India, despite its vast energy resources, is struggling with the ever increasing energy demand. Though India is striving to achieve energy independence, the option of renewable energy technology needs capital investments and most importantly it is not possible to rectify immediately to meet the supply-demand gap. Thus use of fossil fuels is the possible way to meet its energy requirements, therefore these import poses a hurdle which has been already discussed like piracy, terrorism etc for India in achieving its national security objective.

India is the third largest producer of coal in the world\(^1\). Major portion of coal produced is consumed by the Power sector. The poor quality of Indian coal and the lack of infrastructure to clean it and also the associated transportation of coal are causes of environmental pollution which leads to another major issue called Environment security\(^2\).

Electricity demand in India is increasing rapidly. One-third of the population is not connected to any grid\(^3\). Apart from the several indigenous programmes, India’s energy requirement is only set to increase equal with rising population. With inability to satisfy needs through indigenous production, India relies on external sources. Energy supplies were normally understood as the import of fossil fuels – crude oil and natural gas from the regular and rich Arab sources. However, due to variety of reasons like competitive pressure, rising prices, political fluidity, climate change mandates, etc, consuming countries are steadily moving toward alternative energy sources. This does not mean a complete shift
away from the hydrocarbons, but an evident tendency to prefer non-conventional fuels like nuclear, solar, tidal, wind and bio diesel.

The Energy Sector in India is governed by four main ministries at the Central Government level, namely the Ministry of Power (MoP), which is in charge of electricity. Under this ministry the Central Electricity Authority (CEA) operates and it is responsible for the technical coordination and supervision of the programmes. A public sector enterprise that comes under the purview of the ministry is the Rural Electrification Corporation (REC) Ltd. Its main objective is to finance and promote rural electrification projects all over the country. The next is the Ministry of Oil and Gas, which is in charge of controlling the oil and gas price, licensing and their imports. The Ministry of Coal controls the pricing of coal, its imports and it is also in charge for coal mining. The Ministry of New and Renewable Energy (MNRE) is in charge for all the possible ways to get energy through the renewable as well as encourages for any new technologies that will satisfy the needs of the state without affecting the environment.

In addition to these miniseries, there is also Department of Atomic Energy (DAE) which is in charge of all Nuclear Power Plants and the other related issues in the country. This department works and directly reports to the Prime Minister of India because of its strategic importance and also due to its high risks in utilising the resource.
Hence, today the noticeable trend is that the energy importing countries are simultaneously trying to explore the globally available source of nuclear material and technologies and also the technologies in solar, tidal and bio-fuels. The instability of energy producing countries like the Persian Gulf, particularly the Israel-Palestine conflict is the worst conflict in the modern era. The Iran-Saudi Arabia rivalry is not only about the Shiite and Sunni divide, but also for the race for regional leadership. In spite, the Iran nuclear issue complicates the security matrix bringing the threat of WMD.

Along with this, the widespread influence of al-Qaeda and other terrorist groups add further complexities to the security picture. On the whole, the Indian Ocean littoral states already face many conflicts either from within or with other countries for a variety of reasons like territorial disputes, for power, for sharing of resources, etc. The prioritization is very much essential to maintain national security. Economic relations have traditionally formed the bedrock of India's relationship with the Gulf region. It is a source for more than 65% of India's oil and gas requirement and hence their relations are of strategic importance to India.

Many of the Gulf countries, where oil can be found, are politically unstable and around 70% of the world’s oil reserves are believed to be located in the Middle East. Due to this oil reserves developed and developing nations with oil-dependency have a vested interest in such countries and may seek to influence the politics of such countries to their own advantage. Iran is also considered as
India's gateway to the Central Asian energy rich region. In contemporary times, the threats of terrorism, sea piracy, and trans-national movement of criminals have become common concerns particularly for both India and the Gulf region in Indian Ocean Region. If there is any worsening in the security situation of the gulf region it will definitely have its adverse effect on India’s core national interest in the region.

The security issues in the region do not only have its impact on India and the other neighbouring states alone. Disruption in oil supply may hit very badly on the global economy. This kind of situation may lead to military conflict like situation and if the situation continues it could leads to a larger regional conflict that could split the international support according to the situation.

It is therefore important for the international community to give adequate focus to regional security issues in the Gulf. The recommencement of Israel-Palestine peace talks, the destruction of Syria's chemical weapons as well as the ongoing talks between P5+1 and Iran on Iran nuclear issue is a welcome step. There is, however, a need to look at long-term concrete measures on the subject of regional security. The GCC, the only regional organization is grossly inadequate to take care of regional security issues for a variety of reasons. Firstly, the organisation is restrictive in membership and does not include important nations like Iran, Iraq and Egypt in its ranks. Secondly, it lacks in robust security architecture. The Peninsular Shield Force comprising predominantly troops from Saudi Arabia cannot be termed as credible or effective. Thirdly, it does not have
any voice or vote of important global players in the region like the US, China or Russia. Lastly, without Israel, there cannot be any peace and security in the region. The complexities of governing Indian Ocean Region are far greater than its size.

The five of the Indian Ocean Region’s key states – Australia, India, Indonesia, Saudi Arabia and South Africa – are members of the G20\textsuperscript{10}. The government institutions amongst the states of the Indian Ocean Region are indicative of the region’s diversity and may also suggest differences in political values. The political, cultural and economic variances between Indian Ocean Region states need to be better understood in order to facilitate greater dialogue, prosperity and co-operation within the region.

Relations between the three major powers of the Indian Ocean region – India, China and the United States – will continue to evolve in complexity, heightened by the possible rise of India and China.

Furthermore, the US presence is viewed positively by most, if not all, South and South-East Asian governments, which recognise it as a protection against Chinese expansion and assertiveness. The rising China seeks to counter the dominance of the United States and assert itself as the regional hegemony, an emerging India seeks, in turn, to balance against China\textsuperscript{11}.
**Competition for resource:**

The Indian Ocean Region contains substantial quantities of energy resources. This is particularly so in the case of oil, coal and natural gas. Crucially, it is also a transit zone for much of the world’s energy resources. As a whole the Energy Security issues cannot be addressed without the intervention of Indian Ocean. As it is quoted in the first chapter the Indian Ocean Region’s littoral states contain more than two-thirds of the world’s known oil reserves, 35 per cent of the world’s gas reserves, 60 per cent of uranium, 40 per cent of gold, 80 per cent of all diamond deposits and a large variety of other mineral substances.

The Indian Ocean Region contains some of the world’s fastest growing populations and economies, such as India and Indonesia. China, while not an Indian Ocean Region state, is also dependent upon, and seeking to influence, the Indian Ocean Region.

States compete with each other over the right to enjoy the access to increasingly scarce energy resources. It is in this context, and on the basis of historical animosities, that China and India in particular have sought to gain greater influence in the region.

In addition to energy considerations, there is currently competition, and the potential for intensified competition, among Indian Ocean states seeking to attain greater share of the region’s fisheries and fresh water resources. Other states, some of them extra-regional actors, will also compete for the region’s resources.
Examples include South Korean attempts to purchase farmland in Madagascar and the expansion of both China and India into the resources sectors of various African countries.\textsuperscript{12}

There is also competition between Indian Ocean states for power and influence within the region. While this competition for influence is exclusively linked to competition for resources, other geostrategic motives may also be significant, particularly as leading states such as India and China seek to balance against each other.

India aspires to take the role of a regional power in the region. Solutions to the many problems that the maritime issues are facing is largely depend on the effective managing security interest that are of common concerns to regional and external countries in the IOR domain. The energy consumption in both China and India is expected to grow significantly. Both countries cannot be reasonably expected to limit economic growth even though the risk of supply pressures and environmental harm will increase. Reliance on imports of oil and gas will increase and the coal sector is expected to grow in the coming years.

The strategic importance of the IOR will keep increasing in the coming years. The Ocean is used for trading purpose which compels all the littoral states and the other extra regional forces to keep the sea routes very safe through their naval presence. In general maritime issues of the Indian Ocean are fundamental to the shared interests of the littoral states and external powers. Protecting maritime
trade and timely response to natural disasters are common security challenges that the IOR presents to nations to come together and engage in a strategic dialogue to eventually deal with more controversial issues.

The Indian Ocean Choke points are of greater significance due to their impact on power, security and potential conflict. If Iran's threat to cut off supplies through the Strait of Hormuz materialises, 20 per cent of global oil supply or 40 per cent of globally traded oil flows would be affected. The extent of the economic damage following a closure of the Hormuz would depend on how long it lasts.

The availability of strategic oil reserves in OECD countries reduces the extent of damage that can be caused by short term supply disruptions. The release of strategic reserves of OECD countries would exert a downward pressure on global oil prices and this would benefit all countries irrespective of their contribution to strategic reserves.

Thus the fierce competition among the littoral rates and the role of extra regional power pose an obstacle for India to achieve its National Security in general and Energy Security in particular. Hence H1 is proved.

India, with its long standing ties with the region and its image as a benevolent power because of its second strike capability, could play a crucial role in getting the region to commence a collaborative dialogue on security. The fact that India has good relations with Saudi Arabia, Iran and Israel at the same time could be a
great plus. The reports that were flashing from the international camera clearly reveals how India contributed in Iran and the United States to get into a direct dialogue on the nuclear issue, invitation to India to attend the Geneva II talks on Syria in January 2014, and also increasingly enhanced trade and security ties with each of the countries in the region are a clear signal that India could play a positive role in the regional security of the Gulf.

India and the Indian Ocean are inextricably linked by the geography and history. Historically the IOR has been the cradle of major civilization since ancient times. India has the largest population, the biggest GDP and the largest size of any nation in the Indian Ocean except Australia. India is therefore a natural choice as a regional leader and role model for other developing nations in the IOR regional community.

It is in those lines with the cooperation of littoral states and extra regional powers “India should play a predominant role in Indian Ocean Region to overcome its Energy insecurity” Hence H2 is proved.

A nation’s power is largely based on its economic power, political stability with social order supported by military capability. Economic power is driven by technology, industry and trade. Obviously energy security is an important aspect for trade and industry. The main input into industry is energy and the main source of energy is oil, which to a very extent is transported by the sea routes.
India imports nearly seventy percent of its oil by sea. Thus the use of the Indian Ocean and keeping its sea lines of communications open are vital for the energy security of India.

Indian Ocean is home to the largest population of Muslims, Hindus, Christians and a multitude of other tribes, cultures and traditions, the Indian Ocean Region represents human diversity in many dimensions. It may be called the Indian Ocean, but that certainly does not make it India's Ocean. Thus, it cannot and should not remain India's responsibility alone or for that matter of the US or China, or Pakistan or any other nation. The cooperation among the littorals and the extra regional players will help to attain Global Energy Security.
End Notes:


2Ibid

3http://www.world-nuclear.org/info/Country-Profiles/Countries-G-N/India/


5http://en.wikipedia.org/wiki/List_of_modern_conflicts_in_the_Middle_East


7http://en.wikipedia.org/wiki/Oil_reserves


11Harsh V Pant, “Indian Foreign policy and China”, Vol. 30, Issue 4, Strategic Affairs, Institute for Defence Studies and Analysis, October 2006 see also in http://idsa.in/strategicanalysis/IndianForeignPolicyandChina_hvpant_1006


13http://www.eia.gov/countries/regions-topics.cfm?fips=wotc&trk=p3