

INDIA SHOULD DEVELOP ITS NAVAL POWER IN VIEW OF GROWING  
POTENTIAL SECURITY CONCERNS CONNECTED TO CHINA'S NON-  
TRANSPARENT INTENTIONS IN THE INDIAN OCEAN REGION

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by

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## ABSTRACT

INDIA SHOULD DEVELOP ITS NAVAL POWER IN VIEW OF GROWING POTENTIAL SECURITY CONCERNS CONNECTED TO CHINA'S NON-TRANSPARENT INTENTIONS IN THE INDIAN OCEAN REGION, by MAJ Sushil Kumar Jindal, 98 pages.

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Keeping this in view, this thesis will examine the activities being undertaken by India and China in the Indian Ocean Region and their mutual concerns toward each other; thereby, leading India to develop its naval power. This thesis will also consider the role United States is playing, which leads to a very dynamic situation in the region. The thesis will also examine various problems obstructing India in modernization of its forces. Lastly, suitable approaches along with a suggested composition of the Indian Navy will be given in order to meet potential security concerns in the Indian Ocean Region.

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## ACRONYMS

CCS	Cabinet Committee on Security
CDS	Chief of Defense Staff
CPEC	China Pakistan Economic Corridor
GDP	Gross Domestic Product
IOR	Indian Ocean Region
NSS	National Security Strategy
PLAN	People's Liberation Army Navy
SCS	South China Sea
SLOC	Sea Lanes of Communication
US	United States

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## CHAPTER 1

### INTRODUCTION

The Indian Ocean is world's third largest body of water, covering one fifth of the world's total ocean area. It includes critical sea trade routes connecting the Middle East, Africa, and South Asia with the broader Asian continent to the east and Europe to the west. A number of the world's most important strategic choke points, including the Straits of Hormuz and Malacca through which more than 50 percent of the world's maritime oil trade, are found in the Indian Ocean Region (IOR), which itself is believed to be rich with energy reserves.<sup>1</sup> The Indian Ocean contains nearly 40 percent of the world's known offshore petroleum reserves. Coastal beach sands and offshore waters boast heavy mineral deposits and fisheries are increasingly important for both exports and domestic consumption.<sup>2</sup>

Both India and China are dependent on the energy resources transported via the sea-lanes in the IOR to fuel their economies. India imports about 70 per cent of its oil and has an oil stake in the region that is significant and growing.<sup>3</sup> China's energy and raw material imports travel through the Indian Ocean, including over 80 per cent of China's

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<sup>1</sup> Eleanor Albert, "Competition in the Indian Ocean," Council on Foreign Relations, 19 May 2016, accessed 31 October 2016, <http://www.cfr.org/regional-security/competition-indian-ocean/p37201>.

<sup>2</sup> Ibid.

<sup>3</sup> Donald L. Berlin, "India in the Indian Ocean," *Naval War College Review* 59, no. 2 (Spring 2006): 65, accessed 4 May 2017, [http://www.tamilnation.co/intframe/indian\\_ocean/Donald\\_Berlin\\_India\\_and\\_indian\\_ocean.pdf](http://www.tamilnation.co/intframe/indian_ocean/Donald_Berlin_India_and_indian_ocean.pdf).

crude oil imports.<sup>4</sup> As China and India press to maintain economic growth, their dependency on the safe transport of resources is likely to increase. In short, China's growing global influence and India's rapid economic rise have heightened the ocean's strategic value.

India and China have embraced various initiatives like building a true “blue water” navy and infrastructure development to safeguard their respective national interests. Both countries are strengthening their ties with smaller regional states to meet their security and economic interests. China's regional vision is backed by its “One Belt, One Road” plan combining revitalization of ancient land-based trade routes, the Silk Road Economic Belt, with a Maritime Silk Road. China's ties with regional states have deepened, including the influx of Chinese capital into construction projects in Bangladesh, Myanmar, Pakistan, and Sri Lanka. It has also undertaken efforts to modernize its military, particularly its naval deployment capabilities, to protect its oversea interests.

Meanwhile, India is essentially doing all the same, albeit with less funding. India has vowed to spend billions of dollars on modernization of its navy including anti-submarine capabilities and building an indigenous aircraft carrier. However, domestic constraints like a ballooning population, poor infrastructure, a multiplicity of land threats, overdue reforms in education and society, and parochial inter-service (Army, Navy, and Air Force) rivalries and outlooks pose major challenges for India in terms of maintaining

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<sup>4</sup> US- China Economic and Security Review Commission, “China’s Navy Extends its Combat Reach to the Indian Ocean,” 14 March 2014, accessed 20 April 2017, <https://www.uscc.gov/Research/china%E2%80%99s-navy-extends-its-combat-reach-indian-ocean>, 5.

and fielding a strong navy capable of protecting Indian interests; hence, capabilities of the Indian Navy and various challenges to the modernization need examination in detail. Therefore, this thesis will examine the likely future make-up of Indian naval power in light of the growing potential security concerns over Chinese presence in the IOR and the aforementioned internal and external challenges New Delhi is faced with today, and tomorrow.

### Research Question

#### Primary Question

What should be the makeup of future Indian naval power in view of the growing potential security concerns over Chinese presence in the Indian Ocean Region?

#### Secondary Questions

1. What is the significance of the Indian Ocean for India and China?
2. What are the current Chinese activities in the IOR and why might those concern New Delhi?
3. How much of the People's Liberation of Army Navy (PLAN) activities are warranted in the IOR by growth of interests?
4. What are the security challenges for India in the IOR?
5. How do the domestic challenges impinge on development desires? Is there a room for compromise, if yes, how much?

### Assumptions

Based on the literature available, it is assumed both India and China will continue to take various initiatives to facilitate their dominance in the IOR. Various internal

challenges will continue to affect the development process in both countries. China will not change its existing approach towards Pakistan and India. India's concerns over China's enhanced regional presence will persist.

### Definitions

There are certain definitions, which the readers should grasp in order to understand the discussion to follow. These definitions relate to certain terms used by some scholars and the media in relation to India, China, and the IOR.

One Belt One Road: It is a development strategy and framework proposed by Chinese Premier Xi Jinping, which focuses on connectivity and cooperation among countries primarily between the People's Republic of China and the rest of Eurasia. It aims to create a platform for economic, social, and cultural coordination. It has two components: the Silk Road Economic Belt and the 21st Century Maritime Silk Road (See figure 1). The former is envisioned as three routes connecting China to Europe, the Persian Gulf, the Mediterranean, and the Indian Ocean. The latter is planned to connect regional waterways.

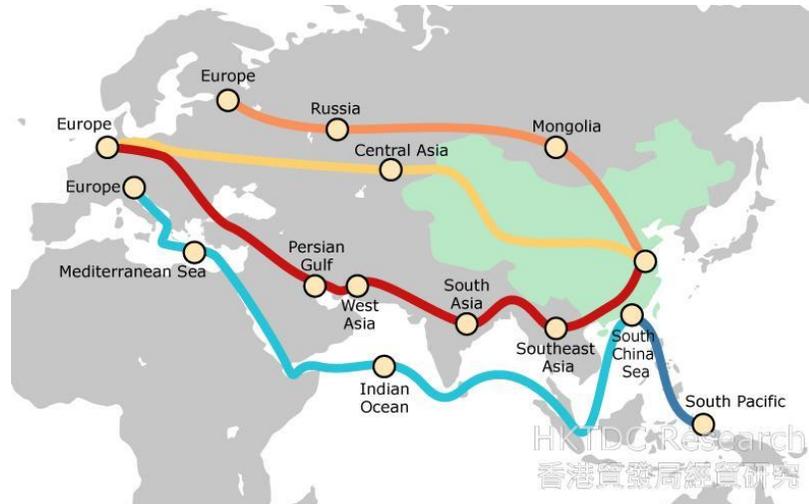


Figure 1. One Road One Belt

*Source:* David Thomas, “China’s ‘One Belt One Road’ Initiative,” 23 June 2015, accessed 26 April 2017, <http://www.bricandchina.com/blog/2015/6/23/chinas-one-belt-one-road-initiative.html>.

String of Pearls: A geopolitical theory regarding potential Chinese intentions in the IOR: refers to Chinese military and commercial facilities and relationships along its sea-lanes of communication (SLOCs), which extend from the Chinese mainland to Port Sudan. The sea-lanes run through major maritime choke points such as the Strait of Mandeb, the Strait of Malacca, and the Strait of Hormuz as well as other strategic maritime centers in Bangladesh, Myanmar, Sri Lanka, Pakistan, Maldives, and Somalia (See figure 2).



Figure 2. String of Pearls

Source: The Federalist, “India’s New Aircraft Carrier to Counter China’s Growing Navy,” 14 August 2013, accessed 26 April 2017, <http://thefederalist-gary.blogspot.com/2013/08/indias-new-aircraft-carrier-to-counter.html>.

### Limitations

This thesis has huge potential for research, studies, and interpretation. The body of literature regarding the Chinese perspective is enormous; however, the Indian perspective, especially the official ones from the government, is virtually non-existent. Most of the evidence on the Indian position comes from literature available from the open sources of both domestic and foreign origin. The research was conducted with the utmost objectivity. For purpose of this research, only numerical strength of the Indian Navy will be considered.

### Delimitation

The thesis, as stated earlier, has a very broad scope because of the complexities and the number of stakeholders involved. It is not qualitatively possible to cover all the factors and the actors involved in the IOR. To limit the scope of the thesis, the focus is primarily on development of Indian Navy in view of potential threat in the IOR, certain actors in the IOR like Pakistan, Japan, and Australia received limited consideration.

### Significance of Study

The study of potential security concerns is significant to changing dynamics in the Asia-Pacific region. India, being a developing economy, has many challenges to modernize its armed forces. Moreover, India understands that it cannot compete with China in terms of resources it can muster, size of economy, and funds it can fuel into modernization of forces. Hence, this thesis proposes suitable approaches to modernize its Navy. For students of international relations, this thesis provides insight into the IOR dynamics, complexities involved, and the concerns of both players.

### Conclusion

The aim of this thesis is to ascertain proper make-up of the Indian Navy in view of potential security concerns in the IOR. The thesis will examine the importance of the IOR for India and China, activities of India and China in the region, which concern the other, role played by the United States (US) in the IOR, and potential approaches for India to develop capabilities of its navy.

## CHAPTER 2

### LITERATURE REVIEW

Literature on this topic revolves around importance of the IOR for India and China; increased presence of the Chinese Navy in the IOR; development of ports by China; the rise of India and China, to include steps being taken by both to increase their regional influence; defense modernization of Indian and Chinese navies; and policy recommendations for the US in the IOR. The literature review will begin with the rise of India.

In *India in the Indian Ocean*, Berlin provides a holistic view of the rise of India in the IOR. He observes why New Delhi cares about the Indian Ocean—central position of India in the IOR, a fact that exercises profound influence on India’s security environment; anxiety about the potential role of external powers like China and the US in the IOR; threat posed by Pakistan; dependence on the IOR for its trade and energy flows; and large number of Indians living overseas in the Gulf and Arab countries.<sup>5</sup> Key security considerations for India include; the accessibility of the Indian Ocean to the fleets of the world’s most powerful states; the oil wealth of the Persian Gulf; the proliferation of conventional military power and nuclear weapons among the states of the region; the importance of key straits for India’s maritime security; and the historical tendency of the continental Asian peoples or powers to spill periodically out of Inner Asia in the direction of the Indian Ocean.<sup>6</sup>

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<sup>5</sup> Berlin, 59-66.

<sup>6</sup> Berlin, 60.

Confronted by such an environment, India believes its security will improve by enlarging its security perimeter and, more so, by achieving a greater position of influence in the region by pursuing policies, which improve its strategic situation, and mitigating perceived/possible threats as it sees them. In line with that, India is building partnerships with coastal countries in the Arabian Sea, Bay of Bengal, and Africa; developing relations through cooperative organizations like Association of South East Asian Nations (ASEAN) and Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC); strengthening ties with the US; developing its military power through modernization; and military and diplomatic leverage.<sup>7</sup>

Berlin brings out, quite correctly, how New Delhi regards the Indian Ocean as its backyard and deems it both natural and desirable that India has a predominant influence in the region. However, his views on India's aspiration to become regional hegemon do not seem to be correct as he fails to state specific evidence of any such efforts by India. India does not seek to achieve authority in the South Asian region. India is wary of Chinese actions in the IOR and therefore is seeking greater engagement within the region in order to bolster its geographic advantage and ensure its SLOCs are secured. It is also important for India to improve its relation with other key players in the IOR, particularly US and Japan.

Berlin says the principal mission of the Indian bases in Andaman and Nicobar Islands is to block a Chinese move toward or into the Indian Ocean. He further states Indian facilities in Singapore can allow India to project power into the South China Sea

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<sup>7</sup> Ibid, 60-83.

(SCS). However, he does not give any specific evidence, which shows any such intention by India. Perhaps these steps are in line with India's official "Look East" policy, wherein India is trying to increase its influence in the larger Southeast Asian region, decreasing that of China. On the same lines, India is building its relations with its eastern partners, Singapore being one of them.

Expressing the need to modernize Indian armed forces, Berlin mentions Indian forces should be capable to enter the SCS and project military power directly against the Chinese homeland. However, this observer believes Indian intentions and capabilities in this regard appear to be limited. India's defense modernization is focused toward meeting its perceived threats of any land or maritime aggression, rather than projecting power against any country's homeland as an aggressor. Moreover, with current Indian capabilities, it is doubtful India will be able to project such power beyond its territorial boundaries. Knowing its limitations, India is unlikely to take any such initiative against China.

Mentioning India as a key player in the region, Berlin says how India will have transforming effects in the Indian Ocean basin and the world. He, however, does not explain the means by which India will contribute to the world, such as the rise of India will transform the geopolitical environment wherein India can contribute towards global concerns like SLOCs, climate change, counter terrorism, drug and human trafficking, and disaster relief operations. Berlin considers emergence of India as a new global player, but he does not consider the concerns and perceptions in China over increased activities of India in the region and the Chinese activities in the IOR, which pose challenges to India.

In “China’s Growing Indian Ocean Maritime Interests–Sowing the Seeds of Conflict?” Hatcher examines how the rising power of China and its growing thirst for energy and resources has established the strategic importance of the IOR. He tests the responses from various states toward Chinese activities in the region to determine the potential for conflict.<sup>8</sup> He provides views on the importance of the IOR as a vital part of the global shipping network, existing conflicts in the region, and threats posed by increased piracy. He outlines China’s strategic intent in the IOR, highlighting the array of infrastructure, which contributes to the maritime power projection potential of China. He states, “the US, India, and China are engaged in what might be described as strategic preparation of the IOR battlespace.”<sup>9</sup> As a balancing act to Chinese actions, India is according priority to closer political, economic, and military ties within the IOR including development of several ports and increasing ties with the US. Similarly, the US is responding to China by engaging and balancing/containing China.<sup>10</sup> Analyzing response from India, US, Australia, Pakistan, and smaller IOR states, Hatcher concludes China and other states are sowing the seeds of conflict in the IOR, and it presents a significant international challenge.

Hatcher, in his paper, analyzes a quote from Hu Jintao from December 2011, “Accelerate its (PLAN’s) transformation and modernization in a sturdy way, and make

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<sup>8</sup> Captain Jaimie Hatcher, “China’s growing Indian Ocean Maritime Interests-Sowing the Seeds of Conflict?” (Seaford House Paper, Royal College of Defense Studies, 2012), 2-33.

<sup>9</sup> Ibid 19.

<sup>10</sup> Ibid, 20-23.

extended preparations for warfare in order to make greater contribution to safeguard national security.” Hatcher interprets it as, “war in inevitable and likely area in which to strategically decide such a conflict would be the Indian Ocean due to its significance in energy flows and global trade.”<sup>11</sup> However, Hu Jintao’s quote does not give any suggestion that he meant to convey such an analysis of his words. Transformation and modernization of forces by a country do not necessarily mean the country is preparing for an imminent war. Modernization may be a need to deter an external aggression or to increase its regional influence. In addition, more than the Indian Ocean, SCS appears to be a probable area of conflict and immediate concern for China. With the current Chinese Navy’s capabilities, it seems unlikely China can sustain a conflict in the Indian Ocean.

Hatcher does a concrete work in outlining the concerns emanating from China’s rise. While China claims to seek a peaceful rise, the general perception in India is that China is a potential threat in the IOR. China’s opposition to India’s membership in key organizations like Nuclear Suppliers Group (NSG) and United Nations Security Council (UNSC), persistent inability to solve territorial disputes, construction of China-Pakistan Economic Corridor (CPEC) through Pakistan Occupied Kashmir (POK)<sup>12</sup>, and blocking a United Nations resolution to declare Masood Azhar<sup>13</sup> a global terrorist, further fuel

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<sup>11</sup> Ibid, 4.

<sup>12</sup> China is constructing CPEC from its southwest province of Xinjiang to Gwadar port in Pakistan. India considers this project as an interference to its territorial integrity as it passes through Pakistan Occupied Kashmir, which was occupied by Pakistan during 1947-48 war and India considers Pakistan Occupied Kashmir as its integral part.

<sup>13</sup> Masood Azhar is founder of the terrorist group Jaish-e-Mohammed. He is mastermind of 2016 Pathankot attacks and various other terrorist activities in India.

India's threat perceptions toward China. These perceptions increase the potential for conflict and pose significant challenges to India, US, Japan, and other key players in the region. It is important China and other actors clearly signal their intent to avoid any miscalculations in the IOR. Hatcher covers the importance of the IOR and activities being undertaken by China to include port development to ensure its energy security, but he does not consider in detail the military modernization and related activities of the Chinese Navy, which pose a challenge to India in the IOR.

The US-China Economic and Security Review Commission report, "China's Navy Extends its Combat Reach to the Indian Ocean," covers recent operations carried out by the Chinese Navy in the SCS and IOR, and its implications for the region and the US.<sup>14</sup> In particular, it analyzes the training exercise of Chinese Surface Action Group (SAG) in the SCS and IOR and regional reaction to this deployment. PLAN has increased its regional presence considerably in the recent years. Since January 2009, the PLAN has sustained counterpiracy operations in Gulf of Aden. In 2012, the PLAN for the first time began to deploy the maritime intelligence collection ships to the Indian Ocean.<sup>15</sup> These ships likely had the equipment enabling them to collect signals and electronic intelligence, map the ocean floor, and gather the bathymetric data.<sup>16</sup> According to the

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<sup>14</sup> US- China Economic and Security Review Commission, 2-10.

<sup>15</sup> Chen Guangshun, "The Survey Ship 'Ocean -1' Smoothly Completes Sea Trial in the South Sea," China Ocean News, 18 November 2013; US Department of Defense, *Annual Report to Congress on Military and Securing Developments Involving the People's Republic of China 2013* (Washington, DC: Government Printing Office, May 2013), 39.

<sup>16</sup> US- China Economic and Security Review Commission, 4.

report, China is developing operational concepts and proficiencies in more traditional expeditionary missions of its amphibious forces.

This observer considers India should not care much about the counterpiracy operations by China in the IOR; it is a global interest to protect SLOCs. Chinese counterpiracy operations now share this burden with India, US and other regional nations involved. However, actions like deployment of maritime signal intelligence collection ships create a doubt regarding Chinese intentions in the IOR. Moreover, docking of Chinese naval ships involved in the counterpiracy operations at ports being developed by China and other regional ports in the IOR also raises suspicion about actual Chinese intent. India, US, and other regional players are wary of such Chinese actions. Deploying a Surface Action Group and developing operational concepts and proficiencies in expeditionary missions further fuel concerns of the regional countries. The US Navy, in fact, carries out many more actions in the IOR. These actions do not seem to concern India. Some may regard it as India's double standard. However, the engagement between India and the US and their convergence on mutual concerns make them partners in the current geo-political environment. India considers the US actions in the IOR as a counter-action to Chinese activities and hopes to compensate its own weaknesses to counter China with the increased US presence. The Review Commission's report comes close in describing the threat posed by the Chinese actions, but it does not comprehensively cover the actions US can take in view of increased Chinese naval presence in the IOR.

In "String of Pearls: Meeting the Challenges of China's Rising Power across the Asian Littoral," Pehrson analyzes the "String of Pearls" within the context of global

security environment and proposes recommendations for the US policy and strategy.<sup>17</sup> The “String of Pearls” describes China’s rising geopolitical influence through enhanced access to ports and airfields, more robust diplomatic relations with littoral nations, and a modernized and far more expeditionary and capable military. He says the Chinese government may not explicitly pursue this strategy. Rather, it may be a convenient label applied by some in the US, who seek to contain China, to describe it as an element of China’s foreign policy. China’s development presents significant challenges to their leadership in managing turmoil of massive structural, technological, and social changes, while ensuring energy security and secure SLOCs.<sup>18</sup> In his strategic analysis of Chinese development, he illuminates areas of convergence and divergence between China and US and suggests strategic options available to the US including leveraging its military power.<sup>19</sup>

This observer concurs with Pehrson’s point that principal motivation behind the “String of Pearls” is securing SLOCs for energy and raw materials as China’s largest strategic concerns—regime survival, territorial integrity, and domestic stability—are inevitably linked to its economy. Pehrson’s opinion, “String of Pearls” may not be official strategy of the Chinese government, appears to be appropriate. It may be a term carved out of the perceived threats from China’s rise. However, what matters the most is

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<sup>17</sup> Christopher J. Pehrson, “String of Pearls: Meeting the Challenges of China’s Rising Power across the Asian Littoral,” Carlisle Papers in Security Strategy, US Army War College Strategic Studies Institute (Carlisle, PA 2006), 3-23.

<sup>18</sup> Ibid, 1-7.

<sup>19</sup> Ibid, 8-23.

how other nations, which also have stakes in the IOR, perceive Chinese actions. It is important for China to make her intentions clear to all the actors and take them on board to its declared peaceful development by leveraging diplomatic, economic, and information means. Increasingly audacious and proactive actions by China in the SCS, wherein it is constructing artificial islands and increasing its military presence to reinforce its claims, further fuel the concerns of other nations including India and the US. In the near future, there is a possibility of further aggression or claims by China in the IOR.

Pehrson's views on the strategic options available to the US to shape and influence the security environment—optimistic approaches, hardline containment, and pragmatic approach—seems to be relevant and practical. He gives pros and cons of the options, but fails to bring out weaknesses of the approach he recommends—maintaining strong ties with all powers of Asia, including China by bilateral and multilateral diplomatic, economic, and military ties. His recommendation of US maintaining superior military power to guarantee security against potential threat from China is likely to increase the existing Chinese concerns regarding the US presence in the Asia-Pacific region. Hence, his contention of the need to maintain strong ties with China does not appear practical, especially if the US increases/maintains its military presence. China will consider it as a threat to its own security and influence. He does not give out the means by which US can mitigate Chinese concerns on the US military presence in the Asia-Pacific region.

Pehrson covers issues of convergence between US and China, but his paper does not cover implications of China's rising power and "String of Pearls" on India as it has

large stakes in the region. Additionally, he does not cover the points of convergence and divergence between India and China, and how the US can leverage India effectively to counter Chinese policy.

In “China’s Growing Power and Implications for India: Will it be a Cooperative/Competitive or a Hostile Relationship?” Jagga argues both India and China are trying to work through the myriad of differences, and are focusing on increased economic and trade cooperation.<sup>20</sup> Relations between India and China have been strained in the past due to yet unsettled boundary and territorial disputes (and the 1962 war), differences in the political ideologies, differing outlook toward Tibet, and overlapping “spheres of influences” and political alliances that aggravate the other.<sup>21</sup>

Jagga examines issues where the interests of China and India converge or diverge. Issues of convergence include: sharing great power ambitions and seeking to preserve dominant political influence; promoting a multi-polar world while maintaining their independence in pursuing foreign policies; cooperating and collaborating on issues of global interests such as climate change and anti-piracy operations; and a perceived need to change the Western dominated global economic order.<sup>22</sup> Despite these convergences, both countries have not been able to resolve their contentious issues and put mutual suspicion aside. Although, there are numerous complexities in the relationship between

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<sup>20</sup> Brigadier R. K. Jagga, “China’s Growing Power and Implications for India: Will it be a cooperative/competitive or a Hostile Relationship?” (Seaford House Paper, Royal College of Defense Studies, 2012), 35-37.

<sup>21</sup> Ibid, 4-12.

<sup>22</sup> Ibid, 13-20.

India and China, both are trying to move ahead with economic cooperation, which it is hoped, will lay the foundation for resolving disputes.

Jagga describes steps being taken by India to break out of the Chinese encirclement to include cultivating strategic cooperation with major stakeholders in the Asia-Pacific region and following a robust “Look East” policy.<sup>23</sup> Finally, Jagga explores the possibilities of a military confrontation, arguing a border war between the two nations seems improbable as China is facing a multitude of challenges on domestic and international fronts, and hence, not likely to pursue an option of all-out war for political and economic reasons.<sup>24</sup>

Jagga’s views on increased economic and trade cooperation between India and China, and the resultant interdependence, may be considered as a step toward normalizing the relations after the bitter experience of the 1962 war. Both sides have engaged in confidence building measures to include: recognizing both sides have different perception on certain segments of the Line of Actual Control (LAC), speeding up the process of clarification and the exchange of maps indicating their respective perceptions; the avoidance of large-scale military exercises involving more than one division in close proximity of the Line of Actual Control; advance notification of planned duration and the area of exercise in case more than a brigade is involved; and the establishment of a Joint Working Group (JWG) on boundary disputes. Despite

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<sup>23</sup> Ibid, 21-28.

<sup>24</sup> Ibid, 29-36.

collaboration on the issues of mutual interests, the suspicions persist on both sides and will likely play a major role in their future strategies.

China will continue to be wary of India's support to Dalai Lama, improved India-US relations, efforts by India to improve ties with countries around the SCS, Indian military modernization, and India's "Look East" policy. Conversely, India will be concerned about China's unflinching support to Pakistan; infrastructure development by China around the IOR; and perceived slow roll/unwillingness of China to resolve the border dispute with India.

Jagga considers the chances of a border war between India and China to be remote covering why China will not go for an all-out war against India. He gives the Chinese domestic, international, and economic reasons for denying the likelihood of war between the two countries. However, he does not discuss the domestic and international issues for India, which make war unlikely for India as well. Moreover, he presents weaknesses of China in the naval, air, and land domain, which make it difficult for China to wage war, but he does not consider the rapid modernization of Chinese forces, which is likely to make them capable of projecting power away from the Chinese mainland. Indian armed forces also face similar issues and are unlikely to match China in the near future, but modernization will make them a formidable force. The chances for a conflict appear remote not because of the lacking military capabilities, but because of their interdependence, and international, domestic, and economic issues.

Jagga's views on issues of convergence and divergence between the two countries are compelling. China and India can collaborate on issues of mutual interests and peacefully co-exist, but the lack of mutual trust and issues of divergence make it difficult

for both countries to come closer and work toward a common aim of peaceful development. Jagga briefly covers the infrastructure development by China in the IOR and how it fuels concerns in India, but he does not give the Chinese perspective on the development of infrastructure.

In *Revisiting China's 'String of Pearls' Strategy: Places 'with Chinese Characteristics' and their Security Implications*, Marantidou says that while China is developing ports in South Asia, there is a little evidence of naval bases being established at these locations.<sup>25</sup> Marantidou describes the necessity of PLAN's presence away from its shores in view of increased threat from piracy and potential blockade of the Strait of Malacca.<sup>26</sup> Various ports are being developed by China to further the PLAN's ability to sustain itself far from its shores during Military Operations Other Than War (MOOTW).<sup>27</sup>

Marantidou contends the seaports selected by China lack important characteristics of a traditional naval base: their proximity to India makes them vulnerable to air or missile strike; moreover, to turn these ports into viable and defensible naval bases requires construction of air defenses and hardened infrastructure, no simple task for a navy lacking sophisticated technical and logistic expertise.<sup>28</sup> China is following the

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<sup>25</sup> Virginia Marantidou, "Revisiting China's String of Pearls' Strategy: Places 'with Chinese Characteristics' and their Security Implications," *Issues and Insights* 14, no. 7 (June 2014): 1-4.

<sup>26</sup> *Ibid*, 4-5.

<sup>27</sup> *Ibid*, 6-12.

<sup>28</sup> *Ibid*, 9-11.

traditional approach of self-imposed non-interference whereby it respects the sovereignty and territorial integrity of other countries and does not intervene in the internal affairs of other states; additionally, China's defense policy has always been based on "Chinese Area Defense"<sup>29</sup>.<sup>30</sup>

Marantidou describes the security concerns for India stemming from increased Chinese presence in the IOR. China's out of area operations in the IOR are contributing to existing suspicions of India about more expansive Chinese intentions. She also emphasizes the Chinese concerns about India including India's "Look East" policy and its military posture in Andaman and Nicobar Islands.<sup>31</sup> She concludes by giving policy recommendations for the US—maintaining naval activities in the region; use of other means of influence such as development aid; and fostering better relations between India and China.<sup>32</sup>

Marantidou's point on rising concerns in China toward India's "Look East" policy is valid. India's efforts to improve relations with the countries to its east look aggressive because of the way such engagements are projected by the press, especially the Indian media. Whenever India makes an effort to improve its bilateral ties with its eastern neighbors, the print media, television news channels, and internet in India overflows with

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<sup>29</sup> Area defense entails denying enemy access to designated terrain for a specific time rather than destroying the enemy. It capitalizes on strength of the integrated defensive organizations on ground.

<sup>30</sup> Marantidou, 9-11.

<sup>31</sup> Ibid, 22-24.

<sup>32</sup> Ibid, 28-30.

reports projecting it as a measure to counter China. Such actions further fuel the Chinese concerns toward Indian intentions.

Marantidou's contention of discussing PLAN's antipiracy operations in the IOR to safeguard its energy supply routes appears to be a deliberate attempt to project only the constructive side of Chinese actions in the IOR, as she does not cover the deployment of Surface Action Group, maritime intelligence collection ships, and other such deployments by China in the IOR. She could have brought out the intention and purpose behind deployments other than the antipiracy operations.

Marantidou's policy recommendations for the US also appear to be a little weak. The actions she recommends are already been taken by the US in the IOR. Her paper does not bring out any new recommendations for the US. Moreover, she does not state the actions India and China can take to mitigate the concerns of each other.

In *Places and Bases: The Chinese Navy's Emerging Support Network in the Indian Ocean*, Kostecka's views on Chinese port development closely parallel Marantidou's. He says China is developing an Indian Ocean network of, not bases, but "places" in order to support forces deployed for security operations, like counterpiracy patrols.<sup>33</sup> He highlights various statements by Chinese academics and government officials who have indicated the need to establish some sort of overseas infrastructure to support deployed naval forces.<sup>34</sup> Kostecka notes that such statements by the Chinese

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<sup>33</sup> Daniel J. Kostecka, "Places and Bases: The Chinese Navy's Emerging Support Network in the Indian Ocean," *Naval War College Review* 64, no. 1 (Winter 2011): 74-75.

<sup>34</sup> *Ibid.*, 59-64.

officials do not necessarily indicate Beijing is considering building financially and politically costly American-style military bases.

In line with Marantidou, Kostecka argues the “String of Pearls” does not present a coordinated strategy on the part of China. Moreover, there is no substantive evidence in Chinese sources or elsewhere to support the contentions of commentators who use the “String of Pearls” theory as a baseline for explaining Beijing’s intentions in the Indian Ocean.<sup>35</sup> He defines the development of ports by China as an effort to establish “places”, which involves securing facilities in friendly countries via diplomatic agreements, allowing access to those nations’ assets to obtain essential supplies for deployed forces.<sup>36</sup>

Kostecka says China’s policy of non-interference is a significant component of its national foreign policy. Nonetheless, Beijing has shown increasingly less hesitancy to adjust its definition of non-interference to fit changes in China’s security dynamics. He cites one such example as United Nations peacekeeping operations. China criticized such missions as violations of a nation’s sovereignty; however, since 1992, thousands of Chinese peacekeepers have served abroad.<sup>37</sup> In line with China’s policy of non-interference and policy debate in China over need for establishing logistical support bases for counterpiracy operations, Kostecka sketches the support network throughout the Indian Ocean. Kostecka contends converting the ports into naval bases would require

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<sup>35</sup> Ibid, 61.

<sup>36</sup> Ibid.

<sup>37</sup> Ibid, 62.

billions of dollars in military equipment and infrastructure. Even then, their exposed position would make their wartime utility doubtful against long-range precision strikes.<sup>38</sup>

Like Marantidou, Kostecka does not consider the Chinese deployments other than the counterpiracy operations. He deliberately covers the port development by China along its energy supply routes to include Salalah in Oman, Aden in Yemen, Djibouti, Karachi in Pakistan, Colombo in Sri Lanka, and Singapore. This seems to be an attempt to prove his point of peaceful development of ports by China to secure its energy supply routes and provide logistic support bases to its naval ships engaged in counterpiracy operations. However, he does not bring out the reasons of increased engagement and port development in countries like Bangladesh and Myanmar, which are not part to its energy supply routes. Moreover, he does not consider the concerns such developments are raising in India and the US, and how China can mitigate these concerns.

One cannot deny the fact, as cited by Marantidou and Kostecka, Chinese naval forces involved in the counterpiracy operations require logistical support bases in the IOR. Moreover, development of ports, especially Gwadar in Pakistan, may be China's attempt to diversify its energy routes. Although there has been little or no visible evidence of naval bases being established at these ports, Chinese capabilities to convert these ports into full-fledged naval bases should not be underestimated given its growing economy and influence. China could deploy sophisticated air defense or missile defense weapons in near future, but this is only a possibility. China's declared policy of non-interference makes it unlikely it would station troops or establish military bases in foreign

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<sup>38</sup> Ibid, 74-75.

country, but it may be a Chinese attempt to shape international perception, as Chinese intentions in the IOR remain opaque. In addition, Chinese policy of non-interference may be evolving and may change as its security interests have changed. Nevertheless, Chinese actions in the IOR have heightened the existing security concerns, making the region less stable.

In “A Diamond in the String of Pearls: The Strategic Importance of Sri Lanka for Indian Ocean Regional Stability,” Gassaway contends China continues to expand and India continues to fear that growth. Thucydides is correct in his famous assertion that “[w]hat made war inevitable was the growth of Athenian power and the fear which this caused in Sparta.”<sup>39</sup> The IOR is trending towards this instability. Gassaway says by engaging Sri Lanka through Diplomatic, Informational, Military, and Economic (DIME) means, the US must decipher whether India and China are expanding peacefully or have hegemonic intentions. If India and China are looking to peacefully develop and increase their influence, they should not have any adverse reaction to diplomatic and other engagements between Sri Lanka and the US. Any adverse reaction by either will indicate their nefarious intentions. Thus, the US can use Sri Lanka as a litmus test for Chinese and Indian intentions.<sup>40</sup> Gassaway outlines how increased engagement with Sri Lanka can be used by the US to maintain IOR stability.

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<sup>39</sup> Thucydides, *History of the Peloponnesian War*, trans.: Rex Warner (London: Penguin, 1972,), 1.23.

<sup>40</sup> Cory N. Gassaway, “A Diamond in the String of Pearls: The Strategic Importance of Sri Lanka for Indian Ocean Regional Stability” (Paper, Naval War College, Newport, RI, May 2011), 1-18.

Gassaway's point of view on increased engagement with Sri Lanka appear to be a weak choice on three important aspects. First, he does not give any time-frame for the actions by the US and reactions by India or China. He fails to address whether it will be a short-term impact or a prolonged battle of gauging actions/reactions. Second, his ideas do not consider the resource constraints the US is currently facing. The US is heavily engaged in the Middle East. Moreover, efforts of the US to counter China, particularly in the SCS and the East China Sea, are keeping its resources tied to the region. It will be difficult for the US to spare any additional resources for increased engagement with Sri Lanka. Third, he does not address the impact US actions will have on the Chinese perceptions regarding the US intentions in the IOR. This observer believes the increased engagement by the US with Sri Lanka will further fuel the Chinese concerns toward the US "Pivot to Asia". Whether or not China will react to the US engagements, it will definitely increase/confirm the Chinese suspicions regarding US efforts to contain China.

Gassaway says the troubling aspect of claimed peaceful development of China is lack of transparency. US should look to sea power allies like Japan and India to offset China and foster relations with smaller but strategically important countries like Sri Lanka.<sup>41</sup> Gassaway's recommendations on such actions by the US are not thought provoking or earth shaking as the US is already doing such activities in order to contain Chinese influence in the region. He notes, "Governments within the Indian Ocean region prefer Chinese assistance because it does not stipulate prerequisites for reforms,

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<sup>41</sup> Ibid, 1-2.

transparency, and competitive bidding.”<sup>42</sup> Unfortunately, he does not discuss the actions US can take to counter such preferences of China by the governments in the IOR.

Gassaway’s argument on the importance of Sri Lanka appears quite accurate. Despite its small size, Sri Lanka is important because it is strategically located relatively closer to the Strait of Malacca (See figure 3). Sri Lanka is approximately 1300 nautical miles from the straits. China’s interests in Sri Lanka are reasonable due to its proximity to a global choke point. There is no denying of the fact that as of now, China is heavily engaged with Sri Lanka.<sup>43</sup> India keeps a close watch on Chinese actions and investments in Sri Lanka and seeks to increase its influence on it.



Figure 3. Sri Lanka and the Strait of Malacca

Source: Yara Coelho, “Andaman Island–Havelock and Neil Guide for Dive and Snorkel Lovers,” 9 September 2014, accessed 3 May 2017, <http://www.heartofavagabond.com/snorkeling-andaman-islands-havelock-neil-guide/>.

<sup>42</sup> Ibid, 3.

<sup>43</sup> Ibid, 8-12.

Sri Lanka is not the only country with which India seeks to increase engagement. India is concerned with Maldives, Seychelles, Bangladesh, Myanmar, and Madagascar as well. However, reflection of engagement by the US or India with all these countries is absent from Gassaway's paper. This gives an impression the paper has been written keeping only Sri Lanka in mind, avoiding strategic importance of other nations. Moreover, while analyzing the US policy options in Sri Lanka, he does not refer the official policy of the US in the Asia-Pacific region. This shows lack of consideration of the existing US plans in the broader Asia-Pacific region.

*The Asia-Pacific Maritime Security Strategy*, published by the US Department of Defense (DoD) in 2015, outlines maritime strategy of the Department of Defense in the Asia-Pacific region, which includes: safeguarding freedom of the seas; deterring conflict and coercion; and promoting adherence to international laws and standards.<sup>44</sup> Given the strategic importance of the region, the report highlights, “the ... [R]apid economic and military modernization, combined with growing resource demands, has exacerbated the potential for conflict over long-standing territorial disputes.”<sup>45</sup>

Continuing territorial and maritime disputes and military modernization have led to the development of a more contested and potentially risky maritime environment. It portrays four lines of effort Department of Defense should pursue: strengthening US military capabilities in the maritime domain; building the maritime capacity of allies and partners; leveraging military diplomacy to reduce risk and build transparency; and

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<sup>44</sup> US Department of Defense, *Asia-Pacific Maritime Security Strategy* (Washington, DC: Government Printing Office, July 2015), 1.

<sup>45</sup> *Ibid*, 5.

strengthening the development of an open and effective regional security architecture.<sup>46</sup> In line with building ally and partner capacity, Department of Defense sees a strategic convergence between India's "Look East" policy and the US "Pivot" (or rebalance) toward the Asia-Pacific region. Department of Defense has developed a three-pronged approach to maritime cooperation with India: maintaining a shared vision on maritime security issues; upgrading the bilateral maritime security partnership; and collaboration to build regional partner capacity and improve regional maritime domain awareness.<sup>47</sup>

US maritime objectives in the Asia-Pacific region seem judicious and attainable. To achieve these objectives, the US is taking steps: maintaining military presence in the region; engaging allies and partners diplomatically and building their capacity; conducting joint exercises; increasing trade and commercial activities; and shaping global perception regarding the US intentions in the region.

India can play a key role in meeting US policy objectives. Increased engagement between the US and India in the past decade is a significant step in that direction. Both countries clearly recognize the importance of the other in an evolving global security environment. Both are enhancing diplomatic, economic, and military relations with each other to meet their respective national interests. India and the US have convergence on various issues of mutual interest: containing Chinese influence in the Asia-Pacific region; dealing with climate change; countering terrorism; maintaining freedom of navigation; peaceful use of nuclear energy; regional peace and stability; promoting international law

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<sup>46</sup> Ibid, 19-33.

<sup>47</sup> Ibid, 28-29.

for solving territorial and maritime disputes; and avoidance of force or threat of force while resolving the SCS disputes. The shared interests of India and the US are playing a key role in their improved relations. In 2005, India and the US signed a Defense Framework Agreement for ten years, which was renewed for ten more years in 2015.<sup>48</sup> With this pact, India is looking forward to modernize its forces.

Over the past decade, India has spent billions of dollars in efforts to make its armed forces worthy of meeting any external threat, and the Indian Navy has been a focal point of this effort. In *The Indian Navy: on a Collision Course with China?*, Pryce spotlights Indian efforts to modernize its maritime forces. According to Pryce, India has adopted an ambitious program of fleet replacement and expansion.<sup>49</sup> Thus, domestic shipbuilding is on the rise, with many new vessels produced indigenously. He covers various destroyers, corvettes, submarines, to include nuclear powered versions, and aircraft carriers built in or procured by India. He also provides a comparison between capabilities of PLAN and the Indian Navy.<sup>50</sup>

Pryce outlines Chinese concerns regarding establishment of INS Baaz by India, a naval base in the southern part of the Andaman and Nicobar islands, which is only about 600 nautical miles from the Strait of Malacca. Many Chinese analysts regard it as a proactive gesture intended as a mean by which India can deny Chinese access to the

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<sup>48</sup> IAS Point, “India US Defence Framework Pact and DTTI,” 8 March 2017, accessed 3 May 2017, <http://www.gktoday.in/iaspoint/current/india-us-defence-framework-pact-and-dtti/>.

<sup>49</sup> Paul Pryce, “The Indian Navy: On a Collision Course with China?” *Canadian Naval Review* 9, no. 4 (2014): 5.

<sup>50</sup> *Ibid*, 5-7.

Indian Ocean. India claims it to be a base to monitor shipping through the Strait of Malacca, ensuring security to this vital trade route.<sup>51</sup> Chinese concerns also stem from joint naval exercises by the Indian Navy with Japanese, American, French, British, and Singapore forces. Chinese officials speak of a double standard in the US foreign policy, which condemns Chinese naval expansion while encouraging the rapid development of Indian Navy. To promote goodwill between India and China, Pryce suggests frequent joint exercises by Indian and Chinese navies.<sup>52</sup>

The Chinese concerns with respect to INS Baaz seems logical but not realistic because India is dealing with its own internal problems of population, poverty, unemployment, and need for infrastructure development. In such a situation, it seems unlikely India will take any such action that can increase the burden on its defense spending. Deploying INS Baaz may be a genuine Indian effort to increase safety of its island far away from the main land and ensuring security of the global choke point. Perhaps India needs to consider the concerns such deployments raise in China. India needs to be more forthcoming in conveying its intentions of deploying forces at such places.

Chinese concerns about the double standards of the US also seems genuine. However, the US favors India's naval expansion because both India and the US are democracies and have mutual interest to deter any aggression by China. Moreover, India can burden share with the US in the future to enhance peace and stability in the region.

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<sup>51</sup> Ibid, 4.

<sup>52</sup> Ibid, 7-8.

India and the US need to take steps for perception management in the Chinese think tank. One such step can be joint exercises by the US, India and Chinese naval forces in the IOR. This will increase their mutual confidence and mitigate suspicions toward each other.

As far as modernization is concerned, India seems to be far behind China. India cannot compete with China in terms of number of vessels; what India needs though, is a comprehensive approach to modernization. However, there are various hurdles to India's modernization efforts. In "What are the Challenges to India's Defense Modernization," Dutta highlights the impediments to India's defense modernization and its likely implication for its national security. Dutta states Indian defense industry suffers from major policy, structural, and cultural challenges affecting military-industrial complex, which continues to struggle in delivering modern defense hardware to the Indian forces.<sup>53</sup>

Articulating India's defense needs, Dutta argues India's requirements are influenced by external factors such as threat from two of its primary adversaries, i.e. Pakistan and China. There is a growing understanding in India's security establishment that Indian defense modernization should focus on China; however, there is need to change this understanding into urgency.<sup>54</sup> Dutta highlights critical capabilities needed for Indian armed forces are battlefield transparency, battlefield management system, night-

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<sup>53</sup> Abhinav Dutta, "What are the Challenges to India's Defense Modernization," Swarajya, 12 July 2016, accessed 3 May 2017, <https://swarajyamag.com/defence/indias-defence-modernisation-challenges-and-prospects>.

<sup>54</sup> Ibid.

fighting capability, enhanced firepower, integrated manoeuver capability, tactical control systems, integral combat aviation support, and network centrality.<sup>55</sup>

Dutta states China-Pakistan nexus and increased strategic engagements between the two have increased the probability that India might face a two-front war in the future. However, his contentions in this regard do not seem to be realistic. Pakistan has fought four wars with India in 1947-48, 1965, 1971, and 1999. China did not open a second front for India in any of those wars. Neither did Pakistan open a second front when India and China fought a war in 1962. China and Pakistan relations appear cordial because of their respective national interests. China is interested in getting access to the markets and oil resources of the Middle East and Africa through the CPEC running from Xinjiang province in China to Gwadar port in Pakistan. Whereas Pakistan is looking forward to the infrastructural development Chinese projects are bringing into Pakistan, which will ultimately lift its economy. Neither China nor Pakistan is likely to open a second front in case of a war against India as none of them can risk losing international support and damaging their economy, especially Pakistan, as it is already facing allegations of support to terrorist organizations. A war against India can further weaken its position in international organizations.

Dutta highlights policy priorities for Indian defense establishments should be to ensure it maximizes its indigenous production and allocates more budget for defense research and development. His contention in this regard appear genuine, but he fails to address the source and implications of increased funding for defense research. The

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<sup>55</sup> Ibid.

increased budget for defense will cut funding from infrastructure development or social service schemes. He does not address the implications of such actions on India's economy and overall development. Moreover, a comparison of budget allocation for research by the major suppliers of arms and equipment like the US, Russia, China, France, and Germany would have been more realistic.

Dutta's paper covers the important obstacles to India's defense modernization such as heavy dependence on arms imports, production delays and cost overruns for indigenous projects, slow and complex decision-making, and absence of a National Security Doctrine. However, he does not consider the important issues like growing population, unemployment, need for economic and infrastructure development in the country, corruption, need for structural reforms like appointment of Chairman of the Joint Chiefs of Staff (CJCS) or equivalent, civil-military divide, lack of military representation in the strategic decision-making, inter-service rivalry for resources, and competing national priorities, which equally hinder the defense modernization of Indian armed forces.

It is clear that India has to deal with all the challenges involved in the modernization process, but what is most important is the requirement of a policy to offset Chinese capabilities. Currently, India does not have a strategy to develop those capabilities. Despite efforts by India to modernize its forces for decades now, the results on ground appear minimal. The Indian government is still struggling to come out with a comprehensive approach for modernization of its forces. A government's approach to deal with security threat stems from its National Security Strategy (NSS).

A detailed research reveals the unavailability or non-existence of official Indian strategy or long-term plan to modernize its forces. The US publishes its NSS every four years; similarly, China publishes defense white papers. These documents highlight the security concerns of those nations and their strategies/plans to deal with them. In India's case, these crucial documents either do not exist or are restricted to certain government officials only. As per the *Indian Maritime Doctrine 2009*, national aim and national values shape the national interests, which in turn determine the national security objectives (See figure 4). Indian maritime doctrine spells out the national aim and national interests as derived from the constitution of India. It also gives out the national security objectives, driven by the national aim and interests.<sup>56</sup> The maritime doctrine further exerts that the security objectives along with the components of national power formulate the national security policy, which is done by the Cabinet Committee on Security (CCS). However, the maritime doctrine does not spell out the policy India will follow for its national security. The doctrine defines the national strategy as the plan for employment of various tools of the national power in accordance with the national security policy.<sup>57</sup> However, it does not discuss the NSS of India.

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<sup>56</sup> Integrated Headquarters, Ministry of Defense (Navy), *Indian Maritime Doctrine 2009*, Updated 2015, accessed 3 May 2017, <https://www.indiannavy.nic.in/sites/default/files/Indian-Maritime-Doctrine-2009-Updated-12Feb16.pdf>, 4-7.

<sup>57</sup> Ibid.

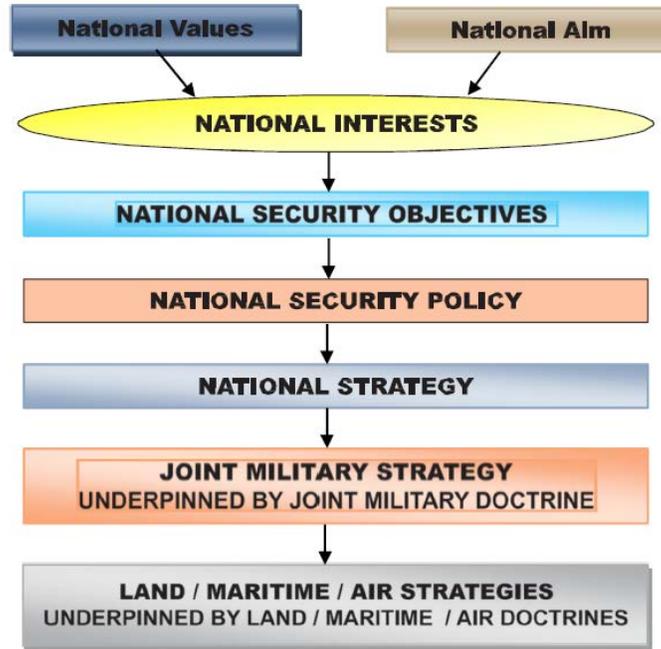


Figure 4. National Security Concepts and Doctrines

Source: Integrated Headquarters, Ministry of Defense (Navy), *Indian Maritime Doctrine 2009*, Updated 2015, accessed 3 May 2017, <https://www.indiannavy.nic.in/sites/default/files/Indian-Maritime-Doctrine-2009-Updated-12Feb16.pdf>.

Absence of NSS from an official document like the Indian Maritime Doctrine gives an impression India does not have an official strategy to deal with its evolving security environment. The dearth of literature on the Indian government's policy make it difficult to examine the official position of India on concerns related to the IOR and its strategy to deal with it.

### Conclusion

The detailed research on potential security threats for India in the IOR and its preparedness to deal with them reveal a gap in the Indian Navy's capabilities. This

encourages the author to research and propose a suitable make up of Indian Navy in view of growing potential security concerns over increased Chinese presence in the IOR.

## CHAPTER 3

### RESEARCH METHODOLOGY

#### Introduction

The previous chapter covered the literature available on the importance of the IOR for India and China and their concerns toward each other. This chapter will elaborate upon the choice of research methodology and reasons for choosing this methodology. This chapter will also cover how the research was carried out and the description of method of analysis.

#### Selected Research Methodology

The research question is open-ended and deals with the real world situation, wherein the answer can be either positive or negative. Understanding this topic requires collection of information and then analyzing it to come to a set of formidable solutions. The results cannot be captured in quantity/numbers i.e. quantitatively. Quantitative method emphasizes objective measurements and the statistical, mathematical, or numerical analysis of data collected through polls, questionnaires, and surveys, or by manipulating pre-existing statistical data using computational techniques. It focuses on gathering numerical data and generalizing it across groups of people or to explain a particular phenomenon.<sup>58</sup> Since, this research involves numerous factors; it has been carried out qualitatively. The qualitative research focused on the following:

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<sup>58</sup> University of South California, “Organizing Your Social Sciences Research Paper: Quantitative Methods,” accessed 29 March 2017, <http://libguides.usc.edu/writingguide/quantitative>.

1. Obtaining a realistic view of the importance of the IOR for India and China, increased Chinese presence in the IOR, concerns of both countries toward each other, and potential solutions for India. These details cannot be covered in numerical data.<sup>59</sup>
2. Describing the current situation.<sup>60</sup>
3. Collecting information from various sources, analyzing and interpreting the collected information.<sup>61</sup>
4. Developing results to understand the problem better.<sup>62</sup>
5. Provide holistic views on security environment and draw conclusion on potential solutions.<sup>63</sup>

#### Tools for Research

There are two major theories for describing international relations—realism and liberalism. Realism means the quality to understand what is real and possible in a particular situation and deals with the problem in an effective and practical way.<sup>64</sup> In international relations, realism entails states are increasing their own power relative to

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<sup>59</sup> University of South California, “Organizing Your Social Sciences Research Paper: Qualitative Methods,” accessed 29 March 2017, <http://libguides.usc.edu/c.php?g=235034&p=1561755>.

<sup>60</sup> Ibid.

<sup>61</sup> Ibid.

<sup>62</sup> Ibid.

<sup>63</sup> Ibid.

<sup>64</sup> As defined in Merriam-Webster Dictionary.

that of the other states.<sup>65</sup> The realist school of thought believes that the world is a tough and unsafe place and only powerful states can outclass the weaker states. The primary interest of the state is to preserve itself; therefore, states must seek military power to protect themselves.<sup>66</sup> Whereas liberalism is the belief in the value of social and political change in order to achieve progress.<sup>67</sup> In international relations, a liberalist emphasizes the broad ties between the states in order to decrease the importance of military power. Exercising economic and social power is more effective than military power and International organizations can foster cooperation between the states.<sup>68</sup>

This observer views international relations through the prism of realism. The current geo-political environment is very complex wherein the intentions of most of the states are more or less non-transparent and unpredictable. There exists a perception of potential threats amongst various states, particularly the US, Russia, China, India, and Pakistan, which stems from their mutual concerns toward each other. These states are moving forward to improve ties through economic and social means, but they continue to develop their military power due to existing mutual suspicions. Hence, it is imperative for any state to improve relations with nations through soft power, but at the same time, develop military power to deal with any possible external threat.

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<sup>65</sup> Sparknotes, "International Politics: Theories on International Relations," accessed 17 March 2017, <http://www.sparknotes.com/us-government-and-politics/political-science/international-politics/section2.rhtml>.

<sup>66</sup> Ibid.

<sup>67</sup> As defined in Merriam-Webster Dictionary.

<sup>68</sup> Sparknotes.

As per Joint Publication 5-0, *Joint Operation Planning*, operation design is the process of iterative understanding and problem framing that supports commanders and staffs in their application of operation art with tools and methodology to conceive of and construct viable approaches to operations and campaigns. Three distinct aspects in design include understanding the operational environment, defining the problem, and developing the operational approaches. Design methodology involves understanding the strategic direction and the operational environment, defining the problem design intend to solve, and supporting development of suitable operational approaches.<sup>69</sup> (See figure 5)

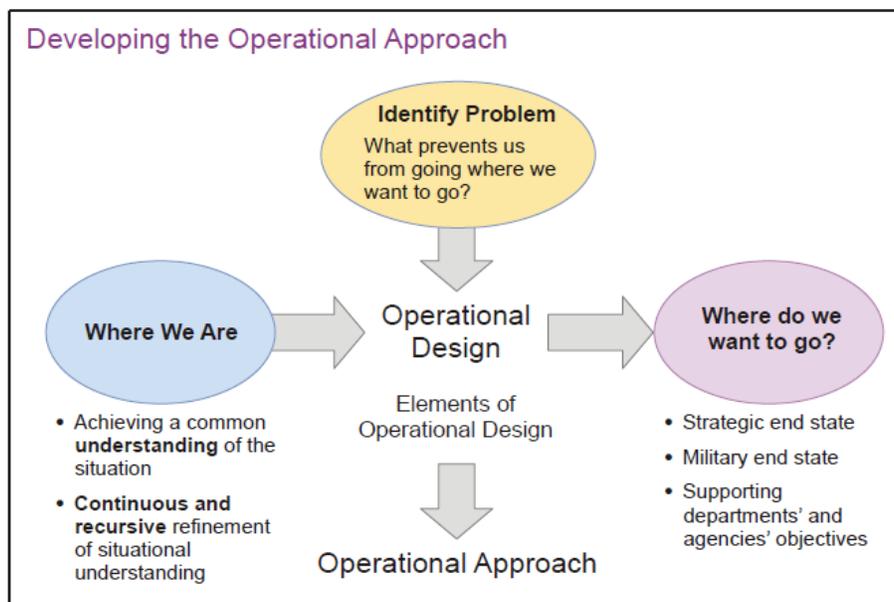


Figure 5. Developing the Operational Approach

Source: Joint Chiefs of Staff, Joint Publication (JP) 5-0, *Joint Operation Planning* (Washington, DC: Government Printing Office, August 2011), III-3.

<sup>69</sup> Joint Chiefs of Staff, Joint Publication (JP) 5-0, *Joint Operation Planning* (Washington DC: Government Printing Office, August 2011), III-1 – III-7.

The current environment, in this thesis, will be defined by analyzing the current environment in the IOR. Then, the desired environment will be described by giving the capability requirements to meet the potential threats. Then the author will define the problems that obstruct India from reaching its desired end state. In the end, suitable approaches for achievement of the desired end state will be given. Each approach will be validated against the screening criteria given by Richard Yarger—Feasibility, Acceptability, and Suitability (FAS). Feasibility entails whether or not actions can be carried out with the means available. Acceptability validates if the cost is justified against the effects achieved. Suitability screens if the given approach will achieve the desired end state.<sup>70</sup>

The approaches will also be validated against Carl Von Clausewitz’s trinity of war. As per him, war is a paradoxical trinity of three elements—people bring violence and passion; commanders and the military brings chance and probability; and the government brings policy and purpose (See figure 6). One should study and exploit all three elements to succeed in planning and conduct of war.<sup>71</sup> The author will examine whether or not the recommended approaches will be supported by the government, people, and the military.

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<sup>70</sup> H. Richard Yarger, “Toward a Theory of Strategy: Art Lykke and the U.S. Army War College Strategy Model,” in *The U.S. Army War College Guide to National Security Issues, Volume I: Theory of War and Strategy*, 4th ed, ed. J. Boone Bartholomees, Jr., 2010; Strategic Studies Institute, U.S. Army War College, Carlisle Barracks, PA, 48.

<sup>71</sup> Peter Paret, “Clausewitz,” in *Makers of Modern Strategy from Machiavelli to the Nuclear Age* ed. Peter Paret (Princeton, NJ: Princeton University Press, 1941), 201-202; Carl Von Clausewitz, “What is War,” in *On War*, ed. and translated by Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1976), 89.

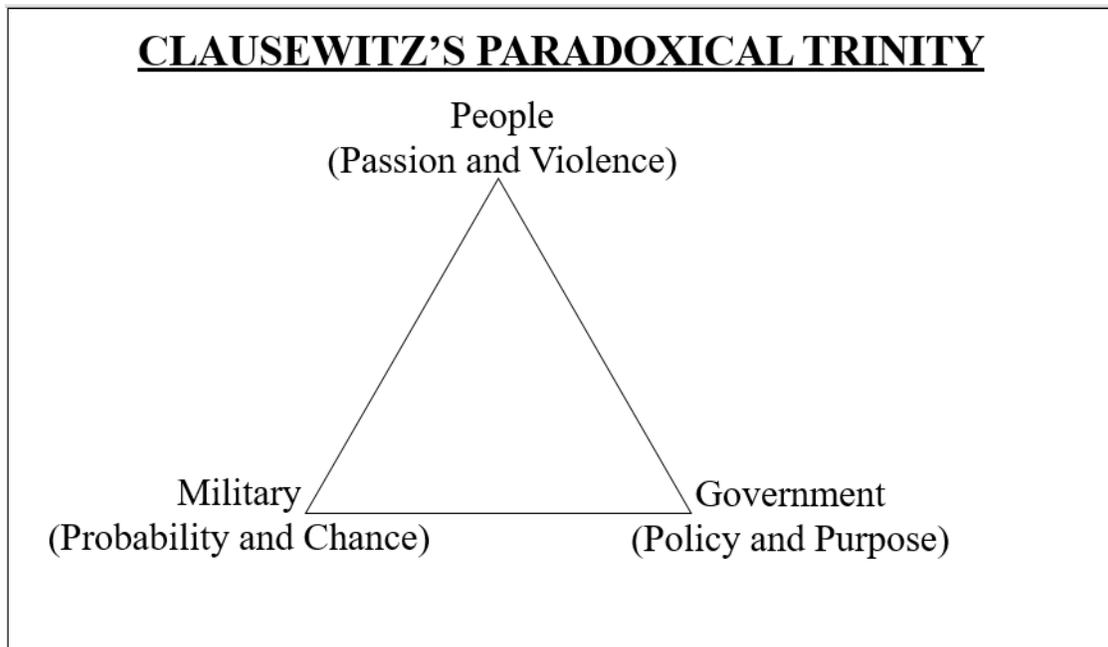


Figure 6. Clausewitz's Trinity

*Source:* Created by the Author based on Paradoxical Trinity Concept of Clausewitz.

### Conclusion

The author will use design methodology to define current and desired environment and develop approaches to the desired end state. These approaches will be validated against criteria of feasibility, acceptability, and suitability. Lastly, Clausewitz's trinity principle will be applied to examine whether all three elements—people, government, and military—will support the changes as per the possible solutions.

## CHAPTER 4

### ANALYSIS

While to other countries, the Indian Ocean is only one of the important oceanic areas, to India it is a vital sea. Her lifelines are concentrated in that area, her freedom is dependent on the freedom of that water surface. No industrial development, no commercial growth, no stable political structure is possible for her unless her shores are protected.<sup>72</sup>

— K. M. Pannikar

#### Introduction

Thus far, this study has addressed the importance of the Indian Ocean for India and China; increased Chinese activities in the IOR; and the resultant concerns for India, Chinese concerns toward the Indian activities; the role US is playing in the IOR, and some domestic issues impinging upon the modernization of the Indian armed forces. The literature review also revealed serious shortcomings in India's approach towards its modernization. This chapter will cover suitable approaches India can adopt in order to deal with the potential security threat emanating from the Chinese activities in the IOR.

#### Current Environment in the IOR

The current environment in the IOR is very complicated. The complexity of relations between India, China, and the US makes the geo-political situation in the region dynamic. Dr. Dale Stephens, Associate Professor, University of Adelaide, states, "The Indian Ocean will likely be the focus of increasing tension and policy/legal interplay over the next few decades. The emergence of maritime powers such as India and China, the

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<sup>72</sup> K. M. Pannikar, *India and the IO* (London: Allen and Unwin, 1945), 84.

importance of Indian Ocean for Sea Lines of Communication to the Middle East and Africa, the strategic interests of the United States in the region, the challenges of piracy and other acts of maritime lawlessness and the interests of Indian Rim powers such as Australia, South Africa and France, all combine to highlight the critical significance of the Indian Ocean in the 21st Century.”<sup>73</sup>

While the US cares about the freedom of navigation in the IOR for trade, stability, and balance of power, China understands its military and strategic disadvantages with respect to the US in the region. Enhancing cooperation with regional states may give China an edge over the US and India. Meanwhile, India remains wary about its decreasing influence relative to the Chinese influence. The interplay between interests of the nations in the IOR makes it dynamic and less stable.

Some Indian experts and officials regard China’s expanding economic relations and strategic ties with the South Asian neighbors as an effort by Beijing to both contain Indian influence in the region and encircle it.<sup>74</sup> Similarly, majority of the analysts from Chinese think tanks are in favor of developing good relations with India, but some analysts from defense are concerned toward the modernization of Indian forces and

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<sup>73</sup> Dr Dale Stephens, “Naval Power in the Indian Ocean: 21st Century Opportunities and Challenges: Maritime Governance and the Indian Ocean,” (RUMLAE Research Paper no. 16-08, Adelaide Law School, Research Unit on Military Law and Ethics), 2.

<sup>74</sup> Srinu Sitaraman, “Is South Asia Moving into the Chinese Orbit and Setting off Alarm Bells in New Delhi?” *Foreign Policy Journal*, 19 July 2013, accessed 30 March 2017, <https://www.foreignpolicyjournal.com/2013/07/19/is-south-asia-moving-into-the-chinese-orbit-and-setting-off-alarm-bells-in-new-delhi/>.

India's nuclear and missile programs. Moreover, India's efforts to increase engagement with China's neighbors further fuel such concerns.

Confronted by such a volatile environment in the IOR, both India and China are increasing their military potential. All countries are entitled to improve their security, but must consider if it is worth the cost of igniting an arms race. This is what is happening in the case of India and China. Both countries engage in zero-sum thinking i.e. gain for the adversary is a loss for you. In short, a rise in military capabilities of one concerns the other and vice-versa.

Currently, the strength of Indian Navy includes one aircraft carrier, 11 destroyers, 16 frigates, 23 corvettes, 14 submarines (13 diesel-electric powered and one nuclear powered), six minesweepers, and four fleet tankers.<sup>75</sup> China's strength includes one aircraft carrier, 32 destroyers, 48 frigates, 26 corvettes, 68 submarines, 148 coastal defense crafts, and four minesweepers.<sup>76</sup> Both India and China are rising and developing their navies, but India is doing so at a slower pace. This raises concerns in the Indian think tanks due to increasing gap in their military potential. At the same time, China, although rising at a faster pace, faces challenge of power projection away from its

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<sup>75</sup> Official Website of the Indian Navy, accessed 4 April 2017, <https://www.indiannavy.nic.in/>. The website shows two aircraft carriers in the Indian Navy, but INS Viraat was decommissioned on 6 March 2017 ("World's Oldest Serving Aircraft Carrier Viraat to Retire on March 6," Hindustan Times, 15 February 2017, accessed 4 April 2017, <http://www.hindustantimes.com/india-news/world-s-oldest-serving-aircraft-carrier-viraat-to-retire-on-march-6/story-io0pMPByJG5a56PosC8IgM.html>).

<sup>76</sup> Global Fire Power, "China Military Strength: Current Military Capabilities and Available Firepower for 2016 Detailed," accessed 4 April 2017, [http://www.globalfirepower.com/country-military-strength-detail.asp?country\\_id=china](http://www.globalfirepower.com/country-military-strength-detail.asp?country_id=china).

mainland. Thus, the current environment in the IOR places both India and China in a situation where in both countries are looking to secure their interests in the region.

### Desired Environment in the IOR

India faces potential security threats from both China and Pakistan; hence, it needs more resources to deal with both. Perhaps India believes if it concentrates on China in terms of military potential, it will automatically take care of Pakistan. Hence, most of the efforts by the Indian government appear focused toward China. India has decided to base its first squadron of Rafale fighter jets, which it is buying from France, at Hasimara airbase in West Bengal in order to augment deterrence against China.<sup>77</sup> Similarly, in an effort to increase its naval capabilities, the Indian Navy participated in Malabar Exercise in the East China Sea in June 2016. The primary aim of the exercise was to increase interoperability amongst the US, Indian, and the Japanese navies.<sup>78</sup> These combine exercises may be considered as an effort to maintain closer ties with other states, but such Indian actions demonstrate its rising concerns toward China and steps being taken to balance Chinese influence.

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<sup>77</sup> Rajat Pandit, "Eye on China, India to Base First Squadron of Rafale Fighter Jets in Bengal," *The Times of India*, 7 January 2017, accessed 30 March 2017, <http://timesofindia.indiatimes.com/india/eye-on-china-india-to-base-first-squadron-of-rafale-fighter-jets-in-bengal/articleshow/56384484.cms>.

<sup>78</sup> Prashanth Parameswaran, "US, Japan, and India Kick off 2016 Malabar Exercise," *The Diplomat*, 12 June 2016, accessed 30 March 2017, <http://thediplomat.com/2016/06/us-japan-and-india-kick-off-malabar-2016/>.

India understands it cannot compete with China in an arms race. China has plans to grow its navy to 351 ships by 2020.<sup>79</sup> According to reports, India aspires to have 200 ships operational by 2027.<sup>80</sup> It is clear India cannot win in terms of number of vessels vis-à-vis China. Therefore, India should make efforts to develop capabilities to deter any potential Chinese aggression in the IOR. India should seek an environment, which lessens its security concerns. The desired environment, from India's perspective, would consist of maintaining freedom of navigation and overflight in the IOR; peaceful co-existence of the nation states; secured SLOCs; developing combat capabilities to deter any external aggression; pursuing independent foreign policy; and retaining its influence in the broader IOR.

#### Problems Facing India

Indian think tanks sense the need for modernization of its forces, especially the Indian Navy, in order to deal with the potential security threats in the IOR. However, before adopting any approach toward the modernization, India needs to make some structural and organizational changes. These changes are common to all the approaches discussed subsequently. What follows will highlight key problems and changes required.

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<sup>79</sup> Kris Osborn, "Congressional Request for Proposal Solicits Expert Report on Chinese Weapons," *Warrior*, 21 April 2017, accessed 30 March 2017, <http://www.scout.com/military/warrior/story/1668461-us-report-cites-growing-china-military-threat>.

<sup>80</sup> Zachary Keck, "Watch Out, China: India's Navy wants 200 Warships," *The National Interest*, 15 July 2015, accessed 30 March 2017, <http://nationalinterest.org/blog/the-buzz/watch-out-china-indias-navy-wants-200-warships-13340>.

First, as highlighted in the literature review, India does not have a NSS. Research to date indicates non-existence of such document in India. The Kargil Review Committee, set up after the Kargil War of 1999, highlighted the absence of a national security policy document in India.<sup>81</sup> Similarly, Brigadier (Retd) Gurmeet Kanwal emphasized the absence of a NSS saying, “Unlike other democracies, India does not have a formally declared national security strategy.”<sup>82</sup> This is a serious flaw. The NSS is a key document, which outlines the major security concerns of a nation along with its plans to deal with those using all instruments of national power. Since India does not have a strategy, its instruments of national power—diplomacy, information, military, and economy (DIME)—cannot be aligned with it in order to achieve national objectives. Hence, it appears India is arming without aiming.

India is acquiring/producing a number of weapons and equipment to include fighter aircraft, nuclear submarines, and aircraft carriers. But to achieve what end state, is not clear, in absence of a NSS. More weapons do not necessarily ensure greater security; hence, first, India needs to develop a comprehensive strategy. A NSS defines the ends a nation wants to achieve by describing its interests and objectives. The policies describe the methods/ways—how those objectives and interests will be attained. The instruments of

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<sup>81</sup> V. P. Malik, “Complexities of National Security Decision-Making Process,” *CLAWS Journal* (Summer 2011): 5, accessed 26 April 2017, [http://www.claws.in/images/journals\\_doc/1395649938V%20P%20Malik%20%20CJ%20Summer%202011.pdf](http://www.claws.in/images/journals_doc/1395649938V%20P%20Malik%20%20CJ%20Summer%202011.pdf).

<sup>82</sup> Brigadier (Retd) Gurmeet Kanwal, “Why India Needs a National Security Strategy,” Rediff News, 17 June 2016, accessed 4 April 2017, <http://www.rediff.com/news/column/why-india-needs-a-national-security-strategy/20160617.htm>.

national power (its diplomacy, information, military, and economy) are used as means to achieve those end states. Thus, India should formulate its NSS to define its interest/objectives (ends). This strategy should guide its policies (ways) toward achieving said objectives (ends) using all instruments of national power (means). In its strategy, India should adopt a balanced approach, i.e. it should not focus only on Pakistan and China. Rather as a responsible state, it should adopt a regional strategy looking at the bigger picture of seizing the opportunities to burden share regional concerns that nest well with global priorities.

Second, unlike the US, India does not have a Chairman of the Joint Chiefs of Staff (CJCS) or an equivalent who can act as a principal military advisor to the defense minister and the Cabinet Committee on Security (CCS). In the current system, all three-service chiefs (Army, Navy, and Air Force) have independent, direct access to the defense minister. There is no streamlined system of unitary reporting and decision-making. This may sometimes lead to inter-service rivalry for resources. The three services project their demand for resources without taking into consideration the overarching requirements of the armed forces as a whole. Ultimately, this leads to relatively unplanned and unguided defense production and acquisition. There have been various recommendations and attempts to appoint a Chief of Defense Staff (CDS), who will be similar to the American Chairman of the Joint Chiefs of Staff (CJCS).<sup>83</sup>

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<sup>83</sup> Brigadier Arun Bajpai, "No CDS only a Four Star General No 1 Babus Win Again," *Indian Defense Review*, 25 July 2015, accessed 11 May 2017, <http://www.indiandefencereview.com/news/no-cds-only-a-four-star-general-no1-babus-win-again/>.

The Kargil Review Committee proposed appointment of a CDS. Then-Home Minister, Mr. L. K. Advani, endorsed this recommendation.<sup>84</sup> Based on its recommendations, an Integrated Defense Staff (IDS) was set up in October 2001 to provide staff to the CDS from three services. The Integrated Defense Staff is still functional today, but in need of a CDS.<sup>85</sup> Inaction on the proposal remains a concern for the armed forces and needs to be resolved by the government. In line with these efforts, in May 2016, then-Defense Minister Mr. Manohar Parrikar set up an eleven-member committee charged with combat capabilities enhancement of armed forces under Lieutenant General (Retd) D. B. Shekatkar. The committee submitted its report in December 2016.<sup>86</sup> Its Chairman said, “Its [Report’s] contents are classified but on principle I can tell you a CDS is long overdue. We should not adopt a western model but keeping in mind the Indian environment appoint a CDS.”<sup>87</sup> The then defense minister assured a decision would be taken after studying the report. However, Mr. Parrikar was

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<sup>84</sup> Shaswati Das, “Chief of Defense Staff Likely to Streamline Decision-making for Armed Forces,” Live Mint, 20 December 2016, accessed 31 March 2017, <http://www.livemint.com/Politics/U7EcxpqU26DVyI0D9vQGqI/Chief-of-defence-staff-likely-to-streamline-decisionmaking.html>.

<sup>85</sup> Ibid.

<sup>86</sup> Gaurav C. Sawant, “India Needs Chief of Defense Staff, But don’t Ape the West, says Lt Gen Shekatkar’s Report,” Indiatoday News, 27 December 2016, accessed 31 March 2017, <http://indiatoday.intoday.in/story/shekatkar-committee-chief-of-defence-staff-defence-ministry-indian-armed-forces-manohar-parrikar-lt-gen-shekatkar/1/843526.html>.

<sup>87</sup> Ibid.

later appointed as the Chief Minister of Goa State and he resigned as Defense Minister in March 2017.<sup>88</sup>

The unexpected departure of the minister creates uncertainties about the possibility of military reform and prospects for implementing the recommendations of the committee he established. In the interim, Mr. Arun Jaitley, the Indian Finance Minister, has been given the additional portfolio of defense.<sup>89</sup> This is altogether another serious issue. The Indian government clearly diminishes the importance of the defense ministry by conveying one minister can handle two ministries. India needs to appoint a full time defense minister who can work on the key reforms, like appointment of a CDS.

The CDS will be the single-point military advisor to the defense minister and CCS on military matters. He will also be responsible for formulation of joint military strategy and its integrated execution. He can resolve the divergent views amongst three-service chiefs, present a neutral analysis of the situation, and project the most suitable option as per the situation. The CDS can analyze the acquisition/production requirements projected by three services and take decision, ensuring intra-service and inter-service priorities are given due importance. Currently, India is acquiring/producing weapons and equipment, but a CDS is required to do it smartly. Moreover, a single point control will

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<sup>88</sup> FP Politics, “Goa Election 2017: Manohar Parrikar Resigns as Defense Minister, to be Sworn-in as CM at 5PM Tuesday,” Firstpost, 13 March 2017, accessed 1 April 2017, <http://www.firstpost.com/politics/goa-election-2017-governor-appoints-manohar-parrikar-cm-after-bjp-cobbles-up-coalition-of-smaller-parties-independents-defence-minister-modi-cabinet-reshuffle-3331716.html>.

<sup>89</sup> India Times, “After Manohar Parrikar Resigns to Become Goa CM, Arun Jaitley Gets Charge of Defense Ministry,” 13 March 2017, accessed 1 April 2017, <http://www.indiatimes.com/news/india/after-manohar-parrikar-resigns-to-become-go-cm-arun-jaitley-gets-charge-of-defence-ministry-273367.html>.

improve jointness amongst three-services and reduce the inter-service rivalry and chances of corruption. Thus, the Indian government needs to take a holistic view of the situation and appoint a CDS to enhance its national security.

A third problem, related with the previous point, is lack of military representation in strategic decision-making. In “Complexities of National Security Decision-Making Process,” former Chief of Army Staff of India, General (Retd) V.P. Malik, raises genuine concerns regarding the absence of military leadership in the security and strategic decision-making loop and the lack of direct politico-military interface.<sup>90</sup> The CCS deals with the matters of national security in India. Its functions involve: dealing with all issues related to defense; law and order and internal security; policy matters concerning foreign affairs on security related issues; dealing economic and political issues impinging on national security; reviewing manpower requirements related to national security; and considering all matters related to atomic energy.<sup>91</sup> The Prime Minister of India heads this committee with cabinet ministers from Finance, Defense, Home Affairs, and External Affairs as its members.<sup>92</sup> The absence of uniformed military personnel in such a high-level decision-making committee is indicative of an unbalanced strategic culture in India. General Malik also raises concerns regarding inability of the service chiefs to attend all security related meetings of the CCS.<sup>93</sup>

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<sup>90</sup> Malik, 1-12.

<sup>91</sup> Jagran Josh, “Cabinet Committees,” 17 July 2015, accessed 1 April 2017, <http://www.jagranjosh.com/general-knowledge/cabinet-committees-1437131839-1>.

<sup>92</sup> Ibid.

<sup>93</sup> Malik, 6.

Indian political hierarchy needs to review its strategic decision-making process. In the US, Chairman of the Joint Chiefs of Staff (CJCS) is a statutory advisor to the National Security Council (NSC) and the Homeland Security Council (HSC). This ensures adequate representation of the military in the national decision-making process. If determined not to replicate the US model, India should at least change composition of its CCS to ensure the military has adequate representation in the decisions related to national security. Whether or not India will appoint a CDS in near future, the three service-chiefs may be made advisors to the CCS for the time being, who can be replaced by the CDS as, and when, appointed.

Fourth are the bureaucratic hurdles defense forces face in getting approvals for the proposals initiated by the service headquarters. General Malik highlights the complicated bureaucratic processes involved in clarification and approvals, which eats up 70 to 75 per cent of the service chiefs' time in trying to pursue such issues.<sup>94</sup> India needs to revamp its bureaucratic processes to ensure timely decision and implementation of critical issues of national interest. Although complete removal of the bottlenecks, in order to ensure smooth and swift functioning of the bureaucracy, may seem improbable and difficult, some steps may be taken to get rid of the lengthy and cumbersome processes. The recommended steps include: cutting out redundant processes/steps not required in the decision-making; taking effective and efficient decisions; keeping the information required by the decision-maker ready; empowering people and giving clear instructions on how work has to be done; appointing people who believe in getting things done

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<sup>94</sup> Ibid.

quickly; rewarding the officials for prudent actions taken; knowing and promulgating the priorities; and getting rid of redundant paper work while ensuring adequate transparency in the process in order to reduce the corruption.<sup>95</sup>

Fifth, India's desire to indigenize arms production is proving to be a hurdle to its modernization. The Defense Research and Development Organization (DRDO), primarily responsible for military research and development in India, has a history of time and cost overruns—unable to develop a reliable rifle for army and engine for indigenously produced tank (Arjun); difficulties in developing an engine for the Tejas light combat aircraft; and failures in developing an airborne early warning and control system (AWACS).<sup>96</sup>

To remedy its research and development challenges, India has been working with many countries to include the US, Japan, and Russia for defense technology transfers, achieving some success.<sup>97</sup> However, India should consider technology transfer and

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<sup>95</sup> Leo Babauta, "10 Steps to Take Action and Eliminate Bureaucracy," Zen Habits, 16 November 2008, accessed 1 April 2017, <https://zenhabits.net/10-steps-to-take-action-and-eliminate-bureaucracy/>.

<sup>96</sup> Dinesh Kumar, "Reality Bites Make-in-India Defense Dreams," The Tribune, 3 February 2016, accessed 1 April 2017, <http://www.tribuneindia.com/news/comment/reality-bites-make-in-india-defence-dream/191046.html>.

<sup>97</sup> Sushant Singh, "India, US finalize Major Defense Partner Agreement," The Indian Express, 9 December 2016, accessed 1 April 2017, <http://indianexpress.com/article/india/india-us-major-defence-partner-agreement-manohar-parrikar-ashton-carter-4418019/>; Sputnik International, "India, Japan Signs Deal on Defense Technology Transfer, Data Protection," 12 December 2015, accessed 1 April 2017, <https://sputniknews.com/politics/201512121031638501-india-japan-defense-technology-information-protection-deal/>; The Economic Times, "Russian Defense Companies Keen on Technology Transfer, JVs with Indian Firms," 21 March 2017, accessed 1 April 2017, <http://economictimes.indiatimes.com/news/defence/russian->

manufacture under license will not make the production “indigenized.”<sup>98</sup> There are various problems related with such agreements—first, intellectual property rights may remain with the original manufacturer; second, the domestic industry may not be able to absorb the technology and may have to import the components; and third, countries will not always be willing to part with their latest technologies or cooperate too closely with New Delhi.<sup>99</sup> Thus, the failures in research and development and complexities of technology transfer are affecting indigenization dreams of India.

India should consider its desire for indigenization might be at odds with its need to catch up with China in terms of military power. Three irresistible desires compel all nations—fear, honor, and self-interest.<sup>100</sup> India has the self-interest of modernizing its armed forces in order to deal with its fears emanating from potential security threats from China. However, in doing that, it wants to maintain honor or pride of being independent in terms of capability development and defense productions. It is high time for the Indian leadership to reconsider whether its desire to retain the honor of indigenization is hurting its long-term interest of modernizing the armed forces at the required pace.

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defence-companies-keen-on-technology-transfer-jvs-with-indian-firms/articleshow/57757747.cms.

<sup>98</sup> Jaideep A. Prabhu, “Problems in India’s Defense Indigenization,” Center Right India, 13 December 2013, accessed 1 April 2017, [http://centreright.in/2013/12/problems-in-indias-defence-indigenisation/#.WN-dd\\_nyvIU](http://centreright.in/2013/12/problems-in-indias-defence-indigenisation/#.WN-dd_nyvIU).

<sup>99</sup> Ibid.

<sup>100</sup> Thucydides, “History of Peloponnesian War,” accessed 1 April 2017, <http://www.thelatinlibrary.com/imperialism/readings/thucydides1.html>.

If it surrenders a bit of pride, the challenge for India would be in what way(s) to indigenize; or, if it waits for indigenization, the challenge would be how long will it take to do so. India needs to consider these critical issues in order to put its modernization plans on track. Perhaps one good approach would be to sacrifice pride and buy from foreign vendors in order to meet the immediate threats in the IOR. Likewise, allocate more funds for research and development to advance indigenous capabilities.

A sixth problem, related to the previous one, involves buying arms and equipment of different origin. India is world's biggest arms importer accounting for 14 per cent of the total.<sup>101</sup> Largest arms suppliers to India are Russia, the US and France.<sup>102</sup> Based on the existing orders, Russia will remain the main supplier of arms for India, though the US has increased supply eleven-fold in 2011-15 as compared to 2006-10.<sup>103</sup> Attempts by India to buy arms and equipment from different countries can be justified on the pretext of diversifying its sources. It ensures continuous supply of arms in case of weakened relations with any of the suppliers in future. A second justification might be using arms deals as a tool to improve relations with the US and Russia simultaneously. However,

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<sup>101</sup> The Economic Times, "India Again World's Biggest Arms Importer: Swedish Think-Tank," 22 February 2016, accessed 1 April 2017, <http://economictimes.indiatimes.com/news/defence/india-again-worlds-biggest-arms-importer-swedish-think-tank/articleshow/51093214.cms>.

<sup>102</sup> Russia and India Report, "Russia Remains Biggest Arms Supplier to India," 29 February 2016, accessed 1 April 2017, [http://in.rbth.com/economics/defence/2016/02/29/russia-remains-biggest-arms-supplier-to-india\\_571673](http://in.rbth.com/economics/defence/2016/02/29/russia-remains-biggest-arms-supplier-to-india_571673).

<sup>103</sup> The Economic Times, "India Again World's Biggest Arms Importer."

India needs to be cautious of the problems such deals with different countries bring with them.

Diversification of its sources between Russia, the US, and other such nations come at the cost of mismatch between its assets, which leads to maintenance issues and requires separate contracts with supplier nations for providing the after-sales services. India needs to consider if it should depend on a single supplier; although, this has inherent risks. First, it may create a perception India has become an aligned nation against its policy of non-alignment. Second, arms supplies may be blocked in case of degradation of its ties with the supplier nation. At the same time, it is advantageous in terms of smoothening the procurement procedures and fast tracking the modernization of the forces.

Last, most of the defense deals in India are suffering from a high level of corruption in defense procurements. According to a survey by Transparency International (TI), an anti-corruption global civil society organization, India has the highest bribery rate amongst the sixteen Asia-Pacific countries surveyed.<sup>104</sup> A similar review of transparency by the same organization in November 2015 had placed India in block D, with “very high risk” for corruption, in defense procurements.<sup>105</sup> Such a level of

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<sup>104</sup> Suparna Goswami, “Study Finds India is Asia’s Most Corrupt Country, While Japan Comes in Last,” *Forbes*, 8 March 2017, accessed 1 April 2017, <https://www.forbes.com/sites/suparnagoswami/2017/03/08/study-finds-india-is-asias-most-corrupt-country-while-japan-comes-in-last/#c244bce1201f>.

<sup>105</sup> Mayank Jain, “This One Chart Shows How India’s Defense Deals are Mired in Corruption (and China are even Worse),” *Scroll.in*, 4 November 2015, accessed 1 April 2017, <https://scroll.in/article/766882/this-one-chart-shows-how-indias-defence-deals-are-mired-in-corruption-and-chinas-are-even-worse>.

corruption in defense deals is a concern for any nation, but, in this case, particularly so for India given its embeddedness.

India needs to reduce corruption in defense deals by removing needless intermediaries; auditing accounts regularly; strengthening auditors; ensuring speedy trial and stringent punishment of those involved in corruption; giving good pay and periodic salary hikes to the officials to reduce chances of the acceptance of a bribe; empowering citizens who can hold the government responsible for unrestrained corruption; and closing the existing loopholes in defense procurement procedures. Such actions by the government will encourage a healthy work culture and mitigate corruption.

India should take prudent measures highlighted earlier in order to solve key problems. The approaches discussed in the succeeding paragraphs may fail or may not give the optimum results India desires, if these issues are ignored. The other issues like a ballooning population, unemployment, need for infrastructural development, and competing national priorities also pose challenges to the modernization. However, these issues will be discussed along with the approaches.

### Approaches to Modernization

#### More Aggressive Build-Up

According to International Monetary Fund World Economic Outlook (October 2016), India's Gross Domestic Product (GDP) at current prices is \$2.25 trillion. India is now the seventh largest economy of the world.<sup>106</sup> For the Financial Year 2017-18, India

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<sup>106</sup> Statistics Times, "GDP of India," 3 March 2017, accessed 2 April 2017, <http://statisticstimes.com/economy/gdp-of-india.php>.

has allocated \$53.5 billion (1.62 per cent of the GDP) for defense, which is about 6 per cent higher than the previous financial year.<sup>107</sup> As per the report of the International Institute for Strategic Studies, Military Balance 2016, the defense budget of the US was around \$597 billion, while for China was \$146 billion.<sup>108</sup> In March 2017, China announced its defense budget for Financial Year 2017 would be \$151 billion.<sup>109</sup> This would account for 1.3 per cent of its GDP.<sup>110</sup>

The above comparison shows India spends much less on its defense in comparison to China or the US. The percentage share of the GDP is higher for India as compared to China (1.62 percent vs 1.3 per cent). The Chinese economy is much larger than India's; hence, the amount spent by China is almost three times that of India's. Clearly, China can modernize its forces at a much faster pace than India, given its

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<sup>107</sup> Laxman K. Behera, "India's Defense Budget 2017-18: An Analysis," Institute for Defense Studies and Analysis, 3 February 2017, accessed 2 April 2017, [http://www.idsa.in/issuebrief/india-defence-budget-2017-18\\_ikbehera\\_030217](http://www.idsa.in/issuebrief/india-defence-budget-2017-18_ikbehera_030217); Manu Pubby, "Defense Budget up by 6 per cent to Rs 2.74 Lakh Crore in 2017-18 from Rs 2.58 Lakh Crore Last Year," The Economic Times, 2 February 2017, accessed 2 April 2017, <http://economictimes.indiatimes.com/news/defence/defence-budget-up-by-6-per-cent-to-rs-2-74-lakh-crore-in-2017-18-from-rs-2-58-lakh-crore-last-year/articleshow/56909480.cms>.

<sup>108</sup> Adam Taylor and Laris Karklis, "This Remarkable Chart Shows How US Defense Spending Dwarfs the Rest of the World," The Washington Post, 9 February 2016, accessed 2 April 2017, [https://www.washingtonpost.com/news/worldviews/wp/2016/02/09/this-remarkable-chart-shows-how-u-s-defense-spending-dwarfs-the-rest-of-the-world/?utm\\_term=.4d4d5c3a3e8f](https://www.washingtonpost.com/news/worldviews/wp/2016/02/09/this-remarkable-chart-shows-how-u-s-defense-spending-dwarfs-the-rest-of-the-world/?utm_term=.4d4d5c3a3e8f).

<sup>109</sup> GlobalSecurity, "China's Defense Budget," accessed 2 April 2017, <http://www.globalsecurity.org/military/world/china/budget.htm>.

<sup>110</sup> Michael Martina and Philip Wen, "China's 2017 Defense Budget Rise to Slow Again," Reuters, 4 March 2017, accessed 2 April 2017, <http://www.reuters.com/article/us-china-parliament-defence-idUSKBN16B043>.

defense spending. It can be debated whether India should increase its defense expenditure in order to compete with China. A more aggressive approach entails India should increase its defense spending. A suggested allocation can be at least 2.5% of the GDP.

Increase in defense spending will give India the capabilities to fuel more funds into its research and developments projects. In March 2017, a report of the Indian Parliament Panel highlighted due to the inadequate budgetary support, major projects involving futuristic technology had been put on hold.<sup>111</sup> Such situations are unwarranted because India wants to increase its indigenous defense production. The increased defense budget will give India access to the latest technologies in weapons and equipment and in turn, increase its indigenous production. It will also decrease its dependence on arms imports. Moreover, indigenously produced weapons would be cheaper; hence, India can produce more such weapons with the given resources.

Even if India does not succeed in domestic research and development, increased budgetary allocations will give it enhanced capabilities to buy more arms from the foreign vendors. In this approach, India can strengthen its inventory of submarines including the nuclear powered version, aircraft carriers, frigates, and destroyers; thereby, enhancing its capabilities to increase its influence in the IOR and mitigate its potential security concerns with respect to China. In a suggested composition, India can maintain three aircraft carriers in this approach—deploying one each on the eastern and western front, and one undergoing routine maintenance in the dockyards. India should also aim to

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<sup>111</sup> India Today, “Cuts in Funds for DRDO Forced it to put Major Projects on Hold: Par Panel,” 9 March 2017, accessed 2 April 2017, <http://indiatoday.intoday.in/story/cuts-in-funds-for-drdo-forced-it-to-put-major-projects-on/1/900935.html>.

build at least six nuclear capable submarines. It will help India to counter China, who reportedly holds at least four submarines capable of firing nuclear ballistic missiles.<sup>112</sup> India can also increase its tally of submarines from 14 to 34 in order to counter China's 68. Similarly, destroyers can increase from 11 to 20 and frigates from 16 to 25. This increase in number of destroyers and frigates will give India more anti-submarine and anti-aircraft capabilities. The increased defense budget will help India in achieving these targets; however, the increased defense spending would come at some cost.

First, it will raise eyebrows in China and Pakistan, as they remain concerned about India's defense spending. Moreover, it may escalate the arms race in the Asia-Pacific region. Although China's strategic focus currently appears to deal with the US and the SCS dispute, but its principle interest is to protect its SLOCs passing through the IOR. Any attempt by India to increase its defense budget, thereby the naval power, is likely to force China to follow suit in order to secure its interests in the region. Therefore, India should take steps for perception management in the Chinese and Pakistan think tanks. One such effort can be to project increased build up as a step to deal with increased piracy and need to secure SLOCs. The US may not be too much concerned with India's increased spending as the US considers India a partner in balancing Chinese influence in the Asia-Pacific region and believes India plays important role in the US "pivot to Asia."

Second, increased defense spending has to deal with the competing national interests—need for improving infrastructure, providing social services, and dealing with

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<sup>112</sup> David Tweed and N. C. Bipindra, "Submarine Killers Showcase India's \$61 Billion Warning to China," Live Mint, 29 July 2015, accessed 5 April 2017, <http://www.livemint.com/Politics/b869hv7dJ5PdSjEoz7OrhK/Submarine-killers-showcase-Indias-61-billion-warning-to-Ch.html>.

unemployment. Infrastructure is the backbone of an economy. Since India is a developing nation; it needs high allocations of resources for infrastructure development. Therefore, India is planning to spend \$59 billion to build and modernize its railways, airports, and roads in the Financial Year 2017-18.<sup>113</sup> As far as population is concerned, according to an estimate, total population in India in 2016 was 1.299 billion<sup>114</sup> and a report by the United Nations International Labor Organization projects the unemployment rate in India for 2017-18 at 3.4 per cent.<sup>115</sup> With such a ballooning population, India needs adequate steps in the social services. Hence, the competitive requirements of developing infrastructure and ensuring social services makes increase in the defense spending difficult. India will have to compensate increased defense budget by decreasing allocation for other projects. Such measures can be justified in order to meet interests of enhancing country's security.

#### Less Aggressive Build Up

Another approach India can adopt to modernize its forces is to keep the defense budget at the current rate or with marginal increase without an evident cut on the spending on infrastructure or social schemes. A suggested budget allocation in this

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<sup>113</sup> Anurag Kotoky, "Modi to Spend \$59 Billion to Upgrade India's Infrastructure," Bloomberg, 1 February 2017, accessed 2 April 2017, <https://www.bloomberg.com/news/articles/2017-02-01/modi-plans-59-billion-rail-road-push-as-bombardier-ge-invest>.

<sup>114</sup> Trade Economics, "India Population," accessed 2 April 2017, <http://www.tradingeconomics.com/india/population>.

<sup>115</sup> The Times of India, "Unemployment in India to Increase Marginally in 2017-18: UN Report," 13 January 2017, accessed 2 April 2017, <http://timesofindia.indiatimes.com/india/unemployment-in-india-to-increase-marginally-in-2017-18-un-report/articleshow/56512962.cms>.

approach can be about 1.9 per cent of the GDP. In this case, India needs to adopt a different methodology to achieve strategic advantage. Rather than developing the capabilities in terms of number of aircraft carriers, destroyers, or frigates, India should use its resources for a buildup that provides it an offset against China. It should aim to acquire/produce submarines, some even with stealth technology. Development of such capabilities will act as a deterrent against China in the IOR.

The suggested approach is to maintain only two aircraft carriers—one conducting operations in the seas and other undergoing routine maintenance. The current level of destroyers (11) and frigates (16) can be retained as such or with marginal increase of two or three ships. The effort should be to increase number of submarines. India can build minimum six to eight submarines with nuclear capabilities and minimum 25 in total to counter China's current holding of 68.

It can be argued whether India's proposed 25 submarines can offset China's 68, especially when China's numbers are likely to further increase in the coming years. However, India, in the forcible future, needs to adopt a regional approach vis-à-vis China's "Blue water" navy approach. China is concentrating on building its naval power in view of its global aspirations, but its focus is likely to remain in the SCS and the East China Sea region, where its claims are at stake and it perceives major threat to its territorial integrity. Therefore, at any given time, China cannot muster all its resources for any potential confrontation in the IOR. Hence, India by developing submarine capabilities can thwart potential threat from China in the IOR.

This approach has inherent advantages. First, it will raise fewer concerns in China or Pakistan as India is not increasing its defense budget significantly. Moreover, India's

current defense spending are about one third as compared to China's; hence, China will have no reasons to project Indian efforts as aggressive. Thus, it will prevent escalation of arms race in the Asia-Pacific region. Second, this approach will not aggravate people in India as the current allocations for infrastructure development and social service schemes will not be decreased. The advantages appear to be appealing; however, the disadvantages of this approach should not be ignored.

First, adopting this approach means no major increase in the resources for research and development. Hence, the dream of indigenization of defense production will remain distant for India. It will have to rely more on the imports, thereby utilizing most of the money on buying arms and equipment at prohibitive costs. Second, a need to develop offset capabilities by procuring/producing submarines will require more funds for the Indian Navy, compromising on the allocation for the other two services. As per allocations for the Financial Year 2017-18, Indian Navy's share in defense budget is 14 per cent, Army is 57 per cent, and Air Force is 22 per cent.<sup>116</sup> The Indian Navy constitutes only about 4.4 per cent of the total strength of Indian armed forces.<sup>117</sup> The navy is already receiving more share of defense budget as compared to its strength. A further increase in the allocation is likely face resistance from the army and the air force. Appointment of a CDS can play an important role in alleviating the concerns raised by the imbalanced allocations. Moreover, a consensus can be drawn within the three services

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<sup>116</sup> Behera.

<sup>117</sup> Target SSB Interview, "Indian Armed Forces: Important Details and Structure of Forces," accessed 2 April 2017, <http://targetssbinterview.com/adm/downloads/Armed%20Forces%20-%20Important%20Details.pdf>.

to temporarily follow this model of development in order to deal with potential security threats in the IOR.

### A Comprehensive Approach Involving the US

The relations between India and the US have become stronger than ever, especially after the initiatives taken during the Bush and Obama administration. In 2009, then-President Obama labeled India and the US as “natural allies.”<sup>118</sup> Various factors play important role in this evolving relationship—common history, as both India and the US were British colonies; shared strategic and economic interests; democratic values and practices; and favoring rule of law. Both understand the importance of each other in ever evolving geo-political environment.

The US considers India as a key partner for its “pivot to Asia” in line with its attempts to balance China. The US also needs some good and reliable allies like India to counter Sino-Russian nexus because the closeness between Russia and China concerns the US. Moreover, India is one of the five fastest growing economy in the world<sup>119</sup> with an impressive democratic record. This makes India a strong contender for helping the US in establishing global stability and prosperity. On the other hand, India wants to leverage the US for its enhanced security requirements. India understands the US is a key player in

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<sup>118</sup> Gautam Adhikari, “The United States and India: The Vital Importance of a Natural Partnership,” *The Huffington Post*, 22 September 2016, accessed 3 April 2017, [http://www.huffingtonpost.com/gautam-adhikari/modi-united-states-visit\\_b\\_8178382.html](http://www.huffingtonpost.com/gautam-adhikari/modi-united-states-visit_b_8178382.html).

<sup>119</sup> James Stannard, “The World’s Five Fastest-Growing Economies,” *World Finance*, 7 April 2017, accessed 19 April 2017, <https://www.worldfinance.com/markets/the-worlds-five-fastest-growing-economies>.

the IOR. Since, India cannot match Chinese capabilities single-handedly; its partnership with the US can help it to offset China. However, India's willingness to ally with the US remains a question.

Historically India has been a non-aligned nation. During the Cold War between the US and the Soviet Union, India decided to follow its independent foreign policy by not aligning with either democratic US or communist Soviet Union. Over a period, India developed strong relations with both the opposite poles—the US and Russia. However, under this approach, India has to discard its non-aligned standpoint in order to ally with the US. Recent developments between the two countries indicate India's tilt toward the US; however, India remains apprehensive toward its relations with Russia. The current developments show Russia's inclination toward China and Pakistan, which concern India. The US will not allow India to piggyback on itself unless India decides to become a full-time ally of the US. Hence, in this approach, the Indian government needs to consider whether it should give up its non-aligned stance in order to defy its fears emanating from China's rise.

In a more comprehensive approach, India can use its increased engagement with the US as a tool to counter increased Chinese presence in the IOR. In August 2016, India and the US signed the bilateral Logistics Exchange Memorandum of Agreement (LEMOA), which gives militaries of both countries access to each other's facilities for supplies and repairs.<sup>120</sup> This pact can be considered as a significant step in that direction,

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<sup>120</sup> Varghese K. George, "India, US Sign Military Logistics Pact," *The Hindu*, 18 October 2016, accessed 3 April 2017, <http://www.thehindu.com/news/international/India-US-sign-military-logistics-pact/article14598282.ece>.

as it will provide wider operational footprints to the US in the Asia-Pacific region while giving India assurance of strong Indo-US ties to counter potential Chinese threat. Hence, India can enhance its security cooperation with the US to deal with its resource shortage in comparison to China.

Pen this approach, India can build its navy in a peaceful manner as it can rely on the US (Only if it allies with the US) to deter China in the IOR. A status quo of the defense budget (1.62 per cent of the GDP) can be maintained in this approach. A suggested composition for the Indian Navy would include one or two aircraft carriers. India currently operates one carrier with plans to induct two more. However, India may plan to induct one more carrier for the time being with holding one more carrier for a later time frame (when the current carrier INS Vikramaditya retires). Amongst other ships, India can maintain current levels of destroyers and frigates with marginal increase as permitted by the budget allocations. However, it should expand its submarine fleet to 20 at least to develop some independent capabilities. The approach of involving the US will give India some breathing space, but increased engagement with the US comes with its own disadvantages.

First, an effort by India to get closer to the US, as it is already happening, can aggravate Russia. Recent closeness of India and the US pushed Russia towards China and Pakistan. Russia and Pakistan have undertaken significant steps to improve their relations—signing of a defense cooperation agreement in November 2014; conducting joint naval exercises in 2014, 2015, and February 2017; and conducting Special Forces

exercise in September 2016. In 2015, Pakistan also confirmed purchasing Mi-35 ground attack helicopters from Russia.<sup>121</sup>

Similarly, the strategic partnership between Russia and China is also emerging. The bilateral cooperation between the two is expanding with high-profile energy and arms deals. In fact, recently Russia backed the CPEC showing its interests in linking it to its own Eurasian Economic Union (EEU) project.<sup>122</sup> Such an action by Russia came as a shock to India, who wants to maintain its closer ties with Russia as well the US. Hence, India needs to consider the fact its efforts to get closer to the US will sever its ties with Russia.

Second, improved Indo-US relations are increasing the Chinese concerns about India's intentions in the IOR. China considers the nexus between India and the US as an attempt by India to establish its regional hegemony, which is adversely affecting the relations between India and China. In fact, increased Indo-US engagement is one of the primary driving factors for the closeness between China and Pakistan. China is the biggest arms supplier for Pakistan. It is not only modernizing armed forces of Pakistan but also establishing joint projects with it.<sup>123</sup> China also does not take India's concerns

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<sup>121</sup> Dawn, "Are Pakistan and Russia Forming an Alliance? Not Without China, says Expert," 1 April 2017, accessed 3 April 2017, <https://www.dawn.com/news/1324187>.

<sup>122</sup> Deccan Chronicle, "Russia Makes U-Turn, Backs China-Pak Economic Corridor; India Alarmed," 19 December 2016, accessed 3 April 2017, <http://www.deccanchronicle.com/nation/current-affairs/191216/russia-makes-u-turn-backs-china-pak-economic-corridor-india-alarmed.html>.

<sup>123</sup> Pakistan Defense, "Chinese Military Assistance to Pakistan and Implications for India," 24 August 2010, accessed 3 April 2017,

over CPEC seriously.<sup>124</sup> Thus, India needs to consider the spillover effects of this strategy will make China a step closer to Pakistan and hence, increase the prospects of a two-front threat for India.

Third, India needs to be careful about amount of trust it can show toward the US. The US has supported India's bid to become a permanent member in a reformed United Nations Security Council (UNSC).<sup>125</sup> This fact is often used as an evidence to prove strong Indo-US ties. However, India should consider such actions by the US might be self-serving. The US knows China is unlikely to support India's permanent membership to the United Nations Security Council ever; hence, the US supports India's membership knowing such statements can be used to leverage stronger ties with India. It would be interesting to see the US response in case China ever agrees to make India permanent member in the United Nations Security Council. Perhaps, the US would not like to add more voices in the Security Council as it increases problems in decision-making and reduces value of the US and other members.

Fourth, India may be concerned about the effectiveness of the US actions in the Asia-Pacific region. Currently, the US is enhancing the US military capacity in the Asia-

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<https://defence.pk/pdf/threads/chinese-military-assistance-to-pakistan-and-implications-for-india.70422/>.

<sup>124</sup> Shafqat Ali, "China Not Taking India's CPEC Concerns Seriously," *The Nation*, 19 September 2016, accessed 3 April 2017, <http://nation.com.pk/national/19-Sep-2016/china-not-taking-india-s-cpec-concerns-seriously>.

<sup>125</sup> Express News Service, "UN Security Council: US Supports India's Bid for Permanent Membership," *The Indian Express*, 21 November 2015, accessed 3 April 2017, <http://indianexpress.com/article/india/india-news-india/un-security-council-us-supports-indias-bid-for-permanent-membership/>.

Pacific, building ally and partner capacity, and reducing the risk by focusing on bilateral relations with China. These actions may not be sufficient to turn the tide. The US has been long engaged in the region, but China appears to be indifferent about such actions by the US. China continues to show its aggressiveness by building artificial islands and basing its military in the SCS. Moreover, the US is already tied down with its multiple commitments in Europe, the Middle East, and the Pacific region; hence, mustering of additional resources to deal with China in the IOR might be a challenge for the US. Therefore, while following this approach India should maintain its individual capacity to some extent for dealing with the potential threats in the IOR.

#### Increased Engagement with China

The relations between India and China have been strained primarily because of the issues of divergence discussed in Chapter 2. However, shared interests between India and China—interdependence of economies, tackling terrorism, climate change, stabilizing Afghanistan, countering west dominated economic order, and favoring a multi-polar world—can be used as a tool to develop stronger ties between the two countries. Hence, rather than considering China as an adversary, India can use Diplomatic, Information, Military, and Economic (DIME) measures to build partnership between the two nations.

Diplomatically, India can increase bilateral dialogues with the Chinese leadership to resolve mutual differences such as boundary dispute and trade imbalance. Various steps have been taken in past in that direction. A Joint Working Group (JWG) was established in the wake of historic visit to China by then-Prime Minister, Mr. Rajiv Gandhi, in 1988, to speed up the resolution of the border dispute between the two

countries.<sup>126</sup> It was a significant step in the direction of improving ties with China after the 1962 war. The success of the Joint Working Group can be questioned, as the border dispute between the two has still not been resolved after several rounds of talks.<sup>127</sup>

However, recent efforts can be considered as a positive indicator toward the willingness of both countries to resolve mutual differences. After Prime Minister Mr. Narendra Modi assumed office in May 2014, Chinese President Xi Jinping visited India in September 2014 wherein China promised investment of \$20 billion in India.<sup>128</sup> Similarly, during Modi's visit to China in May 2015, 24 agreements worth \$10 billion were signed between the two countries indicating improved relations.<sup>129</sup> Such diplomatic efforts can be followed more rigorously to achieve success in resolving the long-standing disputes.

In the information field, India can take suitable steps in order to shape perception of Chinese think tanks regarding India's intentions in the IOR. India can be more open and forthcoming in conveying reasons behind its actions such as establishing military

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<sup>126</sup> Bhartendu Kumar Singh, "Sino-Indian Ties: The 11<sup>th</sup> Round of Joint Working Group Meeting," Institute of Peace and Conflict Studies, 7 June 1999, accessed 3 April 2017, <http://www.ipcs.org/article/china/sino-indian-ties-the-11th-round-of-joint-working-group-195.html>.

<sup>127</sup> The 19th Round of Talks was carried out in April 2016 in Beijing. The Indian Express, "India, China for Mutually Acceptable Solution to Border Dispute," 20 April 2016, accessed 3 April 2017, <http://indianexpress.com/article/india/india-news-india/india-china-border-dispute-peace-talks-ajit-doval-nsa-2762698/>.

<sup>128</sup> Manu Balachandran, "A Complete Timeline of India-China Relations since Modi Took Charge," Quartz India, 15 May 2015, accessed 19 April 2017, <https://qz.com/404869/a-complete-timeline-of-india-china-relations-since-modi-took-charge/>.

<sup>129</sup> NDTV, "24 Agreements Signed Between India and China During PM Modi's Visit," 15 May 2015, accessed 19 April 2017, <http://www.ndtv.com/cheat-sheet/24-agreements-signed-between-india-and-china-during-pm-modis-visit-763246>.

base in the Andaman and Nicobar islands, which concerns China because of its closeness to the Strait of Malacca. Indian media can potentially play a constructive role by not always projecting Indian relations with its eastern neighbors as a counter measure to China. Rather, they should portrait it as an effort by India to stabilize the Asia-Pacific region as a whole. The relations with the US should also be highlighted as an effort to deal with the global issues of piracy, climate change, and terrorism.

Militarily, India can conduct joint exercises with China in the IOR to deal with the global concerns of countering piracy. India can also share the burden of counterpiracy and policing operations in the Gulf of Aden and Persian Gulf by forming a combined task force with China. In April 2017, the navies of India and China carried out a joint operation in the Gulf of Aden to rescue a Philippines merchant ship.<sup>130</sup> Such joint military actions may be considered as a stepping-stone to increase military ties between two countries. Going a step further by involving Russia and Pakistan in such operations can reap benefits out of proportions. The increased engagement between the two militaries will decrease their mutual suspicion and tensions in the IOR.

Economically, India can enhance its trade cooperation with China to increase interdependence on each other. India's trade deficit with China in 2016 increased to \$46.56 billion as compared to \$44.87 billion in 2015.<sup>131</sup> The increasing trade deficit

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<sup>130</sup> Samma Web Desk, "India, China Carry Out Joint Naval Operations in Gulf of Aden," Samma, 9 April 2017, accessed 19 April 2017, <https://www.samaa.tv/international/2017/04/india-china-carry-out-joint-naval-operation-in-gulf-of-aden/>.

<sup>131</sup> K. J. M. Varma, "India's Trade Deficit with China Mounts to \$46.56 Billion," Live Mint, 13 January 2017, accessed 19 April 2017,

concerns India, but India can decrease the gap by enhancing its exports to China. India is already taking such steps by turning to services sector and forming a Joint Working Group to bridge the widening trade deficit.<sup>132</sup> Moreover, India and China are the world's most populous countries. As per statistics of 2014, India and China together account for 36.41 per cent of the world's population.<sup>133</sup> With such a huge population, both countries provide large markets for consumer goods. This opportunity can be leveraged by both nations to increase their trade relations exploiting each other's markets. The increased interdependence may mitigate their mutual concerns and hence, make chances of a conflict between the two unlikely.

The cordial relations between India and China may mitigate tensions between two countries leading to reduced focus on arms build-up. India can keep its defense budget at current level (1.62 per cent of the GDP) and can concentrate on maintaining just one aircraft carrier while maintaining its capabilities of submarines, destroyers, and frigates. The routine naval build up to replace old fleet and introducing latest technologies may continue. However, this approach is not free of obstacles.

First, increased Indian engagement with China may deteriorate its relation with the US. Although the US also seeks to increase cooperation with China in the current

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<http://www.livemint.com/Politics/Ag4wtkZODwjHtESc117WO/Indias-trade-deficit-with-China-mounts-to-4656-billion.html>.

<sup>132</sup> Shruti Srivastava, "India Turning to Services to Bridge Widening Trade Deficit with China," *The Indian Express*, 16 March 2015, accessed 19 April 2017, <http://indianexpress.com/article/business/business-others/india-turning-to-services-to-bridge-widening-trade-deficit-with-china/>.

<sup>133</sup> *Statistics Times*, "China vs India Population," 8 February 2015, accessed 3 April 2017, <http://statisticstimes.com/population/china-vs-india-population.php>.

geo-political environment, the US continues to make efforts to rebalance China due to its aggressiveness in the SCS and the East China Sea region. The improved Indo-China relations will affect the prospects of the US “rebalance” of Asia and fulfillment of its strategic interests. Hence, the US may not get along well with India in case India’s engagement with China comes at the cost of interests of the US.

Second, in the enhanced Indo-China ties, India may have to give up its concerns over passage of the CPEC through Pakistan Occupied Kashmir. India may improve its relations with China at large, but even the improved relations between the two are unlikely to deter China from using Pakistan Occupied Kashmir as a passage for its economic corridor. The Chinese strategic interests are driven by ensuring energy supplies to fuel its economy and access to the global markets for its products. It can achieve both the objectives with the CPEC. Although, India has expressed its reservations on the CPEC through Pakistan Occupied Kashmir, China remains unmoved. India would expect a positive response from China after improved relations, but it is unlikely to happen. Hence, this issue may remain a concern for India.

A detailed comparison of the four approaches is given in Table 1.

### Conclusion

The strategic situation in the IOR is dynamic and evolving. To ensure and/or grow influence and enhance security in the region, India can use one of the suggested approaches—a more aggressive build-up; a less aggressive build-up; a comprehensive approach involving the US; or increased engagement with China. However, India should bring structural and organizational changes along with following a particular approach in order to achieve success.

Table 1. Comparison of Approaches

	Suggested Share of GDP	Suggested Naval Composition	Advantages	Disadvantages
More Aggressive Approach	2.5 per cent	3 Carriers, 34 Submarines, 20 destroyer, and 25 frigates	<ul style="list-style-type: none"> <li>- Boost indigenous research and development/production</li> <li>- Increase in weapons/capability to counter China</li> </ul>	<ul style="list-style-type: none"> <li>- May escalate arms race in Asia-Pacific region</li> <li>- More difficult to deal with competing interests of improving infrastructure and social services</li> </ul>
Less Aggressive Approach	1.9 per cent	2 Carriers, 25 submarines, and marginal increase in destroyer and frigates	<ul style="list-style-type: none"> <li>- Lesser chances of escalating arms race in the Asia-Pacific</li> <li>- Easier to deal with competing interests of infrastructure and social services</li> </ul>	<ul style="list-style-type: none"> <li>- Indigenous research and development/production difficult</li> <li>- Inter-service rivalry for resources may increase</li> </ul>
Comprehensive Approach Involving the US	1.62 per cent (Status Quo)	1 or 2 Carriers, 20 submarines, and marginal increase in destroyer and frigates	<ul style="list-style-type: none"> <li>- Lesser emphasis on naval build up</li> <li>- Increased engagement with the US</li> </ul>	<ul style="list-style-type: none"> <li>- May sever ties with Russia</li> <li>- Chinese concerns regarding Indian intentions in the IOR may increase</li> <li>- The US actions in the IOR may not turn the tide</li> </ul>
Increased Engagement With China	1.62 per cent (Status Quo)	1 Carrier, no major change in submarines, destroyers, and frigates	<ul style="list-style-type: none"> <li>- Lesser emphasis of naval build up</li> <li>- Improved relation with China</li> </ul>	<ul style="list-style-type: none"> <li>- May deteriorate relations with the US</li> <li>- Indian concern over the CPEC may not be resolved</li> </ul>

Source: Created by author.

## CHAPTER 5

### CONCLUSION AND RECOMMENDATION

The preceding chapter presented an analysis of the current and desired environment in the IOR from India's point of view. It also presented the structural and organizational changes required in India in order to meet its proposed end state. Further, it described various approaches India may adopt in order to mitigate its potential security threats in the IOR. This chapter draws a conclusion based on the preceding chapters and recommends a suitable approach for India.

#### Summary of the Situation in the IOR

The Indian Ocean is a major conduit for the international trade, especially energy. The IOR forms a vital part of the global shipping network and includes key maritime straits of Hormuz, Malacca, and Bab-el-Mandeb. Growing demand for energy and maritime trade across the Indian Ocean is central to the interests of India and China in the IOR. Keeping this in view, both have increased their regional presence using diplomatic, economic, and military measures. The activities of one country concern the other and vice-versa. The interplay of the interests of the two countries combined with the US presence has made the region very dynamic. Compounding this situation, India wants to enhance security by increasing its capabilities to deal with any external aggression in the Indian Ocean.

#### Recommended Approach for India

In order to deal with the external security environment, India needs to resolve key issues like the absence of a NSS; excessive inter-service rivalry for resources; a lack of

military representation in the strategic decision-making; bureaucratic hurdles; desire for indigenization; buying arms and equipment of different origin; and corruption in defense deals. These problems present major obstacles for India in its modernization process. India needs to take specific measures, as highlighted in Chapter 4, in order to resolve these issues. As far as naval modernization is concerned, a less aggressive approach is recommended for India's naval build up.

Although a more aggressive approach provides India the capabilities to better compete with China, it has inherent disadvantages: initiating an arms race in the Asia-Pacific region; and competing national requirements of developing infrastructure and providing social services. An approach involving the US brings with it the disadvantages of losing India's historic stance as a non-aligned nation and pushes China and Russia toward Pakistan, which is undesirable for India in current geo-political environment. Increased engagement with China may provide a long-term solution, but India may not want to sever its ties with the US in pursuit of its improved relations with China, which might happen if interests of the US in the region are compromised. Moreover, India may find it difficult to give up its concerns over passage of the CPEC through Pakistan Occupied Kashmir.

A less aggressive approach involves buildup of submarines to offset China. The recommended number of submarines is 25 (some even with stealth technology) against China's current sub fleet of 68. India will still have lesser submarines than China, but given the recommendation of adopting a regional approach for India vis-à-vis China's "Blue Water" approach, it may give India capabilities to counter potential threat from China in the IOR. This approach gives India various advantages. First, it may not present

India as a contributor to an arms race. This approach will involve only a marginal increase in the defense spending (up to 1.9 per cent of the GDP); hence, raising fewer concerns in Chinese think tanks. Second, the allocations for infrastructure and social services will be reduced marginally. Therefore, it will be less difficult for people of the country to accept this approach. However, this approach has some inherent disadvantages. First, it will provide lesser allocations for defense research and development, hence, it will be difficult to achieve goal of indigenization. Second, this approach will require more allocation for naval build up as compared to army and air force desires. Therefore, the navy may face resistance from the other two services, which also seek to modernize weapons and equipment. However, India can deal with these internal issues, especially if it appoints a CDS, who can help in achieving consensus amongst all three-service chiefs and they can be taken on board to follow this model of development in interests on the national security.

#### Recommendations for Further Research

This thesis involved research on India's need to develop its naval forces. However, due to limitations mentioned in chapter 1, the thesis has not been able to study certain factors related to the subject. Hence, this thesis makes following recommendations for future research on this topic.

1. Examine reasons for absence of a NSS in India with recommendations of a suitable approach for formulating a strategy.
2. Examine reasons for delay in decision for appointing a CDS for the armed forces.
3. Research potential points of convergence between India and China and how

they can be utilized to improve relations between two countries.

4. Examine the actions India can take in order to ally with the US and its implications for the world order.
5. Research tactical, technical, and operational capabilities of the Indian Navy vis-à-vis China.

### Conclusion

Both India and China are taking various initiatives to include improving diplomatic relations, developing infrastructure, and modernizing armed forces, in order to bolster their influence in the IOR. However, India seems to be doing it at a slower pace, thereby increasing its capability gap with respect to China. Hence, India should develop its naval power in order to deal with potential threats emanating from increased Chinese presence in the IOR. In order to achieve that end, a less aggressive approach is recommended for Indian naval modernization. Along with a naval build up, some structural and organizational changes such as formulation of a NSS, appointment of a CDS, removal of bureaucratic hurdles, and reduction of corruption are also recommended, which will contribute significantly for success of the approach adopted.

## BIBLIOGRAPHY

- Adhikari, Gautam. "The United States and India: The Vital Importance of a Natural Partnership." *The Huffington Post*. 22 September 2016. Accessed 3 April 2017. [http://www.huffingtonpost.com/gautam-adhikari/modi-united-states-visit\\_b\\_8178382.html](http://www.huffingtonpost.com/gautam-adhikari/modi-united-states-visit_b_8178382.html).
- Albert, Eleanor. "Competition in the Indian Ocean," *Council on Foreign Relations*. 19 May 2016. Accessed 31 October 2016. <http://www.cfr.org/regional-security/competition-indian-ocean/p37201>.
- Ali, Shafqat. "China Not Taking India's CPEC Concerns Seriously." *The Nation*. 19 September 2016. Accessed 3 April 2017. <http://nation.com.pk/national/19-Sep-2016/china-not-taking-india-s-cpec-concerns-seriously>.
- Babauta, Leo. "10 Steps to Take Action and Eliminate Bureaucracy." *Zen Habits*. 16 November 2008. Accessed 1 April 2017. <https://zenhabits.net/10-steps-to-take-action-and-eliminate-bureaucracy/>.
- Bajpai, Brigadier Arun. "No CDS only a Four Star General No 1 Babus Win Again." *Indian Defense Review*. 25 July 2015. Accessed 11 May 2017. <http://www.indiandefencereview.com/news/no-cds-only-a-four-star-general-no1-babus-win-again/>.
- Balachandran, Manu. "A Complete Timeline of India-China Relations since Modi Took Charge." *Quartz India*. 15 May 2015. Accessed 19 April 2017. <https://qz.com/404869/a-complete-timeline-of-india-china-relations-since-modi-took-charge/>.
- Behera, Laxman K. "India's Defense Budget 2017-18: An Analysis." *Institute for Defense Studies and Analysis*. 3 February 2017. Accessed 2 April 2017. [http://www.idsa.in/issuebrief/india-defence-budget-2017-18\\_1kbehera\\_030217](http://www.idsa.in/issuebrief/india-defence-budget-2017-18_1kbehera_030217).
- Berlin, Donald L. "India in the Indian Ocean." *Naval War College Review* 59, no. 2 (Spring 2006): 58-89. Accessed 4 May 2017. [http://www.tamilnation.co/intframe/indian\\_ocean/Donald\\_Berlin\\_India\\_and\\_indian\\_ocean.pdf](http://www.tamilnation.co/intframe/indian_ocean/Donald_Berlin_India_and_indian_ocean.pdf).
- Clausewitz, Carl Von. "What is War." In *On War*, edited and translated by Michael Howard and Peter Paret, 75-89. Princeton, NJ: Princeton University Press, 1976.
- Das, Shaswati. "Chief of Defense Staff Likely to Streamline Decision-making for Armed Forces." *Live Mint*. 20 December 2016. Accessed 31 March 2017. <http://www.livemint.com/Politics/U7EcxpqU26DVyI0D9vQGqI/Chief-of-defence-staff-likely-to-streamline-decisionmaking.html>.

- Dawn. "Are Pakistan and Russia Forming an Alliance? Not Without China, says Expert." 1 April 2017. Accessed 3 April 2017. <https://www.dawn.com/news/1324187>.
- Deccan Chronicle. "Russia Makes U-Turn, Backs China-Pak Economic Corridor; India Alarmed." 19 December 2016. Accessed 3 April 2017. <http://www.deccan-chronicle.com/nation/current-affairs/191216/russia-makes-u-turn-backs-china-pak-economic-corridor-india-alarmed.html>.
- Dutta, Abhinav. "What are the Challenges to India's Defense Modernization." *Swarajya*. 12 July 2016. Accessed 3 May 2017. <https://swarajyamag.com/defence/indias-defence-modernisation-challenges-and-prospects>.
- Express News Service. "UN Security Council: US Supports India's Bid for Permanent Membership." *The Indian Express*. 21 November 2015. Accessed 3 April 2017. <http://indianexpress.com/article/india/india-news-india/un-security-council-us-supports-indias-bid-for-permanent-membership/>.
- FP Politics. "Goa Election 2017: Manohar Parrikar Resigns as Defense Minister, to be Sworn-in as CM at 5PM Tuesday." *First Post*. 13 March 2017. Accessed 1 April 2017. <http://www.firstpost.com/politics/goa-election-2017-governor-appoints-manohar-parrikar-cm-after-bjp-cobbles-up-coalition-of-smaller-parties-independents-defence-minister-modi-cabinet-reshuffle-3331716.html>.
- Gassaway, Cory N. "A Diamond in the String of Pearls: The Strategic Importance of Sri Lanka for Indian Ocean Regional Stability." Paper, Naval War College, Newport, RI, May 2011.
- George, Varghese K. "India, US Sign Military Logistics Pact." *The Hindu*. 18 October 2016. Accessed 3 April 2017. <http://www.thehindu.com/news/international/India-US-sign-military-logistics-pact/article14598282.ece>.
- Global Fire Power. "China Military Strength: Current Military Capabilities and Available Firepower for 2016 Detailed." Accessed 4 April 2017. [http://www.globalfirepower.com/country-military-strength-detail.asp?country\\_id=china](http://www.globalfirepower.com/country-military-strength-detail.asp?country_id=china).
- Global Security. "China's Defense Budget." Accessed 2 April 2017. <http://www.globalsecurity.org/military/world/china/budget.htm>.
- Goswami, Suparna. "Study Finds India is Asia's Most Corrupt Country, While Japan Comes in Last." *Forbes*. 8 March 2017. Accessed 1 April 2017. <https://www.forbes.com/sites/suparnagoswami/2017/03/08/study-finds-india-is-asias-most-corrupt-country-while-japan-comes-in-last/#c244bce1201f>.

- Guangshun, Chen. "The Survey Ship 'Ocean -1' Smoothly Completes Sea Trial in the South Sea." China Ocean News. 18 November 2013. Quoted in US-China Economic and Security Review Commission. "China's Navy Extends its Combat Reach to the Indian Ocean." 14 March 2014. Accessed 20 April 2017. <https://www.uscc.gov/Research/china%E2%80%99s-navy-extends-its-combat-reach-indian-ocean>.
- Hatcher, Captain Jaimie. "China's growing Indian Ocean Maritime Interests- Sowing the Seeds of Conflict?" Seaford House Paper, Royal College of Defense Studies, 2012.
- Hindustan Times. "World's Oldest Serving Aircraft Carrier Viraat to Retire on March 6." 15 February 2017. Accessed 4 April 2017. <http://www.hindustantimes.com/india-news/world-s-oldest-serving-aircraft-carrier-viraat-to-retire-on-march-6/story-io0pMPByJG5a56PosC8IgM.html>.
- IAS Point. "India US Defense Framework Pact and DTTI." 8 March 2017. Accessed 3 May 2017. <http://www.gktoday.in/iaspoint/current/india-us-defence-framework-pact-and-dtti/>.
- India Times. "After Manohar Parrikar Resigns to Become Goa CM, Arun Jaitley Gets Charge of Defense Ministry." 13 March 2017. Accessed 1 April 2017. <http://www.indiatimes.com/news/india/after-manohar-parrkar-resigns-to-become-go-a-cm-arun-jaitley-gets-charge-of-defence-ministry-273367.html>.
- India Today. "Cuts in Funds for DRDO Forced it to put Major Projects on Hold: Par Panel." 9 March 2017. Accessed 2 April 2017. <http://indiatoday.intoday.in/story/cuts-in-funds-for-drdo-forced-it-to-put-major-projects-on/1/900935.html>.
- Integrated Headquarters, Ministry of Defense (Navy). *Indian Maritime Doctrine 2009*. Updated 2015. Accessed 3 May 2017. <https://www.indiannavy.nic.in/sites/default/files/Indian-Maritime-Doctrine-2009-Updated-12Feb16.pdf>.
- Jagga, Brigadier R. K. "China's Growing Power and Implications for India: Will it be a cooperative/competitive or a Hostile Relationship?" Seaford House Paper, Royal College of Defense Studies, 2012.
- Jagran Josh. "Cabinet Committees." 17 July 2015. Accessed 1 April 2017. <http://www.jagranjosh.com/general-knowledge/cabinet-committees-1437131839-1>.
- Jain, Mayank. "This One Chart Shows How India's Defense Deals are mired in Corruption (and China are even Worse)." *Scroll.in*. 4 November 2015. Accessed 1 April 2017. <https://scroll.in/article/766882/this-one-chart-shows-how-indias-defence-deals-are-mired-in-corruption-and-chinas-are-even-worse>.

- Joint Chiefs of Staff. Joint Publication (JP) 5-0, *Joint Operation Planning*. Washington DC: Government Printing Office, August 2011.
- Kanwal, Brigadier (Retd) Gurmeet. "Why India Needs a National Security Strategy." *Rediff News*. 17 June 2016. Accessed 4 April 2017. <http://www.rediff.com/news/column/why-india-needs-a-national-security-strategy/20160617.htm>.
- Keck, Zachary. "Watch Out, China: India's Navy wants 200 Warships." *The National Interest*. 15 July 2015. Accessed 30 March 2017. <http://nationalinterest.org/blog/the-buzz/watch-out-china-indias-navy-wants-200-warships-13340>.
- Kostecka, Daniel J. "Places and Bases: The Chinese Navy's Emerging Support Network in the Indian Ocean." *Naval War College Review* 64, no. 1 (Winter 2011): 59-78.
- Kotoky, Anurag. "Modi to Spend \$59 Billion to Upgrade India's Infrastructure." *Bloomberg*. 1 February 2017. Accessed 2 April 2017. <https://www.bloomberg.com/news/articles/2017-02-01/modi-plans-59-billion-rail-road-push-as-bombardier-ge-invest>.
- Kumar, Dinesh. "Reality Bites Make-in-India Defense Dreams." *The Tribune*. 3 February 2016. Accessed 1 April 2017. <http://www.tribuneindia.com/news/comment/reality-bites-make-in-india-defence-dream/191046.html>.
- Malik, V. P. "Complexities of National Security Decision-Making Process." *CLAWS Journal* (Summer 2011). Accessed 26 April 2017. [http://www.claws.in/images/journals\\_doc/1395649938V%20P%20Malik%20%20CJ%20Summer%202011.pdf](http://www.claws.in/images/journals_doc/1395649938V%20P%20Malik%20%20CJ%20Summer%202011.pdf).
- Marantidou, Virginia. "Revisiting China's String of Pearls' Strategy: Places 'with Chinese Characteristics' and their Security Implications." *Issues and Insights* 14, no. 7 (June 2014).
- Martina, Michael and Philip Wen. "China's 2017 Defense Budget Rise to Slow Again." *Reuters*. 4 March 2017. Accessed 2 April 2017. <http://www.reuters.com/article/us-china-parliament-defence-idUSKBN16B043>.
- Murray, Williamson, and MacGregor Knox. "Conclusion: The Future Behind Us." In *The Dynamics of Military Revolution 1300-2050*, edited by MacGregor Knox and Williamson Murray, 175-194. Cambridge, UK: Cambridge University Press, 2001.
- NDTV. "24 Agreements Signed Between India and China during PM Modi's Visit." 15 May 2015. Accessed 19 April 2017. <http://www.ndtv.com/cheat-sheet/24-agreements-signed-between-india-and-china-during-pm-modis-visit-763246>.

- Official Website of the Indian Navy. Accessed 4 April 2017. <https://www.indiannavy.nic.in/>.
- Osborn, Kris. "Congressional Request for Proposal Solicits Expert Report on Chinese Weapons." *Warrior*. 21 April 2017. Accessed 30 March 2017. <http://www.scout.com/military/warrior/story/1668461-us-report-cites-growing-china-military-threat>.
- Pakistan Defense. "Chinese Military Assistance to Pakistan and Implications for India." 24 August 2010. Accessed 3 April 2017. <https://defence.pk/pdf/threads/chinese-military-assistance-to-pakistan-and-implications-for-india.70422/>.
- Pandit, Rajat. "Eye on China, India to Base First Squadron of Rafale Fighter Jets in Bengal." *The Times of India*. 7 January 2017. Accessed 30 March 2017. <http://timesofindia.indiatimes.com/india/eye-on-china-india-to-base-first-squadron-of-rafale-fighter-jets-in-bengal/articleshow/56384484.cms>.
- Pannikar, K. M. *India and the IO*. London: Allen and Unwin, 1945. Quoted in Berlin, Donald L. "India in the Indian Ocean." *Naval War College Review* 59, no. 2 (Spring 2006): 58-89. Accessed 4 May 2017. [http://www.tamilnation.co/intframe/indian\\_ocean/Donald\\_Berlin\\_India\\_and\\_indian\\_ocean.pdf](http://www.tamilnation.co/intframe/indian_ocean/Donald_Berlin_India_and_indian_ocean.pdf).
- Parameswaran, Prashanth. "US, Japan, and India Kick off 2016 Malabar Exercise." *The Diplomat*. 12 June 2016. Accessed 30 March 2017. <http://thediplomat.com/2016/06/us-japan-and-india-kick-off-malabar-2016/>.
- Paret, Peter. "Clausewitz." In *Makers of Modern Strategy from Machiavelli to the Nuclear Age*, edited by Peter Paret, 186-213. Princeton, NJ: Princeton University Press, 1941.
- Pehrson, Christopher J. "String of Pearls: Meeting the Challenges of China's Rising Power across the Asian Littoral." Carlisle Papers in Security Strategy, US Army War College Strategic Studies Institute. Carlisle, PA 2006.
- Prabhu, Jaideep A. "Problems in India's Defense Indigenization." *Center Right India*. 13 December 2013. Accessed 1 April 2017. [http://centreright.in/2013/12/problems-in-indias-defence-indigenisation/#.WN-dd\\_nyvIU](http://centreright.in/2013/12/problems-in-indias-defence-indigenisation/#.WN-dd_nyvIU).
- Pryce, Paul. "The Indian Navy: On a Collision Course with China?" *Canadian Naval Review* 9, no. 4 (2014): 4-8.
- Pubby, Manu. "Defense Budget up by 6 per cent to Rs 2.74 Lakh Crore in 2017-18 from Rs 2.58 Lakh Crore Last Year." *The Economic Times*. 2 February 2017. Accessed 2 April 2017. <http://economictimes.indiatimes.com/news/defence/defence-budget-up-by-6-per-cent-to-rs-2-74-lakh-crore-in-2017-18-from-rs-2-58-lakh-crore-last-year/articleshow/56909480.cms>.

- Russia and India Report. "Russia Remains Biggest Arms Supplier to India." 29 February 2016. Accessed 1 April 2017. [http://in.rbth.com/economics/defence/2016/02/29/russia-remains-biggest-arms-supplier-to-india\\_571673](http://in.rbth.com/economics/defence/2016/02/29/russia-remains-biggest-arms-supplier-to-india_571673).
- Samma Web Desk. "India, China Carry out Joint Naval Operations in Gulf of Aden." Samma. 9 April 2017. Accessed 19 April 2017. <https://www.samaa.tv/international/2017/04/india-china-carry-out-joint-naval-operation-in-gulf-of-aden/>.
- Sawant, Gaurav C. "India Needs Chief of Defense Staff, But don't Ape the West, says Lt Gen Shekatkar's Report." *India Today News*. 27 December 2016. Accessed 31 March 2017. <http://indiatoday.intoday.in/story/shekatkar-committee-chief-of-defence-staff-defence-ministry-indian-armed-forces-manohar-parrikar-lt-gen-shekatkar/1/843526.html>.
- Singh, Bhartendu Kumar. "Sino-Indian Ties: The 11<sup>th</sup> Round of Joint Working Group Meeting." *Institute of Peace and Conflict Studies*. 7 June 1999. Accessed 3 April 2017. <http://www.ipcs.org/article/china/sino-indian-ties-the-11th-round-of-joint-working-group-195.html>.
- Singh, Sushant. "India, US finalize Major Defense Partner Agreement." *The Indian Express*. 9 December 2016. Accessed 1 April 2017. <http://indianexpress.com/article/india/india-us-major-defence-partner-agreement-manohar-parrikar-ashton-carter-4418019/>.
- Sitaraman, Srinii. "Is South Asia Moving into the Chinese Orbit and Setting off Alarm Bells in New Delhi?" *Foreign Policy Journal*. 19 July 2013. Accessed 30 March 2017. <https://www.foreignpolicyjournal.com/2013/07/19/is-south-asia-moving-into-the-chinese-orbit-and-setting-off-alarm-bells-in-new-delhi/>.
- Sparknotes. "International Politics: Theories on International Relations." Accessed 17 March 2017. <http://www.sparknotes.com/us-government-and-politics/political-science/international-politics/section2.rhtml>.
- Sputnik International. "India, Japan Signs Deal on Defense Technology Transfer, Data Protection." 12 December 2015. Accessed 1 April 2017. <https://sputniknews.com/politics/201512121031638501-india-japan-defense-technology-information-protection-deal/>.
- Srivastava, Shruti. "India Turning to Services to Bridge Widening Trade Deficit with China." *The Indian Express*. 16 March 2015. Accessed 19 April 2017. <http://indianexpress.com/article/business/business-others/india-turning-to-services-to-bridge-widening-trade-deficit-with-china/>.
- Stannard, James. "The World's Five Fastest-Growing Economies." *World Finance*. 7 April 2017. Accessed 19 April 2017. <https://www.worldfinance.com/markets/the-worlds-five-fastest-growing-economies>.

- Statistics Times. "China vs India Population." 8 February 2015. Accessed 3 April 2017. <http://statisticstimes.com/population/china-vs-india-population.php>
- . "GDP of India." 3 March 2017. Accessed 2 April 2017. <http://statisticstimes.com/economy/gdp-of-india.php>.
- Stephens, Dale. "Naval Power in the Indian Ocean: 21st Century Opportunities and Challenges: Maritime Governance and the Indian Ocean." RUMLAE Research Paper no. 16-08, Adelaide Law School, Research Unit on Military Law and Ethics.
- Target SSB Interview. "Indian Armed Forces: Important Details and Structure of Forces." Accessed 2 April 2017. <http://targetssbinterview.com/adm/downloads/Armed%20Forces%20-%20Important%20Details.pdf>.
- Taylor, Adam and Laris Karklis. "This Remarkable Chart Shows How US Defense Spending Dwarfs the Rest of the World." *The Washington Post*. 9 February 2016. Accessed 2 April 2017. [https://www.washingtonpost.com/news/worldviews/wp/2016/02/09/this-remarkable-chart-shows-how-u-s-defense-spending-dwarfs-the-rest-of-the-world/?utm\\_term=.4d4d5c3a3e8f](https://www.washingtonpost.com/news/worldviews/wp/2016/02/09/this-remarkable-chart-shows-how-u-s-defense-spending-dwarfs-the-rest-of-the-world/?utm_term=.4d4d5c3a3e8f).
- The Economic Times. "India Again World's Biggest Arms Importer: Swedish Think-Tank." 22 February 2016. Accessed 1 April 2017. <http://economictimes.indiatimes.com/news/defence/india-again-worlds-biggest-arms-importer-swedish-think-tank/articleshow/51093214.cms>.
- . "Russian Defense Companies Keen on Technology Transfer, JVs with Indian Firms." 21 March 2017. Accessed 1 April 2017. <http://economictimes.indiatimes.com/news/defence/russian-defence-companies-keen-on-technology-transfer-jvs-with-indian-firms/articleshow/57757747.cms>.
- The Indian Express. "India, China for Mutually Acceptable Solution to Border Dispute." 20 April 2016. Accessed 3 April 2017. <http://indianexpress.com/article/india/india-news-india/india-china-border-dispute-peace-talks-ajit-doval-nsa-2762698/>.
- The Times of India. "Unemployment in India to Increase Marginally in 2017-18: UN Report." 13 January 2017. Accessed 2 April 2017. <http://timesofindia.indiatimes.com/india/unemployment-in-india-to-increase-marginally-in-2017-18-un-report/articleshow/56512962.cms>.
- Thucydides. "History of Peloponnesian War." Accessed 1 April 2017. <http://www.thelatinlibrary.com/imperialism/readings/thucydides1.html>.
- Trade Economics. "India Population." Accessed 2 April 2017. <http://www.tradingeconomics.com/india/population>.

- Tweed, David, and N. C. Bipindra. "Submarine Killers Showcase India's \$61 Billion Warning to China." *Live Mint*. 29 July 2015. Accessed 5 April 2017. <http://www.livemint.com/Politics/b869hv7dJ5PdSjEoz7OrhK/Submarine-killers-showcase-Indias-61-billion-warning-to-Ch.html>.
- University of South California. "Organizing Your Social Sciences Research Paper: Qualitative Methods." Accessed 29 March 2017. <http://libguides.usc.edu/c.php?g=235034&p=1561755>.
- . "Organizing Your Social Sciences Research Paper: Quantitative Methods." Accessed 29 March 2017. <http://libguides.usc.edu/writingguide/quantitative>.
- US-China Economic and Security Review Commission. "China's Navy Extends its Combat Reach to the Indian Ocean." 14 March 2014. Accessed 20 April 2017. <https://www.uscc.gov/Research/china%E2%80%99s-navy-extends-its-combat-reach-indian-ocean>.
- US Department of Defense. *Annual Report to Congress on Military and Securing Developments Involving the People's Republic of China 2013*. Washington, DC: Government Printing Office, May 2013.
- . *Asia-Pacific Maritime Security Strategy*. Washington, DC: Government Printing Office, July 2015.
- Varma, K. J. M. "India's Trade Deficit with China Mounts to \$46.56 Billion." *Live Mint*. 13 January 2017. Accessed 19 April 2017. <http://www.livemint.com/Politics/Ag4wtkZODwjHtESc117WO/Indias-trade-deficit-with-China-mounts-to-4656-billion.html>.
- Yarger, H. Richard. "Toward a Theory of Strategy: Art Lykke and the U.S. Army War College Strategy Model." In *The U.S. Army War College Guide to National Security Issues, Volume I: Theory of War and Strategy*, 4th ed. edited by J. Boone Bartholomees, Jr. 2010. Strategic Studies Institute, U.S. Army War College, Carlisle Barracks, PA.