states.

Unlike some regions, South Asia, like Europe, has a single land mass (barring the Maldives and Sri Lanka), which allows the countries to plan and develop an integrated energy infrastructure, such as gas and oil pipelines as well

¹⁶ "Potential and Prospects for Regional Energy Trade in the South Asian Region", *op. cit.*

as electricity grids which, if successfully developed, could reduce the cost of transporting energy as well as allow the states to enhance their energy security by allowing flexibility to meet unforeseen energy demand, particularly during peak demand periods.

Finally, given that the excess energy resources available in the region are hydro and gas, development of and trade in these resources would have environmental benefits for all the regional states. For instance, India could substitute a substantial part of its coal-based power generation by imported gas or hydro power from its neighbours, thereby reducing its carbon emissions and help the region in meeting environmental goals. At the same time, India is only country in the region which has a robust renewable energy programme, and is in fact one of the largest producers of wind and solar energy as well as a well-defined programme on bio-fuels. Given that development of renewable energy technology is a primary focus of the grouping as outlined by the Working Group on Energy, cooperation on this issue would benefit all the member states. If the world moves inexorably towards alternative energy models, India could provide its neighbours with the technological know-how.

5. Impediments to Regional Energy Trade

Despite the several benefits to energy cooperation, both at the intra-regional as well as the inter-regional, to date, these have been minimal.¹⁷ Part of this is due to the fact that energy security is a concept that is comparatively new to the states in the region. Even after energy security did begin to impinge on the states as a national security issue, it was seen as being synonymous with national self-sufficiency. Hence, cooperation was of low priority, and was restricted to trade in fuels.

Though, it is a fact that most intra-regional energy projects would not make commercial sense without the huge Indian market, given that the energy consumption in most of the other states is not sufficient to attract foreign investors, the other states not being in consensus with India, prevented any successful regional cooperation, eg. India-Nepal and India-Bangladesh disagreements over water-sharing issues, as well as trade and transit rights. In particular, strained relations between India and Pakistan have seen many regional project proposals being scuttled, as well as bilateral ones. Some examples include the proposal to sell surplus power from Pakistani Independent Power Producers (IPPs) to India in the late 1990s due to opposition in Pakistan to selling power at subsidised rates to India, as well as Indian concerns of becoming dependent on Pakistani power, as well as some technical problems such as synchronisation of power grids and transmission inefficiencies. Similarly, in the case of sale of

¹⁷ Only India-Bhutan and India-Nepal trade in hydropower, and Iran-Pakistan and Afghanistan-Central Asia trade in power.

Bangladeshi gas to India, the opposition parties in Dhaka were opposed to selling off the country's only valuable natural resource to India without ensuring adequate reserves for domestic consumption.

Even in the case of multilateral energy trade, India's security concerns vis-à-vis Pakistan and its ability to cut off gas supplies to India, among others, have seen the Iran-Pakistan-India (IPI) gas pipeline project being stalled for almost two decades, while Bangladeshi opposition has seen the Myanmar-Bangladesh-India project being shelved.

With regard to inter-regional projects, security issues appear to be the biggest factor in impeding such projects. The case of the Turkmenistan-Afghanistan-Pakistan-India (TAPI) gas pipeline project is a case in point. The political situation in Afghanistan as well as in Baluchistan has been an obstacle for such projects with international financiers hesitant to underwrite the same. Also, the strained relation between some of the supplier states namely Iran and Myanmar, with Western countries, makes it difficult to finance such deals.

Some other factors that impede regional energy cooperation include the absence of well developed infrastructure, such as gas pipelines and power transmission networks, both at the national and inter-state levels; poor operational efficiency on the part of some of the existing power utilities (state electricity boards), with high system losses and poor revenue collections, which in turn deter trade, socially-oriented government policies, such as subsidised tariff regimes, ownership structure of energy infrastructure – most power sectors in the region are mainly state-owned, which in turn prevent competition - as well as private sector involvement in the energy sector, and lack of regulatory mechanisms.¹⁸

However, while all these impediments are not unassailable and can be dealt with over time, it will be more difficult to overcome the political problems between the states in the region as well as changing the mindset of the political elite's of the various countries. This is most obvious in the case of the two largest economies of the region, namely India and Pakistan. In fact, the lack of success in transforming SAARC into an effective regional economic and trade grouping has been blamed on the strained relations between these two countries. Even in the case of energy cooperation, it would appear that the two nations cannot overcome their suspicions vis-à-vis one another. The IPI project is a case in point. As a result, as SAARC Secretary General, Sheel Kant Sharma said at a recent meeting, the regional states miss business opportunities worth US\$ 8 billion a year due to non-cooperation.¹⁹

¹⁸ "Potential and Prospects for Regional Energy Trade in the South Asian Region", *op. cit.*

¹⁹ "SA States Miss \$8b Business Every Year", *South Asian Media Net*, 03 July 2008, available at www.southasianmedianet.com

6. Overcoming the Impediments

One option of overcoming mutual suspicions is to approach energy cooperation through a regional or multilateral approach on the lines of SAFTA. A number of issues with regard to cooperation have been taken up by the members, such as connectivity, transport, poverty alleviation and health. Though energy per se, is not part of the SAFTA process, a case could be made to include it under the same. A similar exercise to include energy services is currently underway in the World Trade Organisation (WTO). Several countries, including Japan, have proposed that energy services should be included in these negotiations on the grounds that it is important for economic activities²⁰. Though no specific agreement on energy trade per se exists in the World Trade Organisation (WTO), the issue of energy did feature in the Doha negotiations launched in 2001, particularly in the services sector. Members undertook limited commitments to open up their markets to foreign operators in energy services, including those in mining at oil and gas fields, distribution of gas and electricity, and pipeline transportation of fuels. With the unbundling of state-owned utilities and technological developments, the space for including private operators has increased. In fact, current negotiations on energy services encompass all energy sources, including renewables and clean technology. Some members have also proposed to include regulatory transparency, non-discriminatory third party access to networks and grids, need for independent regulator and requirements preventing anti-competitive practices.²¹

Currently, the SAARC member countries are in the process of negotiating an agreement in trade in services. As in the case of WTO negotiations, introducing energy as an issue would be beneficial. Since the SAARC member states have undertaken to abide by the rules, rights and obligations under the Marrakesh Agreement establishing the WTO²², a case could be made to incorporate energy

southasianmedianet.net/index_story.cfm?id=513243&category=Frontend&Country=MAI N, accessed on 05 December 2011.

²⁰ Japan has proposed that negotiations should cover the entire range of energy services, from sale to consumption, including transportation, transmission of and distribution of electricity, pipeline transportation and retail sales of energy. It however has recommended that energy production should be classified under goods production. See "Negotiation Proposal on Energy Services", The Ministry of Foreign Affairs of Japan, March 2002, available at www.mofa.go.jp/policy/economy/wto/energy0203.html, accessed on 05 December 2011.

²¹ Taken from Pascal Lamy's address on "Energy Trade in the WTO" to the 20th World Energy Congress in Rome, 15 November 2007, available at www.worldenergy.org/documents/kn2_151107_lamy.pdf, accessed on 05 December 2011.

²² See, text of South Asian Free Trade Area (SAFTA) accord, available at www.saarc-sec.org/data/agenda/economics/safta/SAFTA%20AGREEMENT.pdf, accessed on 05 December 2011.

under the SAFTA trade in services. This would go a long way in alleviating the concerns of the states in undertaking energy-related trade with its neighbours, particularly so in the case of the smaller states.²³

For instance, in 2007, at the World Energy Congress in Rome, WTO Director General Pascal Lamy, speaking on how the WTO could contribute to a more efficient allocation of energy resources and a better trading environment for energy, said, “Since our basic rules are applicable to all forms of trade, they also apply to trade in energy goods, including renewables, and services. These rules can be enforced through the WTO dispute settlement mechanisms” and include prohibition of restrictions in exports as also discrimination on the basis of origin or destination of products, freedom of transit, actions by state-trading enterprises and on trade-distorting subsidies.²⁴ He also said that the WTO General Agreement on Trade in Services (GATS) covers all services, including energy services, and can protect investments in energy services.²⁵

Yet another means of the South Asian states ensuring their energy security while adopting a regional or cooperative approach is by becoming members of the Energy Charter Treaty, which entered into force 10 years ago. The Treaty’s provisions focus mainly on five areas: investment, including protection of investment; trade, where all member states, whether belonging to the WTO or not can subscribe to WTO rules for trade in energy; transit, which requires members to facilitate energy transit without distinction as to its origin, destination or ownership of resources, price discrimination or delays; energy efficiency and dispute resolution.²⁶

According to Andre Mernier, Secretary General of the Energy Charter Secretariat, the Charter plays an important role in building a legal foundation for energy security. Being a legally binding instrument, its fundamental aim is to strengthen the rule of law on energy issues based on the sovereign core principles such as sovereign rights over energy resources, open and transparent energy markets and principles of sustainable development. One may question the applicability of the Energy Charter given its European origins and mainly western membership. However, over time, the Treaty has achieved a truly multilateral status in the energy sector, uniting energy consuming, producing and transiting states alike, enabling them to collectively establish a common set of rules governing investments and cross-border energy flows. Its membership has expanded to include 51 member states, including the Central Asian Republics and Japan, and over 20 observers including China, South Korea, ASEAN and

²³ “Negotiation Proposal on Energy Services”. *op. cit.*

²⁴ Pascal Lamy, *op. cit.*

²⁵ *Ibid.*

²⁶ R.K. Batra, “The energy charter treaty”, *The Economic Times*, 06 June 2005, available at www.teriin.org/upfiles/pub/articles/arts8.pdf, accessed on 10 December 2011.

Iran. Recently, Afghanistan and Pakistan were invited to join the Charter.²⁷ India is being encouraged to join the Treaty as an observer state. At the 18th meeting of the Charter in December 2007 in Istanbul, following the approval of its accession, the Afghan Minister of Economy, Jalil Shams said, his country intends to use membership in the Energy Charter to consolidate his country's potential in providing a bridge between the energy producers of Central Asia and Iran, and the markets of South Asia, and told the international community that foreign investments were welcome in Afghanistan's energy sector.

While the Energy Charter promotes multilateral energy trade, it also minimises risks associated with investments due to the Treaty's binding provisions which operates on the principles of freedom of transit and reliability of inter-state supplies, besides removing barriers where possible. For instance, India has asked Pakistan to follow the principles of the ECT, that is, non-discriminatory, transparent and cost-reflective when negotiating the transit and transport cost of the IPI project. Pakistan's position is that the transit fee should be linked to the price of gas and should vary between 5-10 per cent of the price of gas, whereas India feels that the fee should be an absolute number and not linked to the price of gas.²⁸ At the same time, the Treaty does not obligate members to reform national energy markets or to even open domestic markets to foreign investments as despite the Charter favouring the idea that international flow of technology and investment are mutually beneficial, national sovereignty over energy resources is a core principle of the Treaty.²⁹

7. Conclusion

As seen in other cases in the EU, North American and ASEAN regions, effective regional energy cooperative projects increase the energy security of all member states by overcoming mismatches in energy resources and economies and allowing all to avail the cost-effective energy supplies – whether fuels or electricity – while mitigating some of the disadvantages such as unforeseen shortages, high marginal costs of alternative supply, and lack of sophisticated technology or financial resources by some of the members. In South Asia, despite an abundance of energy resources in some of the countries, the countries continue to be dependent on fuel imports as they are unable to exploit this

²⁷ Speech by Andre Mernier at the fifth Asia Gas Partnership Summit: The Asian Gas Market and Energy Security, New Delhi, 14-15 April 2008, available at www.encharter.org/fileadmin/user_upload/SG_s_speeches/SG_india-14-15_April_2008.pdf, accessed on 10 December 2011.

²⁸ Anupama Airy, "Pipe dream: India, Pak agree to disagree on transit, transport" *Financial Express*, 07 May 2008.

²⁹ Energy Charter, Part IV, Miscellaneous Provisions, Article 18, paras 1,2 and 3, available at www.ena.lt/pdfai.Treaty.pdf, accessed on 10 December 2011

advantage and consequently suffer from poor per capita energy consumption and lower economic growth.

No doubt several issues involving a multilateral project would have to be dealt with before it can be successfully implemented. The most difficult is the political mindset of the governments. In such a case, formal accession to the Energy Charter or even a multilateral trade agreement on the lines of SAFTA, could provide a level of comfort and confidence for the trading partners (as well as the transit ones) as it would allow them to carry out their trade relations under the framework of an internationally legal instrument with rules and regulations which supplement the national ones.

Moreover, besides allaying the concerns of the partners, adherence to international or regional agreements would also attract the participation of private players as well as international investors. Though the political and security-related issues are the most difficult to overcome, other technical and commercial impediments will also have to be dealt with before negotiating and implementing multilateral or regional energy projects. Between the signing and actual implementation of energy trade projects, a myriad problems and risks can emerge, whose resolution would depend on the continued political commitment of the parties involved. Hence, it would be imperative for the participating countries/players to enforce commercially-oriented contracts. If large volumes of trade in power/energy are to be sustained, the projects would have to be premised on a sound commercial footing where the buyers and sellers would have to spell out volumes and patterns of supply, tariffs/pricing of resources/power and billing arrangements, dispute resolution norms and arbitration procedures. Several former attempts at transnational energy projects have failed to take off due to differences in expectations on price. The IPI project is one such example, while the earlier India-Pakistan electricity trade deal failed for the same reason. As has been seen in several cases, distorted tariff structures would eventually impact on consumption patterns and erode availability in the long run.

The contracting parties would have to ensure that, in the case of electricity trade, the grid codes are harmonised and coordinated. Moreover, independent and neutral regulatory authorities would have to be appointed to ensure transparent pricing norms, as well as efficient transmission and distribution services.

If the South Asian nations intend to sustain their growth levels and overcome their energy supply constraints, they will have to look seriously at cross-border projects to take full advantage of the abundant, but under-exploited energy resources, that are available within the region to ensure their energy security. To begin with, a “bottom-up” approach could be adopted. As several bilateral projects already exist, these could be expanded to trilateral and later to multilateral projects which would help to sustain and expand trade.

While initiating and implementing regional projects, the advice and assistance of international financial institutions (IFIs) like the World Bank and the ADB as well as some development assistance programmes of countries like the US, UK and Japan could be taken as they have, at some time or the other, been involved in the energy programmes of the region. The IFIs can facilitate the parties to reach agreements based on their specific interests. For instance, in 2004, the World Bank carried out an analysis of the power sector of Central Asian Republics, identified their export potential, reviewed the power sector in potential markets and demonstrated how the Central Asia-South Asia electricity trade could be a win-win situation for both. This has led to the Inter-Country Agreements and further action towards the realisation of the CA-SA 1000 project. The ADB too is actively promoting the TAPI project as well as power trade between Central Asia and Afghanistan. The USAID SARI Programme in South Asia has also carried out a large number of studies to identify and analyse various electricity and gas trade opportunities, and trade related issues in South Asia.

Also, many of the smaller South Asian countries do not have access to commercial sources and capital markets for investment in large power projects; their ability to borrow from IFIs are also limited due to the lending limits adopted by these institutions. Under these circumstances investment projects could be structured on a 'Public-Private partnership' basis involving a combination of foreign and/or local private sector, IFIs with equity and debt positions and the government. No doubt, some government involvement in energy projects is desirable, as they involve interaction with various aspects, such as land acquisition, right of ways, rural development issues, flood control and irrigation, etc. Moreover, governments would expect to get some revenue from the exploitation of its natural resource.

Finally, it is a reality that India, with its geographic position and the size of its economy, would play a critical role in regional energy integration in South Asia. In other words, the pace of regional integration will be largely determined by the pace of development of energy trade between India and its neighbours.