Chapter-VI

Conclusion

Foregoing analysis spread across the preceding chapters, we can easily conclude that lack of resources and threats provoked by it, has emerged main challenge before not only South Asia but world also. Rare resource of energy is type of this kind. 80% commercial energy resources are located mainly three volatile regions- Middle East, Central Asia and West Africa. Dominant producers are developing countries and consumers are seems to almost developed. Since, energy politics is like a 'zero sum game', so countries are trying to maintain energy supply, ignoring the principle of democratic or not. Major economies are intensifying their efforts to have enduring energy supply by building strategic partnership with resources bearer countries. In such conditions, energy supply has many limitations and problems like divided of country (Ottoman Empire, Sudan), vanquished (Arab-Israel war), colonized and domination (Russian hegemony in Caspian region, the US involvement in civil war of Colombia, Somalia, Azerbaijan and Iraqi intervention.

Since, energy supply is a 'zero sum game', wherein every barrel of oil that one country gains is one barrel loss for another. This State centered perspective seems to have undermined the norms and ideals of international relations. So, the balancing of energy supply and demand has become a complicated source of geo political tension not only in the regions of its supply, but other regions also has become vulnerable to the threats of the politico-strategic instability.

South Asia, which is known as the region of mutual suspicion, ethnic
sectarianism and political parochialism among neighbors, has faced dual challenges for achieving energy security. One side, South Asian geography influences the interest of major powers because it lies on the junction between South East Asia, Middle East and Central Asia; which are always sensitive and strategic regions of the world. Main route of energy and trade through Indian Ocean has made the issue of strategic rivalry in Indian Ocean. So, this region is always in the clasp of notorious 'balance of power game'. China-US strategic competition in Indian Ocean is compelling to regional countries for becoming junior partner of either China, or the US. The US is trying to encircle China in Indian Ocean with strategic ties with Australia, Japan, Singapore, South Korea, India and Vietnam. Today, the US strategy seems to promote India a great military and economic power 'as a balancer' against China in Indian Ocean. China seems to fear the cutting of energy supplies, during the time of rising tension or actual war with India or the US.\(^1\) China sees itself as a possible long term competitor to India in Indian Ocean. So, China continue is adopting the policy of arms supply and liberal economic support to India's neighbors, to counter Indian influence in the region; which are creating unfavorable condition for Indian interest. Through its 'string pearls' policy, China is setting up a series of port along the Indian Ocean's northern seaboard with the help of friendly nations. In this regard, China is building the Gwadar port in Pakistan, Hambantota in Sri Lanka, Chittagong in Bangladesh and navy base in the Seychelles. In such conditions, energy supply from abroad has to net in power politics and geo- strategic concerns.

On other side, South Asian region is the second fastest growing region in the world after East Asia and pacific, an average of 6-7% GDP growth. Since,
South Asia is a problematic area in the context of energy resources. So, economic growth makes obligatory the competition for energy supply. India, which is the largest economy of the region, has emerged fourth largest energy consumer of the world (third largest oil importer and sixth largest LNG importer country also).

So, South Asia is not only player of energy game (due to economic growth) but has become its prey also (due to power balancing game). In 2008, Nepal, Bangladesh, Pakistan and India imported respectively nearly 83%, 24%, 60% and 42% of total commercial energy supply. Nepal, Bhutan, Sri Lanka and Maldives are importing their total coal and crude oil due to lack of sustainable exploitable domestic resources. In 2009, Bangladesh imported 95% crude oil and 44% coal, Pakistan 82% crude oil and 57% coal and India imported 75% oil and 10% coal.

These imports not only create financial deficit on countries budget but has to face price rise, bargaining in resources riched region also. Mostly resources of energy are importing through unilaterally adventure. These unilateral efforts are not bargaining well in international market. Historical experiences, political rivalries, big- small country syndrome and failure in understanding mutual sensitivities, are main barriers to cooperate in domestic as well as abroad. Hydro-power and coal are two main source of energy in South Asia.

It is nature's boon for the region, many perennial rivers flow in the region, which provides the opportunities of some largest hydro-power plant of the world. South Asia has huge potential of hydro-power and about 9% of its total can be developed. But their political suspicion and misunderstanding have
made sour to effort of water sharing and management.

In spite of legal frame work of Indus water Treaty (1960), India and Pakistan continue irritated on some especial limited use water by India as a upper riparian state. So, many hydro-projects are a waited due to bilateral dispute. Bangladesh and India are sharing the Ganga water through a adhoc agreement but Bangladesh is continue opposing Gazoldobo Barrage (Tista river, West Bangal) and Tipaimukh Dam (Feni river, Tripura).

Huge potential for hydro-power of Nepal and Bhutan (42000 MW and 30000 MW), is lucrative option for regional energy security. Through regional electric grid among Nepal, Bhutan, India and Bangladesh, can proper use of seasonal energy surplus. In context of Bhutan, its picture can calculate optimistic but Nepal gives pessimistic view due to political instability and Chinese involvement.

Native production capacity of oil, gas and coal, is facing bureaucratic process, political hurdle, insufficient technical capacity and environment issues. There is a opportunity for regional cooperation in gas sector among India, Bangladesh and Pakistan at domestic level but better opportunity lies in coal sector. Thar coal deposits of Pakistan and north-west deposits of Bangladesh are waiting for exploitation due to lack of government policy and investment. India, Fourth largest producer of coal in the world, may provide cheap resource of energy option to regional economies. It is true, Indian coal is not high quality for thermal power but it can use in other domestic consumptions, like cooking and other use of industry. Mutual political suspicions are main hurdle to proper use of cheap option, in spite of costly import from abroad.
Much of crude oil and gas of south Asia come from Middle East and Central Asia due to its availability and proximity of distance. These oil and gas bearing regions have been pertaining always in net of energy tactics. We can see Russian hegemony in Central Asia and the US hegemony in Middle East. In such case, South Asian oil and gas supply have to meet these political complexities.

South Asian nations have been ignoring long term energy security for a long time. But rapid economic growth, limitation of resources and stagnate in domestic production, made obligatory for energy multilateralism. We can see serious consideration over different multilateral gas pipelines proposals from near- immediate neighbors - West Asia and ASEAN region. Aside from the pipelines proposals, 'SAARC energy ring' vision, which was designed by SAARC's Energy Center for facilitating inter regional trade as well as collective energy imports from abroad, signed by SAARC nations through Islamabad declaration in January 2004.4

It seems that China and the US are playing important role in shaping regional pipelines proposals. China has proved a direct competitor of India's energy security, both abroad and at home. India- Pakistan Iran pipelines (IPI), Turkmenistan- Afghanistan- Pakistan- India pipeline (TAPI) and Myanmar- Bangladesh- India pipeline, are main multilateral adventure of South Asia.

Indo- Pakistan hostile relation faltered the IPI negotiations in initial stage. But forecasting energy demand in near future, forced both countries to take IPI seriously. But this pipeline has netted in world every politics. The US is continuing pressuring South Asian nations to cut the oil supply from Iran due to its attempt to isolate Iran on nuclear issue. The US does not want that IPI,
which will pour millions of dollar into Iranian economy that can change economic sanction of west and the US. Although, India seriously interested in IPI till 2009, but later on seems to withdraw, its steps due to emerging entente with the US. Pakistan has signed a government guarantee agreement for Iran-Pakistan gas pipeline on 13 June 2010 for twenty five years, which will provide 750 cubic feet gas per day to Pakistan and operate till 2014. China is also keen IPI extension to its territory. If Iran- Pakistan pipeline success and it extended towards China, it would 'Himalayan blunder' for Indian policy makers.

TAPI seems to most successful multilateral adventure of South Asian nations because India Pakistan, Afghanistan and Turkmenistan finally inked the historical gas sale purchase agreement (GSPA) signed on 23 may 2012, which would provide 90 million metric standard cubic meters gas per day (mmscmd) for a long period of thirty years and would operational by 2018. This agreement will provide India and Pakistan 38 mmscmd each and remaining 14 mmscmd will be supplied to Afghanistan. This pipeline has great security concern because it will run through instable region of Afghanistan and Pakistan and also some suspicion about supplying capacity of Turkmenistan. In spite of the US support, TAPI seems to influence by Chinese factor, because China is the largest buyer (nearly 50%) of Turkmen gas. Although, China never publically oppose to TAPI but we can easily guess that China never would like that India determined its accessibility in Central Asia's resources due to fear interest of clash for resources in the region. If this pipeline success, it will prove a trump of multilateral energy co-operation, which may lead toward sound energy security of the region.

Myanmar- Bangladesh- India (MBI) pipeline proposal is also an
ambitious for India and Bangladesh. But as like IPI, MBI also not take sinuously in early stage. Both countries want to pipeline unilaterally in initial stage and later on negotiations interrupted by additional condition laid down by Bangladesh (like, to reduce trade deficit, provide trade corridor for Nepalese and Bhutanese goods to Bangladeshi ports and share Bhutanese hydropower); which were unacceptable to India. Seeing slow process in negotiations with Bangladesh and India, Myanmar entered negotiations with China, China take it seriously and gave it final touch. Bangladesh had finally given its approval for BMI in 2010 but it was so late, which seems to flatter away the opportunity. Now, future of MBI potentially relied on gas reserves of Myanmar. Proposal of MBI revealed the failure of identity of bilateral interest, which could not accommodate with their energy security. It is very clear that inability of India and Bangladesh to initially find convergence in their energy security polices had contributed to China's success for capturing easily available neighboring gas resources.

Nuclear energy seems to most controversial source of energy for South Asia. Nuclear energy is a very complicated issue due to direct involvement of China and the US, which may provide many challenges and opportunities. According to part experiences, it can say that its use more diplomatic tools rather than energy security. If India and Pakistan would success in peacefully conflict management and conflict resolution, it would proved mile stone for regional energy security in near future.

Although, much of South Asian commercial energy consumption is based on fossil fuel (nearly 71%) but potential of huge renewal energy can not ignored. South Asian countries well understand importance of renewable
energy and they are planning to long term strategy to increase its share in domestic mix-up. But it is well known that renewable energy is more expensive than fossil fuel, which does not seems to reliable for poor emerging economies. Besides it, it is also not able to address energy deficit soon. But its supplementary role in energy security can not ignore and in near future it may play major role because technological development in renewable energy, will surely press down the cost and improve its efficiency.

**Recommendations for South Asian energy Security**

On the basis of above analysis, we can easily articulate that South Asian nations are facing geopolitical and security concern for their energy supply from abroad. Many proposals of gas pipelines seem to delay due to terrorism, huge investment, reserve capacity and heavily influence of China and the US. Due to political suspicion, there is no proper genuine multilateral co-operation, mechanism and institution; which promote energy multilateralism. Lack of shared energy policies, countries are acting unilaterally, which seems to threats before exclusive energy security of the region. Poor infrastructure and less participation of private sector also are challenges before energy security.

With these challenging issues in mind, the following recommendations may helpful for South Asian regional energy security for policy makers to make policy for handling current changing dynamics of energy politics.

**Recommendation -1**

The first is energy multilateralism because it is need of hour for South Asian region. Joint adventure may provide not only barging for oil and gas cartel for import but reduce the external pressure also. It requires common or supporting energy policies, legal institutions, regulatory mechanism and
removal of infrastructure barriers. Countries should take up speedy and concrete action and should avoid mix up of non-energy political issues with energy issue and should work only on the basis of economic and commercial basis. Only energy multilateralism can provide the opportunities: import of hydropower from Central Asia to Afghanistan and Pakistan; electricity interconnections between India- Sri Lanka, India- Nepal, India- Bhutan and India- Bangladesh, and also gas imports from Central Asia, Iran and Myanmar. Long term energy security of the region cannot achieve without domestic policies, regional and international cooperation and policies should focus on common vision of the region rather than self interest and conflict.

**Recommendation- 2**

South Asian countries should try for establishing regional gas and power grids, which can provide an invaluable impact an empowering energy security of the region, especially India, Bangladesh, Nepal, Bhutan and Sri Lanka. Regional energy grid is required to set aside disputes and rivalries.

**Recommendation-3**

South Asian countries should follow many strategies for massive reforms in energy sector, like-

(i) Promote institutional mechanism to exchange ideas, experiences, expertise, technologies, training and research.

(ii) Use maximum potential of private sector participation, which will improve deteriorate infrastructure.

(iii) Price and tariff reforms also should make reasonable. South Asian nations are adopting inadequate taxation policies because they are
controlling oil, gas or petroleum products through their huge amount of subsidies, which discourage the infrastructural development and it fade return of huge investment of institution.

But price and tariff reform is a very challenging issue because one side government has to ensure energy access to poor peoples at affordable prices due to their social responsibility, and other side subsidy discourages private investment and push country toward over burden on its balance sheet. In such situation, policy makers should maintain balance in their social responsibility and development in energy sectors. Subsidies should make reasonable basis because in same cases it is misused. Traditional method for providing subsidies seems to fail for recognizing real target. Many wealthier consumers are also using subsidy facility. Traditional subsidies for energy also have encouraged profligacy and waste. Subsidies policy should revise, like India's 'direct transfer benefit' scheme. Liberalization of energy prices is seems to need of hour.

(iv) It should maintain strategic petroleum reserves for avoiding frequent price rise.

(v) Political will is required to check mistrust and mutual suspicion, which is deep, rooted in the region.

**Recommendation-4**

Promote the permanent institutions, which promote intra-regional energy planning, research, training and trade. In this context, South Asian countries should strengthen present functioning institutions such as SAARC Working Group, South Asia Forum for Infrastructure Regulation (SAFIR), SARI/Energy and SAARC Energy Centre (SENTER, 2005). SAARC can play a major role in helping to build mutual trust, develop regional institution and infrastructure
organization regional institution and infrastructure organization.

**Recommendation-5**

Sri Lanka Maldives and Afghanistan, which are very sensitive for strategic importance; must be accept with regional concern and interest, which will transform not only regional security issues but energy security issues also.

**Recommendation-6**

Countries should diversity the resources supply and must go for clean and renewable energy to mitigate future energy demand. Being a tropical region there is huge capacity of renewable energy, its potential should use.

**Recommendation-7**

Energy conservation may be a corner stone of regional energy security because South Asian nations are very much inefficient in energy use. They are spending more energy in producing per US $ than the world average. So, it must under take serious effort and appropriate measures to improve energy efficiency (like, use CFL). Energy Conservation and efficiency standards should be compulsory for all residential and commercial buildings. To reduce energy consumption the government should build up well public transportation system like Delhi metro rail.

**Recommendation-8**

South Asian countries should prepare a master plan for promoting indigenous resources (like hydropower, gas, oil coal and renewable energy sources) as well as set up joint adventure).

**Recommendation-9**

Being larges energy producing and consuming country, India should play positive role in the region. India has to understand that without exclusive
attachment with neighboring countries, energy security of region can not be solved. To counter Chinese influence in the region, India should continue try to main friendly relation with neighbors. India would have to avoid aggressive steps, like announcing withdrawal of subsidy on kerosene and cooking gas in Bhutan in July 2013, at the period of election in Bhutan; which may fade energy co-operation opportunities.

**Recommendation -10**

Since, major energy security challenges come from Indo- Pakistan hostile relation. So, without proper co-operation between India and Pakistan, energy security of the region can not achieve properly.

**References**


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