# ENERGY SECURITY IN PAKISTAN-THE CASE OF IPI AND TAPI

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#### Abstract

*Currently, despite having tremendous potential, Pakistan is* confronted with an intense 'energy crisis'. The lack of long term sustainable policies, mismanagement, bad governance and lack of awareness at the grass root level are some of the causes leading to the crisis. Moreover, geopolitical conflicts at the regional level continue to be an impediment in dealing with the problems in hand. The money lending agencies have shown reluctance to extend their cooperation to Pakistan, thus, mega projects like Basha Dam seem blocked due to non-availability of the funds. Given the current geostrategic environment, the much needed Iran- Pakistan-India (IPI) gas pipeline has become hostage to the US politics. Thus, the IPI appears to have been shelved, though Pakistani establishment continues to make false promises to its masses. Similarly, while the Tajikistan-Afghanistan-Pakistan-India (TAPI) gas pipeline has the US backing, nevertheless it is highly unlikely that the plan will materialize in the foreseeable future due to the uncertain security atmosphere in Afghanistan. Nevertheless, despite such complexities, this paper suggests that both India and Pakistan are likely to realize the economic importance of IPI and will revive the project even at the cost of annoying the US. Finally, it is also important to mention that Pakistan possesses incredible resources to manage the 'energy crisis', provided it plans on consistent short, medium, and long-term basis. In addition, extreme caution in management and improvement in the governing system is a key to address the ongoing problems of energy security.

### Introduction

Since the last many years, Pakistan has suffered long hours of load shedding of both electricity and gas. Moreover, the frequent disruption of fuel supply for transport is another dimension of the energy crises. Indeed, the thirty to forty percent energy shortfall has left the general public "struggling even to meet the fundamental needs like lighting, water, cooking and protection against extreme weather conditions".<sup>1</sup> While the gentry' class was able to survive due to alternative arrangements, seventy to eighty percent population of Pakistan especially those living in cities are the real sufferers. The shortage of energy has not only made their lives miserable but also left many laborers jobless because of the closure of factories.

Unfortunately, the current *energy crisis is intense, costly, and multilayered having enormous economic, social, political and strategic ramifications for the country.* The crisis did not take the country by surprise but has been unfortunately fostered due to the lack of long term sustainable policies on the part of successive regimes over the last three decades. It might come as a surprise to many that even if we succeed in constructing Bhasha Dam, Pakistan would be hardly able to restore the water reservoir capacity that it had in 1978, that means we would still be three decades behind the schedule.<sup>2</sup> *The shortage of water and energy in Pakistan is also directly linked to mismanagement, bad governance and a lack of awareness at the grass root level.*<sup>3</sup>

In future, the shortage of energy resources at the global and regional level might not present a threat as serious as it is perceived but the real challenge would come when the availability of tradable resources are compromised because of the disruption of supplies, threatened by growing terrorism and geopolitical conflicts. Protection of supply lines by employing navies would be a very costly affair. While Pakistan's geostrategic position could provide a corridor for regional energy trade but regrettably, Pakistan is viewed in the category of those nations which are most vulnerable to potential threat of terrorist attacks.

As highlighted by the National Command Authority, "Pakistan's socio-economic development is dependent on its ability to meet rapidly expanding energy requirements". Single track approach even if it is very elaborate and effective would not suffice to fulfill the long term requirement of energy needs of Pakistan. It is therefore, imperative to realize all reachable options to 'ensure a reliable energy mix'. In addition to the other options like coal, hydel, renewable sources, wind and solar, "civil nuclear power generation is an essential part of the national energy security strategy".<sup>4</sup>

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<sup>&</sup>lt;sup>1</sup> Muhammad Asif, Energy Crisis in Pakistan (Karachi: Oxford University Press, 2011), xi.

<sup>&</sup>lt;sup>2</sup> Khalid Mustafa, "the US likely to announce \$ 200 billion aid for Bhasha Dam," The News International (Islamabad), April 18, 2011.

<sup>&</sup>lt;sup>3</sup> Asif, Energy Crisis in Pakistan, 115-135.

<sup>&</sup>lt;sup>4</sup> Ibid., 204-245; and Prime Minister Syed Yusuf Raza Gilani Chaired the 17th meeting of the National Command Authority (NCA). It was the second meeting of the NCA with the Prime Minister in Chair. *www.defence.pk/.../53270-national-command-authority-nca-17th-meeting.html* - (accessed on June 27, 2011).

As indicated earlier, Pakistan needs to diversify the energy resources thus, the long awaited 'IPI' gas pipeline project is very vital for reinventing the economic wheel. An Indian scholar notes, "in view of the growing energy demands in India and its neighboring countries, 'IPI' gas pipeline assumes special significance".<sup>5</sup> Similarly, construction of "TAPI' gas pipeline is equally vital if we want to meet the energy shortage in medium to long term. But unfortunately, in both cases, stable Balochistan and stable Afghanistan are central if the benefits are to be accrued without disruption. Additionally, with regards to IPI gas pipeline, it has already become a victim of regional and global politics. Since the US and Iran are not on one side of the page therefore, the US would continue to create obstacle in realizing this significant project and would not hesitate to put its whole weight to block any progress.

On the contrary, it is believed that while Pakistan government would continue to make rhetoric for the public consumption, but in reality, however, it seems unprepared to implement the plan. It is not ready to annoy the US at any cost. Therefore, the possibility of IPI becoming a reality is a distant dream even if security situation in Balochistan improves.

In this backdrop, this paper intends briefly explain the efficacy and feasibility of 'IPI' and 'TAPI' Gas Pipelines. The broad contours of the paper include: One, *Energy Crisis in Pakistan: Brief History, two, Case Studies, F*easibility of IPI Gas Pipeline, three, Efficacy of TAPI Gas Pipeline and finally the proposed policy guidelines. The opinion expressed in this paper is that of author's own and does not necessarily represent the institutional views. In addition, the paper focuses only on political and security aspects of the proposed gas pipelines while technical issues are beyond the scope.

#### Energy Crisis in Pakistan: A Brief History

Pakistan, having the sixth largest population in the world and being a nuclear power state, remains an "energy-starved nation having a prolonged history of 'planned and unplanned' outages".<sup>6</sup> The energy related issues in Pakistan are not new. The crises were quite intense during the 1980s and the early 1990s which forced Pakistan to go for a painful costly option for establishing Independent Power Plants (IPPs) which not only met its energy requirement but also generated surplus energy until 2005. But power demand in Pakistan surged up whereas the power output decreased abruptly because of a number of factors including

<sup>&</sup>lt;sup>5</sup> Amjad Sajjad, "The Relevance of the proposed Iran-Pakistan-India (IPI) Gas Pipeline Project to Conflict between India and Pakistan," (Research Paper, The Institute of Social Studies, 2007-08), oaithesis.eur.nl/ir/repub/asset/6709/ Anjit%20Sajjad%20ECD.pdf (accessed on September 17, 2012).

<sup>&</sup>lt;sup>6</sup> Dr Tauseef Aized, "Nuclear Power Generation," The Nation (Islamabad), July 28, 2009, http://www.nation.com.pk/pakistan-news-newspaper-daily-english-online/ columns/28-Jul-2009/Nuclear-power-generation (accessed on June 27, 2011).

lack of maintenance of the plants, line losses as well as corruption and mismanagement.

With an extraordinary rise in gas demand, if we continue to extract the same volume of gas in the coming years, the demand-supply difference would keep rising, ultimately becoming wide enough to consume the entire economy in near future.

The current gas shortfall is 10 bcm, which is expected rise to 36bcm per year by 2017, if we continue to stick to our current energy producing mechanism. Though, Dr Asim, Federal Minister for Petroleum and Natural resources, has given hopes that the government would enhance the natural gas production to somewhere around the 50 bcm mark, by giving incentives to the international exploration and production companies. Even if we believe in what Dr Asim said, Pakistan would still need an external source to quench its gas thirst – cue IP (Iran-Pakistan) pipeline.<sup>7</sup>

Thus, during the last summer, Pakistan faced an ever-worse electricity crisis with a shortfall varying between 4500 MW to 6000 MW.<sup>8</sup> Pakistan is heavily dependent on thermal power generation with a share of around 63 percent followed by hydel generation amounting to 32 percent. The third source is nuclear power generation with a meager contribution of just over 2.34 percent. Pakistan Atomic Energy Commission (PAEC) is working to add number of nuclear power plants (NPPs) over the next two decades to meet its target of generating 8800 MWe as a part of its ongoing civil nuclear program.<sup>9</sup>

Nonetheless, nuclear reactor is a complex technology with a lot of security concerns. Nuclear plants require high plant decommissioning and waste storage costs in addition to enormous capital cost required for plant building. An additional concern with NPPs is that if nuclear waste generated by the plants were to be left unprotected, it could be stolen and used as a radiological weapon commonly called a dirty bomb. The unfortunate incident in Japan during March 2011 has shattered the confidence of nuclear power possessor states and forced them to revisit the operational worthiness of huge number of NPPs. *Chairman PAEC, Dr Ansar Parvez assured the nation that as the Fukushima accident unfolded, PAEC also revisited the safety and emergency preparedness of all its plants and found them satisfactory.*<sup>10</sup> However, potentially Pakistan has no

<sup>&</sup>lt;sup>7</sup> Khuldune Shahid, "Putin's snub", The News International (Islamabad), October 5, 2012.

<sup>&</sup>lt;sup>8</sup> Editorial: the US Support to Ease Energy Crisis (www.energyupdate.com.pk/ archive\_inside.html), accessed on September, 20, 2012; and Qaiser Butt, "Knocking on neighbours' doors: Energy-starved Pakistan looks to India for electricity" *The Express Tribune, April 22<sup>nd</sup>, 2012.* 

<sup>&</sup>lt;sup>9</sup> Ibid.; and Zafar Bhutta, "Pakistan to buy two nuclear power plants from China," The Express Tribune (Islamabad), November 11, 2011.

<sup>&</sup>lt;sup>10</sup> Fatima Rizvi, "Nuclear watchdog praises Pakistan's commitment to safety," The Express Tribune (Islamabad), April 24, 2011; and Muhammad Saleh Zaafir, "Pakistan

problems to look for alternative options as it has huge natural resources. If tapped suitably they could take care of its energy for quite some time as amicably highlighted by former Chairman Dr. Summar Mubarakmund.<sup>11</sup>

Nonetheless, in order to meet the crisis situation, the US had announced to come up with and invest \$ 1 billion in Pakistan. The US Congress has already released \$ 280 million. This support is expected to add 900 MW to the national grid by 2013. However, no further progress has been noticed since the announcement of the project. In addition, China Three Gorges Corporation (CTGC), the largest Company of China will help Pakistan in controlling power shortage by investing \$15 billion that will generate 10000 MWe over the next 10 years.<sup>12</sup> In addition, Russia has also shown its interest to invest in energy sector.<sup>13</sup>

## Case Studies: Feasibility of Iran-Pakistan-India Gas Pipeline

During 1995, both Pakistan and Iran signed a preliminary agreement to construct an onshore natural gas pipeline of about 870 miles, linking the Iranian South Pars natural gas field in the Persian Gulf with Karachi. The construction cost of the proposed project was estimated to be \$3 billion. Later on, Iran also made its offer to extend the pipeline to India as well. Since then the progress on IPI gas pipeline, also known as 'Peace Pipeline', has been sneaking forward, though much ambitious and dynamic rhetoric has been in action after the renewal of dialogue in February 2004. The proposed pipeline is approximately 2,670 km long with a 48 inch diameter that would hold \$3.2 billion of gas. In the form of royalties from transit fee, Pakistan could earn as much as \$500 million per annum in addition to the saving of \$200 million per annum due to low price of the gas.<sup>14</sup>

Four main companies namely, 'BHP of Australia, NIGC, Petronas of Malaysia, and French Total' had expressed their interests to undertake this project. French Total is already involved in the development of an international pipeline through Turkey. Similarly, a consortium consisting of 'Shell, British Gas, Petronas, and an Iranian business group was also interested to reach an agreement to construct the pipeline. Additionally,

seeks civil N-tech to meet energy needs," The News International (Islamabad), March 27, 2012.

<sup>&</sup>lt;sup>11</sup> Dr. Shahid Munir, "Thar coal; the game changer", The Nation (Islamabad), September 03, 2012; and "Unleashing the treasures of Thar Coal reserves of Pakistan," July 04, 2012, http://rupeenews.com/2012/07/unleashing-the-treasures-of-thar-coal-reserves-of-pakistan/(accessed on September 17, 2012).

<sup>&</sup>lt;sup>12</sup> "Chinese Firm keen to invest \$ 15billion in Pakistan energy sector", The News International (Islamabad), April 18, 2011; and Editorial: "the US Support to Ease Energy Crisis".

<sup>&</sup>lt;sup>13</sup> Khuldune Shahid, "Putin's snub".

<sup>&</sup>lt;sup>14</sup> The Hindustan Times, July 7, 2000.

'Iran National Gas Company and the Gas Authority of India Limited (GAIL)' were also involved.  $^{\rm 15}$ 

While IPI a 'practicable and attainable project', it has regrettably been on the back-burner since 1995 due to intense debate on the issue of the likely courses, means of shipment, tariff, further, the project itself has been hostage to regional and geopolitics.<sup>16</sup> The problem was less complex prior to 2004, however since then the renewed tensions between Iran and the US has inhibited further development of IPI project. Thus, the international donors who were required to fund this mega project have shown reluctance to come forward and support Pakistan.

The initial accord on the project between the two states (Pakistan and Iran) was signed in Tehran on May 24, 2009, after causing a considerable delay of over 14 years. The project was termed as the 'Peace Pipeline'. However, while talking to IRNA, the Iranian official news agency, the Iran's Oil Ministry had conveyed that the "negotiations on the 'Peace Pipeline' have yet not been finalized".<sup>17</sup>

It is important to note that despite showing its willingness, India has rapidly decided to stay away. Indeed, from the outset, India has been hesitant to enter into any agreement with Pakistan due to the historical legacy of mistrust between the two neighbors. Rather, the Indians seemed to be more open to the idea of s deep-sea pipeline. In the absence of Indian affirmation, Iran and Pakistan are now expected to go ahead with the planned project. Therefore, it would no longer be 'IPI' project and it may be appropriate to call it 'Iran-Pakistan (IP)' gas pipeline project. According to the Ideal, Pakistan is expected to receive the gas from Iran by 2014.<sup>18</sup> Practically, this deadline seems ambitious and unrealistic. While Iran might be able to meet the timeline, Pakistan is nowhere close to fulfill its obligations of even initiating the construction process.

Lately during 2008, Iran also tried to lure in People's Republic of China's to participate in the project. <sup>19</sup> Nevertheless, the possibility of its joining the project is quite low. Despite the urge between Tehran and Asian markets for economic cooperation, commercial and geopolitical

<sup>&</sup>lt;sup>15</sup> Alexander's Gas and Oil Connections, http://www.gasandoil.com/; "Iran Background Information", http://www.iloveiran.com/All%20about%25Iran/ oil.htm; and Shamila N. Chaudhary, Iran to India Natural Gas Pipeline: Implications for Conflict Resolution & Regionalism in India, Iran, and Pakistan", TED Case Studies, www1.american.edu/ted/iranpipeline.htm (accessed on September 20, 2012).

<sup>&</sup>lt;sup>16</sup> "Iran-Pakistan-India Gas Pipeline (IPI)," Inter State Gas Systems, www.isgs.pk/project\_detail.php?project\_id=6 (accessed July 18, 2011); Chaudhary, "Iran to India Natural Gas Pipeline: Implications for Conflict Resolution & Regionalism in India, Iran, and Pakistan"; and Dr Noor ul Haq, "Iran-Pakistan Peace Pipeline," IPRI Factfile, ipripak.org/factfiles/ff124.pdf (accessed on June 23, 2011).

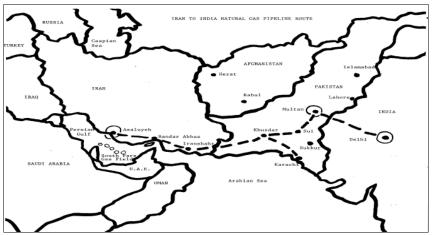
<sup>&</sup>lt;sup>17</sup> Haq, "Iran-Pakistan Peace Pipeline,".

<sup>&</sup>lt;sup>18</sup> "Iran, Pakistan finalize gas pipeline deal," The Hindu, June 14, 2010, *www.thehindu.com/news/article455012.ece* (accessed on June 23, 2011).

<sup>&</sup>lt;sup>19</sup> "China Brief," The Jamestown Foundation, *www.jamestown.org/programs/ chinabrief/single/?tx...tx...* (accessed on July 18, 2011).

issues had prevented the deal's fruition. On the other hand, India's uncertain approach whether or not to join the project is linked with a number of factors including Iran's "repeated attempts to raise the price of gas, the US pressure on India to refrain from participating in the pipeline project, external skepticism about Iranian capability to fill the pipeline as it promises, Indian concerns about the overall stability in Pakistan, and in particular, Balochistan province through which the pipeline would travel, all contributed to India's angst".<sup>20</sup>

During 2010, Iran warned India that "there is a limit to its patience in waiting for New Delhi to decide. Iran was apparently able to present this ultimatum because Iran thought; it now has the 'China card' in its deck".<sup>21</sup> During the month of February, 2010, Iranian Foreign Minister Manucher Mottaki reportedly emphasized, "Iran is ready to start the pipeline project at any time—even without India—and urged Pakistan not to heed the US pressure".<sup>22</sup>



Iran to India Gas Pipeline Route<sup>23</sup>

It is viewed that in recent years, there has been a surge in global energy demand. Requirement of natural gas in Asia alone is "expected to expand from 650 million tons of oil equivalent (mtoe) in 1994 to 1,380 mtoe by 2010." According to a World Bank study, power generation through natural gas is favorable both from economic and environmental perspectives. In South Asian context, we are well aware that India has the fastest growing economy. It's highly publicized nuclear deal with the US

<sup>&</sup>lt;sup>20</sup> Ibid.

<sup>&</sup>lt;sup>21</sup> "Will China Join the Iran-Pakistan-India Pipeline?," The Jamestown Foundation, www.jamestown.org/.../single/?...ttnews% 5Btt\_news%5D (accessed on September 6, 2012).

<sup>&</sup>lt;sup>22</sup> Ibid.

<sup>&</sup>lt;sup>23</sup> Chaudhary, "Iran to India Natural Gas Pipeline: Implications for Conflict Resolution & Regionalism in India, Iran, and Pakistan".

and the likely cooperation from Nuclear Suppliers Group would cater for only up to 12 percent of its total energy needs that too over a period of next two to three decades. By that time the energy demand would have multiplied. Similarly, Pakistan's decision to generate 8800 MWe through nuclear sources over the next two decades would only cater for just over 4 percent of its total needs. Therefore, the energy requirement will have to be fulfilled through other means, and IP provides one of the best options to Pakistan.

### **Brief Analysis of the IPI**

IPI natural gas pipeline is technically feasible. Strategically, Pakistan would enjoy an edge because it would serve as an energy corridor. While India had suggested a sea route however, the Iranian oil and gas via land route should have been beneficial for India too. It is possible to suggest that a land route pipeline is comparatively easy as well as economically feasible as compared to the sea route option. Because of its geographic location, Pakistan could have financial and strategic benefits if the plan was implemented.

More importantly, the issue of regional cooperation had the propensity to initiate the greatest reform in this under developed region. The cooperation could potentially help improving the relationships between the regional countries. If the IPI gas pipeline project was promoted and implemented in true spirit, it might have helped resolving the outstanding regional disputes. The project would not have only brought economic benefits for the participating countries but it may also help changing the features of the politics in South Asia thus, transforming social and political discourse between the regional countries.<sup>24</sup>

Rashid Afridi goes on to say that given the tense multidimensional relationships, an agreement on the pipeline project between India and Pakistan would be an important development.<sup>25</sup> A successful conclusion of an agreement and execution of the plan might help in restoring the trust between the two countries leading to the resolution of the issue like Kashmir, a major source of friction between the two countries".<sup>26</sup> The project might create the environment for the two countries to "re-evaluate their political discourse and interdependence, especially in light of their energy crises".<sup>27</sup> However, putting the idea into practice is unlikely to

<sup>&</sup>lt;sup>24</sup> Rashid Afaridi, "Natural Gas Pipeline: The Issue," Rashid's Blog, March 27, 2008, *rashidfaridi.wordpress.com/.../iran-to-india-natural-gas-pipeline-the-issue/* (accessed May 23, 2011); and H.E. Amanullah Khan Jadoon, "Iran-Pakistan-India Gas Pipeline for Regional Prosperity," International Energy Forum, http://www2.iefs.org.sa/ Ministers/Pages/issue8\_4.aspx (accessed on May 23, 2011).

<sup>&</sup>lt;sup>25</sup> Ibid.

<sup>&</sup>lt;sup>26</sup> Ibid.

<sup>&</sup>lt;sup>27</sup> Ibid.; Safdar Sial, "IPI Energy Security and Strategic Conflicts," Economic Policy, August 20, 2007, san-pips.com/download.php?f=epi0001.pdf - (accessed June23, 2011); and C

materialize in medium term. The initial delay was caused by Iran over the issues like gas tariff rate and related legal formalities. But since early 2004, the ground realities have changed. The US has shifted its strategic focus and decided to isolate Iran politically and mutilate its economy.

Therefore, Iran now seems willing to engage India and Pakistan on slightly soft terms. But other two sides have pulled back because of the respective constraints especially in the context of the US pressure. They are unable to benefit from the opportunities that Iran might offer them now. This economically viable project should not be ignored and left to the mercy of extra regional actors. Moreover, if Iran succeeds in bringing China into the gas pipeline loop, it would also help tying financial and strategic interests of China, India, Iran and Pakistan and hence the project can be a source of stability in the region.

It is suggested that while the extra regional factor might be able to delay the process but the futuristic energy needs might force India and Pakistan and possibly China to reassess their policies. However, it is also important to note that the prolonged delay might cause considerable loss to the regional countries interested in Iranian energy, at a later stage because then Iran may have its own priorities to decide whether or not to go ahead with the project.

Nonetheless, since India is undecided and may even take years to realize the significance of the project, the IP gas pipeline venture, excluding India, must be implemented without any further delay. I do not foresee any well thought out substitute which can take care of Pakistan's existing and future energy demands. The planned IP gas pipeline might take less time as compared to other grand projects which may have been conceived by the government. Success of the IP gas pipeline is likely to trigger Iran-Pakistan-China (IPC) and IPI projects too. In this context, Chinese foreign minister, Yang Jiechi once said, "We are seriously studying Pakistan's proposal to participate in the IPI gas pipeline project".<sup>28</sup>

Pakistan would love to see China joining the pipeline venture for many reasons: Firstly, Islamabad badly needs the gas that might not otherwise come without involving third party. Secondly, joining of the third party would definitely generate much revenue from the transit fees. Thirdly, it would further strengthen its relationship with China and finally, involvement of China is likely to reduce the US pressure from both Iran and Pakistan. The efforts were also made in the past to bring in China so as to incite India's decision-making process regarding the project.<sup>29</sup> It is

Uday Bhaskar, "Is the Iran-India pipeline feasible?," India Times, July 2, 2007, *articles.economictimes.indiatimes.com/.../27684991\_1\_ipi-pipeline-iran-india-pipeline-natural-gas-pipeline* (accessed on June 23, 2011).

<sup>&</sup>lt;sup>28</sup> Asia Times (Online), March 6, 2008; and "Proposed Central Asian Gas Pipelines," Canadian Centre for Policy Alternatives, http://www.policyalternatives.ca/ taxonomy/term/5?page=84 (accessed on June 23, 2011).

<sup>&</sup>lt;sup>29</sup> Ibid.

believed that there were three factors that impact negatively in implanting the planned project of the IPI. One, the Indian government was unsure about the security guarantees by Pakistan for the smooth flow of natural gas. There were three reasons in developing this perception: Firstly, a lack of trust between the two countries. Secondly, Pakistan's capability to provide physical security to the gas pipeline in real term and thirdly, the uncertain security environment in Balochistan that may disrupt the supply lines which the two countries namely India and possibly China are unprepared to afford.<sup>30</sup>

Unfortunately, over the last six years, a new wave of unrest created by the militant groups, duly supported by foreign hands has engulfed a part of Balochistan. Unless political settlement of the issue in hand is made, and law and order situation is improved, the gas pipeline is likely to be targeted. The current security situation in Balochistan is uncertain. Despite repeated assurances since 2000 that physical security of the gas pipeline would be ensured, India continues to suspect that Pakistan would not be able to ensure guaranteed fuel supply.<sup>31</sup> Gurmeet Kanwal while commenting on the subject says, "Though this option through Pakistan is economically the most viable, India must consider whether good economics should be allowed to be jeopardized by bad security".<sup>32</sup>

Nonetheless, as a matter of fact, the Pakistani establishment may not be in a position to grant a foolproof security to the pipeline passing through Pakistan in the near future. Physical security through other technical means is quite expensive and guarding every inch of the land for 1500 km is even more expensive and impossible to maintain administratively. But a large segment of Pakistani society is of the view that the security situation in Balochistan is linked with the political stability in Afghanistan.

Secondly, while India and Pakistan would still like to benefit from the proposed project however, it is not that simple because the relationship between the pipeline scheme and globalization is multifaceted which is not exclusively driven by economic factors. But, there is a realization that the three countries namely India-Pakistan and Iran may have better economic collaboration in future.<sup>33</sup> Nonetheless, as a matter of fact, both India and Pakistan are seen unable to distance

<sup>&</sup>lt;sup>30</sup> Bhaskar, "Is the Iran-India pipeline feasible?"

<sup>&</sup>lt;sup>31</sup> The Hindustan Times, July 7, 2000.

<sup>&</sup>lt;sup>32</sup> Gurmeet Kanwal, "IPI pipeline A good option – but a security nightmare," India Strategic, www.indiastrategic.in/topstories162.htm (accessed on June 23, 2011); and Sial, "IPI Energy Security and Strategic Conflicts."

<sup>&</sup>lt;sup>33</sup> "Pakistan-Iran-India Gas Pipeline Project", Solar Green TV, solargreen.tv/energy/pakistan-iran-india-gas-pipeline-project.html (July 6, 2012); and Mamoona Ismail, "Significance of Iranian gas reserves," Pakistan Tribune, July 8, 2005, http://paktribune.com/articles/Significance-of-Iranian-gas-reserves-111878.html (accessed on July 6, 2012).

themselves from that of the US policies vis-a-vis Iran.<sup>34</sup> The US factor notwithstanding, the lack of conflict resolution approach between India and Pakistan over Kashmir issue also plays negatively in extending collaboration between the two countries. There is another angle to the ongoing issue. If India continues to oppose Iran's nuclear program at the highest forum, it might not be able to get closer to Iran. Similarly, Pakistani officials seem reluctant in proceeding forward under the US pressure as Pakistan has been asked to postpone the deal.

Additionally, there is yet another perspective to the issue as pointed out by Ahmer Bilal Soofi, a well known international law expert, who says, "Pakistan will not be able to realize this project. Under the United Nations (UN) sanctions against Iran, the income from any commercial deal with any country cannot be used for the up-gradation of Iran's nuclear program. Since the UN will determine whether the income of the deal is being used for the nuclear program of Iran, this project is a non-starter."<sup>35</sup>

However, President's visit to Iran twice during the recent past has energized the two sides to materialize the planned project.<sup>36</sup> At the working level meeting held in Iran during July this year, also reinsured that the project will materialize.<sup>37</sup> The author is of the view that besides the US factor which is pronounced and visibly a main obstacle, security environment in and around Balochistan as briefly explained earlier on, would not allow Pakistan to achieve this long awaited objective in near future.<sup>38</sup>

In addition, both India and Pakistan also remained involved in gain-loss theory till as late as 2004 and rejected the pipeline proposal. Pakistan had been skeptical that IPI gas pipeline may have negative impact on Kashmir issue as well the government's position on bilateral trade with India. On Indian side, the concerns pertained to "Pakistani fundamentalists disrupting supplies" and probably the dominating factor had been that the pipeline would place Pakistan at an advantageous position because it would be able to "shut of the tap" at its will especially during crises environment. In fact, such conclusions were drawn on the basis of the past experience like the Russian decision to cut off the supplies to Ukraine when it failed to comply with its terms. It also affected the gas supplies to European countries. Thus, the question arises, is it strategically reliable option?

<sup>&</sup>lt;sup>34</sup> Forbes, http://www.forbes.com/home/feeds/afx/2006/01/05/afx2428. (accessed on July 13, 2011); and Chaudhary, "The Peace Pipeline."

<sup>&</sup>lt;sup>35</sup> Khalid Mustafa, "Pakistan, Iran to build gas pipeline despite the US sanctions", The News International (Islamabad), July, 19, 2012.

<sup>&</sup>lt;sup>36</sup> "Zardari proposes Islamabad-Tehran Currency Swap Accord," The News International (Islamabad), July 17, 2011.

<sup>&</sup>lt;sup>37</sup> Khalid Mustafa, "Pakistan, Iran to build gas pipeline despite the US sanctions".

<sup>&</sup>lt;sup>38</sup> "Iran-Pak Gas Pipeline to be Completed by 2010, says Petroleum Minister Dr Asim Hussain", The News International (Islamabad), July 25, 2011.

And finally, Pakistan is also stuck up on the issue of funding for the projects. Even Pakistani banks seem reluctant to come forward and support the project. Nonetheless, it has been learnt that China that had earlier on backtracked has shown its willingness as Pakistani side has agreed to its ninety percent terms. Chinese lead role might help Pakistan in diluting the pressure because of its international clout that China enjoys.<sup>39</sup> Additionally, Iran has already offered its support in terms of funds as well as equipment to be used in laying down the line towards Pakistani side but because of the US pressure and the legal issues as highlighted by Bilal Soofi, the possibility of advancing the project is quite low.<sup>40</sup>

It was also learnt in the recent past that Russia was prepared to undertake IP gas pipeline project by providing financial and technical assistance. Russia seems willing to participate in TAPI gas pipeline project too. Besides that Russia has also shown keen interest in Thar-coal development and Diamer-Bhasha Dam. Russian intentions were disclosed by a Russian delegation led by Mr Yury Sentyruin, deputy minister for energy who participated in two day Pak-Russia energy talks in Islamabad. But it is always difficult to convert the formal talks into agreement. The next meeting of the Pak-Russia joint working group will be held in Moscow during 2013.<sup>41</sup>

Over the past few months, a lot of water has already passed under the bridge. IP game is becoming difficult because of increasing number of the stakeholders. While the US would continue to bully around, China too has taken backseat and seems unwilling to support perhaps because of the US stick. Turkmenistan and Afghanistan would be pressing more for TAPI. With regards to Russia, Pakistan is not sure whether or not it actually sees IP as a worthwhile project or just wants to throw a spanner in the US works. For instance, it can be argued that the Russian President's decision to cancel his visit to Pakistan was the reaction of Pakistan's unwillingness to grant gas pipeline contract to Russia worth \$1.2 billion without getting into legal bidding process. It is believed that without the involvement of Russia and China, Pakistan is unlikely to move ahead with the project

<sup>&</sup>lt;sup>39</sup> Khalid Mustafa, "Beijing Agrees to Lay IP Gas line in Pakistan Territory", The News International (Islamabad), June 9, 2012.

<sup>&</sup>lt;sup>40</sup> Khalid Mustafa, "Pakistan, Iran to build gas pipeline despite the US sanctions".

<sup>&</sup>lt;sup>41</sup> "Russia Agrees to Extend Help in Laying IP Gas Pipeline", The News International (Islamabad), June 28, 2012.

because of the US stick, even if the funds are made available from elsewhere. Thus, the IP gas pipeline project is likely to remain in freeze.<sup>42</sup>

# Turkmenistan-Afghanistan-Pakistan-India (TAPI) Gas Pipeline Project

Turkmenistan holds the world's 4<sup>th</sup> largest natural gas reserves. It is quite determined to reach out to Pakistani and Indian markets by building a gas pipeline through Afghanistan. The proposed gas pipeline is about 1,700 kilometers. It has the capacity to transport about 20 billion cubic meters of natural gas annually from Turkmenistan to consumer countries. Based on pre-feasibility study, the estimated cost of the project is worth \$ 7.6 billion which will be financed by "Asian Development Bank (ADB)". The Bank has already prepared its feasibility study and indicated that project was cost-effective and monetarily feasible.<sup>43</sup>

In case, the scheme goes ahead efficiently, it might emerge as Afghanistan's major development project. As per Afghan Ambassador to Canada, "transit revenue could amount to US \$300 million per year. That would represent about one-third of the domestic revenue (US\$887 million in 2008/09) budgeted for development efforts".<sup>44</sup> TAPI, once put in practice, will help enhancing economies of all participating countries. During 2008, Pakistan's Prime Minister described the pipeline as a "vital project for the development and progress of the region". Further, Turkmenistan's President said that "pipelines are potentially good for peace. The pipeline between Turkmenistan, Afghanistan, Pakistan and India will be a weighty contribution to the positive cooperation on this continent".<sup>45</sup>

The project has received tremendous positive response from multinational and financial institutions including the State Bank of India which would entail about \$ 7.6 billion.<sup>46</sup> The project has attracted the companies like Exxon Mobil, Chevron, BP, RWE, Petronas, BG Group, etc. It may have long-term prospect in the region.<sup>47</sup> The US too is keen to tap into

<sup>&</sup>lt;sup>42</sup> Khuldune Shahid, "Putin's snub"; and Khalid Mustafa, "Pakistan, Iran to build gas pipeline despite the US sanctions".

<sup>&</sup>lt;sup>43</sup> Asian Development Bank, "Technical Assistance for the Feasibility Studies of the Turkmenistan–Afghanistan–Pakistan Natural Gas Pipeline Project," TAR: STU 36488, December 2002, www.adb.org/Documents/TARs/REG/tar\_stu\_36488.pdf - (accessed on May 12, 2011).

<sup>&</sup>lt;sup>44</sup> John Foster, "Afghanistan, Energy Geopolitics and the TAPI Pipeline: Part 1," Journal of Energy Security March, 2010.

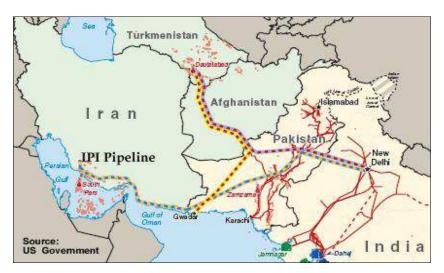
<sup>&</sup>lt;sup>45</sup> Ibid.

<sup>&</sup>lt;sup>46</sup> "TAPI gas pipeline gets tremendous IFIs response", The News International (Islamabad), September 24, 2012.

<sup>&</sup>lt;sup>47</sup> Khuldune Shahid, "Putin's snub".

Central Asia's energy resources. Richard Boucher, the former US assistant secretary of state for South and Central Asia, said in 2007, "One of our goals is to stabilize Afghanistan, and to link South and Central Asia so that energy can flow to the south." In December 2009, George Krol, deputy assistant secretary of state for South and Central Asia said, "Central Asia plays a vital role in our Afghanistan strategy".<sup>48</sup>

The leader of the three countries namely, Afghanistan, Pakistan, and Turkmenistan met in Islamabad on 29–30 May 2002 and announced the formation of a coalition to implement the project. India entered in this project later during 2008 however; it continued to remain engaged in the process since 2004/2005. In 2005, during his visit to Afghanistan, Manmohan Singh, the Indian Prime Minister, said, "Both pipeline projects (IPI and TAPI) needed to be realized in order for New Delhi to achieve the energy security that it seeks". A broad agreement was signed by representatives of the participating states on April 25, 2008 in Islamabad. The participants agreed in principle that the construction work may commence in 2010 and gas supply may start by 2015.<sup>49</sup>



#### Proposed Iran-Pakistan-India Pipeline<sup>50</sup>

The agreement was formalized during 2010. For the purpose of security of the pipeline, Afghan government agreed to hire 12,000 military forces.<sup>51</sup> However, the contours as to how the Afghan government would

<sup>&</sup>lt;sup>48</sup> Sial, "IPI Energy Security and Strategic Conflicts."

<sup>&</sup>lt;sup>49</sup> Ibid.

<sup>&</sup>lt;sup>50</sup> Foster, "Afghanistan, Energy Geopolitics and the TAPI Pipeline: Part 1."

Afghanistan, "Afghan forces to provide security for the Turkmenistan-Afghanistan-Pakistan-India (TAPI) gas pipeline", June 7, 2011, www.facebook.com/note.php?note\_id=229032133790015; and "Gas pipeline project Turkmenistan-Afghanistan-Pakistan-India approved," November 21, 2006, http://www.turkmenistan.ru/?

arrange the military forces for this specific purpose are not clear. According to Turkmen state-controlled media, Turkmen President while speaking at a signing ceremony on December 11, 2010, called the pipeline as "a real and effective stabilizing factor with long term positive impact on the overall situation in Central and Southern Asia and adjacent regions,".<sup>52</sup>

### **Critical Analysis of the Project**

Unlike the IPI, the project has the full backing of the US.<sup>53</sup> However, in order to materialize the project, it has many other snags and gray areas that need to be addressed. In this project, instead of three, there are four stakeholders. For the time being, political and security environment especially in Afghanistan is fragile and it is impossible to predict as to when the situation may improve. Afghanistan is essentially a country that is being governed by many factions and these factions would continue to wield influence even if there is a political settlement in Afghanistan in the foreseeable future. Therefore, security of the pipeline would continue to be a constant source of concern for the countries which intend making huge investment in this mega project.

Nevertheless, economic incentives to these groups might help in realizing the project. After all, if the US could get supplies into Afghanistan all the way from Karachi during the last one decade in the most tense security environment, the interest groups, war lords and insurgents working in Afghanistan domain can also be taken onboard without much challenge but definitely, environment for exploitation would continue to prevail in Afghanistan. Additionally, the pipeline has to pass through Pakistani side of the Afghanistan border and possibilities of disruption on Pakistani side also need special handling. Therefore, unless a permanent security mechanism is evolved, such groups present along the pipeline would continue to exploit the situation at will, thus causing serious economic constraints for the participating countries.

Secondly, political and security environments in South Asia would not be different with regards to TAPI project. If there is a trust deficit between India and Pakistan with regards to IPI, they would also not be comfortable with TAPI. If Pakistan would gain strategic advantage from

page\_id=3&lang\_id=en&elem\_id=8859&type=event&sort=date\_desc (accessed on July 11, 2011).

<sup>&</sup>lt;sup>52</sup> Deirdre Tynan, "The Turkmenistan-Afghanistan-Pakistan-India (TAPI) pipeline looks set to go Ahead," Oil Price.com, December 16, 2010, http://oilprice.com/ Energy/Energy-General/The-Turkmenistan-Afghanistan-Pakistan-India-TAPI-Pipeline-Looks-Set-To-Go-Ahead.html.\_(accessed on July 11, 2011)

<sup>&</sup>lt;sup>53</sup> "Nura-Kushti' for Turkmen Gas pipeline in Central Asia; India and Afghanistan con Pakistan out of the transit fees," Khalistan Affair Center, December 15, 2010, *www.khalistan-affairs.com/wp/?p=518* (accessed on July 11, 2011).

the proposed project of IPI, it will also gain the same advantage from TAPI. If unresolved disputes between India and Pakistan can compromise IPI project, the similar reaction can come here as well. If IPI project is seen through prism of gain-loss theory, similar opinion can be developed in TAPI project as well. There is a trust deficit on both sides. Knowing well the impact of the devastating flood of 2010, even then, India did not allow the European Union to offer two years of trade concessions to Pakistan.<sup>54</sup> However, ground realities changed after Pakistan has declared India as the most favored nation in the context of trade. There is no denying the fact that the proposed project would be a win-win project for all stakeholders including the splinter groups operating inside Afghanistan, provided they are also taken 'on board'. It would give an economic boost to Afghanistan in the form of transit fee and also generate other social activities. It would also help Pakistan and India to overcome their energy shortages. The scheme would add to regional affluence and will strengthen the institutional structure to expand collaboration with each other.

Since April 2008, when the agreement was signed, Afghan government clearly informed the steering committee that, "within two years, the pipeline route would be cleared of landmines and Taliban influence. Whatever may have been anticipated then, the planned route remains insecure even today." Investment is unlikely to come within the war zone. The possibility of laying the pipeline under armed guard and then protecting it for decades is dreadful task, in terms of both manpower and cost. Gran Hewad, a political researcher with the Afghan Analysts Network, said, "the security challenge would be significant", but added, "Kabul might have the political will and a powerful economic incentive to keep the Taliban away from TAPI".<sup>55</sup>

There is a possibility that some NATO countries might be prepared to safeguard the pipeline if Afghanistan government is unable to organize a force of 12000 armed men or if the armed guard fails to protect the pipeline due to the influence of warlords and other relevant actors. The creation of security mechanism for protection of the project would also require the early approval of the stakeholders especially the US and Japan.<sup>56</sup> "Conventional thinking around the pipeline may include long-term the US bases in Afghanistan, and assistance in training the Afghan National Army to defend the pipeline route".<sup>57</sup>

There are other important queries linked with the pipeline security which include: One, whether or not the Afghan people would be

<sup>&</sup>lt;sup>54</sup> Ibid.

<sup>&</sup>lt;sup>55</sup> Tynan, "The Turkmenistan-Afghanistan-Pakistan-India (TAPI) pipeline."

<sup>&</sup>lt;sup>56</sup> "TAPI and Security Concerns," Canadian Centre for Policy Alternatives, http://www.policyalternatives.ca/taxonomy/term/5?page=84.%20%28accessed%20 %20June%2023,%202011 (accessed on June 23, 2011).

<sup>&</sup>lt;sup>57</sup> "SCFI - Condition CPs," scufi.wikispaces.com/file/xml/SCFI+-+Condition+CPs. docx?v=rss (accessed on June 23, 2011).

willing to have foreign troops in their country for an infinite period? Two, is the Afghan National Army a viable option for the protection of the project which is ethnically imbalanced and may be seen by the Pashtuns as a 'foreign' army? Therefore, development cannot take place at the end of a gun. A prolonged stay of the occupant forces is a recipe for ongoing bloodshed and disruption in a country that has long been hostile to occupiers.

As pointed out by the Pakistani PM during a press conference at Kabul, "success of the proposed project could be a beginning, leading to other economically viable mega projects, including the building of electricity transmission lines; enhancing physical connectivity by building or upgrading requisite infrastructure, including road and rail transportation and communication links as well as expediting the implementation mechanisms for the Afghanistan-Pakistan Transit Trade Agreement etc".<sup>58</sup>

#### **Suggested Proposals**

Whether or not India moves on the proposed IPI, joining of China as full member of the pipeline would offer it another opportunity to build on Beijing's so-called strategy of building what has been called a "string of pearls" across the Indian Ocean. Chinese participation can turn the Chinese-built Pakistani port of Gwadar into an energy hub which may also strengthen the ongoing defence ties between the two countries.

If the IP gas pipeline project is to be realized, bringing in China in the loop is important. The arrangement might reduce pressure on Pakistan. In addition, the odds of China supporting American efforts to isolate Iran would effectively be reduced; it might ultimately attract India as well. In view of the growing energy demand in South Asia, India may change its approach with regards to the IPI project. Both India and Pakistan should view the project as an evolving economic globalization. Thus, the regional cooperation could save them from a common future crisis which would also play a significant role in shaping and transforming regional politics and relations. Thus, both sides must realize that progress on IPI/TAPI is in their common interest which might pave the way forward for settlement of other outstanding issues as well.

Unfortunately, while the economic prosperity of these countries lies in regional cooperation, extra regional forces are negatively impacting and interfering in the regional socio-political landscape to the extent that such cooperation is unable to reach fruition. While engagement with Iran in the nuclear issue is important and must continue on a parallel track, nevertheless, the collective benefits of energy security for close to 3000

<sup>&</sup>lt;sup>58</sup> Remarks of the Prime Minister at the Joint Press stakeout at Kabul, April 16, 2011, http://www.pakistanembassy.de/index.php?id=194 (accessed on June 23, 2011).

million people including China, India and Pakistan should not be compromised.

As it was pointed out earlier on, these countries do not have many options, one day they might come back to undertake the project even against the US wishes but it would be too late for them to recover the loss. Further delay dominated by political factors is not in their interest. We also sincerely propose to the government of Pakistan that it should not give preference to the US interests over its own national interests. While Turkey being NATO ally can have gas from Iran, why not Pakistan. Similarly, if Iraq functioning under direct control of the US can enter into an agreement with Iran signing \$365 million gas pipeline supply deal what are the compelling reasons for Pakistani leadership causing serious delay in concluding the final deal between the two countries. Pakistani public is suspicious and very keen to know the plausible reasons of the delay.<sup>59</sup>

The proposed pipeline once implemented would bring win-win situation for all stakeholders though it may have implications for some Middle East countries in economic terms. And most importantly, China, India and Pakistan the most populated countries in the world would also be taking due care of Kyoto Protocol by reducing greenhouse gasses thus, playing a positive role for their own people by providing neat and clean environment.

In worst case scenario, alternatively Pakistan may switch to the LNG scheme similar to that of Egyptian project providing natural gas in liquid form LNG to Turkey which had a plan to supply natural gas to Turkey through Israeli territory but opted for the LNG route, providing Turkey with up to 350 billion cubic feet of gas starting in 2000. This arrangement cannot be an alternative to a well-established pipeline. It is a very slow and costly affair. However, as pointed out earlier on, since Pakistan is in the grip of terrorism and would take quite some time to get over it therefore, perhaps the best option at present is to continue with LNG while concurrently surveying the probability of a secured overland route with flawless international assurances.

It does not mean that other issues especially the issue of Jammu and Kashmir be put at the back seat, simultaneous work is needed to keep our national objectives at the forefront. We should never allow our trade to dominate on our core issues which have direct linkage with our sovereignty and security of our nation and longtime stability of this region.

Pakistan's energy crises are too serious to be neglected or relegated to second priority. We cannot wait for India or for that matter China to come. I fully endorse the views of former Punjab Finance Minister Shahid Kardar who said, "We do not have the luxury of time. It has run out

<sup>&</sup>lt;sup>59</sup> The News International (Islamabad), July 2, 2011.

on us. We need to seize the moment, or we will be marginalized in the global system with increasingly difficult political, economic, and social challenges confronting us".<sup>60</sup>

In case of TAPI, an answer to protect the pipeline has to come from taking all stakeholders on board. TheUS and other western countries can be facilitators. To realize the advantage of this grand project, restoration of stability and peace in Afghanistan is essential. It is imperative that Afghanistan, India and Pakistan may join efforts and take ownership of their affairs so that they can overcome the pressing challenges. Trust building between the three countries is very important if they wish to accrue the collective benefits of the optimal utilization of the natural resources available in Central Asian states.

As indicated earlier on, energy and water security are interconnected factors and need to be dealt with collectively. In order to get due share from River Kabul, Pakistan must immediately construct one to two dams downstream so that it is able to exercise its right on this River later on. Without constructing the dams, Pakistan is likely to lose the legal battle in any International Court. Therefore, as an immediate step, Pakistan must get in an agreement with Kabul and ensure that before undertaking the mega projects, a treaty between the two countries is signed in accordance with the international law. Interdependency in energy is increasing with every passing day. Thus, it is worth emphasizing that trade flourishes under peaceful conditions, and regions will have to create those environments. Therefore, Islamabad, New Delhi, and Kabul must recognize their mutual interest, in a stable Afghanistan and stable Pakistan.

Construction and subsequent maintenance of gas pipe lines involving more than one country in a region can only succeed when they have mutual trust and common stakes. The proposed plans involving Afghanistan-Pakistan-India or Iran-Pakistan-India gas pipeline would also need accommodative approach by all because continuous flow of energy will create win-win situation for all stake holders.

While the following recommendations are out of scope for this paper but they are still essential to create awareness and flash the point that since Pakistan has tremendous potential therefore, it can amicably manage the energy crisis provided it plans on short, medium and long term basis. The areas need to be highlighted include:

• Pakistan possesses tremendous potential to generate energy, its hydropower sector alone has the capacity to produce over 56773 MW energy besides coal, wind and solar sectors, provided they are very well planned and executed honestly involving huge investment coming from active public-private partnerships which is not coming.

<sup>&</sup>lt;sup>60</sup> Dawn (Islamabad), November 13, 2000.

- As per the Planning Commission Report of 2003, Pakistan would need 163000 MWe over the next two decades. We are too far away from achieving even 50% of the planned energy by 2030. Therefore, while IPI and TAPI are important, Pakistan's survival lies in construction of dams and optimum utilization of coal worth \$ 25 trillion.
- And finally, the friendly countries should come forward to help Pakistan in exploring in Thar Coal mine project so as to cope up with timeline. Pakistan is fully geared up to provide enabling environments both in terms of physical and legal securities to the investors for the entire duration of the agreement.

Meanwhile, Pakistan as a nation must go for austerity measures at every level. While we may compromise on our comfort level at home but we must realize that Pakistan's industry must continue to run without a pause which provides guarantee of two time meals to our poor and most needy people. We have already lost over five lacks jobs due to closure of the industry because of energy shortage and we can't afford that the local investors may shift their resources to third countries as a trend is already building on and some investors have already shifted their business to other countries including Sri Lanka and Bangladesh.

### Conclusion

Given the development on TAPI pipeline, the IPI gas pipeline project appears to have been shelved. While the possibility of TAPI getting mature will take quite some time, shelving the IPI because of political reasons are beyond comprehension. It is strongly believed that the economic activities that influence the world at large in medium to long terms should not be politicized. As I pointed out earlier, sooner rather than later, both India and Pakistan will have to get back to IPI even at the cost of annoying the US in the best interest of their own people.

If the US and its allies including other NSG countries can extend greater nuclear cooperation to India to protect their economic interests despite having serious concerns of nuclear proliferation, why can't India and Pakistan take the initiative to protect their economic interests through diversification of their energy resources and ultimately reaching out to the poorest of the poor' in their respective countries. That is the best way to serve their respective nations.

Pakistan desperately needs to enter into IP gas pipe line without further delay. Probably, Tehran would be willing to sell its gas more cheaply than Turkmenistan. While, Pakistan has problems of law and order in Balochistan, arguably it is a transition phase and will ultimately settle. I am very confident that peaceful resolution of Afghanistan problem would also lead to the resolution of Pakistan's domestic problems as well. With regards to energy security, it is a long drawn struggle in Pakistan to make every consumer and sector realize that there will be no national security, if there is no energy security. Extreme caution in management, improvement in governing system and policy consistency with sincerity is a key to address the ongoing problems of energy security. While domestic consumers may be persuaded to sacrifice their own needs in order to promote and support the industrial sector which has ultimate bearing on them, the concerned departments must address the issue of line losses and energy theft.

The political leadership should avoid making false promises to provide energy beyond certain limits of the cities till the time the situation is improved by adopting all possible medium to long term measures. Similarly, the domestic consumers can also contribute towards national cause by applying austerity measures at all level while using standardized and efficient home appliances. If the austerity measures are to succeed; "Top down Approach" is a must. Nonetheless, there is no alternative to long term workable plans to address this serious issue.