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## CENTRAL ASIAN ENERGY POTENTIAL AND ITS IMPLICATION FOR INDIA

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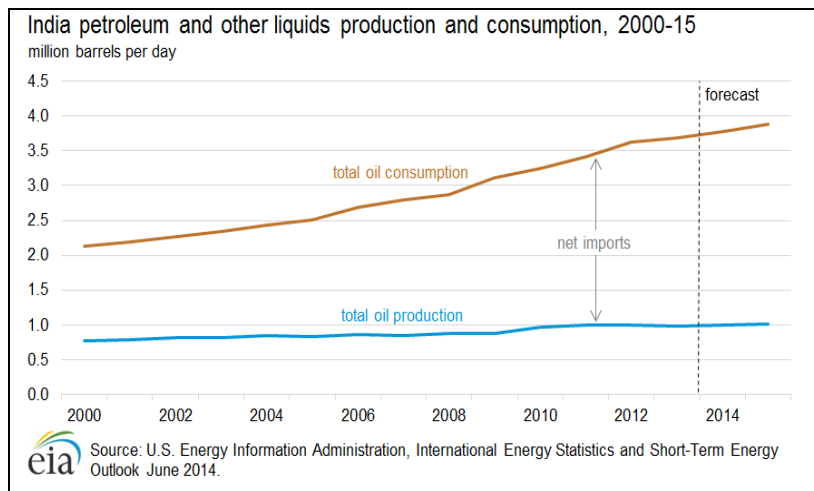
### Abstract

*The Limited production and high cost of renewable energy force India to still depend on fossil fuels. The most importantly, to continue the avenue of growth and development has to secure the energy supply for long term. On the other side rich in oil and gas reserves, Central Asian countries have great strategic potential for South Asia especially for India. Despite India's current and past initiatives to in relations with these states, it has not been able to emerge as a major economic or strategic partner of the Central Asian States. This paper deal with geo-strategic challenges, with possible solutions and India's strategic interest in Central Asia in context of its future energy requirements, in particular.*

Energy security, a relatively new terminology in international relations, implies securing adequate and reliable energy supplies by a country at stable prices. Oil, which at times is used as a political instrument, enjoys a special place in the economic policies of the producing countries and the security-economic strategies of the consuming countries. The European Commission defines energy security the ability to ensure that future essential energy needs can be met, both by means of adequate domestic resources worked under economically acceptable conditions or maintained as strategic reserves, and by calling upon accessible and stable external sources supplemented where appropriate by strategic stocks.<sup>1</sup>

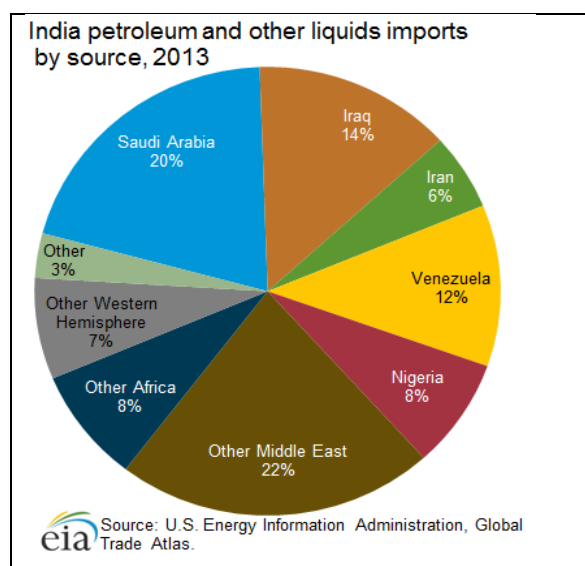
India is one such country which has a huge and growing energy demand to cater the need for its development. India economy is developing with a high speed and the consumption of oil is increasing considerably. Just before the global economy went into recession, the *US energy* information administration projected that global energy consumption would increase by 50% from 2005 to 2030.

It was evident that emerging economics were going to account for much of this project growth over the next twenty-five years. Among the emerging economics, the highest demand was expected was expected to occur in Asia, particularly in China and India. Despite low-capita energy consumption, India is the world's fifth largest global energy consumer and is likely become the third one by 2030. According to government's integrated energy policy, India needs to increase its primary energy supply by four times since India is relatively poor in oil and gas resources.



While India has boosted its own domestic production, demand is outpacing domestic supply. Never the less, India has made some visible progress in tapping energy resources within the country, which include oil discoveries in Rajasthan by U.K.-based Cairn Energy and gas discoveries by India's Reliance Industries off the coast of Andhra Pradesh in the Bay of Bengal. In August 2003, O.N.G.C announced a deep-sea project, "Sagar Samridhi," to look for oil and gas reserves in the Arabian Sea and the Bay of Bengal. In the last two years, India has reported 21 oil and gas discoveries amounting to 800 million tons of oil and gas, although domestic oil production has still been stagnant at about 32 million tons annually for the past few years<sup>2</sup> and thus energy security has become a major consideration of its foreign policy. India's energy requirements for a sustained development and growth pose a major challenge. It has to depend

on imports to meet its energy supplies with already more than 70% of its crude oil requirements met by imports. Currently, India imports oil from about 25 countries, nearly two third of which comes from four countries, viz-Saudi Arabia, Nigeria, Kuwait and Iran.



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due to this dependence, policy makers are worried about oil price volatility and its impact on inflation, economic growth and foreign exchange reserve. In last few years, energy diplomacy has also become one of the main agendas of the country's foreign and security policy. India is seriously pursuing the nuclear energy option as well as import sources beyond the middle east.<sup>3</sup> Energy security may be the biggest security challenge to Indian policy-making in the coming decades. Looking at the future of oil and natural gas demand and consumption, it is clear that India's import dependency would continue to rise markedly in the coming decade and beyond. Indian Prime Minister Manmohan Singh told that energy security is second only in our scheme of things to food security.<sup>4</sup>

It is, therefore, argued that India should "make full use of international influence and comprehensive national policies to strengthen international cooperation with major oil producing and exporting countries in the fields of politics, economy, trade and diplomacy. As a result, resource diplomacy—in the form of the diversification of sources of supply, the development of good relations with resource-rich countries, encouraging oil companies to adopt the "going-out" strategy and a strategic alliance for resource cooperation—has become a logical extension of India national interests. India's expanding global outreach, however, is not entirely the result of its growing reliance on imported oil and its efforts to secure supplies globally; rather, it is consistent with this country's overall economic growth and enhanced political standing and as such, energy has influenced India international behavior but not transformed its foreign policy.

### *Energy Potential of Central Asia*

In this scenario, the new energy sources of Central Asia will play an important role in Indian energy strategy in coming years. In the past few years, India's policy towards the countries forming the core of Central Asia—Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan—has shown the greatest progress since these states ceased to be republics of the Soviet Union. After a decade and a half of desultory ties, it appears that India has finally awakened to Central Asia, with which it had been connected for centuries by commerce along the Great Silk Road. The CAS significance to its neighboring region, in which India seeks to play a leading role, cannot be overestimated. This ancient network of interlinking trade routes in East, South, and Western Asia had been inactive since the fifteenth century, until the Partition of 1948 severed the last of the territorial ties. Central Asia now possesses a modern kind of currency—natural resources, particularly oil and gas—and a number of states have seized upon the importance of its abundant wealth and strategic location.<sup>5</sup>

India's glowing need for energy coupled with its aspirations of becoming a regional power, and ultimately a global one, underlies New Delhi's increased interest in the region. But problems are that, India does not share a land border with any of the Central Asian states. In contrast, India's regional rivals China and Russia possess vast economic resources and more efficient state machinery that they can galvanize to project their economic power and access the region's energy market. Beijing's capacity to rapidly mobilize resources in developing communication, transport and pipeline infrastructure in Central Asia is unrivalled in scope, scale and speed. It is often said that whereas India spends millions, China spends billions.

India therefore faces a predicament: How can India accomplish successful oil and gas diplomacy in the face of strong competition for energy resources from the two powerhouses

of Russia and China, transportation bottlenecks, and the absence of a direct border with any of the CAR. To finding answer of these questions, This, paper deals with India's strategic interest to Central Asia in terms of its' future energy needs.<sup>1</sup>

However, the Central Asia republics definitely have 3 to 4 percent of proven global oil and gas reserves. As per as oil imports from the GCA region to India are concerned. Kazakhstan could play important role in diversifying Indian imports. State Kazakhstan carries the mantle of the most natural resource-rich, and consequently the most developed, in Central Asia. It is the world's largest producer of uranium with an estimated 15-19% of the world's total reserves Extrapolating from current trends, the nation is poised to emerge as the number one global supplier of uranium in the next five years, overtaking Australia, with a presence across the uranium extraction, enrichment, and fuel fabrication markets. In hydrocarbons, Kazakhstan's extractable resources of oil are estimated to be 7.8 billion tons – on par with Kuwait – and those of natural gas 100 trillion cubic feet.<sup>6</sup> The U.S. Energy Information Administration predicts that Kazakhstan could become one of the top five producers of oil in the world in the course of the next decade.<sup>7</sup>

NAME OF THE COUNTRY OF CENTRAL ASIA	NATURAL OIL RESERVE IN BILLION BARRELS	NATURAL GAS RESERVE IN TRILLION FEET
KAZAKHSTAN	30.0	45.7
TURKMENISTAN	0.6	618.1
UZBEKISTAN	0.6	39.7
KYRGYSTAN	0.4	0.20
TAZAKISTAN	0.01	0.20

*Proved Reserove of Natural Oil and Gas of Central Asia States at end of 2013*

*Source: Indian Petroleum & Natural Gas Statistic 2013-14 & U.S Energy Information Administration, International Energy Statistics*

Its gas reserves are 15th in the world, making it a net exporter, with further plans to improve production by 12% in 2011-12. Due to its mountainous geographic location, the exploitation of Kazakh crude oil and gas has necessitated a pipeline infrastructure through neighbouring countries, by which the resources reach international markets, from Russia to China. While many foreign state actors, such as Great Britain, the United States, and Malaysia, have bid on oil and gas extraction on its territory, the state itself has clearly insisted on remaining a prime actor in the exploration. In December 2011, the international Kazakhstan Petroleum Operating Consortium has agreed to transfer 10% of its shares in the Karachaganak oil and gas field to the Kazakh government, after some strong-arm tactics, including the imposition of fines and duties, by the latter.<sup>8</sup>

As for as gas imports are concerned, both Uzbekistan and Turkmenistan are important. Both have large proven gas reserves. Uzbekistan has been a net importer of oil but an exporter of gas, the eighth country in the world in gas production, with explored resources estimated at 2.4 trillion cubic meters. However, due to poorly developed infrastructure, nearly eighty percent of this gas stays on Uzbek territory and is reserved for domestic use at subsidized rates. Of the remaining natural gas that Uzbekistan exports, more than half is presently

piped to Russia through routes laid in the Soviet period, and the remainder to neighboring CAS Kazakhstan, Kyrgyzstan, Tajikistan, and Ukraine. Because of problems with state planning, this equation is sometimes altered. In November 2011 both Russian and Kazakh governments complained about Uzbekistan withholding gas in favor of its own domestic markets during an especially cold winter; Kazakhstan, most of whose gas resources are piped abroad, was even forced to conclude an agreement to obtain more gas via its pipeline with China. Such constraints, and Uzbekistan's poorly developed investment climate, have mostly kept its profitable gas market closed to shareholders outside of the Eurasian region.

Turkmenistan is a net oil exporter, with enough supplies to feed its domestic market. However, its gas reserves have made the nation an international darling. The Turkmen state is the fourth in the world in natural gas reserves after Russia, Iran, and the United States with approximately 8 trillion cubic meters of which 70 billion cubic meters being produced each year. Turkmenistan's prospecting potential stands at 38.1 trillion cubic meters and 21 trillion cubic meters alone at its largest, and the world's second-largest, gas field, the South Yolo tan. Large volumes of Turkmen gas are available for export because of high production capacity – unlike the case of the comparatively more gas-poor Uzbekistan and Kazakhstan. In 2008, 49 billion cubic meters of Turkmenistan's 71 billion cubic meter gas production went for export via pipelines to Russia, China, and Iran.<sup>9</sup>

Energy is thus the main source of wealth in Central Asia – save for the poorer Kyrgyzstan and Tajikistan – fought over by the foreign investors that struggle to influence the local state-owned energy companies and assert their place in the division of spoils that the region has become. From the above account, it may be stated that the Central Asian countries, particularly Kazakhstan, Turkmenistan and Uzbekistan are well endowed with hydrocarbon resources. After gaining independence, these states have given considerable attention to the development of their energy sector as there was ready demand for these

product in world markets.

### *India's energy strategy toward Central Asia*

Under the present global scenario, it is natural for India to renew and redefine its relationship with Central Asia which is described as extended neighborhood. It is also prudent on the part of India to think that while Southeast Asia stood as a promising region of economic cooperation, the developments in Central Asia have vital implications for India's energy security. India's approach to Central Asia should be that of positive engagement with the region. Therefore, economic diplomacy should remain India's basic policy thrust towards the region. Not clash, but compatibility of interests with the new states is the need of the hour. India's engagements are also being stimulating for feeding up her huge emerging economy.

Now India openly started to contest for regions resources particularly for energy and other oil resources of Caspian Sea. The cheap hydel energy available in this region can be of use to India if it can reach through viable route.<sup>10</sup> Largely, India has followed the same Chinese pattern to an extent and hopes to build gas pipelines that are necessary for its electricity sector in order to diversify away from coal.

In this context, the proposed trunk gas pipeline, Iran- Pakistan-India (IPI), Qatar- Pakistan-India(QPI), Russia-Kazakhstan-Turkmenistan-Afghanistan- Pakistan – India (RKTAPI) and



Myanmar- Bangladesh-India(MBI) are extremely important for this country both from the point of view of energy security, as well as sustainable development.<sup>11</sup>

The trilateral Iran- Pakistan India gas pipeline (IPI) was proposed to be 2,775 Kms in length and if and when successfully completed is expected to deliver natural gas from Iran to Pakistan and India it was envisaged that 10 percent of this gas would be consumed in the Iranian provinces en route, 20 percent were to be used in Pakistan and the balance would be left in India field.<sup>12</sup>

Another project is Turkmenistan-Afghanistan -Pakistan -India natural gas pipeline (TAPI), which is a pioneering effort, is 1,680 kms long gas pipeline that can transport up to 33 billion cubic meters of natural gas annually from Dauletabad field in southeast Turkmenistan to



( TAPI & IPI Pipe Line Projects )Source: Eurasian Energy Agency, 2012)

Indian companies are trying hard to get a strong foothold in the region. In this direction in 2005, the India oil corporation, Bharat Petroleum and Hindustan Petroleum began exploring way of importing crude from Azerbaijan for processing in Indian refineries and were considering, as one of the possible options, making use of the BTC pipeline to transport petroleum to Ceyhan for a shipment through Israel or Suez canal.<sup>14</sup>

India has also become a major investor in transnational U.S.-Russian- Japanese energy project in Sakhalin. This investment in Russia and the recent purchase of imperial energy by India public sector company, The Oil and Natural Gas Corporation (ONGC) are great efforts in securing their energy interest in Central Asia. In this project India has invested 2.7 billion dollars. Sakhalin-1 project is a large oil and gas project that includes exploitation of three fields- Chaibo, Odoptu and Orkutun-dogi.<sup>15</sup>

ONGC also reached an agreement to join KazMunaygas –the Kazakh State oil company in a project to explore and develop the Satpayev block in highly prospective waters of north western Caspian sea. The state oil company will pay an \$80 m signature bonus for 25 percent

stake in Satpayev where oil reserves are estimated to amount of 250MT. Signed during an official visit by Manmohan Singh, the Prime Minister, to Kazakhstan, the deal aims to boost India's energy security and fuel its rapid economic growth.<sup>16</sup> ONGC has also proposed another energy highway to construct a Russian-China-India (RCI) pipeline. The RCI is supposed to stretch from Russia through Turkmenistan, Uzbekistan, Kazakhstan, to Kashgar in Chinese Xinjiang. It will enter India via Ladakh, crossing the Siachen glaciers and the India-China line of control or alternatively through Himachal Pradesh to supply gas to Northern India.<sup>17</sup>

Another example of successful co-operation is Mittal Group, which proved the flourishing company. It owns metallurgical plant and several coal mines in Karaganda oblast. In December 2002, Luk signed oil overseas signed an agreement with Mittal Investments on the sale of 50 percent Chartered capital of Caspian investment Resources Ltd. the creation of ONGC Mittal energy Limited (OMEL) is meant to give more teeth to India's global energy search.<sup>18</sup>

Going to this direction The Indian Public Sector Company, The Gas Authority of India (GAIL) has also signed an MoU with Uzbekistan's Uzebneftegaz for oil and gas exploration and production. GAIL is also setting up a few liquefied Petroleum Gas (LPG) complexes in Western Uzbekistan, mainly for Uzbek consumption.<sup>19</sup> GAIL plans to invest up to RS.8000 crore in the Yamal-Nanets region and has the option to market that Liquefied natural gas (LNG) or even bring it back to India.

Apart oil and gas security India also tries to build nuclear co-operation with Kazakhstan. India and Kazakhstan have signed five agreements/MOUs in the field of civil, nuclear energy, space research and hydrocarbons. Through Indo-Kazakh Civil Nuclear Co-operation agreement Astana will supply 2,100 tons of uranium to India.<sup>20</sup> This agreement could also facilitate joint exploration for Uranium in Kazakhstan and construction of Nuclear power plants in future.

India, one of the largest energy consumers in the world, is keen to get the membership of the grouping as it will help it play a major role in the SCO energy club which was set up to create a unified energy market as well as to ensure cooperation among major oil and gas companies from the member nations. India has been an observer at SCO since 2005. But the permanent SCO membership will help India get a foothold in major energy projects involving Central Asian countries. It will ensure India's integration with the region India had formally applied for permanent membership of SCO in its summit meeting in Dushanbe on September 2014 where External Affairs Minister Sushma Swaraj had said India was ready to step up engagement with the grouping. India is almost certain to get the SCO membership within a year as China has backed the move.. [\*Prime Minister Narendra Modi\*](#), [\*Chinese President Xi Jinping\*](#) (during visit in India) had supported India's bid for SCO membership in 2014. SCO membership will help India address its growing energy need.<sup>21</sup>

Apart this, development of Chabahar port of Iran carries implications in Indian Afghan policy and 'Connect Central Asia' policy. Participation in the development Chabahar port will provide India an alternative and reliable access route into Central Asia.<sup>22</sup>

### *India's Central Asia Policy, Limitation and Challenges*

However, in spite of multiple of multiple agreements and memorandums of understanding, India is not yet one of the top ten countries involved in the exploitation of oil and gas

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resources in central Asia. it will now have difficulties finding a place on this list, considering both the already established involvement of Russian and western companies and the rapidity of china's growth in it. In energy sector, India's needs are immense but its entry the Caspian basin remains unsuccessful.<sup>23</sup>

In 2005, despite a memorandum signed between India and Kazakhstan for co-operation in the oil and gas sector, ONGC Videsh, suffered one of its greatest failures, and outbid by china national petroleum co-operation for the acquisition of petrokazakhstan.<sup>24</sup> In 2009, after several additional years of discussion, ONGC videsh eventually signed an agreement for joint exploitation of the Satpayev offshore block in the Northern Caspian Sea, with estimated reserve of 1.85 billion barrels. In 2006, Gail and Uzbekneftegaz signed a memorandum providing for the joint exploration and exploitation of Uzbek sites, as well as for the construction of liquid gas and oil factories in the western region of Uzbekistan. In Turkmenistan in 2007, ONGC-Mittal Energy acquired 30 percent of the shares of two oil sites of the Caspian sea. However, in January 2010, it sold off the shares after exploratory failures. It is therefore improbable that India will be able to position itself as a major energy player in central Asia.<sup>25</sup>

However, though several agreements have been signed, they only exist on paper, for instance, the trilateral agreement on the international transit of goods between Turkmenistan, India and Iran signed in 1997 has yet to be operationalised, while the much-talked about north-south corridor, an agreement which was signed between Russia, Iran and India in 2000, continues to suffer the same fate, with several bottle necks needing clearance before they can become viable. India has a distinct, geographic disadvantage in Central Asia compared to China. While China shares borders with Kazakhstan, Kyrgyzstan and Tajikistan, as well as Russia, India does not share a land border with any of the Central Asian states. However, the presence of two unfriendly regimes standing between India and Central Asia has slowed the progress of indo-Central Asian cooperation in the economic, transportation and energy spheres. India's pipeline projects are also not completed. Turkmenistan-Afghanistan-Pakistan-India is blocked by US embargo against Iran. Another pipeline (IPI) was due to instability in Afghanistan, Indo-Pakistani tensions and price disagreements with Turkmenistan. As a result the shift of oil and gas pipelines to the east is taking place, not to the south.<sup>26</sup> For example, progress on the \$3.3 billion US-backed trans-afghan Turkmenistan-Afghanistan-Pakistan-Indian (TAPI) pipeline to supply gas from the Daultabad fields in southeast Turkmenistan has been delayed by instabilities in Afghanistan and poor indo-Pak relations. With the ousting of the Taliban regime in Afghanistan, the installation of a pro-US regime and improving Indo-Pak relations although the TAPI project was back on the table, the nagging instability in Afghanistan and Pakistan have further beclouded the prospects.<sup>27</sup>

With the present geopolitical confrontation in the Central Asian region, a new area of insecurity has been opened, one that encompasses different actors, Countries, multinational corporations, International Organizations, as well as non-state actors, such as terrorist networks and radical movements. This does not necessarily augur a coherent and stable regional framework for cooperation, thus widening the possibility of conflict and war over territory, resources, transit routes and energy pipelines. This region has become an area of immense importance to Europe, US, China, and Iran. The US is trying to undermine Russian and Iranian gains, China has committed billions of dollars for the development of Central



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Asian oilfields to fulfil its future energy demands. Europe wants to extend its influence by means of NATO expansion eastwards and through the Partnership for Peace (PFP) programme. All this is likely to bring in high-stakes power politics in Central Asia. This obviously has implications and India must consider whether these developments are desirable or not.<sup>28</sup>It is important to note that the imminent US exit from Afghanistan in 2014 has further jeopardized India's position in the region. In its extended neighborhood India wants to balance its interests with all big powers. But, does India have the resources and influence to be able to do . India should clarify what kind of role she would like to play in the New Great Game. It's not an easy task

### **Conclusion**

To conclude India and Central Asia continues strategic neighborhood and they are natural allies regarding the utilization of natural resources. Both of the region are geographically proximate, share common interests. As far as energy sector is concerned India needs to become a significant player in the equitable exploitation and distribution of the Central Asian energy resources. India must look forward to restart working on TAPI and IPI pipeline projects as they constitute India's energy lifeline. This just would not help India in ensuring her much needed energy security but also enable her in strengthening regional security, peace and cooperation in the region. India must seek also to explore alternative oil and gas transit route along with the existing pipelines. India will have to play a proactive role both bilaterally and through regional cooperative mechanisms .In this regard, India will have to factor both China and Pakistan in addition to its cooperation with Russia, Iran, Turkey and the US. Energy security is an important aspect of Indo-Russian relations. Russia is the largest producer and exporter of natural gas in the world. Russia keeps vast energy reserves and India expects its energy to satisfy the domestic needs. Other than export and import both the countries cooperate with each other for the development of their energy resource projects and energy infrastructure.

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