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Message from the Chief Patron

It gives me immense pleasure to see the publication of the research journal of Defence Services Command & Staff College, *Mirpur Papers* Volume 26, Issue 30. *Mirpur Papers* bears ample testimony of intellectual capacity of the course participants of Defence Services Command & Staff Course from different countries across the globe. In addition to the write ups of the course participants, articles written by faculty, academics and professionals have added value to this volume of *Mirpur Papers*.

Defence Services Command and Staff College, Mirpur is the premier military institution which is designed to develop professional acumen and capacity of selected officers of the Armed Forces in order to prepare them for assumption of increasing responsibilities. Besides acquiring military knowledge, the course participants also undertake research works as part of their Masters of Science in Military Studies Programme under Bangladesh University of Professionals (BUP).

Defence Services Command and Staff College always emphasizes on conducting research on contemporary national security and defence issues. This enables the mid-level officers to make an original contribution to a subject of national and international interest. I believe the readers will find the articles useful and intellectually stimulating.

Finally, I take this opportunity to congratulate and commend the Editorial Board, all contributors, reviewers and all others involved in the process of the publication of this journal.

**Major General Md Akbar Hossain, SBP, SUP (BAR), afwc, psc, G+
Commandant
Defence Services Command and Staff College**

EDITORIAL

‘International Order in the 21st Century: Norms, Challenges, Dynamics and Significance’ is the first article of this issue. The 21st century, more than ever, predicates that we cannot live in isolation. A number of issues that we need to address—and address together—is the likes of climate change, nuclear proliferation, the spread of infectious diseases, and economic globalization, although this list is not exhaustive in nature. At the same time, the realization of togetherness also indicates a number of political questions—how is the world organized politically? How should it be organized? What forms of political organization are required to meet the challenges faced by humankind in the 21st century and beyond? This is where the question of international order comes to question. As we live in a complex world, we find solutions cannot be made by one country, and cannot be implemented by one as well—we need multiple stakeholders to work together along with a guarantor to ensure the sustenance of the process. In this article, the author outlined a number of issues and challenges to the contemporary international order, particularly highlighting the challenges which are different and more complex than those of the previous century. It concludes by pointing out the need for a stable order to address the crises of today.

‘Population Movement and Border Enforcement in Europe: A Critical Discussion’ is the second article. With contemporary influx of the refugees and irregular migrants in the doors of Europe, the management of borders within Europe and its external borders with the non-European Union (EU) neighbours portrays a hard security approach. Individual states have reinforced their border agencies to stop crossing of these people. Some of these practices do not only project the severity of the situation in the borders of the Europe but also depict hard-policing practices of border enforcement agencies in dealing with the issues of refugees and irregular migration. These overtly exposed security-first/kinetic approaches are not something very unique only for the European nations. To understand the contemporary trends of border enforcement in Europe and its implications on the issues of externalization of so called security threats to the states of this region, it is crucial to reflect on a wider understanding of the concepts—enforcement of border security agency/ies. This study intends to highlight significant aspects of border enforcement and technological development in an unavoidable way. The study argues that borders are made overt security zones to tackle refugees and undocumented migrants, however, it has not been proven that stricter border enforcement would be able to stop irregular migration and influx of refugees and migrants.

The third paper ‘Some Pertinent and Emerging Development Issues in South Asia’ by Professor Dr. Md Abdul Wadud highlights some issues in development that are pertinent and emerging in the economies of the South Asian region using secondary data collected from various international organizations. The author found that South Asian economies

have shown persistent and resilient attempts and policies towards facing and improving the challenges of development. He explores policies and strategies for South Asian nations which would help face the challenges of development and harvest benefits through regional and global cooperation.

The fourth article ‘Role of Aviation Industries in Realizing the Higher Levels Goal of Bangladesh Delta Plan 2100’ is co-authored by a Course Participant and a veteran Air Officer. It shows how the aviation industry of Bangladesh could become a stakeholder in achieving the overall industrialization effort of Bangladesh. This could be an important tool to achieve higher level goals of Bangladesh Delta Plan 2100.

The fifth article of this issue is on ‘A Strategic Corporal in Constructive Simulation: Creating a Near-To-Real Complex Training Environment.’ This write-up is a blended upshot of a seminar presentation and its afterthought. In May 2017, as the Director AWGC, the writer was invited by the ITEC at Rotterdam Ahoy, Netherland to deliver on ‘simulation based training management related to HDRO.’ The thoughts were combined and constructed on a pre-forwarded concept paper, which was an empirical outcome with baseline understandings accumulated from developing the AWGSS, the training methods for AWGC and the experience of conducting a good number of exercises. As the world increasingly becomes tech-reliant, a simulated and AI (Artificial Intelligence) dominated training environment for the military across the world is only a matter of time. The pedagogical requirement of military forces is bound to get transformed; and this paper appropriately sheds some light on that.

With the progression of time, age and civilization, the method of conduct of war, was transformed by technology playing the main role of driver of change. The new form has been described in many ways – HYBRID WAR being the most commonly used. The sixth paper on ‘The Nature/ Character of Future War’ delves into the future character of war, identifies the drivers of change, and the impact of those on the operational environment and how that might need a rethinking on our force structure, weapon system as well as on operational concepts.

The seventh article is on assessing earthquake exposure knowledge in household level in southern part Of Dhaka South City Corporation, Bangladesh. The study is carried out at the household level to gather knowledge of earthquake risk reductions of the southern part of Dhaka City. Unplanned urbanization process in Bangladesh has caused the increased vulnerability to natural disasters like earthquakes. Dhaka is the core of commerce, education, politics, etc. and holds a large population. According to a report published by World Risk Index 2018, Bangladesh is highly vulnerable to lack of coping with the disaster and afterward adaptations. Seismologists believe that the city’s tectonic position and recent tremors will lead to a massive earthquake in the near future. It is recognized that narrow road network; irregular building shape has made zone 5 of the

southern part of the city more vulnerable to any forthcoming earthquake. In any DRR plan the major concern goes to the preparedness level of the local community. The study was executed by assessing earthquake exposure knowledge by household questionnaire survey. After a thorough analysis of different indicators, e.g. present knowledge status of the community regarding earthquake risk, past-earthquake experiences and instant responses, perception about the vulnerability of the residing in this seismic risk area has been found.

The eighth article of this issue is on ‘To what extent can a Sovereign State pursue an Independent Foreign Policy?’ In this era of globalisation and interdependence it is a challenging task for any nation to endeavour to pursue independent foreign policy. Stronger nations may venture this to certain extent but for smaller, weaker nations it is an unpleasant choice. Analysis of four stronger nations, China, India, Japan and Russia, those formally claimed to pursue independent foreign policy at some point of time reveals that these nations had to make compromise in their foreign policy pursuit. China attempted to pursue declared independent foreign policy but had to compromise for ensuring economic and military security of the nation. India with pronounced policy of ‘non-alignment’ could not maintain that posture; they had to make alignment and again realign. Japan has been struggling since WWII for defining a genuine independent foreign policy let alone pursuing. And Russia under Vladimir Putin is endeavouring to pursue independent foreign policy but at the high cost of economic challenges. Therefore, in this globalised world stronger nations may be able to pursue reasonably independent foreign policy but not completely independent.

In 2018 Bangladesh launched her first satellite in space which is now fully operational. However, the immense potential offered by this \$317 million satellite is barely utilized by the armed forces of Bangladesh. The ninth article ‘Enhancement of Air Defence Capability of Bangladesh through Utilization of Bangabandhu Satellite’ explores how the utilization of Bangabandhu Satellite can increase the overall all Air Defence capability of Bangladesh.

At the turn of the century, concept of Human Security has evolved into focusing security of individuals and emphasizing the need to protect people including their rights and freedom. In the tenth article ‘Human Security Framework for Bangladesh,’ a short glimpse of the concept of Human Security is given along with its relevance to Bangladesh. The paper also suggests a theoretical framework of Human Security in Bangladesh perspective.

‘Use of Force in Protection of Civilians: Challenges and Ways Ahead for Peace Keepers’ is the eleventh article of this issue. Due to the changing nature of conflict and complex operating environment use of force in peace keeping operation is gradually becoming a norm rather than exception. However, there are myth, puzzle and paradoxes around

principles and practices of using force by UN military Forces. Paradoxically the use of force has been marked more by its absence than by its presence and it has been a source of enduring controversy in peace keeping operation. To harness the combat power of UN effectively all stakeholders need to have a shared understanding of principles and practices. In the physical dimension of military power there is a gap between the capabilities required and the capabilities provided for UN military forces. UN needs to modernize military capabilities to accomplish mandated tasks while safeguarding peacekeepers in complex operating environment. To implement robust mandates military component need to be resourced and supported with critical force multipliers and enabling capacities such as mobility, rapid reaction capacity and technological support. At the same time when a broad cross section of the UN members put boots on the ground, it would generate a message of unified resolve and determination which is vital for moral cohesion among all stakeholders. There is a need of a genuine strategic unity of vision among the triad of the Security Council, the troops contributing countries and the UN Secretariat to overcome the challenges of conceptual, physical and moral dimensions of UN military power.

‘Strategic Perspective of 1973 Arab-Israel War – Enduring Lessons’ is the twelfth article. A prolong conflict like Arab-Israel needs an in-depth study not from tactical perspective only but both from operational and strategic perspective. The series of long drawn conflict is aptly studied by military commanders in Bangladesh Army but the domain is mostly confined to tactical and operational level. Undoubtedly, a broad brush touch on strategic perspective is given as a prelude but it needs to be studied with deeper understanding for all level of leaderships. This conflict if studied properly offers an insight of individual exploits of great intrinsic interest: manifestation of courage and cowardice, of headless confusion and of brilliant improvisation. Keeping this theme in mind, the paper is developed so that the strategic perspective both from Arab and Israel are understood and comprehended by all military commanders so that it serves as an engraved enduring lesson for their professional military career. The Arab-Israel conflict of 1973 is taken as a base study here as it is the last fierce conflict that draws down all strategic perspective including the role of key actors involved in the conflict. The status-quo of Golan and Sinai Peninsula are surprisingly still as it had been as the outcome of the war even after 42 years of conflict. Numerous new findings are going to enlighten any reader if the paper is read with basic understanding of the conflict.

Recently, Bangladesh army changed the pattern of basic military training where officer cadets undergo three years basic military training and along with an honours degree. As the academic curriculum cannot be completed within three years, it takes additional time after the commission to complete the degree. The additional time required to achieve the degree after the commission is called ‘Post Commission Academic Training (PCAT).’ The thirteenth paper ‘Effects of Prolonged Post Commission Academic Training on

Effective Grooming up of Newly Commissioned Officers; Challenges and Ways Forward’ discusses the impacts of such changes and put forward recommendations.

‘Providing Security to Blue Economy Activities in the Bay of Bengal by Bangladesh Navy: Challenges and Ways Forward’ is the fourteenth article of this issue. Following the settlement of the maritime boundary, many avenues of exploring and exploiting the marine resources have been revealed to Bangladesh. At present, several projects like installation of floating Liquefied Natural Gas (LNG) terminals at Maheskhali and Kutubdia, construction of Matarbari coal power plant, two dimensional seismic survey, oceanographic research and other relevant activities are on-going in Bangladesh maritime area. With the present trend of Blue Economy (BE) initiatives, these activities will increase in Bangladesh waters in future. All these enhanced BE activities deserve and demand security from natural and non-traditional threats for better and successful outcome. In line with that Bangladesh Navy is providing security to BE relentlessly. However, with the increasing maritime activities, security challenges have also increased in manifold. In this context the research was under taken to determine the BN approach to provide security to BE. Different on-going activities of BE associated maritime security threats and the difficulties of current ad-hoc deployment were analysed. Survey questionnaire, interview and FGD of concerned professionals were used as primary data. The research identified that considering the BE security requirement BN possesses capability gaps in terms of platforms, equipment, personnel and training. The research felt the necessary policy adoption and BN capability up-gradation for the successful outcome of BE. Finally, it is anticipated that the research will significantly contribute to the security study to BE.

The fifteenth and last article is entitled ‘Effect of Post-Traumatic Stress Disorder Management on Military Operational Effectiveness: The Nigerian Army Perspective.’ The Nigerian Army (hereafter NA) has become increasingly involved in a wide spectrum of military operations both at home and abroad. This has exposed its personnel to violent experiences which have often resulted in Post-Traumatic Stress Disorder (hereafter PTSD). As such, improved PTSD management would enhance the Operational Effectiveness of the NA. Consequently, this research set out to confirm how PTSD is managed in the NA and ascertain its relationship with its operational effectiveness. Additionally, it identifies the challenges militating against PTSD management for enhanced operational effectiveness as well as proffer strategies to mitigate the challenges. Field method is used to collect primary data through the use of open and close ended questionnaires. Unstructured interviews have been conducted through telephone calls with personalities knowledgeable on the subject matter and questionnaires were also administered through electronic means. Data collected were analysed qualitatively and quantitatively using logical and critical thinking from which deductions were made. The findings have been presented descriptively using charts and figures. The study establishes that there was a direct relationship between PTSD management and Operational

Effectiveness in the Nigerian Army. Challenges identified in the course of the study include, poor understanding of condition, inadequate mental health care facilities, ignorance and poor administration. The proffered strategies to mitigate these challenges in PTSD management included, sensitization and infrastructural development. Others include implementation of Mental Health Policy as well as incorporation of Religious Leaders and Commanders in the process. Finally, the Nigerian Army could key into the Federal Ministry of Health and Mental Health Programme.

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INTERNATIONAL ORDER IN THE 21ST CENTURY: NORMS, CHALLENGES, DYNAMICS AND SIGNIFICANCE

Dr. Lailufar Yasmin

Abstract

International order in the 21st Century is changing. The political, economic and security orders that were set after the end of the Second World War no longer can explain and respond to the changes of 21st Century politics. A number of scholars is gradually pointing out since the end of the last Century if we are living in a post-American world and if America has shed its hegemonic responsibility. If so, who is going to be a responsible power to attend to matters of international peace and security in the current Century? In this article, I outline the debates regarding the idea of international order and the terminological issues relating to 'international order' and 'world order'. Then, the article traces how the current international went through different phases of transition. In the end, the article elaborately discusses about the challenges that the international community experiences transnationally. It argues that these challenges need a coordinated response channeled through a stable international order.

Introduction

The 21st century, more than ever, predicates that we cannot live in isolation. A number of issues that needs to be addressed—and addressed together—is the likes of climate change, nuclear proliferation, the spread of infectious diseases, and economic globalization, although this list is not exhaustive in nature. At the same time, the realization of togetherness also indicates a number of political questions—how is the world organized politically? How should it be organized? What forms of political organization are required to meet the challenges faced by humankind in the 21st century and beyond? This is where the question of international order comes to question. As one lives in a complex world, so it is found that solutions cannot be made by one country, and cannot be implemented by one as well. Multiple stakeholders are needed to work together along with a guarantor to ensure the sustenance of the process. In other words, one needs to look at the distribution of power in the international system that locates the state of the international order. In this article, there is an attempt to outline a number of issues and challenges to the contemporary international order. In particular the challenges which are different and more complex than those of the previous century are highlighted. This article is divided into three principal sections that discusses the debates on the concepts of international order and world order and its transitions. In the third section, it particularly highlights the challenges to the contemporary order. It concludes by pointing out the need for a stable order to address the crises of present times.

International Order or World Order?

As the unipolar world ushered with the end of the Cold War, the concentration of power seemed to have been rested with the remaining superpower, the United States of America. While there were a number of apprehensions if the US would go back to its natural isolationist policy, first marked in the Monroe Doctrine, the US rather enjoyed being the global sheriff of the world¹ in the new world order until the Somalia debacle. Gradually, with the 9/11 and the US global war of terror (GWOT) policy, we have seen a particular emphasis emerging in the US international policies. It was the rise of China and the gradual decentering of political power towards the East—more particularly, towards Asia, which questioned if the postwar international order was shifting. The postwar international order was fundamentally based on the US hegemony. The US acted as the guarantor of the system that was essentially imbued with a liberal political and economic system—spearheaded by the United Nations, the International Monetary Fund, the World Bank, the General Agreement on Tariffs and Trade (GATT) that later transformed to the World Trade Organization (WTO). The rise of China and the gradual US reluctance to share international responsibilities led to the concern if the nature of postwar international order has shifted.

Scholars who have worked in this area have used two particular approaches to illustrate such a change—international order or world order. At the one hand, Henry Kissinger and authors writing in the special issue of *Foreign Affairs* published in January/February 2017 preferred to use the term ‘world order’, on the other hand, the RAND, a US-based research think tank and scholars like G. John Ikenberry have used the term ‘international order’ or ‘liberal order.’² While in neither category, the reasons for preferring either world order or international order are specified by its respective progenitors, specific perspectives are clearly discernible. RAND defines international order as “the body of rules, norms, and institutions that govern relations among the key players in the international environment.”³ Thus, the body of thought that promotes the concept of international order puts the primacy of nation-states at the heart of such an order. Chinese scholar Honggang Wang also reverberates such an outlook by saying, “[T]he international order describes how countries relate to each other at the global level and is a product of each nation’s development.”⁴ While Henry Kissinger puts the Westphalian state system at the heart of his ‘world order ideas’⁵ too, the writers of this group generally have rather put more emphasis in examining international issues from a global perspective. Thus, the ideas of World Order 1.0, World Order 2.0 and World Order 3.0 are developed by a number of scholars to capture the contemporary global political changes. Both the ideas, however, put the major thrust on not only to the challengers to American dominance, but also how the ideas of statehood itself might be challenged and the ideas such as populism, terrorism, violent extremism and other such challenges that have cross-border effects and thus often blurred the traditional concept of a hard boundary. Despite the usage of the concept in both manners, the principal ideas behind the development of the concepts can be identified as follows:-

First, an integrated and unified distribution of power easily discernible in the system is significant for the sustenance of the Westphalian system of states. The structure of the system where hierarchy of power is clear, rule-breaking tendencies of states are generally less to happen. This not only sustains the hard boundaries of states but also in the cases of resolving international crises, states know who to look up to. A *pax Britannica* and a *pax Americana* clearly revealed the structures of nineteenth and twentieth centuries respectively.

Second, an international order clearly identifies the patterns of conflicts and cooperation that characterizes the system. A bipolar order reveals the dominance of two superpowers and concurrently, the MAD—mutually assured destruction—situation signaled a negative peace in the world. The world learnt to prepare not so much for a nuclear war or an all-out war, but proxy wars of the two superpowers.

Last but not the least is clear outline of political and economic safeguard mechanisms under an international order. For the postwar international order, as has been mentioned before, the UN acted as the institution responding to political crises. However, during the large part of the Cold War period, it was mostly stalled to take any concrete action due to superpower rivalry. Despite such a predicament, the UN was a manifestation of the common aspiration of states to have a space to discuss political issues. Thus, an international order is reflected in its clear ‘institutional order’ that also determines “the principles of state conduct it reflects, and the combined preferences of the community of states that comprise its membership.”⁶

International Orders: from 1.0 to 2.0 and 3.0: *Who is the Keeper of the Current Order?*

Daniel Deudney and G. John Ikenberry, in their powerful analysis, have summarized five defining characteristics of postwar liberal international order:⁷

Security Co-binding	Western alliance through the North Atlantic Treaty Organization (NATO)
Penetrated Hegemony	Preponderance of American hegemony
Semi-sovereignty and Partial Great Powers	The support of the allies like Germany and Japan in sustaining the US hegemony
Economic Openness	Structural openness, the political foundations of economic openness and its solutions to relative gains problems of international economy
Civilizational Identity	The West’s ‘spirit’—western civilizational values as international norms and destinations

The centrality of the state-system, a core feature of world order 1.0, has often been identified by scholars as challenged in the world order 2.0. This challenge is identified as one of the principal markers of the shift where the question is not regarding the Westphalian system of hard boundaries only but the notion now has expanded to expand the meaning of sovereignty. In other words, sovereignty is no longer an exclusive power of a state to defend its hard boundary but what happens within the boundary of a state is a concern for the international community as well. Richard Haass very poignantly identifies how the understanding of statehood as ‘the right of nations to an independent existence and autonomy’ to ‘sovereign obligations’ as to what they owe to other such entities.

While Deudney and Ikenberry elaborated on the fundamental characteristics of postwar liberal international order, Kissinger and Haass, identify central features of World Orders 1.0 and 2.0, in latter works, Ikenberry identifies three liberal international/world orders:⁸

International Order	Nature	Scope
Liberal International Order 1.0	Wilsonian ideas of national self determination	Universal
Liberal International Order 2.0	Postwar order since 1945 with a clear US hegemony	West-centric
Liberal International Order 3.0	A post-hegemonic order	Universal

The end of American hegemony has caught much academic attention that parallel saw the rise of China in international politics.⁹ A number of scholars have identified America as either a reluctant hegemon or simply characterized America’s waning influence in contemporary international politics and thus, often labelled the present international system as ‘post-American.’¹⁰ Thus, the study of a post-hegemonic world order has also gained currency to explain the nature and particularities of the current world order where—“those [states] who are willing cannot, and those who can, are not willing.”¹¹ Despite such a dilemma, China seems to be ahead of other countries in leading, at least partially, the current world order. The rise of China, both from political and economic point of view and particularly its willingness to at least share the economic burden of the world has unnerved the West. While the West can hardly be considered as a united category, the US, UK and European countries have shown a cautious response to such a rise of China. The adoption of the Free and Open Indo-Pacific and the formation of the Quad—involving the US, Japan, Australia and India—often seen as a counter strategy in response to China’s Belt and Road Initiatives (BRI). Certainly, China’s reimagining the Eurasia together and its emergence as an Infrastructure superpower has created jittery among the Western powers. In such a condition, a number of dilemmas appear, which certainly reminds us the need for a stable international order and its keeper/s.

Dynamics and Challenges to the Current World Order

A number of challenges is identified by scholars, leaving aside the argument if this is a post-hegemonic World Order, World Order 2.0 or World Order 3.0. Despite such overlapping of the usage of the concept, there are certain challenges that affects us globally. The common thread of these challenges are the transnational character of the threats, which certainly brings us back to the question of having a stable world order. The different types of challenges are discussed below:-

a. **Challenges to Statehood:** Haass points out two significant issues that are affecting in the current world order—a) that the consensus on statehood would not be as easy as happened during the period of decolonization; and b) that the issue of sovereign obligation in the state system would not let states to remain aloof to each other's internal affairs—specially on the issues that might have potentials to destabilize the international system.¹² It is in this context, issues relating to the spread of weapons of mass destructions (WMDs) and international terrorism and violent extremism would not be limited being the concerns of great powers only since they can have regional as well as international ramifications. While the area of defining international terrorism remains murky and not without controversy, the old adage of 'one man's terrorist, another man's freedom fighter' has gradually lost its relevance since the terror attacks on September 11, 2001 in the US. A general consensus arises to identify terrorism as using of arms intentionally against unarmed civilians during peace time. The global norms have gradually shifted towards 'winning the hearts and minds' as a strategy to counter terrorism¹³ where the primary attention goes to find out the societal causes of terrorism and extremism.¹⁴ Hard forces to uproot terrorism has gradually proven to be unsuccessful—therefore, the turn has been towards finding out the soft approaches towards finding out the root causes and a social reengineering. The area of the spread of WMDs remain however more controversial due to the states being directly responsible for breaking the norms of international system. It not only involves the dilemma of dealing with North Korea but also the rule-breakers of the Nuclear Non-Proliferation Treaty (NPT).

b. **Changing Concept of Power and 'Powerful' States:** Power, one of the central concepts of international politics, has been *difficult* for scholars to define.¹⁵ Its nature changed with time as well—while population used to be considered as a source of power in 19th century, Morgenthau considered diplomacy as one of the vital instruments of power.¹⁶ The advent of atomic age, however, has provided a clear marker of 'hard' power. Although the concept of power in its hard, soft and smart senses were analytically developed first by Joseph Nye Jr. only in 1980s,¹⁷ France was one of the first countries to use its language and culture as a tool of soft power after its humiliating defeat in the Franco-Prussian War of 1870-71. Once again in the current century, we see a new kind of power which cannot be quite categorized using Nye's framework, where states are using particular tools at their disposal to establish their footprints in international politics. Thus, while authors develop the concepts of

‘rising power’¹⁸ or ‘middle power’¹⁹ in international politics, the UN’s peacekeeping initiatives has provided a unique opportunity for the Global South as keepers and managers of peace. Thus, the involvement of southern countries in peacekeeping, peacemaking and peacebuilding has become a dominant feature of the current world order. In such a world order, women’s role and engagements are also brought at the center by the UN through its Security Council Resolution 1325. Gradually, countries have initiated feminist foreign policy as central to their overall formulation of foreign policy, Sweden being the first of its kind since 2014.²⁰ Canada has initiated Elsie Initiative for Women in Peace Operations and a Feminist International Assistance Policy since 2017. A number of other countries is also adopting a feminist approach in their foreign policy.²¹ These actions have marked a discernible shift in international order where southern countries are no longer at the receiving end in international politics rather stakes are created for these countries for maintaining the current global order. Bangladesh is a prime example of such a case where its identity has markedly shifted from being a poor, underdeveloped country to being a leading ‘keeper’ of international peace.¹

c. **Climate Change:** The nexus between environment and politics has generally been a debate in both domestic and international politics. However, the current order faces challenges emanating from climate change in a manner never witnessed before. It is a collective challenge to the humanity where, Haass reminds us, “borders count for naught.”²³ The realization that humankind collectively faces an irreversible challenge to its existence has brought about a massive change in both the developed and developing societies. While it has brought school children like Greta Thunberg from Norway to Astha Sarmah from India to raise awareness on climate change,²⁴ it has also brought Hollywood celebrities to embrace sustainability and to promote climate issues at the global stage. This issue is no longer viewed as ‘whose problem’ or ‘who created this’—rather how to collectively make a difference for the better. The fire in the Amazon and the bushfire in Australia in 2019, specially the staggering extinction of countless species during the latter fire, only strengthened the fear regarding climate change. Political leadership regarding the issue has not been united but rather marked by the US withdrawal from the Paris Climate Treaty of 2016 and governments’ facing internal challenges for introducing ‘carbon tax’ and often approaching the issues nonchalantly, among others.²⁵

d. **A Tribal World:** ²⁶ Francis Fukuyama, who once championed liberalism as “the last man standing”, now revising his thesis arguing: identity politics is back! It seems that human tendency to form into smaller groups on the basis of commonalities is back. “Group bonding, the neuroscientist Ian Robertson has written, increases oxytocin levels, which spurs “a greater tendency to demonize and de-humanize the out-group.”²⁷ This has led to the rise of not only the ‘Trump Tribe’ but also pockets of instabilities where the overarching appeal of ‘national identity’ fails to submerge group identities and to promote integration. Thus, Chua argues that when human groups are faced with challenges of inequality, the principles of

Enlightenment— liberalism, secularism, rationality, equality, free markets—do not provide any appeal of inclusivity.²⁸ In European context, the rise of the Far Right and other extremist groups as well as Islamist extremism explains how groups are increasingly being exclusionary in nature²⁹—states only provide the concept of hard border but people have created internal borders where out-groups have limited or mostly no entrance within the same country!

e. **Cyberspace and Artificial Intelligence (AI):** Cyberspace is the newest domain of international activity, marked by both cooperation and conflict. It was Russian President Putin who brought AI at the forefront of international politics by declaring:

Artificial intelligence is the future, not only for Russia, but for all humankind ... It comes with colossal opportunities, but also threats that are difficult to predict. Whoever becomes the leader in this sphere will become the ruler of the world.³⁰

While Klaus Schwab, Founder and Executive Chairman of the World Economic Forum, termed AI as the Fourth Industrial Revolution, Elon Musk argues—that growth in artificial intelligence technology, if left unchecked, could risk sparking World War III.³¹ In fact, Hoffman identifies how Manuel De Landa wrote regarding the challenges to be posed with the invention of autonomous weapons. Hoffman quotes him by saying

when we move past cruise missiles that merely hit their intended targets to the day when “autonomous weapons begin to select their own targets, the moment the responsibility of establishing whether a human is friend or foe is given to the machine, we will have crossed a threshold and a new era will have begun.”³²

Investment of big powers in AI matters where the US and China emerge as the two biggest countries in the areas of research related to AI. In terms of investment, however, China surpasses all the others as it plans to build a \$150 billion AI industry by 2030 through yearly gradual investment of around \$7 billion. Israel emerges as the third largest investors where countries like Japan, European Union as a community of states, Germany and France separately are also not lagging behind.³³ Cyberspace and cybersecurity pose complex challenges to global governance and in international relations. For example, when we think of the i-Cloud and data cables, we need to understand the intricate ways that the globe is connected through under the sea—not through the satellites. Scholars have only recently started paying attention to this domain, more particularly after the US Presidential Election of 2016 and the battle over technology between the US and China over Huawei. The exact definitional aspects are yet to be agreed upon generally—although suffice to say that this particular domain involves “the threat opportunities from digital and computational technologies.”³⁴ The rising influence in technology shall determine states’ position and control in international politics. This will certainly determine the course and actors of the new world order.

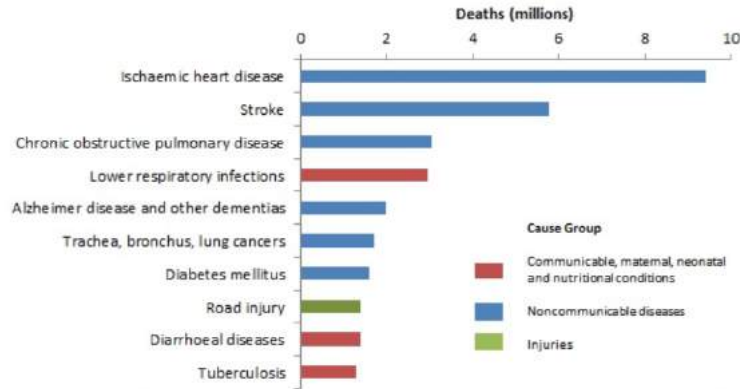
f. **Global Pandemics:** Studies on globalization generally started off with the idea of the shrinking of the world and increasing connectivity that was first concisely summarized in the concept of the ‘global village’. Gradually, authors spoke of a McWorld and Cococolization³⁵ of the world which made people living specially in big cities look alike and embrace a ‘global culture’. The accelerating rate of contacts among different groups of people across national boundaries, specially since 1970s led to the understanding and recognizing of Emerging Infectious Diseases (EID) in 1996.³⁶ The list of EID included some familiar and familiar emerging and re-emerging diseases (e.g. HIV, TB, malaria, influenza, staph) as well as less familiar zoonoses and diseases transmitted by insects—such as rift valley fever virus to Severe Acute Respiratory Syndrome (SARS), Nipah Virus and Corona virus, to name a few. William Foege, former Director of Centres for Disease Control (CDC) of the US termed these diseases as “global infectious disease threats.”³⁷

The outbreak of Covid-19, otherwise known as Coronavirus, a respiratory disease in the form of viral flu, has once again revealed the dangers of globalization of diseases. As the world has become so much integrated and China acts as a global wheel of channeling resources through its Belt and Road Initiatives adopted in 2013 in different continents, the Wuhan outbreak has created a panic both in the domestic and international arenas. Its economic impacts can be far reaching and overwhelming too as is seen in the slowing of the oil demand by 20 percent in early February 2020 from China, which Bloomberg has pointed out as “probably the largest demand shock the oil market has suffered since the global financial crisis of 2008 to 2009, and the most sudden since the 2009 September 11 attacks.”³⁸ Thus, the ‘viral slowdown’ of global economy, as the Economist points out, is yet to be ascertained fully.³⁹ Thus, ‘borderless diseases’⁴⁰ like coronavirus which has spread in 24 countries till mid-February, 2020, shows us how integration comes with a price and requires a world order where the manner of cooperation also has to be borderless. Mark Honigsbaum, identifying the past century as ‘pandemic century’ leaves a warning, saying:

Reviewing the last hundred years of epidemic outbreaks, the only thing that is certain is that there will be new plagues and new pandemics. It is not a question of if, we are told, but when...This is not only because microbes are highly mutable—that has been known since Pasteur’s time—but because we are continually lending them a helping a hand. Time and again, we assist microbes to occupy new ecological niches and spread to new places in ways that usually only become apparent after the event.⁴¹

Researches emerge stating that top ten causes of death are not terrorism, warfare or conflicts but mainly emerging from heart diseases and lower respiratory diseases, shown in the following chart:⁴²

Figure 1:
Top 10 global causes of deaths, 2016



Source: Global Health Estimates 2016: Deaths by Cause, Age, Sex, by Country and by Region, 2000-2016, Geneva, World Health Organization; 2018

In other words, more people in the world die from preventable diseases, which only 0.5 percent of global death occurred from terrorism, war and natural disasters in 2017.⁴³ It certainly tells us that the global order must need to take into account of a different kind of sources of instability and rethink the patterns of global engagements.

g. Statelessness: The primary marker of identity in our time is living *in* a state. The globe is divided into political identities where a national identification card determines our legal identities. The Treaty of Westphalia, signed in 1648, has initiated the principle of external inviolability and the rights of a definite group of people within a particular and designated territory. The Westphalian system was simply copied and pasted by colonized people who saw this as a marker of their ‘maturity’ and thus was given a universal validity. Thus, to be a ‘non-citizen’ is a modern and political curse and as one scholar puts it, *the new other*.⁴⁴ Although scholars have argued on ‘politics of recognition’ and people’s ‘right to have rights’, Charles Taylor and Hanna Arendt respectively, which set the tones of human security, the number of 2017’s stateless people is 12 million, according to UN.⁴⁵ This number has risen as the number of Rohingya population entering into Bangladesh since August 26, 2017 has continued in 2018 and 2019. In a world of states, the issue of addressing statelessness remains murky and politically almost impossible. When a state denationalizes its own citizens, international system lacking any enforcement mechanism, can hardly have any teething power. The *anarchic* nature of international system empowers states but disempowers people, whose social contract made the system of states emerge.

Conclusion

In this article, the ongoing debates regarding the current international order have been highlighted. It identifies that states remain central actors although a multiplicity of issues challenges states' sustainability as well as lead to the need for a world order and integrated global governance. This article, while identifies the challenges, does not quite fully develops the mechanisms to address those, i.e., mechanisms of global governance, which would be an issue for further research on this topic. However, it certainly identifies a number of issues which fundamentally challenges the concept of a stable state-based and state-oriented international order. In this new century, the issues and challenges are more global in nature which requires a multiplicity of actors to work together. While the US President Harry S. Truman and his Secretary of State Dean Acheson together architected the postwar international order, they kept in mind of the contemporary reality. The world of today, however, is much changed and vacillate among globophiles, globophobics and globalists. While the principle of sovereignty remains as the fundamental principle for political identity, it is important to find solutions to global problems with states' political leadership. Once such a clear leader or groups of countries emerging with a new political settlement for the new era is traced a stable global order.

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Brief Biography



Dr. Lailufar Yasmin is Professor at the Department of International Relations, University of Dhaka, Bangladesh. She has undertaken her studies at the University of Dhaka, Bangladesh, Georgia State University, Atlanta, USA, and Macquarie University, Sydney, Australia. She has been a recipient of the US Fulbright, British Chevening, and Australian International Post-Graduate Research Scholarship (IPRS). She has done her fellowship on peace and conflict issues of South Asia in the University of Ulster, Northern Ireland, UK. She was a fellow of the Institute of World Economics and Politics (IWEP) of the Chinese Academy of Social Sciences (CASS) in Beijing, China, working on China's national interest after 9/11. She was a recipient of Ethel Woodruff Draper Research Fellowship in the Development of Young Women provided by the Women's Studies Institute, Georgia State University, Atlanta, Georgia, USA. She has published extensively on secularism in Bangladesh, maritime security issue, China's politics, and on South Asian issues. Her latest publications include "The Last Glass Ceiling: The Interplay of Racism and Sexism in American Politics", in *Bangladesh Journal of American Studies*, 2015, "Making Cultural Transformations Visible: Changing Patterns of Dresses", in *University of Dhaka: Making, Unmaking, Remaking*, 2016, "Bangladesh and the Great Powers", in *Routledge Handbook on Contemporary Bangladesh*, 2016 and "Maritime Security in the Indian Ocean Region: Bangladesh's Cogitation" in *Intelligence, National Security, and Foreign Policy: A South Asian Narrative*, 2016. Her latest research involves Bangladesh's foreign policy, maritime security, countering violent extremism, gender and conflict related issues, and China's rise.

POPULATION MOVEMENT AND BORDER ENFORCEMENT IN EUROPE: A CRITICAL DISCUSSION

Dr. Niloy Ranjan Biswas

Abstract

With contemporary influx of the refugees and irregular migrants in the doors of Europe, the management of borders within Europe and its external borders with the non-European Union (EU) neighbours portrays a hard security approach. Individual states have reinforced their border agencies to stop crossing of these people. Some of these practices do not only project the severity of the situation in the borders of the Europe but also depict hard-policing practices of border enforcement agencies in dealing with the issues of refugees and irregular migration. These overtly exposed security-first/kinetic approaches are not something very unique only for the European nations. Scholars like Jef Huysmans observes that security has become the dominant frame of reference that is preferred by the statist and regional stakeholders to discuss the issues related to irregular migration and border control. To understand the contemporary trends of border enforcement in Europe and its implications on the issues of externalization of so called security threats to the states of this region, it is crucial to reflect on a wider understanding of the concepts—enforcement of border security agency/ies. This study intends to highlight significant aspects of border enforcement and technological development in an unavoidable way. The study argues that borders are made overt security zones to tackle refugees and undocumented migrants, however, it has not been proven that stricter border enforcement would be able to stop irregular migration and influx of refugees and migrants.

Introduction

Quite often the message of a strong image express more than it is expected, especially the one that encapsulates a profound tragedy of the humankind. A similar of this kind, an image of a comatose body of the three-year-old AylanKurdi, being washed on shore of the Turkish coast, will haunt the policymaking elites and general people across Europe and its neighbors for long. A UNHCR report estimates that nearly 2500 refugees and migrants have died or gone missing in 2014 who were trying to reach to Europe through the Mediterranean Sea.¹ Notwithstanding continuous rescue and surveillance operations by the different border enforcers in Europe, this appears to be the deadliest route for the refugees and migrants. This is not the first time that the border operations in the Mediterranean had been questioned over its effectiveness in saving the lives of the destitute refugees. Severe neglects were also reported, where it was alleged that the distress call by a boat carrying migrants of North African origin were purposefully overlooked by the European military vessels and border enforcers in 2011 and were left to die in the open waters for 16 days.² Therefore, with the contemporary influx of the

refugees and irregular migrants in the doors of Europe, the management of borders within Europe and its external borders with the non-European Union (EU) neighbours does not portray a civilian approach. Individual states have reinforced their border agencies to stop crossing of these people. The Hungarian Government has used the armed forces to bar the refugees' crossing over the border from Serbia.³ The forces are alleged to use tear gas, helicopters and barbed wires to strengthen the enforcement mechanism in borders between Hungary and Serbia. The uses of tear gas and stun grenades are common now these days in the internal borders of Europe.⁴ In 2015, the French riot police have used tear gas on people crossing the Eurotunnel from Calais into the United Kingdom. These incidents do not only project the severity of the situation in the borders of the Europe but also depict the illiberal practices of border enforcement agencies in dealing with the issues of refugees and irregular migration.

These overtly exposed security-first approaches are not something very unique that the European nations have been facing in the recent times. Scholars like Jef Huysmans (2006) in *The Politics of Insecurity: Fear, Migration and Asylum in the EU* has traced the patterns since 1990s and observes that security has become the dominant frame of reference that is preferred by the statist and regional stakeholders to discuss the issues related to irregular migration and border control.⁵ The convergence or interface of internal and external threats to security, especially in the post-9/11 context, has resulted into a regional integration of 'least common denominator' strategies so far as to control organized crime within Europe and irregular immigration from outside the Europe. These strategies are complicating the situation in two unavoidable ways. Firstly, as short term measures, borders are made military zones to tackle refugees and migrants. Although it has not been proven that stricter border enforcement would be able to stop irregular migration and influx of refugees. Secondly, as a relatively long term strategy, the EU policymakers are externalizing their security concerns to the neighboring regions with perplexed interventions to their security frameworks. The externalization refers to a series of procedures/processes of administrative and territorial development of a given state/region that is reflected through its asylum, refugee, migration and border policies to the third/neighboring countries. Although, it is argued that such cooperation has tried to balance between the development objectives with the stern security approaches of EU assistances to the neighboring regions. Nonetheless, the discussion in the later part of this paper shows that EU's international assistance to the issues related to refugees and irregular migration has further promoted a 'security-first' first through the border enforcement of the receiving countries, henceforth, inhibiting the basic ideals of democratic reform in the security sector.

Border Enforcement and Institutions in Europe

More than one European nation has faced a mass influx of refugees and migrants from 2011. These are mainly originated from the conflict-laden zones of the Middle East and North Africa (MENA) countries. Another UNHCR report provides a rough estimate of around 137,000 persons have crossed European borders in the first half of 2015 that has

brought the armed forces and the border control authorities in an interface to direct severe crackdowns on them and to stop them entering into the respective European countries.⁶ In 2014, an estimated figure of around 280,000 refugees and migrants entered Europe from the similar origins. This massive influx of people and the unpreparedness of the governments and the regional authorities at EU to tackle the crisis had prompted into the consideration of a few short-term ‘security-first’ approaches undertaken to mitigate the crisis. An increasing trend of border enforcement is visible in both national governments and regional organizations that are considered as a by-product of such securitization of the crisis. The use of extraordinary force, which could be regarded as a violation of international human rights enshrined in EU law, is evident in the current measures of the border enforcement authorities.

To understand the contemporary trends of border enforcement in Europe and its implications on the issues of externalization of so called security threats to Europe, it is crucial to reflect on a wider understanding of the concepts—both militarization and border security agency/ies. As Peter Kraska (2007) in *Militarization and Policing—Its Relevance to 21st Century Police* suggests, kinetic approaches can be manifested through a four-dimensional continuum—(a) material (weapons and technologies); (b) cultural (martial language, appearance and beliefs); (c) organizational (command centers and the use of units such as SWAT teams); and (d) operational indicators (intelligence gathering, surveillance and high-risk missions)—for the security agencies.⁷ Also, Alice Hills in *Border Control Services and Security Sector Reform* suggests that border guards are an amalgamated category in the security sector that “have military and police functions and roles. They occupy a significant space on the security spectrum because their operational environment covers a range of security-related activities, from those of armed units to customs duties.”⁸ Nevertheless, this wider understanding of border security governance and enforcement does not invalidate the rationalities of democratic border management and the accountability mechanism for border enforcement under the civilian control. The following sections further elaborate that the EU has slowly been moving far away from its basic ideals of democratic reform ideals through accommodating a short-sighted security first approach in so-called integrated border management approach.

As an after-effect of the massive refugee-influx in the EU borders in 2015, the trends in border management shows an increasing level of physical presence of armed guards, use of razor-wire fencing across the borderline, building and maintaining camps for detentions and the like. Disturbing images appeared in the media where hundreds of adult men, women, and children were trapped with a fenced no man’s land in between Slovenia and Croatia. The armed police authorities of these two countries had caged them between the two countries with having no shelter or humanitarian assistance for considerably long time. Further, the states also enact new legal instruments that enforce the intent of militarization in border security governance mechanism. For example, the Government of Hungary passed a law in September 2015 which had empowered them to declare a ‘state of migration emergency’ to control the situation.⁹ During the emergency the Government can impose draconian measures by guarding the borders with armed

forces, use of surveillance dogs, rubber bullets, tear gas and nets to detain the persons who would enter the country illegally. This act of emergency not only discriminates the rights of the refugees and irregular migrants but also violates the civil liberties of the Hungarian citizens, therefore, is stern against certain basic values of the EU. Furthermore, the countries at the European borderland, for example, Bulgaria, Hungary, Serbia, Slovakia, Poland and others had reinforced border control through fenced border, unmanned aerial surveillance, patrolling by the armed soldiers and the like. The extreme militarization of the land borders has diverted the influx to co-opt the other potential alternatives to enter into Europe and henceforth is resulted into the Mediterranean catastrophe. The rescue operations by the EU are also militarized in nature with the use of technologies from the naval forces. Petra Gumplova in *The refugee crisis facing fortress Europe* has termed this humanitarianism practiced in the Mediterranean as “bizarre meaning of military control, detention, deportation and a fight against organized crime.”¹⁰

In addition to the state-led approaches, the increasing trends of securitization/security-first approaches that date back to the terrorist events at the post 9-11 in Europe, the European governments had reinforced their physical borders with new agencies and policies. The trends of allocation of financial and technical resources support in favor of the approach. In the period of five years (2007-13), the European Commission has allocated an amount of four billion euros under the Solidarity and Management of Migration Flows Programme (SOLID). The fund was aimed to support the member states to continue and coordinate their activities on ‘asylum, integration, return of third country nationals and border control’. An Amnesty International (AI) report *The Human Cost of Fortress Europe* identifies that “almost half of this (€1,820 million) was allocated for activities, equipment and technological infrastructure focusing on control of the external borders of the Schengen area.”¹¹ Just 17% (€700 million) was allocated to support asylum procedures, reception services and the resettlement and integration of refugees.” Later, the SOLID has transformed and reinforced the EU’s attempt to coordinate the border controlling process as part of the Integrated Border Management (IBM) plan of the EU. In 2004, an agency called Frontex was formed to facilitate a joint and coordinated approach within Europe and to externalize the national roles of the respective state to secure the borders to a regional body. Since 2008, Frontex has been actively engaged in the coordination between the member states with their border security in the Mediterranean Sea. A post-Cold War kinetic approach is manifested in the process of coordination and its manifestation in the regional border enforcement approach. Frontex has led the coordination with the agencies that include European Police (EUROPOL), the European Union Satellite Center (EUSC), European Maritime Safety Agency (EMSA), and European Defence Agency (EDA). As a result, a rigorous border controlling system has been encompassed both in the spheres of air, land and sea with the uses of material indicators (radar, fencing, rubber bullets, drones, helicopters), organizational indicators (hierarchical command structure, quick response armed commando teams), operational indicators (missions in the Mediterranean coordinated intelligence gathering and surveillance), and so on. Furthermore, the over-emphasizing the security approach of the asylum and irregular migration issue in Europe, Frontex is alleged to encourage a

military-style detention process for the irregular migrants and potential asylum seekers in different host European nations. A *Human Rights Watch* (HRW) report reveals that Frontex has conducted Rapid Border Intervention Team (RABIT)-led operations to facilitate the detention process of roughly 12000 irregular migrants in Greece in between November 2010 and March 2011.¹²

Frontex and Naval Forces: Transforming Border Enforcement

A NGO report accuses that the collaboration of the Frontex with the Government of Greece, its border police and coast guard, and its greater complicity with the standards of European values—democratic security sector, human rights and the like.¹³ Despite the fact that the EU has generated funding for such operations, the policymakers in EU have overlooked the potential links between kinetic border enforcement and its impact on European complicity to the issues of human rights, rights of refugees and irregular migrants. Frontex deployed armed border guards that had been contributed by Norway and EU member states to support the efforts of the Greek Government to stop the migrants into the north-eastern region of Greece along the Evros River bordering Turkey. Frontex denied an allegation of using coercive means in border enforcement and identify its missions, for example Frontex Operation “Poseidon Land and Sea” and others as a coordination, research, and watch-over task. Nonetheless, the nature of mobilization by Frontex with equipments such as armored vans, prison-style buses for push-backing refugees, patrol cars, helicopters provided by the participating EU states offers a different perspective more coercive in nature. In 2011, the European Court of Human Rights issued a judgment that projects the militarized treatment of the refugees and irregular migrants by the Greek Government and its partners in the task. The judgment held responsible the authorities in Greece and Belgium for violating Article three of the European Convention on Human Rights, which prohibits torture and inhuman and degrading treatment. Although it was not directly accusing Frontex, the judgment has questioned the coercive nature of the process how border enforcement is (dis)functional in certain countries of Europe. Scholars like Andrew Neal (2009) in *Securitization and Risk at the EU Border: The Origins of FRONTEX* has compared the role of Frontex with the Department of Homeland Security and denied the significance of its activities in the process of border enforcement in EU. However, Neal’s argument of Frontex as a mere administrative collaboration process remains outdated considering the voluminous increase of its budget and expenditure in the last five years and the dominant role of the organization in the IBM process in Europe. The increased budget (17.5%, from 97 Million in 2014 to 114 Million Euros in 2015) has totally been injected to meet the requirements of joint operations at sea borders.¹⁴

Furthermore, Europe has also experienced joint naval operations as part of the kinetic enforcements in its external borders. In the mission statement of European Union Naval Force – Mediterranean (EUNAVFOR - MED) *Operation Sophia*, it is mentioned that the “aim of this military operation is to undertake systematic efforts to identify, capture and dispose of vessels as well as enabling assets used or suspected of being used by migrant

smugglers or traffickers.”¹⁵ The force strength of this joint operation will be composed of various warships, for example the Italian Light Aircraft carrier *Garibaldi* with a Commander Rear Admiral Andrea Gueglia of Italian Navy. Moreover, this 11.82 Million Euro/Year border enforcement project also commits to use six surface naval units and seven Air Assets that would be deployed to the Mediterranean. This mission and those of the Frontex are inspired by the crisis management concept under the much-lauded Common Security and Defence Policy of the European Council. As per the Council’s decision (2015/778, 18 May 2015), the regional body plans to permit such collaborative kinetic actions “to disrupt the business model of human smuggling and trafficking networks in the Southern Central Mediterranean”. Uses of naval or other armed forces have also experienced quite interesting repercussions. Prior to *Operation Sophia*, the Government of Italy has taken its unilateral approach—Operation Mare Nostrum—a naval operation after the devastated October 2013 shipwreck that had claimed more than 300 lives of migrants.¹⁶ This 100 Million Euro worth of naval operation had rescued more than 150,000 migrants in 2013 and 2015. Nonetheless, this had come under criticism from several quarters in Germany and United Kingdom as saving the lives of the migrants and refugees in the Mediterranean would inspire more irregular migration and refugee flow to Europe.¹⁷ Such act would potentially influence the states and the regional authorities in Europe to reconsider the already militarized measures of border control and ignore any policies that have a humanitarian string attached to it.

Externalization of Border Enforcement: A Critical Discussion

Now, the discussion of the externalization of EU border enforcement would be incomplete without understanding the empirical manifestation of the contemporary influx of refugees and irregular migrant in Europe and its implications over the security/development aid relations of EU with its neighboring countries. In order to address the roots of the security threats that are transmitted through the external borders of the Europe, the EU has been providing financial and technical resources to facilitate border management in the neighboring countries of the MENA regions. These resources, as observed by Alice Hills (2006) in her chapter *Towards a rationality of democratic border management* in Marina Caparini and Otwin Marenin (eds) *Borders and security governance: managing borders in a globalised world*, would aim to build “the rules, techniques and procedures regulating activities and traffic across defined border areas or zones. It is defined in terms of border checks and border surveillance; border checks on people, their possessions and vehicles are carried out at authorised crossing points, while surveillance is carried out between authorised crossing points. . . .” in the recipient countries. Furthermore, the security assistance policy complies with the concerns of the Justice and Home Affairs (JHA) division of the EU that balances between the determinants of the internal security threats and its implications over external security measures undertaken by the organization.

For example, two neighboring states—Libya and Morocco—have been receiving funds from the EU to strengthen its border reinforcement and conduct infrastructural reform in

the management of refugees and irregular migration. Both these countries have maintained historical relations with Europe, especially with Italy and Spain due to the former colonial connections. Italy and Libya agreed on bilateral arrangements to streamline irregular migration by repatriating undocumented migrants to Libya. Further, Italian government has funded trainings and equipment's for the border enforcement agencies and built detention centers within the territory of Libya to curb down the influx of migration from the MENA. Similarly, Morocco, with pressures and finances from Spain, has drastically amended their asylum policies in 2003 by increasing surveillance and paramilitary patrols in the border areas. Aftermath of the Arab Spring, the investment of the EU in this conflict-laden zones has extended to the procurement of the high-tech border surveillance equipment, training of the paramilitary border guards, naval forces and coastguards. The EU also supported in setting up intelligence exchange networks so that the authorities of the third countries could stop the immigrants and refugees prior to they appear in the external borders of Europe. Moreover, the EU has also funded the construction and refurbishment of detention facilities in Libya, Turkey and Ukraine.

Since May 2013, the EU has been conducting a Border Assistance Mission (EUBAM) in Libya under the CSDP policies of the regional body. It is aimed to build the capacity of the Libyan gendarmerie Border Guards and Naval Coast Guard (NCG) that would facilitate the integrated border management plan of Europe.¹⁸ An annual budget worth of around 30 Million Euros would be spent to border security agencies in Tripoli and remote border areas of Libya. Italy has been complementing this regional effort as a historical bilateral donor for Libya who is providing coastal naval vessels and surveillance (radar) technologies to Libya.¹⁹ EUBAM's effort to develop the border enforcement in Libya is typically operational in nature. The elite officers of the BG and NCG are trained in the Centre of Excellence for Stability Police Units in Vicenza and the infantrymen of the forces are trained at the Army Infantry School in Cesano, Italy.²⁰ Although, the EU mission is primarily composed of 100 civilian officers, nonetheless, it suggests the recruitment of the military officers in the mission to train the Libyans. EUBAM is also supporting a regional cooperation in MENA. Under the separate and multilateral moves of cooperation, Libya aims to conduct joint surveillance, intelligence share and military cooperation with Algeria, Tunisia, Chad, Sudan and Egypt.²¹ All these are directed to secure the borders of MENA so that the influx of refugees and irregular migrants are deterred even before they reach to the external borders of Europe. In addition to the regional efforts, UK, Germany and France are engaged to reform Libya's security sector (both civil and military) through various projects ranging from disposal of chemical weapons, securing stocks of anti-aircraft missiles, foreign assistance teams in the defence and interior ministries to develop joint operations within and at the border areas in Libya. The European Union has also increased its ties with Turkey, a critical country with the significant most shares of the Syrian refugees in their land. Turkey received a grant of 20 Million Euros in 2012 from the EU as part of the Pre-accession preparation to EU, which is aimed to assist the Turkish Government in reforming its border enforcement and procurement of surveillance equipment.²² This was five times higher than the amount of grant that Turkey has received in the same year from the EU.²³

EUBAM support to MENA countries or Turkey is not the unique experience for the EU in its growing intent to an externalization of security concerns through redefining and enforcing its borders. *Operation Seahorse*, started in 2005, illustrates an interesting example of externalization of security approach through strengthening the Southern external border of Europe. Spain led the process under the leadership of the EU where the organization had funded the border enforcement of Morocco, Mauritania and other West African states. *Seahorse* has conducted kinetic sea operations along with the Spanish coastlines with the help of Frontex, for example, Operation Hera in West Africa. It has also promoted inter-regional dialogues between the border security agencies on management of migration flows. The organizational set ups are typically militarized in nature and they have been using naval patrol vessels, helicopters, and personnel from participant gendarmeries of European and West African countries. The border enforcement process, as suggested by Maribel Casas-Cortes, Sebastian Cobarrubias and John Pickles in *Good neighbours make good fences: Seahorse operations, border externalization and extra-territoriality* are “transforming the meaning and practices of the border by reworking who, where, and how those practices of bordering are being enacted,”²⁴ It is also alleged that such externalization process has been violating the basic ideals of democratized security sector reform—accountability and transparency of the security sector.

Conclusion

Not only about the promotion of democratic security governance abroad, these externalization of borders have been less civil that include negligence-led deaths in the sea, harsh pushback of the refugees and migrants, and the like. Such reinforcing of borders could not decrease the number of casualties in all fronts of European external borders. It reminds us that in the absence of a common European understanding on humanitarian aspects of the policies for migration and refugee matters, the EU's coordination on border enforcement through externalization will get strengthened, which unfortunately will not solve the crisis. In both missions mentioned above, as this paper observes, there is little indication that the EU authorities are concerned about the so-called European ideals in its border assistance missions rather the security-first approach has procrastinated the externalization of border as a quick fix of the current crisis.

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Brief Biography



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SOME PERTINENT AND EMERGING DEVELOPMENT ISSUES IN SOUTH ASIA

Dr. Md Abdul Wadud

Abstract

This study aims to highlights some issues in development that are pertinent and emerging in the economies of the South Asian region using secondary data collected from various international organizations. The South Asian region consisting of eight economies maintains varying and somewhat robust economic growth, and stable and consistent progress in human development, although there are some concerns on quality and inclusive growth and development. This region is holding increasing amount of foreign reserves through remittances which contribute to creation of domestic demand and reduction of poverty. The economies in this region continue to face improvement challenges of development for all, doing business environment, climate and environmental change, gender equality, global competitiveness and current account balance. It has been ascertained that South Asian economies have shown persistent and resilient attempts and policies towards facing and improving the challenges of development. There are rooms for adopting policies and strategies which would help face the challenges of development through extracting the benefits of regional and global cooperation and coordination.

Introduction

South Asia consisting of eight countries possesses emerging economies in the contemporary global economy. This South Asian region experiences remarkable economic growth during the last decade with GDP growth rate of 8.77 percent in 2005 and 9.10 percent in 2010. Although, this economic growth was likely to be accelerated through utilizing favourable demographic dividends and strategic position, but the overall growth rate in this region exhibits declining trends with growth rate of 7.61 per cent in 2015 and 6.53 percent in 2017. However increasing trends of growth rates of Bangladesh, Maldives, Nepal and Pakistan are observed. Among these countries, Bangladesh maintains consistently uphill growth rates with 6.55 percent and 7.28 percent in 2015 and 2017 respectively.¹ (The World Bank, 2019).

On average, this region maintains to exhibit strong economic growth showing South Asia as one of the fastest-growing region in the world. Overall, the economy of India becomes the driving force in the region, encompassing all the economies. The South Asian region becomes able to achieve the fastest growth in human development index (HDI) among developing nations with an increase of 45.3 percent since 1990. Life expectancy and years of schooling also rise 10.8 years and 21 percent respectively during that period. However, there is a loss in HDI by 26 percent because of inequalities and a gap of 16.3 percent in HDI between men and women. Inflation in

this region remains to be low because of lower prices of commodities. However, the economies in this region contain higher public debt burden and large current account deficit than other emerging countries. Despite increasing international flows as remittances, this region manages to keep a low trade penetration in the world market with exports and imports of about 39 percent of regional GDP in 2017. In spite of currency depreciation and import demand, the export performance of these countries is not remarkably increasing.

Maintaining acceleration and quality of economic growth, and sustaining growth and development requires successful handling the growth and development challenges which this region shares. This paper is designed to highlight some of the non-traditional pertinent and emerging issues and challenges in development in South Asian developing countries that should be carefully tackled to sustain inclusive growth and development and reach higher levels of development.

The rest of the paper is structured as follows. Section 2 highlights data and methodology; Section 3 discusses some pertinent and emerging issues in development in South Asian countries and Section 4 provides a conclusion.

Data and Methodology

Secondary data published by various international organizations and institutions are used in this study. Data has been collected from different publications of The World Bank and World Bank Group, among others. The study applies tabular methods to evaluate data and information.

Some Relevant and Emerging Issues in Development

Below some relevant and emerging issues in development are discussed:-

- a. **Quality and Equality Growth:** Growth rates although vary across the South Asian countries, most of the countries maintain relatively fluctuating but higher growth rates as shown in Table 1, although per capita GDP of most countries is low but rising. But there are concerns about inclusive and quality growth, as this region accommodates one-fourth of the extreme poor in the world, and has inequality which is on the rise. The Gini coefficients of Bangladesh, Sri Lanka and India are 0.33, 0.40 and 0.51 respectively in 2016. The Gini coefficient of Pakistan is 0.34 in 2015 and that of Bhutan is 0.37 in 2017. Top 10 percent earners of national income accumulate around 55 percent of national income in India, 41 percent of national income in China, 37 percent in Europe and 46 percent in Russia in 2016 (Wealth Inequality Index 2017). Moreover, most of the countries in this region fail to enhance the pace of employment generation which lags behind the pace of economic growth. The labour force participation rate is about 57 percent in 2017 in South Asia with

higher rate of Maldives and lowest rate of Afghanistan. For this reason, this economic growth is sometimes called ‘jobless growth’. The region is not at the impressive position in terms of per capita GDP except Maldives. Sri Lanka has some improvement over other South Asian countries in terms of per capita income. Therefore it is one of the big challenges to South Asian countries to bring per capita GDP up to climb the upper income level groups, reduce wealth inequality and generate decent job opportunity; otherwise it may take quite a large period to achieve most of the development goals.

Table 1: GDP Growth Rate (Annual %) and GDP per capita (current US\$)

Country Name	Growth					GDP per capita
	2000	2005	2010	2015	2017	2017
Afghanistan	-	11.23	14.36	1.45	2.67	550.0685
Bhutan	6.93	7.12	11.73	6.64	4.63	3130.234
Bangladesh	5.29	6.54	5.57	6.55	7.28	1516.513
India	3.84	9.28	10.26	8.15	6.68	1942.097
Maldives	3.85	-13.13	7.27	2.88	6.91	11151.07
Nepal	6.20	3.48	4.82	3.32	7.91	849.011
Pakistan	4.26	7.67	1.61	4.73	5.70	1547.853
Sri Lanka	6.00	6.24	8.02	5.01	3.31	4073.737

Source: The World Bank, *World Development Indicators*, 2019

Note: The thresholds to distinguish between the income groups have been adjusted for prices over time. As of 1 July 2018, GNI per capita ranges: low income economies - \$995 or less; lower middle-income economies-\$996 - \$3,895; upper middle-income economies - \$3,896 - \$12,055; high-income economies - \$12,055 or more.

b. Quality Human Development Status: Progress in human development is measured and evaluated, on an average, by human development index (HDI). South Asian countries achieve various degrees of progress in enhancing the quality of human resources as compared by HDI. Table 2 shows consistent and stable progress in improving HDIs of these countries from 1990 to 2017, although most of the countries except Sri Lanka lie above 100 in ranking among 190 countries ranked. In spite of the consistent improvement in HDI, quality in improvement requires to be intervened or taken care of. Table 3 reports the inequality-adjusted HDI (IHDI).

Table 2: Human Development Index

HDI Rank (2017)	Country	1990	1995	2000	2005	2010	2015	2017
76	Sri Lanka	0.625	0.65	0.685	0.718	0.745	0.766	0.77
101	Maldives		0.539	0.606	0.631	0.671	0.71	0.717
130	India	0.427	0.46	0.493	0.535	0.581	0.627	0.64
134	Bhutan				0.51	0.566	0.603	0.612
136	Bangladesh	0.387	0.425	0.468	0.505	0.545	0.592	0.608
149	Nepal	0.378	0.41	0.446	0.475	0.529	0.566	0.574
150	Pakistan	0.404	0.428	0.45	0.5	0.526	0.551	0.562
168	Afghanistan				0.408	0.463	0.493	0.498

Source: United Nations Development Programme, *Human Development Report*, 2018

Table 3 shows that although HDI of India in 2017 is 0.640, it becomes 0.468 when discounted for inequality in indices of HDI dimensions exhibiting 26.8 percent loss. In the same fashion, the HDIs of Bangladesh and Pakistan falls to 0.462 and 0.387 respectively in 2017 showing 24.1 percent and 31.0 percent loss in HDI because of inequality in HDI components. This shows that there are considerable amount of inequality in HDI constituents. Therefore, reducing the inequality in HDI component of income, life expectancy and education requires strong government policy intervention in the South Asia.²

Table 3: Inequality-adjusted HDI, 2017

Country	IHDI	Overall loss (%)	Human inequality coefficient (%)	Inequality in life expectancy at birth (%)	Inequality in education (%)	Inequality in income (%)
India	0.468	26.8	26.3	21.4	38.7	18.8
Bangladesh	0.462	24.1	23.4	17.3	37.3	15.7
Pakistan	0.387	31	29.6	31	46.2	11.6
South Asia	0.471	26.1	25.6	21.4	37.7	17.6
Medium HDI	0.483	25.1	24.9	20.3	33.1	21.2

Source: United Nations Development Program, *Human Development Report*, 2018

c. **Development for All – Inclusive Development:** Gross domestic product (GDP) growth, a top-line measure of national economic performance, shows broad-based progress in living standards. Evidence reveals that growth is a necessary but not sufficient condition for enhancing median standards of living.

Therefore, inclusive development index (IDI), a bottom-line measure, reflects shared socioeconomic growth and development, and inclusive standard of living for all. Inequality status and standard of living conditions can be evaluated and calculated.

Inclusive Development Index (IDI), an annual economic index, ranks economic performance of an economy basing on three pillars: growth and development, inclusion, and intergenerational equity and sustainability. Although, GDP stands as the standard measure of economic success, a country's socioeconomic progress would be evaluated not only with GDP, but also with employment opportunity, quality of life and economic security, among others. Thus, GDP itself cannot ensure inclusive socioeconomic progress and standard of living of the people.

Table 4: Inclusive Development Index 2018

Country	Rank	Score	Five Year Trend IDI Overall Percentage
Nepal	22	4.15	8.53
Bangladesh	34	3.98	4.55
Sri Lanka	40	3.79	-0.74
Pakistan	47	3.55	7.56
India	62	3.09	2.29

Source: World Economic Forum, *The Inclusive Growth and Development Report*, 2018.

Note: IDI scores are based on a 1-7 scale: 1=worst and 7=best

Table 4 highlights the rankings, scores and progress in achieving inclusive development in some South Asian countries. Nepal shows the top performance in involving most in the development process while the performance of India is not mentionable in making development inclusive. Among the 74 countries, India ranks 62nd with a score of 3.09, which is below the median score. India is the worst performer in the South Asia. Bangladesh in the South Asia secures the second position with 34th rank and a score of 3.98, just above the median value. More policies need to be adopted to bring the growth and development mechanisms in equitable and inclusive paths in all the South Asian countries.

d. Challenges in Business Climate: Suitable, favourable and sustainable business environment is required to grow and improve domestic private and foreign direct investment (FDI). Elements of business environment also influence small and medium enterprises (SMEs).

Doing business score shows the position of a country's business environment. The score ranges from 0 to 100, 0 being the worst while 100 the best. The score is prepared

considering 11 aspects which affect a business: starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts, resolving insolvency and labor market regulation. Performance of the South Asian countries in reducing the extent and severity of business constraints and hence making favourable business climate is shown in Table 5.

Table 5: Ease of Doing Business Ranking

Country	Rank	EODB Score	EODB Score change between 2016-17 to 2017-2018
India	77	67.23	+6.83
Bhutan	81	66.08	+0.20
Sri Lanka	100	61.22	+1.80
Nepal	110	59.63	-0.32
Pakistan	136	55.31	+2.53
Maldives	139	54.43	+0.10
Afghanistan	167	47.77	+10.64
Bangladesh	176	41.97	+0.91

Source: World Bank Group, *Doing Business*, 2019

Among the 190 countries ranked and scored, the position of Bangladesh is worst in the South Asia and India remains on the top. Afghanistan and India has made remarkable improvement in doing business environment. These two countries are not only on the top of the list of South Asia in making progress in business climate, they are also on the top of list of ten top improvers. New Zealand ranks first among 190 countries with EODB score of 86.59. Therefore, it may be inferred that there is room for improving business climate in this South Asian region that could further help attract domestic private and foreign direct investment (FDI), which are likely to contribute to the economic growth and development. Thus, enabling business environment for extracting the benefits of FDI is critical challenge ahead.³

e. **Climatic and Environmental Challenges:** Climate and environmental change is one of the critical challenging developing issues faced by the global communities in general and South Asian economies in particular. Possessing diverse climatic zones and physical landscapes, South Asia is experiencing sets of climate change impacts like coastal and mountain soil erosion, rising sea levels, glacial melt and saline water intrusion. Several storms and abnormal monsoon sometimes aggravate some of these impacts. Green house gas (GHG) emissions and consequent global warming add to the concerns of environmental challenges. All of these are tied with living standards, growth and development of the South Asian countries.

South Asian countries individually and through South Asian Association of Regional Cooperation (SAARC) have adopted various strategies to address climate and environmental change impacts, improve resilience of economies and mobilize technical and financial resources to reduce the adverse impacts of climate and environmental change. Table 5 shows the environmental performance of the South Asian countries as well as some of the top environmental performer.

Table 6: Environmental Performance Index 2018

Country	Rank	Score	Country	Rank	Score
Sri Lanka	70	60.61	Switzerland	1	87.42
Maldives	111	52.14	France	2	83.95
Bhutan	131	47.22	Denmark	3	81.6
Afghanistan	168	37.74	Malta	4	80.9
Pakistan	169	37.50	Sweden	5	80.51
Nepal	176	31.44	United Kingdom	6	79.89
India	177	30.57	Luxembourg	7	79.12
Bangladesh	179	29.56	Austria	8	78.97

Source: Wendling, et al, 2018, *Environmental Performance Index*

The 2018 Environmental Performance Index (EPI) is prepared taking 24 performance indicators of ten issues into consideration that include environmental health and ecosystem vitality. This EPI ranks 180 countries. This index reflects the sustainability efforts of the nations on climatic and environmental factors like reducing GHG emissions, cleaning up air quality and protecting biodiversity. Of the 180 countries, Switzerland ranks first with a score 87.42. In the South Asian region, Sri Lanka secures the top position with a score of 60.61, although its position is 70 among 180 countries. Bangladesh is one of the worst performers securing 179th position in the global ranking and 8th position in the South Asia having a score of 29.56. India lies just above the Bangladesh in the South Asian region and one more step up in the global ranking with a score of 30.57. Possessing one of the emerging economies in the world and the top economy in the South Asia, India's performance on natural resources management and pollution control challenges, and environmental sustainability is not satisfactory and neither are other countries in the South Asia. Keeping consistent with 2015 Sustainable Development Goals of United Nations, the South Asian countries would adopt steps in highlighting environmental challenges and policies leading to maximize gains from domestic and international investment in management and protection of environment challenges.⁴

- f. **Global Competitiveness:** Competitiveness improves productivity and creates resources which are required for gaining broader and inclusive social and

economic goals and hence it is likely to contribute to uphill standards of living and higher socioeconomic outcomes beyond income. Determinants of productivity are assessed in Global Competitiveness Index (GCI). Ninety eight indicators of productivity grouped in twelve drivers which are further grouped in four categories are included in GCI. This shows the status of pillars and ecosystem of productivity.

Twelve pillars or drivers of productivity of competitiveness are: institutions, infrastructure, ICT adoption, macroeconomic stability, health, skills, product market, labour market, financial system, market size, business dynamism, and innovation capability. These are grouped into four categories - enabling environment, human capital, markets and innovation ecosystem. Table 7 provides rankings and scores of global competitiveness in some South Asian countries.

Table 7: Global Competitiveness Ranking 2018

Country	Rank	Score	Difference from 2017	
			Rank	Score
India	58	62	5	1.2
Sri Lanka	85	56	-4	-0.4
Bangladesh	103	52.1	-1	0.7
Pakistan	107	51.1	-1	1.3
Nepal	109	50.8	-1	1.3

Source: World Economic Forum, *Global Competitiveness Ranking*, 2018

In global competitiveness context, India earns the 58th rank among the 140 countries and the first rank in the South Asian region and this country has also obtained significant progress in increasing the rank and score, and hence India occupies the leading position. The performance of Nepal in competitiveness climate is the weakest with the last position in the region. Bangladesh is the average performer obtaining 103rd rank with 52.1 score in 2017. The South Asian economies have to explore and adopt more actions to improve the pillars or drivers or indicators or factors that are associated with the long-run determinants of productivity.⁵

g. **Gender Inequality Challenges:** Gender equality in education and employment is likely to have considerable positive impact on growth and development through improving average quality of human capital. Besides, higher gender equality can improve development goals, lower fertility and lower child mortality which are significant elements of well-being.⁶ (Sen, 1999). Gender inequality and labour force participation rates in the South Asia are given in Table 7. It is evident that gender inequality in South Asia is on an average higher than that of the world average, although South Asia lies above the low human development group. Among South Asian countries, Maldives is the best

performer in reducing gender inequality and Afghanistan is the worst performer. The performance of Bangladesh in bringing equality in gender is better than Afghanistan. India's gender inequality index is 0.526 having the rank of 127 in the globe. The performance of Maldives is the best among the South Asia in reducing maternal mortality ratio and adolescent birth rate. Most of the countries contain substantial amount of gender disparity between men and women in labour force participation. The difference between male and female labour force participation rates is lower in Nepal, followed by Bhutan. India's performance is not remarkable with total labour force participation rate of 56.26 percent. The labour force participation rate of Pakistan is the worst a rate of 55.28 percent in South Asian region.

Table 8: Gender Inequality Index⁷ and Labour Force Participation Rate

		Gender Inequality Index		Maternal mortality ratio (deaths per 100,000 live births)	Adolescent birth rate (births per 1,000 women ages 15–19)	Labour force participation rate (% ages 15 and older)		
HDI rank	Country	Value	Rank			Female	Male	Total
		2017	2017	2015	2015-2020	2017	2017	2017
101	Maldives	0.343	76	68	5.8	42.9	82.1	68.84
76	Sri Lanka	0.354	80	30	14.1	35.1	74.1	58.24
134	Bhutan	0.476	117	148	20.3	58.0	74.3	68.79
149	Nepal	0.480	118	258	60.5	82.7	85.9	86.24
130	India	0.524	127	174	23.1	27.2	78.8	56.26
150	Pakistan	0.541	133	178	36.9	24.9	82.7	55.28
136	Bangladesh	0.542	134	176	83.5	33.0	79.8	58.42
168	Afghanistan	0.653	153	396	64.5	19.5	86.7	55.38
South Asia		0.515				27.9	79.1	56.85
World		0.441				48.7	75.3	67.37

Source: *Human Development Report*, Gender Inequality Index, 2018

h. **Comfortable International Reserves, but Rising Current Account⁸**

Deficits: Current account balance shows the status of net foreign assets of an economy. A surplus in current account indicates arise in net foreign asset while a deficit in current account exhibits the foreign burden. Therefore, maintaining stable current account balance highlights the ability of an economy to earn foreign assets. International oil price keeps pressure in current account directly and fiscal accounts indirectly, as all these countries are oil importer. Table 9 provides a vivid idea of current account of countries in the South Asian region. All countries have shown a negative current account in 2017. Current account

deficit of India is the lowest among all South Asian countries in 2017 while it is highest in Afghanistan in that period. From the last decade, the deficit in current account remains negative and reaches the top at -18.01 in 2017 in Maldives. This is one of the challenges of the governments of the South Asian countries to offset the current deficit from negative to positive and there are rooms for taking policies to improve current accounts.⁹

Table 9: Current Account Balance (% of GDP)

Country Name	1990	1995	2000	2005	2010	2015	2017
Afghanistan	-	-	-	-	-9.4897	-23.556	-23.962
Bhutan	-	-	-	-	-20.379	-26.62	-21.377
Bangladesh	-1.2593	-2.1716	-0.573	0.73112	1.82904	1.32235	-2.5487
India	-2.2216	-1.565	-0.9956	-1.2713	-3.2908	-1.0682	-1.4675
Maldives	4.58132	-4.5521	-8.2454	-23.467	-7.5761	-7.3416	-18.013
Nepal	-7.9722	-8.0977	-2.3779	1.88302	-0.7975	11.4271	-3.277
Pakistan	-4.1524	-5.5227	-0.1149	-3.2933	-0.7632	-1.026	-5.1871
Sri Lanka	-3.7137	-5.9091	-6.3903	-2.6638	-1.8951	-2.3358	-2.6436

Source: The World Bank, *World Development Indicators*, 2019

Conclusion

The South Asian economies continues to show the strength of having stable and consistent economic growth, human resources development and macroeconomic stability to some extent, although there are some scopes for inclusion of quality in growth and development. Using secondary data gathered from various international institutions, this study analyzes some emerging and relevant development issue in the South Asian region to gain some intuition. We evaluate the quality of growth and development, business climate challenges, climate and environment change issue, competitiveness in the global market, inclusive growth and development, gender inequality status and current account situation, among others. It is evident that most of the indicators or indices of South Asian countries remain below the average. Therefore, the governments of South Asian countries would require to take and implement appropriate policies to improve the indicators that could help promote inclusive social and socioeconomic growth and development. Regional cooperation and coordination, and strong political commitment would have strong possibility to help bring benefit from factors like global competitiveness, and climate and environmental impacts.

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7. The gender inequality index is a composite index which is prepared for measurement of gender inequality in achievement. The dimensions - reproductive health, empowerment and the labour market participation are used to prepare the GII index which value lies between 0 and 1. The higher the value of GII, the higher is the gender inequality and thus higher loss in achievement between women and men. There is no country with perfect gender equality. The GII ranking is prepared taking 160 countries into consideration.
8. The current account records a nation's transactions with the rest of the world – specifically its net trade in goods and services, its net earnings on cross-border investments, and its net transfer payments – over a defined period of time, such as a year or a quarter.
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BRIEF BIOGRAPHY



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FUTURE OF AVIATION INDUSTRIES: ITS PROSPECTS IN BANGLADESH AND RELATION WITH DELTA PLAN 2100

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Abstract

Bangladesh aspires to reach upper middle-income status and eliminate extreme poverty by 2030 and be a prosperous country beyond 2041. Delta Plan 2100 (BDP 2100) sets up a long-term vision for the evolution of Bangladesh Delta. It envisions a safe, climate resilient and prosperous delta at the end of 21st century. To be a prosperous country by 2041 as described in its long-term goals, industrialization may play a vital role. Aviation industries could be a great part of the overall industrialization effort. Recently Bangladesh has seen remarkable growth in commercial aviation like rest of the world. Various statistics indicate that the growth will continue at a steady rate for at least next 20 years in the Asia Pacific region. In this connection, Bangladesh has the potential to become one of the aviation connecting hubs due to its geographic location. However, Bangladesh is yet to capitalize its full potentials in this field. At present, direct contribution of aviation sector is only 100 million USD per year in economy of Bangladesh. On the other hand, this sector contributes close to 6 billion per annum to national economy of Singapore. Thus, aviation sector could similarly benefit economy of Bangladesh if we could formulate right policy options for this sector. This in turn would help Bangladesh to achieve its higher-level goals set in BDP 2100. However, future of aviation industries would go through many changes. Bangladesh needs to consider the driver of changes while formulating policy options for this sector. With correct strategy and visionary leadership, aviation related industries could help Bangladesh to achieve its higher-level goals of BDP 2100.

Introduction

Bangladesh has achieved success in many areas since independence. Today, GDP growth rate has doubled; per capita income has surged 20 times; life expectancy has almost doubled; and literacy has tripled compared to 70s in Bangladesh. According to the statistics from World Bank, our economy is gradually transiting from agrarian to a modern manufacturing and services-oriented economy. Because of persistent economic growth, Bangladesh became lower middle-income economy in 2015. Bangladesh has also fulfilled all the criteria to be a developing country in 2018. However, there are number of challenges to fulfill the long-term economic aspiration of the country besides threat from climate change.

According to Dr. Shamsul Alam, Delta Plan 2100 (BDP 2100) sets up a long-term vision for the evolution of Bangladesh Delta. It envisions a safe, climate resilient and

prosperous delta at the end of 21st century.¹ It primarily focuses on delta agendas up to 2050 with its implication beyond this time frame. To realize this vision some short to medium term and long-term goals are set. Short to medium term goals include achieving upper middle-income status and eliminate extreme poverty by 2030. Long-term goals include being a prosperous country around 2041 while ensuring sustainable management of water, ecology, environment and land resources in the face of natural disasters and climate change.² To be a prosperous country by 2041 as described in its long-term goals, industrialization may play a vital role. Aviation industries could be a great part of the overall industrialization effort.

According to International Air Transport Association (IATA), Asia Pacific region will have almost half of world GDP by 2037. During the same period, air travel will be triple compared to present number in this region. Moreover, narrow body airplanes will constitute two third of total fleet of commercial airlines.³ Thus, airlines operating in intra and inter regional routes may require a greater number of stopovers in connecting hubs. In this connection, Bangladesh has the potential to become one of those connecting hubs due to its geographic location. However, Bangladesh is yet to capitalize its full potentials in this field. According to member, flight safety and regulations, CAAB direct contribution of aviation sector is only 100 million USD per year in economy of Bangladesh. On the other hand, this sector contributes close to 6 billion per annum to national economy of Singapore. Thus, aviation sector could similarly benefit economy of Bangladesh, if we could formulate right policy options for this sector. This in turn would help Bangladesh to achieve its higher-level goals set in BDP 2100.

Moreover, future of aviation industries would go through many changes. Change can be hard to manage if we are not prepared for it. Some of the drivers of changes in aviation sector including technological, political, regulatory, social, economic and environmental factors will be discussed in this paper with a focus to prepare for future opportunities and challenges over the next 20 years. Bangladesh needs to consider all these factors while preparing appropriate strategy for the aviation sector.

Relationship Amongst BDP 2100, Vision 2041, SDG and their Impact on Industrialization

Following is discussion on the various aspects as mentioned above:-

- a. **BDP 2100:** Bangladesh aspires to reach upper middle-income status and eliminate extreme poverty by 2030 and be a prosperous country beyond 2041. However, Bangladesh has number of challenges from its deltaic geographical configuration, high population, and natural disasters. Considering these development challenges, the Government has formulated a long-term plan named BDP 2100.⁴

b. **Vision 2041:** Vision 2041 aims to eradicate extreme poverty while achieving Upper Middle-Income Country (UMIC) status by 2030. It also aspires to achieve High-Income Country (HIC) status by 2041. To realize this vision, the government has formulated the Perspective Plan 2022-2041 (PP2041). According to Dr. Shamsul Alam, several government policies have been formulated in this regard. Industrialization is given due importance here. Some of the major policy actions relevant to industrialization is highlighted below.⁵

i. **Boosting Non RMG Products:** In future, imported raw materials for non RMG export products need to be duty-free as are provided to RMG. Aviation manufacturing industries could take advantage of this policy.

ii. **Accelerated Growth with Industrialization and Trade:** Low labor cost will continue to be the source of competitiveness for Bangladeshi exports in next few years. Aviation maintenance and manufacturing industries could capitalize on these advantages.

iii. **Digital Opportunities and Innovation:** Aviation maintenance and manufacturing industries need to integrate big data, robotics, AI, and automation for competitive advantage and create more high-end job opportunity.

c. **Sustainable Development Goals (SDGs):** SDG goal 9 has given key insights on industrialization which one need to consider. This identifies that inclusive and sustainable industrial development is the primary source of income generation, allows for rapid and sustained increases in living standards for all people, and provides the technological solutions to environmentally sound industrialization (United Nations). It also highlights that without technology and innovation, industrialization will not happen, and without industrialization, development will not take place.

Key Findings: It is evident that all medium to long term plans are intertwined with each other. One compliments other. From aviation industry point of view, following points may be summarized from the above discussion:

a. Industrialization will play a key role in realizing Bangladesh's medium to long term goals. Aviation industries with cutting edge technologies could play a significant role in this regard.

b. After graduation from LDC status, Bangladesh needs product diversification and open new sectors to keep the export momentum high. Commercial aircraft maintenance and manufacturing industries could play a vital role in this regard.

Future Trends of Aviation Industry

Bangladesh has the potential to become one of the aviation connecting hubs due to its geographic location. Moreover, with the growth of national economy, aviation sector is also growing at a faster pace in Bangladesh. As such, number of passengers is expected to grow three times by 2036 in Bangladesh (Member, Flight Standard and Regulations of CAAB). Such growth potential may create opportunities for aviation related industries to grow in Bangladesh. Again, Bangladesh being a developing country, offers big work force at a very competitive rate. Considering all these factors, Bangladesh should have a long-term plan for aviation related services and manufacturing industries. Bangladesh may start with a commercial MRO, which would in turn help aviation industries to excel further in this country. Direct and indirect contribution from the aviation manufacturing and maintenance services will have significant contribution in implementation of the PP2041 and BDP 2100 in the long run. But we need to consider the changes that may take place in the global aviation industry in future.

There is no limit on our imagination when we think about the future of aerospace. Someday the dream of taking a commercial flight to Mars at the speed of light, commuting to work on a passenger drone or living in an airship the size of a small city, may come true. These all are long term vision. But soon there will be more drive towards sustainable growth of this sector. The drive to reduce emissions are going to be critical. That's why development of hybrid planes that use both electric and traditional fuel, new winglet designs for fuel efficiency have received more attention. Potential aviation industries of Bangladesh should consider all the upcoming concepts and changes in the global aviation industry to remain competitive.

Implications of Changes on the Sector

Over the last few decades, airline industry has seen several changes, such as the increased market share of low-cost carriers (LCCs) as well as challenges from infectious disease outbreaks. The next 30 years are likely to be more turbulent, as a new wave of technological change and innovation unfolds. The implications of changes in the global macro-environment that will affect the airline industry over the next 20 years and beyond are discussed below.⁶

- a. **New Actors:** Private actors like Deep Space Technologies and Space X have already taken roles which was traditionally the domain of governments. Focus of airlines may be diverted towards new entrants such as space technologies. As such, aviation industries, private actors and government need to work in unison for common good in future.
- b. **Alternate Communication Means:** High-speed trains are likely to take business from airlines over shorter distances. Some new technologies may also compete on performance by providing faster connections over longer distance (e.g. hyper loop, drone companies, unmanned aircraft companies, and

private actors such as Space X). As this happens, the role of airlines may shift to long-haul international flights, making relationships with other transport providers more important. At the same time, there may be a shift towards more point-to-point travel. Secondary and tertiary airports may benefit from efforts to combat increasing congestion at hubs. International airports of Bangladesh could benefit from such opportunities.

c. **Opportunity from Open Border:** Open borders and movement are positive for the airline industry, and as the process of moving people and goods becomes more seamless and automated, the industry can increasingly position itself as the conduit of choice for people and goods. As the border of Bangladesh opens with her neighboring countries, Bangladeshi airlines could benefit from such opportunity.

d. **Infectious Diseases:** There is likely to be increased risk from infectious diseases in future as we have seen in the case of recent outbreak of COVID-19 in China. The traditional view is that airports can be a hotbed of infection. As such, airlines and government agencies may have to work together for monitoring and mitigating the spread of epidemics.

e. **Global Economy:** Over the past ten years there has been growing awareness of the interconnectedness of the global economy, and its volatility is unlikely to decrease during the next 30 years. To address this volatility, the industry would benefit from an ‘early warning system’ to identify potential disruptions and systemic risks, as well as changes in social attitudes.

f. **Post-Oil Economy:** Fuel efficiency and a drive to reduce greenhouse gas emissions will be the key determinants over the next ten years. However, a post-oil aviation industry may be unlikely in the next twenty years.⁷ Thus, the industry should plan for radical disruptions to the energy market, beyond oil price fluctuations.

g. **Workforce and Skills:** Aviation industries depend on high-skilled employees. In the medium term there may be skill supply issues due to the increased demand from emerging markets. In the longer-term new technologies including AI and automation will fundamentally change dynamics of today’s traditional perception of work.⁸ Thus, in the short-term the industry will need to invest in skills and structures to keep pace with a changing workforce. In the medium to long-term it will be necessary to manage the transition to automation, which may require a smaller workforce.

h. **Cyber security:** There is growing awareness and concern about threats from cyber security. As systems and planes become increasingly automated, the risk and potential impact of an attack or breach will continue to grow.

j. **Infrastructure:** A long-term plan for investment in infrastructure is a challenge. Investment will clearly be needed to meet changing expectations and demand for travel. Thus, government should take combined effort with local airlines and global aviation industry in this aspect.

k. **Technology:** The development trends in aircraft will continue to be greatly influenced by the technological revolution. Recent developments in the fields of computerization, communications, materials, miniaturization and manufacturing will provide the driving force for future trends in aircraft development.⁹ For example, computerization in the fields of engineering, manufacturing and maintenance will shorten processes and improve their efficiency. Communications will improve real time industrial cooperation between physically remote development teams. Miniaturization of electronics and sensors will reduce volume, weight and cost of avionics systems. Besides, fuel cell propulsion will replace biofuel to meet environmental emission requirements. Finally, integrated air, space and ground networks will enable us to acquire large volumes of data, process that data and then make it available to decision makers anywhere in the world, in near-real time (Penn).

Dynamics of the Aircraft Maintenance Business

Future aviation industries of Bangladesh should consider all the above factors of changes while making business strategy. Bangladesh may start with MRO business which will enable her to expand the business to other areas. There are some changes in MRO business as well, which we need to consider. Following factors are driving the change.¹⁰

- a. OEMs have more focus on MRO.
- b. Airlines are more reliant on outsourced maintenance.
- c. MRO business is looking for low labor cost destinations for competitive cost offering to customers.

SWOT Analysis

To find out the prospects of aviation industries in Bangladesh, various aspects are analyzed following a SWOT analysis model in the following paragraphs:-

Strength

- a. **Political Will:** Government has given due importance on the development of aviation infrastructure. Number of airports are in the process of developing into international airports. Moreover, government has strong commitment for aviation maintenance and manufacturing industries as well. According to a report in Saudi Gazette by Moshi, Honorable Prime Minister (HPM) of Bangladesh invited Saudi businessmen to invest in Bangladesh during her visit to KSA from 16 to 19 October 2018.¹¹ It is evident that government has strong commitment to develop this sector for overall national economic development.
- b. **Easy foreign investment policy:** Bangladesh government offers tax rebate to Foreign Direct Investment (FDI) for varying duration based on the location of investment. Moreover, as per government regulation, foreign company will be able to take 100% profit of the proposed plant after payment of corporate tax.¹² This easy investment policy may attract potential investors towards aviation related industries in Bangladesh.
- c. **Skilled Manpower:** Bangladesh has a reasonable flow of experienced technical personnel in the commercial aviation sector every year. BAF is the biggest contributor in this aspect. Retired BAF personnel, graduates from Military Institute of Science and Technology and Bangabandhu Sheikh Mujibur Rahman Aviation and Aerospace University (BSMRAAU) could meet the manpower requirements. Additionally, a good number of licensed technicians are also working with local airlines who can be utilized in various aviation manufacturing and maintenance related industries.
- d. **Availability of Land:** Bangladesh Air Force Care and Maintenance (BAF C&M) Unit, LMH has an estimated 324 acre of land area. The said location has a total of 1200 acres of land available as Military Estate Officer (MEO) land which could be used as potential site for setting up an aviation related manufacturing and maintenance hub.
- e. **Geographic Location of Bangladesh:** 40% of world population are within 6 hours of flying time from Dhaka. Moreover, being at the crossroad between South Asia and South East Asia, Bangladesh could be a connecting point for the airlines of the Middle East, South Asia, and South East Asian countries.
- f. **Passenger Growth in Bangladesh:** Except for 2016, Bangladesh has seen a leap in the commercial airlines passenger travel which corresponds with its vibrant economy. With the growth of commercial airlines, associated maintenance and aviation manufacturing industries are also expected to grow.

Figure-1: Correlation Between GDP growth and Passengers Growth Rate



Source: Author's self-construct

g. **Competitive Average Salary of Aviation Technician:** Maintenance and manufacturing industries are labor intensive. Due to low labor cost, Bangladesh may get aviation technician at cheaper rate compared to her competitors. Average annual salary for a licensed technician in various countries is given in the following figure.¹³

Figure-2: Comparison of Average Aircraft Maintenance Technician Salary in USD (2018)



Source: Author's self-construct

Weakness

Complicated Import/Export and Tax Regulation: Import/Export and taxation regulation are very complex in Bangladesh. Thus, importing any spare parts becomes very expensive. In turn, this hinders growth of local maintenance capability.

Opportunity

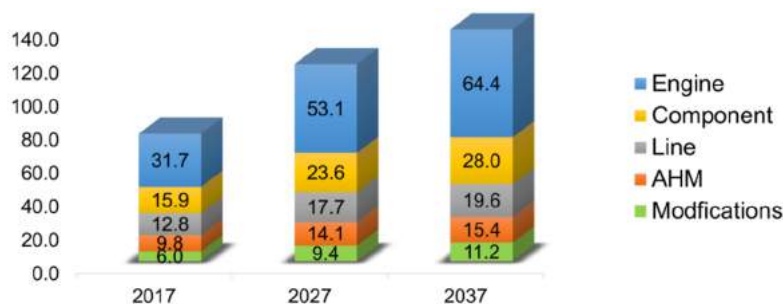
a. **Growth of Intra Regional Flights:** According to Commercial Market Outlook 2019-2038 by Boeing, intra-Asia Pacific traffic has increased 2.1 times in 2018 from 2008. This growth trend of intra-regional flights will create opportunity for the aviation service support related businesses in Bangladesh.

b. **High Growth for Commercial Aircrafts:** In next 20 years, passenger jet airplane fleet will grow almost double in global market.¹⁴ In Asia Pacific region, South Asia will see the highest growth in passenger jet fleet. Forecast of high growth in jet fleet opens the window for jet aircraft maintenance.

c. **Asia's MRO Market Share:** Share of global MRO market for Asia will grow from 30% in 2017 to 38% in 2037. This will in turn increase the opportunity for new MRO in the region. With low labor and operating cost, Bangladesh could become one of the favorite destinations for MRO business. Similarly, Bangladesh could also capitalize on her competitive advantage of low labour costs to set up aviation manufacturing industries.

d. **Sector Wise Growth of Maintenance:** According to industry experts, labor costs constitute two-thirds of Heavy Maintenance Visits (HNV) costs. According to Joost Groenenboom, HNV is expected to grow from \$13 billion in 2017 to \$19.6 billion in 2037.¹⁵ Thus, Bangladesh could grab this segment of the market by exploiting existing low labor cost. However, maintenance cost of engine will see the highest jump in next 20 years. Thus, Bangladesh should gradually enter in other segments of maintenance beside HNV.

Figure-3: The global MRO market forecast in billion dollars (MRO trends, 2018)



Source: Author's self-construct

e. **Willingness for Investment:** Saudi Arabian Military Industries (SAMI) is planning to invest \$5 Billion in aviation maintenance facilities in Bangladesh.¹⁶ Moreover, some of the local airlines might also be willing to be a part of a JV.

Threats

Competitors: In South East and South Asian region, heavy maintenance MRO has gradually shifted to Indonesia, Malaysia, Thailand, Vietnam, Philippines and India.¹⁷ Some of these countries have entered the aviation related manufacturing industries as well. They could be a threat for new entrant in aviation maintenance and manufacturing like Bangladesh.

Strategy Options from SWOT Analysis

Considering all the factors, Bangladesh has huge opportunity to enter in commercial aviation maintenance and manufacturing business. Building on its strengths as a potential air hub and low operating cost, Bangladesh may start with maintenance, repair and overhaul (MRO) business and subsequently enter in to manufacturing, engineering, research and development (R&D) and other aerospace-related services. If correct strategy is adopted, these industries could be commercially viable. Subsequently, this may help build the foundation for high end aerospace manufacturing industries and help aviation industry of Bangladesh to excel further.

Role of Aviation Industries on Economy of Bangladesh

Aviation industries would have following impacts on economy of Bangladesh:-

- a. An MRO will help to develop own capacity of Bangladesh, which will assist sustainable growth of local commercial airlines.
- b. Aviation industries will have great contribution to the national economy by earning lot of foreign currency. Moreover, it will save a lot of foreign currency which are spent on various periodic checks by domestic airlines.
- c. This will also help branding Bangladesh as a technology-based society by entering in to sophisticated high end aviation products and services.
- d. Direct contribution from aviation industries will increase many folds. This may help achieve the medium to long term goals of BDP 2100.

Strategy and Road Map

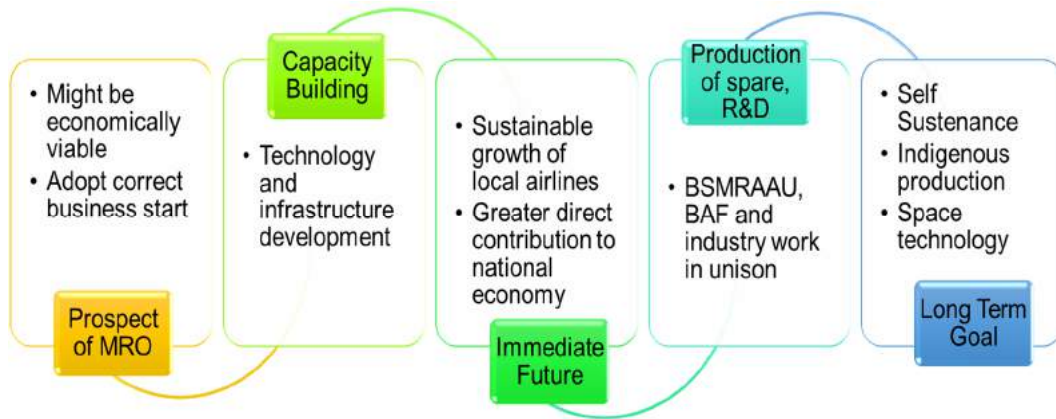
Due to business growth, specialization and diversity, aviation industry management has become a complex process. Some of the regional MRO business are well established and continuously adopting new technique and technology to remain competitive. Thus, selecting correct strategy would be critical for setting up an MRO followed by aviation manufacturing industries in Bangladesh. Moreover, Bangladesh need to consider all the drivers of changes in global aviation industry while preparing strategy for future. In the

following paragraphs, probable business strategy is discussed along with a road map for aviation industry in Bangladesh.

Road Map

Keeping lessons learnt from other established aviation industry business leaders and considering the analysis made above, possible road map for Bangladesh to establish aviation industries is as follows:-

Figure-4: Road map for Bangladesh Aerospace Industries



Source: Author's self-construct

Strategy for Future

MROs, manufacturers, OEMs and service providers, should enjoy trust in doing business in Bangladesh aerospace industries. Following strategies may be adopted to build trust and deal with the future challenges:

a. **Actions by Bangladesh**

- (1) Though Bangladesh may capitalize on existing low labour cost but eventually she needs to move towards a SMART factory concept. In this regard, Bangladesh needs to invest more in robotics, data communications and AI.
- (2) Bangladesh should make investments in aviation technology and innovation which are paramount to maintain an edge over others.
- (3) Bangladesh should develop a plan for educating next generation of airline industry employees. As new technologies evolve, the industry

will need to invest in skills for future aviation leaders and workers. Technical institutes need to be developed to ensure constant flow of licensed technicians in the market.

(4) Road and railway communication need to be developed from seaport to potential site for aviation maintenance and manufacturing hub.

(5) Government should support the international efforts on environmental sustainability. Environmental performance is one of the key elements of society's changing expectations of aviation which should be linked to Sustainable Development Goals 2030.

(6) Government, regulators and operators should consider establishing an information exchange mechanism to share information on cyber security threats. At the same time same system should cooperate with global system to counter cyber threats

(7) Beyond MRO, Bangladesh should build manufacturing capacity and capabilities. For example, Bangladesh may aim to enter in aero engine, cockpit avionics, thrust reversers and landing gears manufacturing segment.

b. Actions by BAF

(1) Immediate:

(a) BAF may capitalize on existing MRO facilities and start the business with component overhauling.

(b) BAF may coordinate with CAAB for necessary licensing of BAF MRO and technicians. Thereafter, BAFWT can set up an MRO in Tejgaon (as two helicopter MRO are located there, and it is closer to HSIA). BAFWT may give contract to relevant BAF MRO to carry out the task as third party.

(c) Horizontal Merger Strategy. Initially an MRO may be a Joint Venture (JV) between BAFWT and recognized MRO service provider. Local airlines may be taken aboard in this initiative. By horizontal merger strategy, BAFWT would gain quick access to new technologies and competitive capabilities. This would help Bangladesh to grow own capability in the long run.

(2) Long Run:

- (a) BAF may step into airframe and other segments of the overhauling business through a JV project.
- (b) BAF may also produce required spare parts from the MRO associated manufacturing industry in future.
- (c) BAF may think of developing space technologies to meet future national needs by developing associated industry through BSMRAAU and other manufacturing facilities.
- (d) **Product Diversification:** On MRO segment, Bangladesh may transit from airframe maintenance to other segments of maintenance. Bangladesh needs to create an environment for investment by leading aerospace OEMs and suppliers. This will build capacity for other services like fleet management, component and spares distribution, logistics, aircraft leasing as well as pilot and crew training. Commitment to quality and safety along with diverse service offering, Bangladesh may become recognized one-stop solutions provider for airlines' maintenance and repair needs in future.

Conclusion

Recently Bangladesh has seen remarkable growth in commercial aviation like rest of the world. Various statistics indicate that the growth will continue at a steady rate for at least next 20 years. Rise of LCC, dependency of airlines on narrow body aircrafts, favorable geographic location and low labor cost have made Bangladesh a potential candidate to become an aviation connecting and manufacturing hub in the future. However, Bangladesh is yet to capitalize on these advantages. With the guidance from BDP2100 and PP2041, Bangladesh could develop this sector. In this regard, Bangladesh needs to address number of challenges to reap the benefits of such opportunity.

Bangladesh can maintain strong position as an aviation hub through unified efforts of government, industry and educational institutes. However, Bangladesh needs to capitalize on her strength and exploit the opportunities to devise own strategy. At the same time, Bangladesh needs to consider the driver of changes for global aviation industry while formulating policy options for this sector. If correct strategy can be formulated along with visionary leadership, aviation related industries could help Bangladesh to achieve its higher-level goals of BDP 2100.

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15. *MRO trends*, Groenenboom, Joost. 2018, Atlanta : IATA, 2018.
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Brief Biography



Air Commodore Hasan Mahmood Khan, GUP, nswc, psc was commissioned on 15 June 1986 in General Duties (Pilot) Branch. During his long military service career, he held a number of important command, staff and instructional appointments. Air Cdre Hasan is an esteemed Fighter pilot of Bangladesh Air Force. He is operational pilot of F-6, A-5 IIA, F-7MB, F-7BG and MiG-29 aircraft. He did his flying instructors' course from USAF and became a distinguished graduate. He commanded the prestigious 8 Squadron (MiG-29 Squadron) thrice. He also served as OC Training Wing, Commandant of BAF Academy, Staff Officer to ACAS (O&T), Deputy Director of Air Operations, Directing Staff of Defense Services Command and Staff College, OC Flying Wing BAF Base Bangabandhu (twice), Director of Air Operations (twice), Director of Plans, Director of Air Intelligence and Air Officer Commanding of BAF Base Cox's Bazar. He has served twice in UN peace support mission. For his outstanding service, the air officer was awarded with three COAS commendations, Flying Efficiency Badge and Gourabojjal Uddayan Padok (GUP). He has attended various courses at home and abroad. He is a graduate of Defense Services Command and Staff College, Mirpur, Air Force Command College, Beijing, China and National Strategic and War Course from National Defense University, Pakistan. He has achieved Masters in Defence Studies from National University, Bangladesh and Masters in National Security and War Studies from National Defence University, Pakistan. He is currently serving Defence Services Command & Staff College, Mirpur as the Deputy Commandant.



Wing Commander Md Mahbub-Ur Rahman, psc was commissioned on 25 November 1999 in General Duties (Pilot) Branch. He served as Officer Commanding of a fighter squadron and flight commander of two flying squadrons of Bangladesh Air Force. He also served as Deputy President in the Inter Service Selection Board, Deputy Director in Special Security Force. Besides, the officer has served twice in UN peace support mission. As a fighter pilot the officer has logged about 1900 hours. He has attended various courses at home and abroad. He is a graduate of Defense Services Command and Staff College, Mirpur and credited with Master of Science in Military Studies from Bangladesh University of Professionals and Master of Business Administration from IBA, Dhaka University.

A STRATEGIC CORPORAL IN CONSTRUCTIVE SIMULATION: CREATING A NEAR-TO-REAL COMPLEX TRAINING ENVIRONMENT

Brigadier General Md Asadullah Minhazul Alam, ndu, psc

Abstract

This write-up is a blended upshot of a seminar presentation and its afterthought. In May 2017, as the Director AWGC, the writer was invited by the IT²EC at Rotterdam Ahoy, Netherland² to deliver on ‘simulation based training management related to HDRO.’ The thoughts were combined and constructed on a pre-forwarded concept paper, which was an empirical outcome with baseline understandings accumulated from developing the AWGSS,³ the training methods for AWGC and the experience of conducting a good number of exercises. As the world increasingly becomes tech-reliant, a simulated and AI (Artificial Intelligence) dominated training environment for the military across the world is only a matter of time. The pedagogical requirement of military forces is bound to get transformed; and this paper appropriately sheds some light on that going-to-be-relevant-soon matter.

Photo 1: Paper presentation by the author at Ahoy



Source: Author's self-collection

Significant Occurrences

For the sake of easy understanding of the paper some significant occurrences are highlighted below in reverse chronological sequence:-

On 01 July 2016 the most horrible terrorist attack in Bangladesh's history occurred in Gulshan.⁴ At night, five militants had entered the Holey Artisan Bakery and took a good number of hostages (mostly foreigners). During early reaction by the law enforcement agencies, two officers were shot dead and 20 hostages were brutally murdered by the terrorists.⁵ Finally, squads of army commando raided the spot by next morning; in about 50 minutes, they rescued 13 hostages and killed all five attackers.

On 24 April 2013 an insignificant eight storied building named Rana Plaza in Savar unexpectedly captured global attention.⁶ The building collapsed with more than three thousand fateful human lives were still inside, eventually turning out to be the deadliest garment-factory accident in history. Nearby army garrison (9 Infantry Division) quickly responded to the call for help, and a huge rescue operation was immediately underway. In that mammoth task of saving thousands of buried-alive people - army, fire brigade and the civilians joined hands together. In the end, it was all about small group initiative in probing, finding and bringing people out from the maze and mess of the rubbles. Besides, as it went on, there were matters related to handling expectation of hundreds of awaiting kinsmen, management of 1129 dead bodies and meeting media with timely 'non-sensitive' information.

In late June 2012 following a few days of heavy torrential rain, several landslides in Chottogram, Cox's Bazar and Bandarban killed approximately 91 people with many missing.⁷ The landslides also disrupted communication and transportation system; remote areas like Ruma were cut off. Army personnel were deployed immediately to assist the rescue and rehabilitation efforts in several areas, which they did with impressive efficiency.

On 25 April 2009 one of the most remarkable incidents of the time occurred right at the entrance to Sri Lankan Army Headquarters. A 21-year-old suicide bomber named Anoja Kugenthirasah,⁸ used her pregnancy to conceal explosives and entered a maternity clinic inside the cantonment. She took advantage of relaxed security checks for the pregnant women on the Maternity Day. Her mission was to kill the Army Commander, who was riding on his way towards home for lunch. When the security staffs on motorcycles tried to block the woman from advancing towards the car, Anoja blew herself off. The Army Chief, Lt. Gen. Sarath Fonseka, was critically injured and ten others were killed.

The Realm of Strategic Corporal

It is important to realize that all these above instances have intriguing resemblances. To delve deep, the last occurrence can be examined little more. One may try to imagine what Corporal K. Warusawithana, the security NCO of the close protection group, could possibly be thinking. Facing a complicated situation involving a pregnant lady approaching towards the motorcade in a closely secured area, his first thought was perhaps to quickly deduce on the intention of the woman. Next could have been the dilemma of realizing if it was a situation to conduct a pre-emptive shooting on a pregnant woman. And finally, maybe the apprehension relating the consequences of whatever decision he made. The unlucky corporal, however, died before making his decision. The woman could make hers in time, blew herself off before the motorcade, and achieved the mission.

If Corporal Warusawithana, a well trained soldier, had shot an innocent pregnant lady out of anticipation, he could have initiated debate, movement, criticism, shame and embarrassment for his country. He could even be punished for not being prudent enough. But he did not open fire, and paid the price with his and other's life, failed to perform

assigned role of saving the Commander. The corporal needed the pedagogical touch of strategic context and complexity. With a kind of training that combines a greater strategic perspective with lower tactical skill development, perhaps, he could adopt other ways to prohibit the lady approaching so close, or other preventive measures of security checks, and thus avoid the incident to happen.

The striking similarities for all the above mentioned situations are as follows:-

- a. All cases are Military Operations but Other Than War. They are mostly in the realm of non-traditional security.
- b. The junior leaders are doing their usual lower tactical job, but in a strategic context of exposed media and conscious public. The levels of actions are 'local,' the consequences could be 'global.'
- c. The operational level leaders are involved, and they are very low level tactical 'view.'
- d. And in all four cases, the junior leader has a very little time to consult his superiors; every second counted for costing valuable lives.

In all above instances, the lower tactical commander is 'strategic.' His judgment, decision-making and action can have strategic and political consequences. It can definitely affect the outcome of a given mission, even the reputation of his country. He may be a 'nominal' corporal in the ranks, files and in the barracks, but certainly a 'Strategic Corporal' under above conditions.

Evolving Security Challenges and Pedagogical Obligations

By the beginning of 21st century, the concept of conflict and security has experienced a paradigm shift, with complex challenges evolving from ethnic, ideological, economic, environmental, societal or similar tensions. Today's 'threats' are rarely categorized within a traditionally defined boundary; instead mostly they are trans-national, connected, unconventional or natural by type. The term 'military conflict' is frequently overshadowed by happenings of 'extremism', 'violence' or 'natural disaster', and there are more 'civilians', than 'combatants' as actors. The levels of war are now intermingled where a junior military leader may have to deal with responsibilities across a wide spectrum of Military Operations, HDRO (Humanitarian Disaster Relief operation) or Military Operations Other than War (MOOTW). This reality puts forward important questions. Can we truly prepare ourselves to deal with these through suitable and realistic training? How can we handle the challenge of training higher tactical level (Organizational Level) leadership alongside a near-to-real detailed representation of section/squad level engagements? And again, how lower tactical level subunit can be trained with knowledge and consideration of the strategic setting?

In order to find answers, there is a need to acknowledge that those two questions have manifold dimensions connecting to apt training environment, as mentioned below:-

- a. How the increased complexities of the conflict can be incorporated, and at what length and magnitude? Is it physically possible?
- b. How can we replicate the necessity of incorporating more *mission command* than traditional *C2 (Command and Control)* and more of *Auftragstaktik* than *Normaltaktik* phenomenon?
- c. How the perspective of strategic corporal can be integrated while training in the field for tactical skill development?
- d. And finally, how two very different tiers (organization level and lower tactical level) can be trained while the middle levels are not relevant and represented?

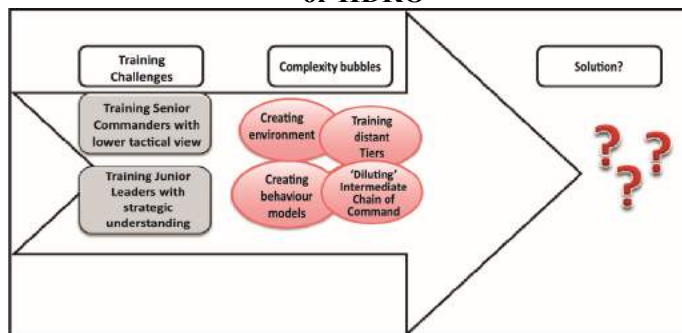
In Quest of a Solution

It is obvious that on-going journey through information super-highway leads to a greater connectivity. With 'information' becoming more relevant as the fourth dimension of the battle space, one can foresee tech-heavy military operational and training domains. Network Centric Warfare (NCW) will, for sure, emerge rendering enhanced self-synchronization and speed of command. A reasonable assumption on near future military training domain suggests three inevitable realities which are as follows:-

- a. Increased tech-reliance, automation and AI.
- b. Increased volume of LIC, MOOTW and HADR training requirement.
- c. Increased connectivity.

The practical problem of training lower tactical subunit thus arises with strategic or operational level picture and perhaps, without the intermediate chain of command. Or conversely, to define ways to train higher tactical team with a low level 'local' view. In both the cases, creating realistic environment, training two very distant tiers while diluting the intermediate chain etc could project enormous complexities as shown below in Figure 1:-

Figure 1: Navigating through Challenges and Complexities: Modern Day MOOTW or HDRO



Source: Author's self-construct

Use of simulation tool (especially constructive with some degree of aggregation) shows good promises to overcoming these issues. Live simulation or real field exercises cannot conjure the intricacy of creating complex behavioural models for civilians, mercenaries, militias, child soldiers, populations, refugees, media, NGOs extremists, suicide bombers in a conventional, sub-conventional and cooperative security environment. Constructive simulation can do that and also perform the associated necessity of updating the physical database of civilian areas with demographic and structural facts. Constructive simulation can also help keeping the participants' (Training Audience or TA and Response Cells or RC) size 'reasonably' smaller or as required while maintaining the realistic representation with greater details. (One may think about the mammoth task of creating huge population or civilian area in real exercises, let alone undertaking huge cost and inconvenience involvement). Constructive simulation can also include some very 'intangible' issues like socio-cultural awareness, rational use of force, motivation and liaison skill, judgment and decision making of the squad commander etc. Typically all modern military simulations are customized to address the layered training requirement of the forces. However the need for removing some of the command layers in between is something quite challenging and is yet to be addressed difficulties in the military simulation. If the issue is approached from technical perspective, there are two vital challenges for the military simulations as shown below:-

- a. **Evolving Threats:** One we need to have a complex opposing force (OPFOR) or threat element that evolves, like chameleon, remains hidden or appears harmless till the initiation.
- b. **Adaptive Aggregation:** Here there is a simulation that is disaggregated for training the battalion and companies again super aggregated for achieving situational awareness at the strategic level.

Having considerably discussed the overall picture of the context, it is important to now look for way forward.

The Future

The future looks bright with advanced AI. *Times* magazine identifies in its December 2016 issue⁹ that the future definitely belongs to huge development of Artificial Intelligence. In the simulation world as well, this problem is being addressed by approaches like Multi Agent Simulation or MAS, federation for multi-level training etc. Thoughts are underway about LVC IA (Live Virtual Constructive- Integrating Architecture). Projects like Live Synth¹⁰ suggest total integration of all levels in the future. Live Synth claims to allow trainees using LVC together or as stand-alone platforms. Similarly, one or more military branches can select among mission-specific suites of scenarios. Various sized echelons can customize at will, using only elements needed to accomplish a task. The concept will incorporate 'Augmented Reality and collapse Virtual, Constructive, Gaming into a single synthetic environment ... coupled to live (training) and integrated with the Army Training Information Systems'. This one capability is claimed to permit commanders to "fully plan, prepare, execute and assess training."¹¹

In Multi Agent System or MAS¹² multiple intelligent agents interact within an environment. Multi-agent systems can be used to solve experiential learning aspects of the agents which are very much prevalent with modern day terrorist or extremist organization. Unlike Agent Based Model (ABM) which functions obeying simple rules (which don't necessarily need to be "intelligent"), MAS can manifest self-organisation as well as self-steering and other control paradigms and related complex behaviours even when the individual strategies of all their agents are simple. When agents can share knowledge using any agreed language, within the constraints of the system's communication protocol, the approach may lead to a common improvement. The agents in a multi-agent system have several important characteristics that correspond to MOOTW or HADR realities which are as follows:-

a **Autonomy:** The agents are at least partially independent, self-aware, and autonomous.

b **Decentralisation:** There is no designated controlling agent.

However in MAS, it is predicted that the simulation will have a predominantly 'local view, not a 'global' one. It means to have a limitation of projecting 'big picture' that would be needed by senior commanders.

There is a partial solution which is 'federation',¹³ based and intermittently in vogue among the modern armies. For example Joint Theatre Level Simulation (JTLS¹⁴) is often federated with Joint Conflict and Tactical Simulation (JCATS¹⁵) for multilevel training. JTLS involves conflict between ground-based, aggregate-level objects (usually battalion/brigade level). It simulates other air, sea, and logistics objects at the entity level. JCATS adjudicates combat between entity-level objects, typically individual vehicles or combatants. JTLS and JCATS are event-driven simulations. The JTLS-JCATS federation, leverages the strengths of each simulation by allowing objects to be represented at the level of resolution needed for achieving training and analysis objectives (TO and AO).¹⁶ Similar federation is also plausible with other simulations like SWORD¹⁷ and JTLS etc. But here as well, the need for integrating 'evolving-autonomous-intelligent entity' remains as a yet-to-be-addressed issue.

Conclusion

In this era of globalisation, almost all armed forces are consigned before the significant challenge of developing apt tactics, techniques, procedures, and equipment to handle MOOTW or HDRO. In the context of developing nations like Bangladesh, MOOTW and HDRO are 'frequent realities'. For carrying out Internal Security Operations or dealing with floods/cyclones, military forces are very so often called for helping out other agencies, and often to perform the role of lead agency too. UN Peace Support Operations reveal a more demanding MOOTW and HDRO environment. These are fairly 'unfamiliar' areas - where small actions matter for strategic significance and 'agent' behaviours are complex and adaptive. Correspondingly, the training environment demands practical MOOTW or HDRO representation at the very lower tactical level,

well networked with organizational or strategic decision cycles. In such context, and in order to facilitate believable quick emergency response training, tomorrow's simulation may need to find an answer with intelligent 'agents' that are able to have responsive, proactive, social and flexible behaviour.

Notes and References:

1. Among three types of basic simulation (Live, Virtual and Constructive or LVC), a constructive simulation is a computer program where the simulated environment involves *simulated people* operating *simulated systems*. Data inputs are provided by the real people, but the program determines the outcome. For example, a user may input data instructing a unit to move and to engage an enemy target. Here both the unit and systems are simulated. The simulation determines the speed of movement, the effect of the engagement with the enemy, and makes the battle damage assessment.
2. *IT²EC* stands for International Training Technology Exhibition and Conference. Held annually, IT²EC is Europe's primary forum for representatives from across the military, civil sector, industry and academia to connect and share knowledge about simulation, training and education. In 2017 it was held between 16 to 18 May, at Rotterdam Ahoy where the writer prided to be the lone participant to present this paper from entire South Asia.
3. Stands for 'Army War Game Simulation System,' the first even constructive simulation developed for Bangladesh Armed Forces.
4. 29 people were killed that included 20 hostages (18 foreigners and 2 locals), 2 police officers, 5 gunmen, and 2 bakery staffs.
5. <http://www.bbc.com/news/world-asia-36692613> Accessed 21 December 2016.
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8. http://www.slnewsonline.net/LTTE_Atrocities_Suicide_Bomb_Attack_on_General_Sarath_Fonseka.htm, Accessed 22 December 2016.
9. The term *Auftragstaktik*, was developed as a military doctrine by the Prussians following their losses to Napoleon. The idea that developed, the brainchild of Helmuth von Moltke, was that the traditional use of strict military hierarchy and central strategic control may not be as effective as giving only the general mission-based, strategic goals

that truly necessitated central involvement to well-trained officers who were operating on the front, who would then have the flexibility and independence to make tactical decisions without consulting central commanders or paperwork. https://www.realcleardefense.com/articles/2017/04/28/auftragstaktik_decentralization_in_military_command_111267.html. Accessed 10 August 2018.

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11. David C Walsh, *'Live Synthetic' goes for the next level in simulation*, <https://defensesystems.com/articles/2014/05/14/army-live-synthetic-simulation-training.aspx>. Accessed 17 December 2016

12. David C Walsh, *'Live Synthetic' goes for the next level in simulation*, *op. cit.*

13. Nikos Vlassis, *A Concise Introduction to Multi agent Systems and Distributed AI*, Intelligent Autonomous Systems Informatics Institute, University of Amsterdam, 2003.

14. Federation refers to different computing entities adhering to a certain standard of operations in a collective manner to facilitate communication. In information technology (IT), federated identity management means to having a common set of policies, practices and protocols in place. See <http://net.educause.edu/ir/library/pdf/EST0903.pdf> , Accessed 12 November 2016.

15. Developed by ROLANDS & ASSOCIATES Corporation (R&A), a California based company; JTLS is currently used by all U.S. combatant commands, U.S. Services, the Naval Postgraduate School, NATO, and several non-U.S. Defence agencies and commercial companies.

16. Developed by Lawrence Livermore National Laboratory (LLNL), a US federal research facility; JCATS provides entity-level representation.

17. SWORD is the mother simulation that has been customized for Bangladesh Army AWGSS.

Brief Biography



Brigadier General Mohammad Asadaullah Minhazul Alam, ndu, psc was commissioned in the Bangladesh Army in Dec 1991. He holds an ongoing 29 years plus long career as a military professional in Bangladesh Army. His wide ranging experience at home and abroad includes working as UN Military Observer in Timor Leste, sharing Sri Lanka Armed Forces success in “Counter Insurgency”, serving at the CHTs on five alternate terms, and commanding a contingent in Kuwait. Brig Gen Minhaz obtained his Masters in Defence Studies from DSCSC, Mirpur; besides, he is also a graduate from Singapore Command and Staff College. He successfully qualified at “National War College Course” at National Defence University (NDU), USA. He qualified on Strategic Management, Management and Leadership Programme from Nanyang Technological University of Singapore and its affiliated Nanyang Business School. He is currently a PhD fellow of International Relations at the Jahanginagar University, Savar. Brig Gen Minhaz is married to SyedaMarzia Begum and father of two daughters. His write-ups have been published in number of military journals and national dailies. His first book titled, *Band of Brothers and the Societal Debt* was published in 2010. He commanded an Infantry Brigade in Ramu that dealt with security and disaster relief management of the FDMN camps. BG Minhazis currently working as Chief of Doctrine Division at the ARTDOC.

THE CHARACTER OF FUTURE WAR

Brigadier General Shahedul Anam Khan ndc, psc (retd)

Abstract

War has never lost its relevance since man found aggression to be the best expedient to settle differences. With the progression of time, age and civilization, the method of conduct of war, was transformed; technology playing the main role of driver of change, giving the cutting edge, literally, to those who possessed them, as much as chariots shaped the conduct of war, and as much as the manner in which phalanxes and legions were arrayed in the battlefield against the enemy.

But over the period of history, while the nature of war remained constant – violent, nasty and destructive – its characters changed, motivated by the prevailing environment.

In recent times, the attitude of the major powers towards war has, inevitably, undergone a change, greatly influenced by the experiences of the two great wars and the development and use of nuclear weapons with its catastrophic consequences, as well as by the experiences the post–Cold War. The prospect of a devastation of unimaginable proportion, were a major war to occur, was not lost on them. Yet the propensity for assertion of power and influence, if not control, on the sources of strategic **assets**, and in certain circumstances irredentist aspirations of some countries, emergence of non-state actors and non-traditional threats, have thrown up newer concepts of employing state–power without crossing the traditional threshold to achieve national objectives. The new model has been described in many ways – HYBRID WAR being the most commonly used.

This paper delves into the character of future wars, identifies the drivers of change, and their impacts on the operational environment and how that might need a rethinking on our force structure and weapon system as well as on operational concepts.

Introduction

In his historical address made at the Association of the U.S. Army Convention, 2017 General Mark Milley remarked,

No one can accurately predict the future. The nature of war is never gonna change. But the character of war is changing before our eyes — with the introduction of a lot of technology, a lot of societal changes with urbanization and a wide variety of other factors.

Gen Miley’s word succinctly but amply sums up the very substance of the subject of this essay. Man’s second oldest profession has continued to evince keen interest of the

practitioners and the military theorists in the character of and the factors that affect its application in the battlefield.

War has been and continues to be the final arbiter of differences between families, clans, tribes, nations and nation states. At its core, war continues to be an organised violence meant to achieve political ends. It has also been a practical means of imposing the will of the strong on the weak. Perhaps no statement in respect of interstate relations by a historian has been more prophetic than that of Thucydides, spoken through the mouth of the leader of the Athenian delegation in 416 BC, while offering ultimatum to his Melian counterpart that, “The strong do what they can and the weak suffer what they must.”

And war continues to be accorded the same value today as in any time in history. And as in the past, the strong continue to impose their will and the weak continue to suffer their fate. But not in all cases though. History bears testimony that the weak, in some cases, have employed their own methods to balance the asymmetry. This has negated the long-held view that war was conflict between states only, as also the assumption that the state had the monopoly of violence. That has proven the truth that wars are no longer clashes between nation states only; groups or entities that fall outside the definition of ‘state’, which have come to be suitably defined as ‘non-state’ actors, also perpetrate war. Though the means and method of perpetrating, what is their kind of war – with their own characteristics, and very little of the tactics they employ or strategy they resort to – conform little to the conventional means of pursuing war. This is as true today as it was during various stages of ancient and medieval history. And the new modalities in pursuing war have come to be defined in various terms as we shall see, characterised by the manner in which that particular war is conducted.

Thus, the burden of this paper is to evaluate the character of future wars and the likely forms it might manifest in, and the ensuing consequences in so far as they exert influence on the forms of future warfare. But that may not be possible without investigating the drivers animating the current changes in the character of warfare and those that might propel future changes. Also imperative is the need to study the points of inflection in the process of transformation as well as to evaluate the features that distinguish war of today from yesterday and those might distinguish today’s from future wars.

Relevance of Clausewitz to Future Changes

However, no discussion on war, past, present or future would be complete without reference to Clausewitz, whose monograph *On War* remains the frame of reference of any discussion on war. The great Prussian general and theorist, while writing his major work had hoped that the substance of his book would endure and that his postulates on war would not lose their relevance with time. However, there is a school of thought who suggests that, the enhanced dimensions of war and expanded theatre of warfare, as well as the experiences of post-World War-II, of the Cold War and post-Cold War, accentuated by the experiences of 9/11, and the global war on terror, may see the rejection of Clausewitz’s central theory – that war is the continuation of politics by other means.

They argue that if the hypothesis that man is a political animal and war is pursued for political power is true, then politics is the continuation of war rather than vice versa – war being the continuation of politics by other means.¹ But the Clausewitz critics overlook the fact that he also recognised that war was practically limitless in variety, describing it, according to Zachery Tyson Brown, as “complex and changeable,” noting that every age has its particular kind of war with, “its own limiting conditions and its own particular preconceptions.”²

Brown goes on to argue that some military thinkers have mixed up Clausewitz characterisation of war based on his experience of the era to the constant nature of war. This overlooks the central fact that Clausewitz focus was on how war has changed over history.

But there is one other area that some thinkers suggest where Clausewitz concept may be in contrast with modern forms of warfare in as much as the field of conflict will transcend the traditional confines of the three dimensions – land, sea and air, and be waged in other realms. To Clausewitz, battlefield is where the enemy is to be finally defeated. But with the reconceptualisation, and, in some instances, employment of newer forms of war, the idea of traditional battleground might cease to exist. Clausewitz theses in fact questions Sun Tzu who said that the best test of generalship is to defeat the enemy without having to engage in battle, being aware of the high cost of war both in terms of money and human lives and gave the dictum, “the acme skill of a master strategist is to be able to win without fighting.”³

Sun Tzu proposed that the most successful general was one who could win without having to engage in combat (deterrence); that superior manpower, position, technology would prevail (competitive advantage); and to avoid what is strong (indirect approach). But Sun Tzu was also speaking in the context of his time and one would do well to keep in mind that the concept of ‘battle’ under the current thinking will have a far wider meaning than what Sun Tzu had in mind.

Apparently, Clausewitz critics suggest, the eminent theorist perhaps did not foresee the evolution of war and the expansion of its dimension, denomination and change of character.

Clausewitz may not be the last word in military theory and other related topics on war, but nor can one dismiss him out of hand. He continues to be relevant even though, “his theories remain incomplete”. He is relevant not only because, as Christopher Coker argues, “He knew more about war than anyone else” and because there are points in ‘*On War*’ that have not been properly explored. He asserts that Clausewitz’s observations seem to be confirmed by modern sciences, such as social psychology, evolutionary biology, cognitive science and even business strategy.⁴

Getting a Hang of the Semantics War and Warfare

It would be in order at this point to clarify the subtle difference between *war* and *warfare*. These are two different words with different meanings. But they are all too often conflated. There are perhaps few better definitions of war than what Carl von Clausewitz has enunciated for us. He commences the very beginning of the first chapter of his book defining succinctly that war is a continuation of politics by other means.⁵ Warfare, on the other hand, is the means and methods parties employ to achieve the ultimate aim. It must be emphasised that, “Warfare, doesn’t have an enduring, unchanging phenomenological ‘nature,’ as it is merely the way war is made.”⁶

Using the terms war and warfare synonymously would misrepresent the actual meaning of the two terms. One is distinct from the other. War is a situation that nations, states or entities outside the definition of state may be faced with, it being thrust upon one party on another. It is a state of conflict or, “an act of force to compel our enemy to fulfill our will.”⁷ Warfare on the other hand is the method and means of conducting war which would depend on the type of war being pursued. For example, a cyber-war would be conducted in as much a different manner as from a traditional war, and as war of insurgency would be from trade war. The ultimate objective being what was enunciated nearly two hundred years ago – to subordinate the will of the adversary to one’s own.

Nature and Character of War

“The nature of war in the twenty-first century is the same as it was in the twentieth, the nineteenth, and indeed, in the fifth century BC. In all of its more important, truly defining features, the nature of war is eternal. Clausewitz clarifies further, “all wars are things of the same nature” and adds that that war has two natures, “objective” and “subjective.” The former is permanent, while the latter is subject to frequent change. The character of war is always liable to change, as its contexts alter, but its nature is fixed.”⁸

The Many Faces of Warfare

As stated earlier, warfare, like any other phenomenon under the sun, is in a state of change, if not constantly, certainly periodically. It has been restated by current military thinkers that war as an instrument seldom gets outdated. Rather, it transforms, its nature being continuity and constancy. What changes is its character. Engaging in discourse on war and warfare may seem to be engaging in tautology at worst and delving in semantics at best, but that is a notion that has been held and propagated by the nation that helped perfect the art of warfare and one that gave us the author of the time-enduring tome, *On War*. “According to the Prussian, war’s *nature* does not change – only its character changes. The way we use these words today can seem to render such a distinction meaningless, but careful attention to semantics can reveal real problems in how we think about war, society, and the future.”⁹

Some military writers have also likened war to the Greek God Janus, having many faces. What is constant, however, they assert, is the nature or logic of war that has remained unchanged since the dawn of time. But its character, in other words, how war manifests itself in the various dimensions of its application over the years is what goes through transformation; the manifestations are compelled by the milieu of the time which instigates the method of how they are expressed. Thus, the debate is more than abstract because of the implication of the changes and how that affects the thinking and preparation of individual states to combat the threats, including necessary countermeasures to preempt those.

What has engaged the military thinkers, planners and strategists is the process of the transformation of the character. If war's nature is continuity and constancy, it is characterised by several features, some of which are chaos, element of chance and, one might add here, a good degree of luck, confusion and courage i.e. the human element in war. However, one common characteristic of war is that it is an act of reciprocity.¹⁰

Thus, any endeavour in this regard demands that we cast our minds back to history and look at how things have changed and what were the drivers of the changes. History is a good starting point since delving into the character of war might help us explain the current changes and extrapolate the lessons to contextualize the future scenario and describe the likely features of the phenomenon.

History of Change The Inflection Points

The transformations have occurred over a period of time in history. But in this paper we shall focus only on the recent times i.e. end of the First World War, in other words, the beginning of the 20th Century – the datum point, till the present day, for the purpose of identifying the points of change and the causative factors,

During the First World War, the battlefield was the main theatre of conflict, quite in the traditions of the way war was fought in the Middle Ages. And just as cannons acted as a force multiplier when first introduced during the reign of the Yuan dynasty in 13th Century in China, the qualitative change in the character of war in the First World War was the product of perfecting the employment of artillery. Added to that was the introduction of tanks and air power. Tanks provided a mobile but relatively protected platform to deliver fire on enemy positions. However, tanks were restricted by the limitation of their radius of operation.

But what presaged a significant change in the character of warfare was the use of air power. And although aviation technology was in a very rudimentary and experimental stage, as was the thinking on its operational employment, by the end of 1914, three of the four principal air power roles identifiable in modern doctrine can be recognised. And even if, "Military aviation did not determine the outcome of World War-I but the airplane did establish its very real significance in support of the army on the battlefield."¹¹

Second World War saw a more sophisticated perfection of the weapons at the disposal of the militaries with capabilities so far unseen. The War left behind many theoretical lessons and, according to Hugh Strachan, “it still remains the war that the very best encapsulates although it does not capture the predominant experience of war today. It offered a vision of war that was a product of technology.”¹² Awareness of the kind of destruction that weapons can cause, was further reinforced with the dropping of the nuclear bomb.

Another experience that influenced the minds of the Big Powers is the long duration of the wars, particularly the post-Cold War. It proved Sun Tzu’s dictum that no country has ever benefited from a protracted war. These two realizations were inherited, leaving a deep imprint in the minds of the Big Powers during the Cold War. The effect remained long after the debris produced by the two nuclear detonations was cleared.

The Cold War (1946-90) was the pitch the military scholars identify as the next point of transformation in the character of warfare. However, one of the positives of the legacy of Second World War was the role of deterrence during the Cold War. We have till now been used to the Clausewitzian idea that war, being an act of force, is per se violent and does not admit of moderation. However, nuclear states have tended to moderate violence to prevent escalation post 1945.¹³ Admittedly, the restraint was induced by the likely outcome of a major war. While this has been proved by the prevalence of “Long Peace”¹⁴ since the end of 1945, it has also questioned Clausewitz’s maxim that, “to introduce into the philosophy of war a principle of moderation would be an absurdity.”¹⁵ Nevertheless, the ‘Long Peace’ has led to the unbridled production and proliferation of conventional weapons and proxy wars where these weapons were tested. In other words, scholar aver, deterrence has had a role in not only restricting war but also shaping its character.

The technical developments post-1989, perfection of weapon systems with highly advanced target acquisition know-how and with weapon delivery capability well beyond one’s shores, combined with the experiences of the First Gulf War in the post-Cold War period, and, lastly, the impact of 9/11, stimulated the next trajectory in the transformation of the character of war.

However, while the main features of the Gulf War was shock and awe – kinetic force and precision delivery of weapons – post 9/11 was dominated by other elements than purely kinetic. One of them was the role of the non-state actors.¹⁶ This has given rise to the debate regarding whether it is technology only that has acted as the driver of change or whether there are other causatives.

Drivers of Change Technology or What?

Clausewitz may have missed out on technology as a variable in war perhaps because when he was writing *On War*, technology was not a big driver. As time progressed, so

did technology which impacted innovations in weaponry. Since then, there have emerged two views separated by their two very distinct positions on the role of technology as the shaper of the character of warfare. One sees warfare and security through the prism of technology. The other fears the dangers of a debate on future of war that is 'technologically sanitised' ignoring the political and social contexts.¹⁷

The predominant assumption is that, technology has played the dominant role in shaping the character of war. The use of artillery and appearance of tanks in the First World War was a game changer, particularly the latter. These two were perfected by the time the Second Great War commenced. The technological developments were not only inherited but refined even further post 1945 and the Cold War – the First Gulf War being the watershed year when the full brunt of the western military power supported by technology was brought to bear on the enemy. The kinetic weapons, combined with the precision of delivery, made for a deadly mix. "The war displayed to the world the power of technology, at least in a conventional war."¹⁸ Technology gave the edge to those who possessed it, and it brought about a paradigmatic shift in the modalities of conducting warfare. NATO bombing of Serbia highlights this amply. Also, the capacity to deliver weapon loads on enemy remotely has enhanced the standoff distance as well as reduced the prospect of human casualties. This is what is called the-risk-free war which come in handy in an era of 'wars of choice'.¹⁹ Since then, alongside a vast array of technical developments in weapon system, the battlefield has enlarged to include cyberspace and all the other benefits the developments in IT has accorded to mankind like, AI, Robotics, Big Data etc.

The other group asserts that the political, social and economic factors are the real drivers of change. The experiences of the global war on terror have brought to the fore politics and social factors as variables in shaping the character of warfare. In Afghanistan and Iraq, what proved more effective were tribal loyalties rather than air power, which explains why the wars have gone on for so long. This school sees war as being shaped in broader terms with economic, social and cultural factors playing an equally significant role as technology. And that perhaps accounts for the fact that the application of the armed forces in the global war on terror was restricted, not by any deficiency in technology but by the environment in which that war was being fought without any direct relationship to the level of technology of either of the parties involved. That was primarily why the US could not get to use its full range of high-end technical assets, which were deemed redundant to the theater of the war that the US and its allies were fighting in, and the nature of the enemy that confronted them. The US was constrained to modulate its strategy and tactics to match that of the adversary. It was conventional weapons of low-level technology that wreaked the maximum damage on the coalition forces, like small arms, IEDs and RPGs.²⁰

The consequences have been the expansion of the battlefield, focus on the societal, political and cultural institutions rather than exclusively on military and technological capability, and supra-national legitimacy (including NSAs, NGOs). This has compelled

revisiting the vision of war which had till then been shaped by the experiences of Second World War, post-Cold War, and the Balkan experience.²¹

Seeing the issue in binary terms would not help in understanding of either war or warfare. As stated at the start of the essay, war and warfare are distinct phenomena; war is a situation dictated and shaped by belligerence that two or more parties may find themselves in. Warfare is conduct of war, which was largely clash of arms. It is thus important to keep in mind that while technology shapes the character of warfare, it does not influence the nature of war. By the same token, however much technology may *change* warfare, it neither *determines* how it would be conducted nor how it would eventuate into. Technology is the instrumentality of warfare.²² In the final analysis, technology may determine the nature and character of war, it cannot, however, determine its final outcome. If that were the case, the US would have won every single war that it has engaged in since 1945.

The Present and the Future Risk of Forecasting

To talk on the future of war or warfare is in itself a delicate undertaking since one runs the risk of being proved wrong, particularly when that has to do with affairs of man. And war being what it is – predicting its form and tenor, is fraught. More so when, as Lawrence Freedman says, “The future is based on decisions yet to be made in circumstances that remain unclear to those looking at a crystal ball.”²³

There is perhaps an element of optimism in experts who suggest that the likelihood of large-scale war between states is remote in the future, more so between great powers (deterrence being the disincentive). That view stems from the experiences of the periods since the end of Second World War, particularly after the end of the Cold War. However, more frequent have been the prolonged intra-state wars.²⁴ According to a report, the peak of large-scale conflicts since 1946 was reached in 1990-1991. Since that time, there has been a 60 percent drop in conflict both within and between states.²⁵

The presumption of no immediate threat of a major war is not without its attendant problems. Firstly, such a notion calls to question the theories and precepts that have so far defined the relationship between the state and war. That renders the axiom, that states use war as means to advance political interest, incoherent. And deterrence being the main motivation to desist from war, it assumes a major role in defining the shape or form (or methods and means) of future wars.²⁶

In other word, what are the other options open to states in the realm of international relations should diplomacy fail to secure a state's national interests. And that includes non-traditional issues which have grave impact on state security, like the effects of global warming which would cause loss of land to sea and salination, forcing demographic movement for habitable space. Scarcity of food, energy and water are issues many see as

being the major cause for a future conflagration between countries. In fact, future conflicts would be a contest for natural resources.

Moreover, while it may be true that there was no one - to - one confrontation between the major powers in that period, a major power was indeed involved in many interstate wars. In fact, "Since 1991, there have been eight wars, and the U.S. was involved in four of them."²⁷ So, absence of a major war does not preclude the participation of a major power in interstate conflicts since that might draw in other major powers into the conflict. In reality, the threat of interstate wars has not disappeared entirely as evidenced in the developments between India and Pakistan.

The happenings in the last decade give one the reasons to believe that despite the absence of war between major powers since the end of Second World War, the prospect of no future major wars may not hold out. The world order dictated by the US since the end of the Cold War stands rejected today. There is a rejuvenated Russia, which is attempting to reassert itself in international politics. Russian annexation of Crimea demonstrates that intent. China's footprint has enlarged recently through its application of power in its many dimensions.

It is thus no wonder that there has been modification of the European views, since the Russian annexation of Crimea in 2014, and the "Euro-Atlantic Area has revived its interest in large-scale conventional operations against peer competitor."²⁸

These developments, compelled by the shifting the character of war, have brought to focus the relationship between war and the state. It needs to be emphasised that in spite of the nature of the change, states will remain central to the business of war, primarily because non-traditional issues will feature increasingly in the planning matrix, and it is only the state that can combat these threats effectively.

But be that as it may, and believing that even though full-scale interstate wars between great powers remains improbable, "there is still scope for less severe forms of military competition."²⁹ What might the 'less severe' forms of warfare be? That is the moot point.

The European Perspective on War

Till recently, there had been considerable change in European thinking too regarding the usefulness of war, stemming from the experiences since 1945. The prevalent notion was that the most rampant form of war was limited war, (but there has also been a decline of civil wars since 1945 since the causative factors that initiated those have ceased to exist). Europeans predict low probability of large-scale wars, but if one were to occur, it would be of high impact. However, as for Germany, it does not believe that war is any longer a continuation of policy, but rather a failure of that policy.³⁰

The British thinking is amply demonstrated in the introductory paragraphs of a paper describing future operating environment. It says, “It seems likely that the future will be characterised by an increase in the rate and impact of certain current global trends (in particular urbanisation, globalisation and inter-connectivity) and an increasingly complex, ambiguous and wide range of potential threats.”³¹

The British also do not rule out the possibility of traditional inter-state wars in the next two decades. They also acknowledge that the state-sponsored terror attacks and use of proxies and cyber-attacks are more likely, as also the ability of the extremists and non-state actors to exploit a wider array of military capabilities using innovative tactics. These possibilities leave a state’s inherent vulnerabilities open to exploitation. The non-state actors are likely to develop ever-higher levels of lethality to counter protection systems and may even have access to weapons of mass effect. That notwithstanding, the United Kingdom continue to cut its defense spending, “in the belief that the era of conventional state-based threats disappeared at the end of Cold War.”³²

The US Thinking³³

There is a rethinking too in the US about not only the likely prospect of future conflicts and wars but also about the manner of conduct of future warfare. Its views are influenced by the fact that in recent times there has been a reversal of the declining trend of the volume and intensity of war, as also by the cost benefit of wars in terms of human lives, both in the battlefield and outside of it. But what the US does not spell out, though one believes that it has not escaped the reckoning of the US policy makers, is the failure of wars to deliver the political goal, least of all, peace. In fact, the outcomes of most of the post-Cold War wars have been worse than the ‘disease’ the wars were launched to cure.

However, the US is more specific about both the nature of conflict and the way it foresees adversaries contesting in the future. It predicts that the traditional concept of war may come to be contested, and newer concepts of war and warfare are likely to be formulated. The US sees technology as the prime mover of the character shift of future conflicts together with the current strategic and geopolitical settings. The new concept would see more thrust towards technology in order to reduce the reliance on human beings in the delivery of weapon load, of whatever variety that might be, and to gain increased standoff distance to pursue war without appearing to be crossing the threshold stage. But the US sees technology giving more lethality and capacity of disruptiveness to the arsenal, and that both military and non-military tools being resorted to, causing the distinction between peace and wartime to be blurred, a situation that is being defined as “Grey Zone”.

The US prediction encapsulates the nature of future conflicts in three Ds – diffuse, diverse, and disruptive. Conflicts will be more DIFFUSED, in as much as more variety of actors will get access to wider range of instruments to perpetrate war including non-state and sub-state actors with some aspect of the operations outsourced to private

organisations, obscuring the distinction between combatants and non-combatants.³⁴ It will be more DIVERSE because not only the sphere of battlefield will expand but also because the spectrum of warfare will also broaden; that would include military capabilities as well non-military means, information, economic and cyber warfare involving multiple domains like cyber space and space.³⁵

The Future Battlefield

The New Buzz Words

A wide range of adjectives is being used to describe whatever new the concepts are throwing up as the new normal about war. Some describe these as being the various forms of asymmetric warfare under a new label – hybrid war. Although there is a lack of conceptual clarity regarding the evolving phenomenon that involves employing an amalgam of actions by the weaker party to counter the asymmetry, the phenomenon is not new. It was an integral part of ancient warfare, used with the same objective, to offset own disadvantages by negating advantages of the superior force by using multiple methods against it. “The historical pedigree of hybrid warfare goes back at least as far as the Peloponnesian War in the fifth century BC. Thus, the recent use of the term ‘unique’ to describe it is incorrect”³⁶

The expression hybrid warfare provides a theoretical construct to explain the series of actions non-state actors take against the state forces poised in the classical war mode to ensure success; the Hezbollah, Taliban and al-Qaeda *modus operandi*, for example. And the phrase is one of the many honorifics used to label the character of the new mode of warfare. Thus, we have ‘New Wars’, ‘Fourth Generation Warfare’, ‘Asymmetric Warfare’ ‘Full Spectrum War’, ‘Liner War’, ‘Asymmetric War’, ‘Grey Zone Warfare’ or ‘Guerilla Strategy’, under the rubric of ‘Hybrid Warfare’, to define the variations from the old form of conflict, blurring the traditional concept of war.

The term hybrid war, though used first in the US, gained wider currency after Russian annexation Crimea in 2014.³⁷ Experts suggest that Crimea was a classic demonstration of employment of this form of warfare, putting in practical use the precepts of the Gerasimov Doctrine.³⁸ In fact, the West’s reformulation of its own doctrine incorporating the new spectrum of war is in response to Russia’s employment of such methods for incorporating Crimea.

However, no one sentence can sufficiently define the character of hybrid warfare. Military scholars suggest that the new mode will see the transcending of all boundaries that conflict has been confined to, or restrained by shortcomings of technology, so far. And it will pack all elements of state power – political, economic, social, kinetic and soft power.³⁹ This will accentuate the grey zone, experts fear, between war and peace – thus creating an ambiguous situation for the aggressed regarding the appropriate mode of response to, for example, a cyber-attack or a hostile party influencing elections in a country.

One of the elements of hybrid warfare is its asymmetric dimension, which lends itself to be exploited by non-state actors also, thus empowering them to counter a stronger enemy to compensate for one's weaknesses by resorting to unconventional means. Hybrid warfare can be both a tactical and strategic expedient which means that non-state and small actors can operate at the strategic level too. That being said, it should be understood that, "Hybrid is not something that changes the nature of war; it merely changes the way forces are engaged in its conduct. However waged, war is war".⁴⁰

Experts agree that, given the sapping of public support for prolonged war, war fatigue has engulfed both the public and military; thus, the resultant reluctance to put boots on the ground, enhancing the likelihood of states resorting to asymmetric warfare, using both high and low-end of cyber warfare. Conventional threats being unlikely, it is anticipated that both the spectrums would be used – the high by the prospective enemy and the low by the non-state actors.

However Waged, War is War

If one accept the characterisation of hybrid war – that it does not fundamentally change the nature of warfare but orders the method of the conduct of war, the natural inference is, how will the new method of conducting future wars impact the thinking, of leaders at national level in general and of the military commanders in particular.

If one takes the entire range of the vocabulary currently in vogue as reference of hybrid war i.e. 'new wars', 'fourth generation warfare', asymmetric warfare,' 'full spectrum war', 'liner war', 'asymmetric war', etc., and lump it under one heading of 'new generation warfare', the new generation warfare will obligate revisiting the military's organisation and training.

If war is employed to make an adversary submit to one's will, and if that can be achieved through the use of all the elements of the new spectrum of war, would it be misplaced to ask if a 'manpower intensive force is necessary. And would there be need to put 'boots on the ground' if the objective of a particular war can be achieved without involving the forces in physical clash? In fact, one notices already a trend of downsizing of western forces and a debate on traditional versus new role for the military in light of new developments, e.g. enhancing of cyber capability, which would be employable under both traditional and asymmetric or new generation war environment.⁴¹

What one can glean from the available literatures on hybrid warfare is that, the new generation warfare will be a blend of asymmetric/non-linear warfare – the unconventional mixed with the traditional. At least that is how the Russians envisage it would be.

It needs restating that the purpose of hybrid war, complemented by technology, is supposed to accord one the benefit of an enhanced standoff distance and reduced reliance

on manpower to the cut cost in lives. And it can influence all three levels of the war matrix – tactical, by affecting traditional battlefield operations – strategic, by influencing operations and cyber-attacks, and at national level, impacting foreign policy, and interfering with strategic communications and supply chains, like what Russia did with Ukraine.

Given the likely scenario described in the foregoing paragraphs, it would dictate a thorough study of how hybrid warfare has been used in the recent past and the likely threats that we shall have to contend with under the rubric of the new generation of warfare. Its characteristics would have to be studied in order to be able to understand the indicators both at the national and strategic levels, given the fact that the new varieties of war will exploit the grey zone between peace and war. Those who resort to the hybrid kind, do so with the purpose of perpetrating war without crossing the traditional threshold so that the victim finds no excuse to undertake direct countermeasures.

The new kinds would not be restricted to the realms of the military only. This form of warfare will use the entire range of options to exploit the adversary's faultiness, which would include proxy wars, as well as the diplomatic and the economic fronts.

The downside of hybrid war is that it is a double-edged weapon which can be exploited by all actors, which means non-state actors will find in the new form a handy tool to contest the power of the state. But it is the cutting edge technology that would provide the advantage to the forces engaged in hybrid warfare. And that is applicable to both offensive and defensive operations.

Hybrid War and South Asia

Assuming that we are likely to see the end of the Clausewitzian method of settling interstate disputes in future i.e., physical capitulation of the adversary, it would be a fair guess that, with the likely threat potential of the new generation of war, no state can feel safe from, or impervious to, the very wide spectrum of war. The new spectre of war would seldom be in isolation or without the backup of a traditional force, and, of all the methods employable under the rubric of the new spectrum, the most rampant would be cyber war. In fact, the revolution in IT is occupying, to a large extent, the minds of today's planners. The cyber space, with its variegated features, has come into the reckoning of military leaders as a new dimension of the battleground.

The idea of hybrid warfare is gaining currency in South Asia too as an expedient to avoid a direct war and save manpower and lives to achieve national objective. New doctrines have emerged, for example in India, which predicates the conduct of hybrid warfare on five fronts – Proxy Warfare (exploiting local revolutionaries, agitators, reactionaries, separatists, and mercenaries), Information Warfare, Cyber Warfare, Economic Warfare, and Political Warfare.⁴² Pakistan is known to have resorted to the hybrid war against India. These are not without the attendant implications for the region.⁴³

Implications for Bangladesh

Given that, for reasons enumerated above, a conventional threat may be less probable, which throws up another challenge – expansion of the battleground – one would not be remiss in asking if the theater of war would be of our own choosing. Experts suggest that the concept of war, as rooted geographically now, would not be the case in future. That requires a military supple and tensile enough to address the diverse situations and be adequately prepared to address the full spectrum of war. That in turn involves preparing for both high and low spectrum of war, the former will be launched by technically powerful opponent while the latter by the non-state and sub-state actors.

While it is important to keep in mind is that conflicts occur when there is a clash of interest. Equally important is that physical contiguity has no co-relation with the source of threat. Bangladesh shall have to assess its threats very carefully, keeping in mind that the fundamental objectives of hybrid warfare are to Destabilise, Demoralise and Disintegrate. We shall have to adapt to the paradigmatic shift in threat and think anew about the use of our resources. Our preparedness shall have to reckon with all likely sources of threat, both external and internal, so that the defense measures can anticipate and address those appropriately to mitigate and, ultimately, defeat those.

Also, hybrid warfare, particularly cyber war, with the electronic component playing the most significant part, can be a handy tool for the extremists and terrorists, to interfere with our communication and information system, and wage, among other things, “information warfare.” These small groups or the so called small-scale actors can influence the conflict scenario at a big-scale, and be also capable of putting their footprint at the strategic level. The targets are likely to be the social, cultural, economic and security fault lines.

In the age of information technology, when we are virtually dependent on microchips for conducting the entire range of functions, from tactical to the national level, use of electromagnetic warfare will be enhanced to a new height with the induction of new technology in the field of electronics.

Therefore, the transformed context calls for, what strategists suggest, a scenario based approach which necessities reorientation of the organisational structure of all the three branches of the military, with appropriate reaction capabilities to address a particular set of circumstances under a particular scenario. New operational concepts need to be formulated and tried out through war gaming by painting likely scenarios of both the high and low end threats. New threats also call for reassessing our weapon capabilities and acquisition of new systems that would accord us the technological capability to defeat future threats, cyber threat particularly.

And not the least is investment in human resources and training to handle and operate the new technology-oriented systems for their optimum utilization. It bears repeating that while technology may determine nature and character of war, it cannot, however,

determine its final outcome. What, however, will determine the final outcome of a conflict is the quality of people using the technology. Human element in war shall always prevail.

Conclusion

Experiences of the two world wars, particularly the loss of 100 million lives, very large number of those civilians, couldn't have been lost on the Big Powers, particularly the prospect of another nuclear holocaust. But absence of major wars since 1945 doesn't guarantee absence of small wars. Thus, while nuclear threat was a huge disincentive which helped prevent a major war and maintain the Long Peace, the negative upshot was not only proliferation of conventional weapons but also proxy wars, fought on behalf, or at the behest of major powers.

The other aspect of the upshot was the big powers devising other means to achieve the same objective of a traditional war, without palpably crossing the threshold of traditional war. Thus, there was a transformation of the character of war which was hastened all the more by technological developments. But also the experiences of post-Cold War, the inordinate duration of war, and the cost effectiveness, even of limited wars, along with the socio-economic and political factors, played a part in changing the character of war.

Several adjectives have been used to define the new form, most commonly used being 'hybrid warfare' which blended the traditional with the irregular or non-traditional, political and diplomatic, foreign electoral intervention etc. – cyber war being the most important component. However, hybrid warfare is a tool that can be used by all parties, big and small powers and non-state actors. The resultant extension of the theater of war, therefore, calls for reorientation in planning, organizing and training of the armed forces to meet the new threats. One who has the cutting edge in technology is most likely to prevail in the projected scenario.

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Brief Biography



Brigadier General Anam was commissioned in the Second Battalion, the East Bengal Regiment in 1968 with a Bachelor of Arts degree. He attended the Military Science Course at the Royal Military College of Science at Shrivenham, and the Army Staff College at Camberley, UK (1979). He is a graduate of the National Defence College, New Delhi, 1988. Brig Gen Anam holds a Master's degree in Defence Studies. He has commanded infantry battalions and the Independent Infantry Brigade, as well as held staff appointments at brigade and division headquarters at Grade II and Grade I levels. Brig Gen Anam served as Directing Staff at the Defence Services Command & Staff College, Mirpur, as well as Director of Military Intelligence and Director of Military Operations at the Army Headquarters. He was Commandant, SI&T between March 1991 and December 1993. He commanded the United Nations Military Observer Group as Assistant CMO–Iraq and subsequently as the CMO 1990–91, the first Bangladeshi officer to do so. Brig Gen Anam was Director General, Bangladesh Institute of International & Strategic Studies from 1997 till his retirement in March 2000. His area of interest is security, terrorism, small arms and South Asia, on which he has written extensively. He has several hundred articles to his credit, published in both national and international magazines. He is the joint author of, *Understanding Terrorism in South Asia: Beyond Statist Discourse*, published in 2006 and *Terrorism in the 21st Century: Perspectives from Bangladesh and Countering Terrorism in Bangladesh*, both published in 2008. He retired recently as Associate Editor, The Daily Star, with which he was associated from March 2004 to February 2020.

ASSESSING EARTHQUAKE EXPOSURE KNOWLEDGE IN HOUSEHOLD LEVEL IN SUTRAPUR, DHAKA SOUTH CITY CORPORATION, BANGLADESH

**Muhammad Ferdaus, Mohsina Aktar
and
Major S M Safiqur Rahman, psc, Engrs**

Abstract

Precautions for a possible Earthquake scenario can lead to less damage in seismic risk areas. This study is carried out at the household level to gather knowledge of earthquake risk reductions of the southern part of Dhaka City. Unplanned urbanization process in Bangladesh has caused the increased vulnerability to natural disasters like earthquakes. Dhaka is the core of commerce, education, politics, etc. and holds a large population. According to a report published by World Risk Index 2018, Bangladesh is highly vulnerable to lack of coping and adaptations. Seismologists believe that the city's tectonic position and recent tremors, which lead to a massive earthquake in the near future.

It is recognized that narrow road network; irregular building shape has made zone 5 of southern part of the city more vulnerable to any forthcoming earthquake. In any DRR plan the major concern goes to the preparedness level of the local community. The study was executed by assessing earthquake exposure knowledge by household questionnaire survey. After a thorough analysis of different indicators, e.g. present knowledge status of the community regarding earthquake risk, past-earthquake experiences and instant responses, perception about the vulnerability of the residing in this seismic risk area has been found.

Introduction

Bangladesh is one of the disaster-prone countries in the world. Disaster management is the key issue for ensuring overall development of the country. Unplanned urbanization and development in high disaster-prone areas has the possibility of disastrous after-effects.¹ In this modern age, natural hazards like flood, cyclone and earthquake exposure not only alarming for the vulnerable area but also risky for densely populated context.² Urbanization has impact on increasing demand of housing in urban area and drifting of the residence to suburban, therefore on degradation of environmental quality.³

Recently, most of the major earthquakes occurred away from major cities and affected relatively less populated areas. Significant earthquake hazard exists for the cities due to its severe unplanned built environment and high density of ever-increasing population. Dhaka is vulnerable to earthquake due to high population density, unplanned structures, lack of preparedness at community level, etc. Dhaka, a fast growing and densely

populated mega city, poses an extremely high risk because of its population density (45,508 per km square) and innumerable high-rise apartments.

Dhaka accommodates a large stand approximately 2.8 million.⁴ In his study of possible disastrous earthquake in Bangladesh and its Precautions have presented the various important aspects of earthquake and its threats, risks, vulnerability, preparations, precautions and rescue tasks with special vulnerability information on Rural Electrification (RE) Program in Bangladesh. Old Dhaka is more vulnerable to earthquake due to its relatively high density of population.⁵

Besides, the densely built fabric consisting of vulnerable aged and unreinforced masonry buildings along with narrow local streets makes the locality more susceptible to earthquake. If a large earthquake occurs near Dhaka or within metropolitan area of Dhaka city, the economic impact will be huge and a great number of casualties will take place. This will have severe long-term consequence for the entire country.

To make an effective plan in disaster risk reduction, the main objective should go for knowledge of earthquake and its possible impact on human life. In this research the knowledge of earthquake preparedness in household level has been assessed of the study area.

Methods of the Study

In this scientific study logical methods have been adopted. The local community is the major concern in any disaster risk mitigation. A prepared community can reduce loss up to a remarkable limit in any disastrous event. To improve the coping mechanism of a locality, the prerequisite goes on the study of current state of the area regarding of the knowledge about earthquake. Hence a questionnaire survey of 100 households in ward no. 46 of the older part of Dhaka City was conducted.

The present study followed the descriptive type of research where primary data were used mostly. The methods of this study cover some sequential steps including conceptualization of the problem and the concerning study area, collection of data from various websites and published journals, then analysis and arrangement of the information according to the study objectives.

In doing so, a conceptual understanding of research problem and theoretical framework was made first and then on analyzing and identifying the earthquake exposure knowledge. Finally, all analyzed data and information were organized and processed.

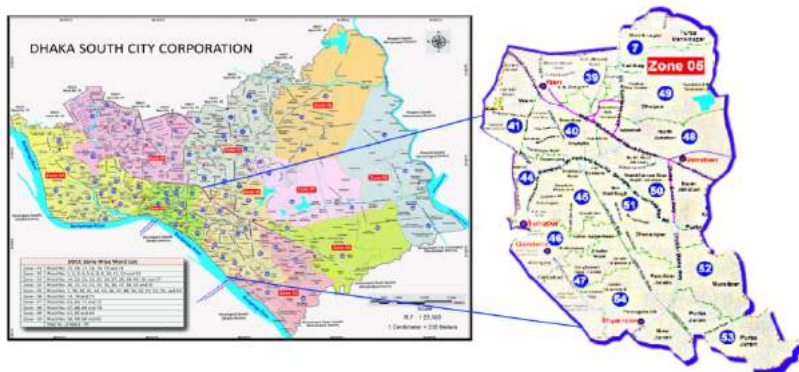
Study Area

The study area, under zone 5 ward no. 46 had a population of 307,483, of whom 186,619 were aged 18 or older. Males constituted 57.33% of the population, and females 42.67%. Sutrapur had an average literacy rate of 63.3% (7+ years), twice as high as the national

average of 32.4%. Old Dhaka is well known for mosque and in the study ward 13 mosques have been found with different architectural design.

More than 250 old buildings in Sutrapur aged around 200 years are found. Old city people live here for successive generations year after year. According to the authority of Sutrapur Fire Service, old buildings have been identified for avoiding living there. There is also some DCC approved service centre like community centre, gymnasium, public library and playground.

Figure 1: Map of the study area

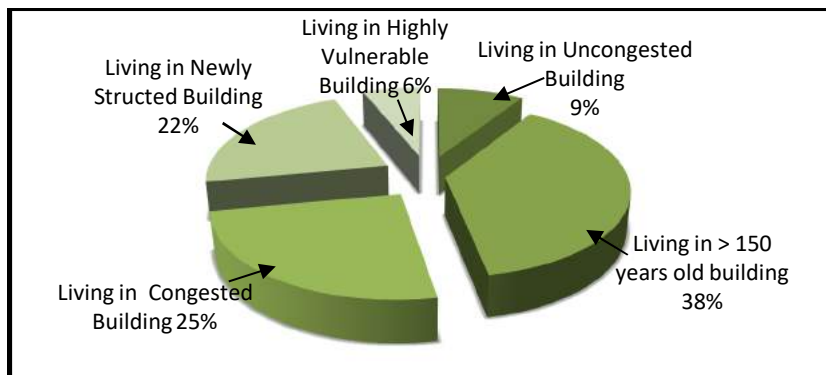


Source: Dhaka South City Corporation website

People Perceptions on Living in an Earthquake Prone Area

The surveyed 100 households with 512 family members have average family size of five. The high density also represented large household on an average in the study area and the larger households are considered more vulnerable than smaller households. In social vulnerability, aged people, infant and women are considered more vulnerable to earthquake.

Figure 2: Status of people living in different categories of buildings



Source: Author's self-construct

9% respondents live in uncongested building where 6% people live highly vulnerable old buildings. Field survey data represented only 22% of the respondents live in newly structured buildings. A majority percentage of respondents live in those buildings those are more than 150 years old. Special concern should be given to this group of people in times of disaster and after the disaster. Thus it can be said that the area vulnerable to earthquake hazard with respect to infrastructure concern.

Earthquake Awareness Status Varies with Different Ages

Table 1 shows the awareness level of the household members in the study area. Here the awareness level indicates they have primary knowledge on what to do before, during and after an earthquake. This table indicates that respondents most of the respondents are unaware about earthquake.

Table 1: Earthquake Awareness Level of the Respondents

Ages of the household members (years)	Aware	Unaware
0-10	20%	80%
11-20	54%	46%
21-30	72%	28%
31-40	58%	42%
41-50	36%	64%
51-60	42%	58%

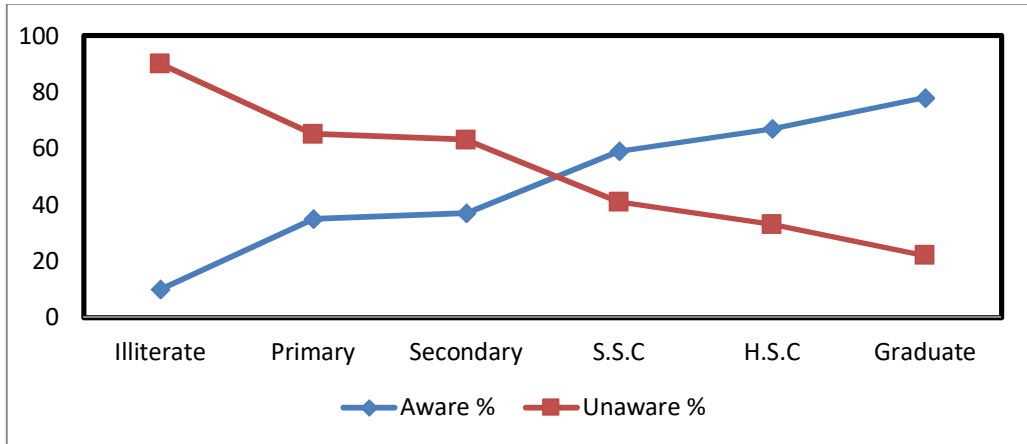
Source: Author's self-construct

Consequently, it is tough to justify based on the survey findings up to which level the community can be said aware but considering the social context the area could be said vulnerable to earthquake.

Influences of Educational status on Earthquake Awareness of the Household

From the study, it is evident that almost 10% illiterate respondents have the knowledge on earthquake awareness. The knowledge about earthquake has been found in an upward trend with the status of literacy. Educated groups keep themselves up to date with day-to-day information received through professional activities and so they have more experience than others.

Figure 3: Educational status of the respondents

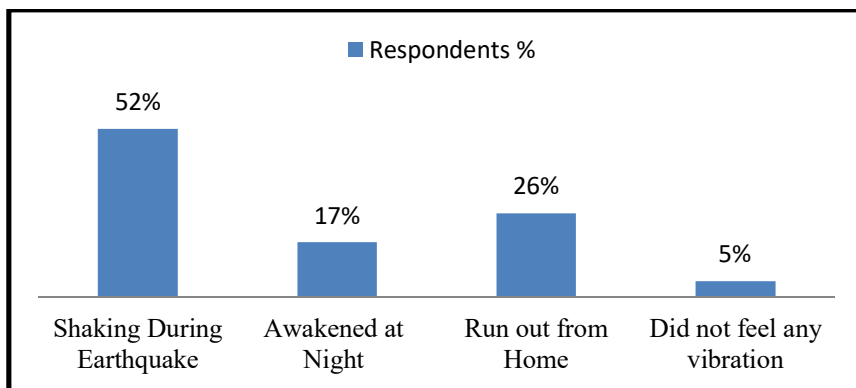


Source: Author's self-construct

Earthquake Experience of the Respondent

From field survey it is found that about 52% respondents have experience of earthquake. When the people experienced earthquake they take some immediate actions to protect themselves from damage. In most cases ground shaking occurs only for few seconds. Most of the respondents in the study area felt shaking but it was over before taking any actions. In few cases they took some steps to protect themselves, one of the common actions is try to go out of home immediately which has come from more than 26% of the respondents. 17% of respondents also mentioned about being awakened from sleep when earthquake occurred at night.⁶

Figure 4: Earthquake experience of the respondents

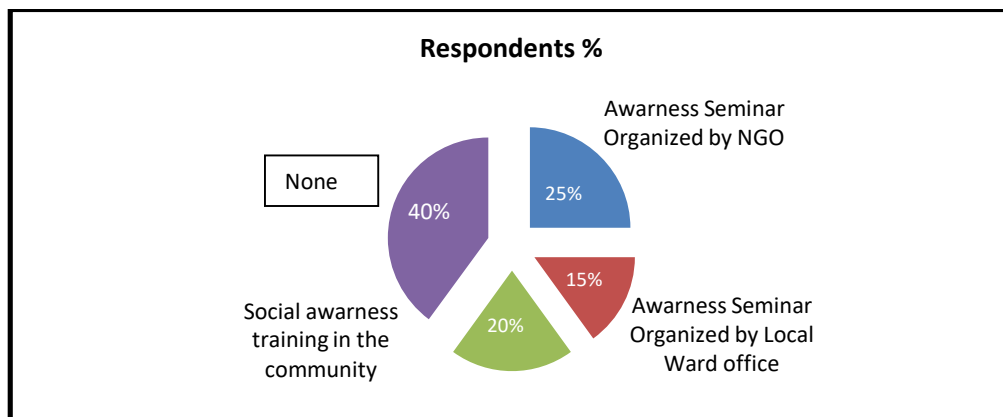


Source: Author's self-construct

Participation in Earthquake Awareness Program

The survey found 25% respondents who took part in earthquake awareness program like seminar, workshop and training or drill, mostly organized by different non-government organization (NGO) and educational institutions. Amongst the trained respondents, 15% received training in educational institutes (school, university, etc.) organized by Local Ward Office and 20% community people got training from Bangladesh Red Crescent Society (BDRCS).⁷

Figure 5: Earthquake Awareness Training Program attended by respondents



Source: Author's self-construct

Recommendations

There should be detailed seismic risk map especially for Dhaka city considering its poor physical structure and high population density. More importantly, seismic codes and specification should be followed in all public and private construction and law enforcement authorities to act against the violators of building codes. Incorporating earthquake resistant features in all buildings at high-risk areas. Making all public utilities like water supply systems, communication networks, electricity lines etc. earthquake-proof. As community peoples are the ultimate victims of any disaster, the communities involved in the process of disaster mitigation through education and awareness. In this case Community-based Earthquake Risk Management process should be initiated by promoting awareness among community people what should be the response in times of earthquake. They should be trained up to strengthen their capacity and capabilities.

Conclusion

It is evident from the study that the community in Bangladesh is socially and physically highly vulnerable to earthquake.⁸The main problem is the built environment with faulty defective infrastructure, narrow road network and the lack of open spaces along with many other symptoms that made the locality vulnerable to earthquake. Sufficient

knowledge by the conscious masses about earthquake can able to find out the precautions and wings of capacity building approaches in this area. If the people of the vulnerable areas are provided with an evacuation plan they can be aware of that and the loss due to earthquake hazard may be reduced to a great extent.⁹ Immediate measures are needed to take into action through proper land use planning, redevelopment planning, development control, diversifying high density of population and their activities and taking initiatives in raising awareness of local people in building construction and thus mitigate disaster risk of the target area.

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Brief Biography



Muhammad Ferdaus is an expert in youth leadership and rights-based responses to humanitarian crises, he is the Coordinator and Lecturer of the Postgraduate Programs in Disaster Management (PPDM) at BRAC University, Dhaka and a Co-Investigator of Synthesizing the evidence from non-health sectors to inform health system responses to humanitarian displacement: the Rohingya in Bangladesh project of the London School of Hygiene & Tropical Medicine (LSHTM). Mr. Ferdaus is also the Founder of the Community Development for Peace (CDP) a nonprofit organization. He served for three years as a Co-investigator of a European Commission Erasmus+ project; ASCENT (Advancing Skill Creation to ENhance Transformation. In the period of 2014-15 he has served as a Program Assistant in the United States and the Massachusetts Bay Chapter of the American Red Cross and the Boston Commission on Affairs of the Elderly, MA-USA. He is one of the Scientific Committee Members in the International Conference on Building Resilience and UNLEASH Innovation lab in Denmark. He is also an active alumnus of the UNLEASH Global Innovation Lab of 2017 and 2018. Mr. Ferdaus is a Fellow of the Swedish Civil Contingency Agency (MSB) in the batch of 2018-19 in the Advanced International Training Program on Disaster Risk Management, Sweden and a Fellow of 200 Global Young Leaders Program in the class of 2016-19 under the Women Deliver Organization, USA. He has also been a Fellow of CCI and ACCESS program in the session of 2014-15 and 2010-12 under the U.S. Department of State, USA. His research and teaching interests are in disaster management, humanitarian crises, volunteerism, SRHR, and women/youth issues. He earned his B.A. (Honours) in Social Welfare from Islamic University, Kushtia, Bangladesh, a specialized certification in public safety (disaster management) from Bunker Hill College, Boston, USA and his MSc in Disaster Management from Brac University, Dhaka and a professional certification in energy management under the Association of Energy Engineers, DC, USA.

Brief Biography



Mohsina Aktar is an environmental researcher. Earlier, she has taken part in the countrywide competition of environment conservation in 2008 awarded by Rural Services Foundation (RSF). Following that inspiration, she has completed her graduation and Master Degree in Environmental Science from Khulna University. She is self motivated to work for environment as well as women empowerment. She has co-authored an article entitled ‘Bio-physical Attributes of Coastal Villages under Climate Stressed Environmental Conditions in Bengal Delta, Bangladesh,’ in international peer reviewed *Journal of Climate Change*. Vol. 4, pp 71-83. She has attended more than ten national and international seminars, workshops and conferences in home and abroad. In 2018, she has been awarded as an Ambassador of the London based non-profit organization One Young World in their annual summit. Currently, Mohsina is working as a Program Officer in Community Development for Peace (CDP). Her research field of interest include sustainable food production and consumption, green economy, natural resource conservation, etc.

Brief Biography



Major S M Safiqur Rahman, psc was commissioned in the Corps of Engineers with 50th BMA Long Course on 28 June 2004. He is a graduate of Defence Services Command and Staff College, Mirpur. Apart from mandatory courses, he accomplished his BSc in Civil Engineering from MIST and achieved Masters of Business Administration (MBA) from University of Dhaka. During his service career, he served in a good number of units and institutions of Bangladesh Army in different capacities. He also served as an Instructor Class “C” and “B” in the School of Military Engineering (SME), ECSME. He completed his UN mission as Staff Officer in Mali in 2015-2016. Currently the officer is serving as Second in Command, 20 Engineer Construction Battalion, Double Mooring Army Camp, Chattagram.

TO WHAT EXTENT CAN A SOVEREIGN STATE PURSUE AN INDEPENDENT FOREIGN POLICY?

Colonel Mohammad Sheraf Uddin Khan, afwc, psc

Abstract

In this arena of globalisation and interdependence it is a challenging task for any nation to endeavour to pursue independent foreign policy. Stronger nations may venture this to certain extent but for smaller, weaker nations it is an unpleasant choice. Analysis of four stronger nations, China, India, Japan and Russia, those formally claimed to pursue independent foreign policy at some point of time reveals that these nations had to make compromise in their foreign policy pursuit. China attempted to pursue declared independent foreign policy but had to compromise for ensuring economic and military security of the nation. India with pronounced policy of 'non-alignment' could not maintain that posture; they had to make alignment and again realign. Japan has been struggling since WWII for defining a genuine independent foreign policy let alone pursuing. And Russia under Vladimir Putin is endeavouring to pursue independent foreign policy but at the high cost of economic challenges. Therefore, in this globalised world stronger nations may be able to pursue reasonably independent foreign policy but not completely independent.

Introduction

A sovereign state's foreign policy is a set of objectives delineating how the country will interact with other countries and non-state actors governmentally, economically, informally and militarily.¹ Sovereign states have the authority to determine their own courses of action, to act independently to pursue their own national interest. This phenomenon very often clashes with the interests of other states, especially neighbouring states, resulting in international disorder.² The international setting influences the foreign policy formulation of states in terms of offering opportunities and posing limitations. Neo-realists attempt to elucidate the foreign policy behaviour of any state as the outcome of its government's responses to fit in the structure of the international system.³ Within these structural constraints states endeavour to pursue an "independent foreign policy," a policy that is not subject to any outside pressure and interference.⁴

An independent foreign policy means choosing friends and allies based on the national interest;⁵ where the paramount consideration of the relation with other states shall be sovereignty and the right to self-determination.⁶ Besides, 'independence' in pursuing foreign policy demands a state to have its exclusively own interest driven standing on international issues not being influenced by the thoughts, standing and actions of other states.⁷ In this context, is it really possible for any nation to pursue a completely independent policy? In this era of globalisation, for the developing or smaller nations it may not be a suitable choice. Therefore, it can be a matter of investigation whether

developed and powerful nations can pursue the same or not. This essay will focus on a few of the powerful and influential nations: China, India, Japan and Russia; because, these nations have claimed to pursue 'independent foreign policy' at different times. These nations still can pursue a considerable part of their foreign policy with independent stance, but analysis will reveal that over the period of time, at different times China compromised their independent foreign policy stance for economic advancement; India could not maintain her policy of 'non-alignment' on many instances, Japan's foreign policy had been significantly influenced by the US. Russia however is still striving to pursue independent policy at the cost of economic marginalisation. Therefore, it appears that nations may be able to pursue relatively independent foreign policy but not too independent.

Structural Domain of Foreign Policy

In the structural domain, foreign policy decision making of a state is influenced by many underlying factors that foreign policy-makers can barely control.⁸ Structural feature of the global order like interdependence between nations poses constraints on foreign policies.⁹ In the present global system, state sovereignty is perforated, cornered, interrogated¹⁰, transcended, shared and surrendered.¹¹ The idea of state as independent entity is subsiding under the collective onslaught of economic unions, media, and nongovernmental organizations.¹² Almost everyday treaties are being signed compromising sovereignty.¹³ Currently more than 40,000 United Nations registered bilateral and multilateral treaties, major international conventions, rules, and norms guide international relations.¹⁴ Globalisation of economic activities has diminished state control over foreign economic policy making.¹⁵ All these external issues significantly influence foreign policy structuring of any state.¹⁶ These factors are independent variables of foreign policy restructuring that involves managing both military and non-military concerns.¹⁷ And to his end state foreign policies ranges from 'non-alignment', 'bilateral/multilateral alignments', 'economic alliance' to 'security alliance.'¹⁸ The subsequent paragraphs will discuss a few of the foreign policy choices of China, India, Japan and Russia to reveal how "the external setting i.e. action and reaction of other states"¹⁹ influenced those.

China

The theme of China's 'independent foreign policy' publicized in September 1982 was that: China would not form any strategic relation with any super power or would not support one against the other; they would maintain an independence stance on major international issues based on own decisions.²⁰ While claiming an independent posture Chinese continued to follow an unbalanced policy towards the superpowers, supporting the US. Though, Sino-US relations were constrained with important issues like recognition of Taiwan, problems about accessing the American Market, restrictions on technology transfer, China had to maintain such foreign policy posture. Apparent military threat forced China to rearrange their foreign policy.²¹ The March, 1969 'Ussuri

River border occurrences by the Soviets' put an end to the era of seclusion in Chinese foreign policy and compelled China to rethink its external relations. Against the fear of Soviet threat, it had no other options but to make deal with its traditional enemy, the US.²² Even under a declared independent foreign policy, China continued limited forms of military cooperation with the US.²³ Again, as an independent posture, during 'Persian Gulf Conflict' China continued its arms transfer to Iran even when US was favouring an embargo on Iran; but they had to give up the policy of Arms transfer when US restricted high technology exports to China.²⁴ Another example can be cited regarding China's consenting to the Missile Technology Control Regime (MTCR) in 1994 under US pressure where China could not maintain its independent foreign policy posture.²⁵

In the present day context also, China's flourishing economy has become a barrier to its pursuance of Independent Foreign Policy. China's increasing trade surplus with the United States and European nations is a major point of friction with those countries. Greater economic activities have made China a net oil importer country since the 1990 making it more dependent on the Middle East.²⁶ For economic interdependence China has abandoned the traditional outlook of becoming an active player in the game of globalisation as far as the economic realm is concerned.²⁷ Though China emphasises sovereignty to be the core concern in foreign policy articulation, the country drifted and compromised its core focus to integrate better into the global economy. Chinese policy makers have been ready to compromise sovereignty-bound issues in the pursuit of national economic interests. As China's economic integration is continuing, different international actors with diverse interests and plans are seeking to get engaged in implementation process of the country's foreign policies. Therefore, the conduct of Chinese foreign policy may have to take the form of multilateral arrangement instead of traditional bilateral posture.²⁸

India

In case of India, Jawaharlal Nehru, the Prime Minister of India single-handedly shaped India's independent foreign policy of 'non-alignment' after independence in 1947. India's lack of institutionalism and long-term orientation in foreign policy structuring started that time. The policy-makers continued with the ad-hoc system of responding to the foreign policy challenges on a case-by-case basis without setting any long-term policy framework. The authority of foreign policy making is mostly with the Prime Minister office while Ministry of External Affairs remain underpowered. This structural constraint let them to choose foreign policies that make the international relation of the state complicated and incoherent.²⁹ India's major procurement decision to purchase 36 Rafael fighter jets from France in 2015 indicates the over-dependence of the foreign policy options on the political will and consideration of the Prime Minister.³⁰ This overly personalised foreign policy constraints the structure and independency of the foreign policy of the nation.³¹ Away from the domestic structural constraints, India could not always pursue its 'non-alignment' policy in its standpoint on international issues.

Indo-Soviet strategic cooperation treaty was signed in 1971 as a major deviation to India's policy of 'non-alignment'. Subsequently, considering the importance of this relation, India refrained from criticising Soviet intervention in Hungary and Czechoslovakia. In the same tone, Indian Prime Minister Indira Gandhi kept her away from joining the worldwide admonition of the Soviet intrusion in Afghanistan. In the 1990s, India's economic problems and the disintegration of the Soviet Union left Indian foreign policy without significant direction.³² After allied military triumph in Gulf War, India decided to adopt 'Look East' Policy in order to develop relations with its neighbours to the east.³³ However, India's "Look East" Policy is influenced by America's "pivot" while both are intended to establish dominance in the Indo-Pacific.³⁴ Inclining towards the US, previously also, India offered bases for America's planned military operations in Afghanistan and even agreed to send force to join their operations.³⁵ These foreign policy decisions largely deviated from the independent concept of 'non-alignment'.³⁶ In the military-industrial domain also, India's present government's decision to allow hundred percent foreign direct investments in the defence sector will pose a threat to national security and India's pursuance of independent foreign policy.³⁷

Japan

Japan is 3rd largest economy in the world by measure of nominal GDP but it is mostly a reactive state because its foremost sources of foreign policy modifications are foreign pressures.³⁸ In the post-World War II period, Japanese foreign policies were sort of reproduction of American foreign policy. Considering the significance of the bilateral relationships with the US, policy makers have been making changes in Japan's foreign policies according to the demands of the US and the trend is still on. This prevented Japan from pursuing a genuinely independent foreign policy. Under external pressure, Japan took many politically unpleasant stances in its foreign policies like 'economic liberalisation'.³⁹

The most notable example of external influence in Japan's foreign policy decision reveals in the "Yoshida letter of 1951" where the then prime Minister Shigeru Yoshida agreed to recognise the nationalist regime government in Taipei whereas Japan was strongly in favour of recognising Beijing.⁴⁰ Japan's foreign aid policies have also long been dictated by the US interests to achieve their political objectives. The US influence was noticeable in the economic sphere too. For instance, even though the Japanese government was persistently refusing to open the import of various American products before the mid-1970s, they had to import both commercial and military aircrafts from the United States. The influence exercised by the American aeroplane manufacturers on Japanese foreign policy making were exposed that time through the corruption scandals.⁴¹ Similarly, Rice Millers Association of the United States constrained Japan, exerting pressure through the US government, to open its rice market in 1988.⁴²

In recent times, Japan's attempt to pursue independent foreign policy surfaces in the tone of Japanese diplomats. Japanese Ambassador to Pakistan Takashi Kurai said during a public talk in Islamabad on 07 November 2017 that "Japan does not follow USA as it has its own independent foreign policy that revolves around the mutual interests."⁴³ Probably, Japanese foreign policy adaptations to meet the demands of the leaders of other influential nations and to become a dependable associate of the UN were an attempt to exhibit the diminishing influence of the US on its foreign policy decisions.⁴⁴ But, over the period though Japanese economy flourished significantly but the association with the US continued to remain as the basis of its foreign policy;⁴⁵ and it is unlikely that Japan would be able to pursue Independent foreign policy while 90% of all Japanese reserves are held in either American bonds or in the dollar. Therefore, instead of revolutionising her thinking in foreign policy domain Japan is likely to maintain the current status quo and pursue a pro-American foreign policy.⁴⁶

Russia

An analytical look toward Russia's current foreign policy would reveal how pursuance of independent foreign policy in the existing global scenario can become the source of immense economic and political challenges. Structurally, Russian foreign policy is a bit more personalised and the government institutions are yet to mature significantly to the point where they can replace individuals from their predominant policy actors' role.⁴⁷ In 2015, President Vladimir Putin declared Russia would pursue an independent foreign policy under all sorts of foreign pressure for serving fundamental national interests.⁴⁸ Russian foreign policy alignments have always held great influence over the European balance of power and over the international balance of power as well.⁴⁹ In this context, Putin has been practicing the conduct of foreign policy with the concept "whatever works" compromising the independent standpoint of the policies. In his actions also it is noticeable that he is ready to become "whoever" and "whatever" to best suit the context and time.⁵⁰

A closer look at a few recent foreign policy decisions of Russia would reveal that those were not independent in nature. For example, the shift in Russia's foreign policy from a "great power activist" to a more "aggressive, nationalist and assertive approach" was the consequence of external upsets like: the 'colour revolutions'⁵¹ of 2003-2005 reinforced by western support and the US's plan to deploy missile defence systems in Eastern Europe.⁵² US intervention in Russian domestic politics in the recent times has caused Russia to alter its foreign policy focus away from the West towards the states of Eurasia and Asia.⁵³

Russia's economic problems meaningfully explain why its government could not have pursued expensive "neo-imperialist projects" even if it had wanted to.⁵⁴ Yes, Russia has exercised independent foreign policy in annexing Crimea and intervening in Syria, but at what cost? Russia's economic growth was devastated with the economic sanctions they faced from the US and the Europe and the severe decline in international oil price. That

time, Mr. Putin also expressed his concern over the consequent devaluation of 'Ruble' but failed to reverse the economic scenario.⁵⁵ It is anticipated that in the recent future also the slower economic growth is likely to put Russia economically further backward.⁵⁶ Combating this economic challenge would require Russia to rely on assistance from foreign partners evidently compromising its independent outlook at least to some extent.⁵⁷ Above all, it can be said that Russia is no more in a trustworthy position in the list of the US and NATO. Most of the NATO countries have already barred economic activities with Russia. The enhanced attention of NATO on Russia's neighbours has made the state of Russia more volatile and complex in this global world of interdependence. Gradually, these challenges are likely to turn intense and take more difficult shape for Russia to deal with. Ultimately, time would say how long Russia would be able to maintain the independent stance in its foreign policy.

Conclusion

In conclusion it can be said that sovereign states pursue foreign policies mostly for serving national interests. But in this global system of increased interdependence it is a great challenge for the nations to maintain balance with other nations through exercising foreign policies. States cannot bypass the external setting around them. Globalisation of economic activities, binding of international norms and conventions are so intertwined that no state can stand alone too independently pursuing exclusively independent foreign policies; in practicality, it is quite a difficult task. States, especially the developed and powerful, can pursue independent foreign policies on many instances, but it is not the reality always. It has been revealed that foreign policy structures of the states on some instances remain prejudiced to the leadership where the designated institutions remain underpowered.

Analysis of the foreign policy pursuit of influential nations like India, China, Japan and Russia reveals the reality of how complex an Independent foreign policy can be. China attempted to pursue declared independent foreign policy but had to compromise their stance on many occasions for ensuring economic and military security of the nation. India with pronounced policy of 'non-alignment' could not maintain that posture; they had to make alignment and again realign. The country's independent foreign policy pursuing is still challenged by structural and military-economic constraints. Japan an economic giant has been struggling since WWII for defining a genuine independent foreign policy let alone pursuing. And Russia under the leadership of Putin is endeavouring to pursue independent foreign policy but at the high cost of economic challenges and increasing mistrusts with the western countries. Therefore, the reality appears that in this globalised world stronger sovereign states may be able to pursue reasonably independent foreign policy to certain extent but not completely independent.

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Brief Biography



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ENHANCEMENT OF AIR DEFENCE CAPABILITY OF BANGLADESH THROUGH UTILIZATION OF BANGABANDHU SATELLITE

Wing Commander M Mahfuzur Rahman, Engineering

Abstract

Air defence plays a vital role in national security and usually is the first respondent in crisis. Trends of modern warfare suggest that the first mission conducted in war would be to neutralize opponent's air defence system. Importance of sound air defence for any country to safeguard her national sovereignty and integrity cannot be overstated. Air defence of any country works as a system with interconnected sensors, weapons and command-control. But unfortunately, till today Bangladesh could not construct a full integrated air defence encompassing all the air defence assets. The main difficulty to create such integrated system is the technological challenge. Until recently no suitable communication means existed to integrate mobile air defence assets. In 2018 Bangladesh launched their first satellite in space which is now fully operational. But unfortunately, the immense potential offered by this \$317 million satellite is barely utilized by the armed forces of Bangladesh. Utilization of Bangabandhu Satellite for integration of air defence assets might solve a long outstanding problem; absence of reliable and effective communication means for the mobile assets.¹ Although there remain few challenges, utilization of Bangabandhu Satellite might still increase the overall all AD capability of Bangladesh.

Introduction

'Friendship to all malice to none' with this foreign policy in mind, the Armed Forces of Bangladesh are mostly organized to protect the motherland. Although, this foreign policy does not preclude the necessity of offensive capability, main emphasis of asset acquisition and force structuring accounts for enhancing defensive capability. Air defence plays a vital role in national security and usually is the first respondent in crisis. All the major wars after WWII started with massive air campaign against the opponents followed by land offensive. Trends of modern warfare suggest that the first mission conducted against enemy would be to neutralize their air defence system. Importance of sound air defence for any country to safeguard her national sovereignty and integrity cannot be over emphasized. This is amply reflected in the words of Bernard Law Montgomery, "If we lose the war in the air, we lose the war and lose it quickly."

Air Defence (AD) of any country works as a system with interconnected sensors, weapons and command-control. But unfortunately, till today Bangladesh could not construct a fully integrated AD encompassing all the AD assets. The main difficulty to create such an integrated system is the technological challenge. Until recently, no suitable communication means existed to integrate mobile AD assets specially the naval ships that

operate in a large geographical area. Although, the newer ships are equipped with modern AD radars and SAM systems, lack of effective communication with AD Network compels them to contribute very less to the overall AD of Bangladesh as well as makes them vulnerable to hostile action. AD assets of Bangladesh Army rely on land telephone and short range radio communication to connect with ADOC.

Bangladesh has established Air Defence Identification Zone (ADIZ) for her airspace on 01 February 2018, but lack of effective radar coverage in the EEZ area is creating significant difficulties for implementation of ADIZ.²

Bangladesh became the 57th member of the elite club of owning a satellite on 12th May 2018 by launching the long cherished Bangalbandhu-1 satellite (BB Sat-1) in the space. At present, the satellite is fully operational. This satellite has a huge potential for armed forces to provide reliable voice and data communication link as well as can serve as communication backbone over a large geographical area, but the immense potential offered by this \$317 million satellite is barely utilized by the armed forces. Utilization of Bangabandhu Satellite for integration of AD assets might solve a long outstanding problem; absence of reliable and effective communication means for the mobile AD assets. Integration of AD assets might enhance the overall AD capability of Bangladesh.

Requirement of Joint Service Integration of Air Defence Assets

AD is defined as all measures designed to nullify or reduce effectiveness of hostile air action. AD, otherwise known as 'Defensive Counter Air' (DCA) operation involves both active and passive measures conducted during peacetime and war. The term AD also encompasses Maritime Anti-Air Warfare.

Should the AD Assets of all Services be Integrated?

Doctrinal view. 'Centralized control and decentralized execution' have been proven as master tenet for air operation which is recognized by almost all the doctrines. Doctrinal views of different countries are as follows:

- a. **USA:** US JP 3-30 emphasized the requirement of developing an integrated AD system by incorporating the capabilities of different components with a robust C2 architecture. Because of their time-sensitive nature, DCA operations require streamlined coordination and quick decision-making processes.
- b. **United Kingdom:** United Kingdom doctrine on Air Defence clearly mentions about the requirement of integrating all the AD elements to be prepared to defend against air threats which may span the spectrum from theatre missiles, to conventional manned bombers, ground or maritime attack fixed wing and rotary wing aircraft and to Unmanned Aerial Vehicles.

c. **Bangladesh:** National AD Plan of Bangladesh recognizes the importance of integrating different AD assets to enhance the combat effectiveness by improving its responsiveness, effectiveness and survivability. The doctrine also urged that any AD system, therefore, must incorporate efficient systems and technologies integrated into a net-centric environment for improved interoperability, reduced reaction time and enhanced command and control capabilities.³

Historical Lesson

a. **Catastrophe Caused by Non Integrated System:** The failure of joint integration in air operation led to numerous blue on blue incidents. One of the worst examples of fratricide occurred during Operation Husky II. On 11 July 1943, 144 C-47s and C-53s carrying some 2,000 U.S. paratroopers flew towards the South coast of Sicily. A fatal miscommunication between Navy and air component resulted in own Navy shooting down 23 transport planes that killed over three hundred fellow paratroopers. Ironically, on the next day another 4 planes accidentally flying over a convoy of Allied ships were shot down.

b. **Efficiency of an Integrated System:** Israel enjoys one of the best integrated AD systems. This AD system integrates all the sensors and weapon to the command centers with real time data link into a single network. This time tested AD system is safeguarding Israel from an array of multi directional attacks in different conflicts. During Operation Protective Edge (July 8, 2014 - August 26, 2014), this integrated AD system shot down 90 percent of the rockets fired from Gaza. Between July 7 and July 10 alone, Iron Dome intercepted approximately 100 rockets.

Required Level of Integration for Bangladesh: JP 3-30 considers the span of control of AD assets is to be based on the number of subordinates, number of activities, range of weapon systems, force capabilities, and the size and complexity of the operational area. That implies, level of integration should be situation specific. So, what should be the level of integration of AD assets for Bangladesh?⁴ Should the AD assets of Bangladesh Army and Navy be integrated with BAF AD assets? Officer Commanding ADOC opined that considering the threat, capabilities of own system and geography of Bangladesh, all the AD elements of Bangladesh should be integrated in to a single network. Director of DNW&EE also expressed similar opinion of integrating all AD assets. Integration of all AD assets, specially the naval assets, will also facilitate Air Defence Identification Zone (ADIZ) implementation process. Survey results found strong consensus among the participants of three services that all the AD assets should be integrated into a single network. The mode of the response was 'Strongly Agree'. Kruskal- Wallis test also reinforced the finding statistically.⁵

Current State of Integration

Basing on the primary data this study found that BAF initiated project for AD system integration will connect all the BAF sensors to ADOC through fiber optic/microwave link. BN initiated project will integrate naval AD assets Maritime Operation Center by TDL. BAF initiated project has the capability of future expansion that means this project has the prospect of connecting all AD assets of Bangladesh to create an integrated AD system for Bangladesh provided suitable communication means are utilized.⁶

Prospect of Utilizing BB Sat-1 for AD Integration

Communication Link Options Available for AD System Integration

Several options are available for exchange of information/data from ADOC to other AD assets. The summary of all available communication means are as follows:

Table 1: Comparison of different communication options

	For Fixed elements	For Mobile elements	Security	Bandwidth	Cost	Reliability/ Availability	Range
Telephone line	Yes	No	Low	Less	Cheap	Low	N/A
Commercial Mobile	Yes	Yes	Low	Medium	Cheap	Low	Coverage area
Tactical Data link	Yes	Yes	High	High	Highest	High	Medium
HF radio	Yes	Yes	Low	Low	Cheap	Low	High
Fiber optic/ LOS	Yes	No	High	Highest	Medium	Medium	N/A
Satellite Link	Yes	Yes	High	High	High	Highest	Very High

Source: Author's self-construct

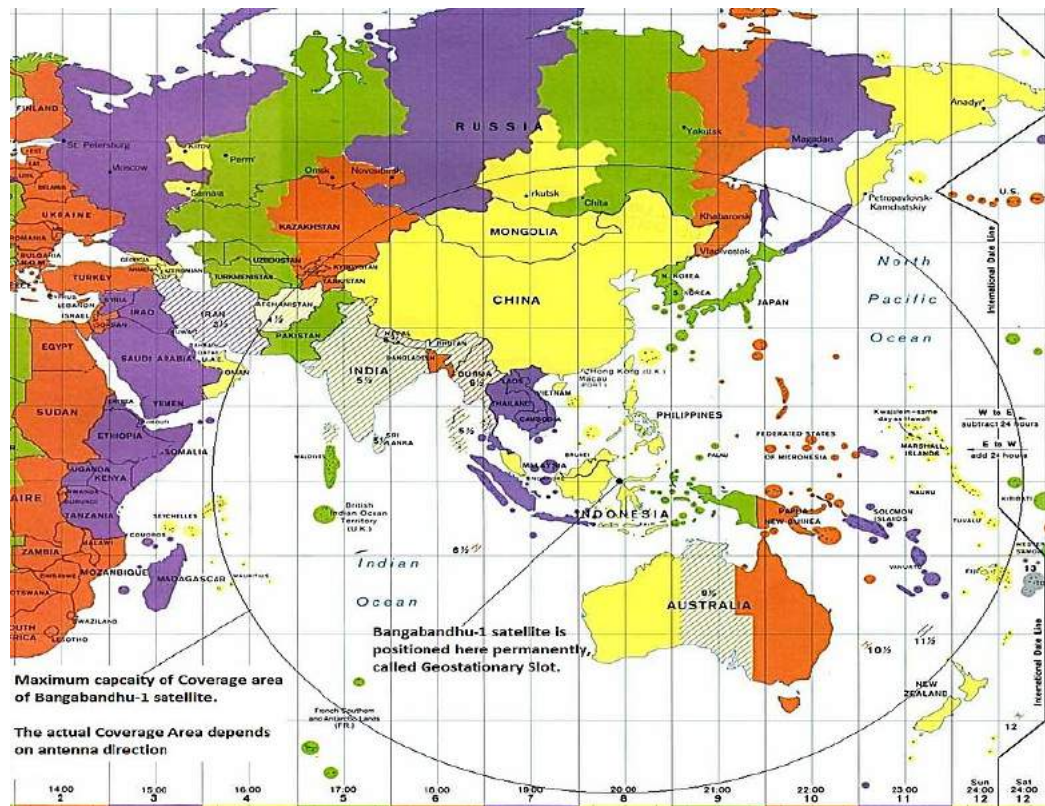
Suitability of Communication link

Requirement for AD System Integration: Before picking up a suitable communication means for AD integration, it is essential to assess the requirement of AD integration system. Bandwidth requirement for AD system integration varies depending on technology used, network arrangement and user preference. However, most of the modern digital radars require 64 kbps data rate in case of transmitting track information and 128 kbps data rate for transmitting digital video data. Standard voice channel requires 64 kbps data rate.⁷

Capabilities of BB Sat-1

Date rate and Coverage Area: BB Sat-1 is equipped with 40 transponders; each transponder can support 40 Mbps data rate. BB Sat-1 can cover entire Bangladesh including the EEZ area, full of India, Pakistan, some portion of Middle East and South East Asian region. The footprint of BB Sat-1 is as following:

Figure 1: BB Sat-1 position and coverage area



Source: Internet

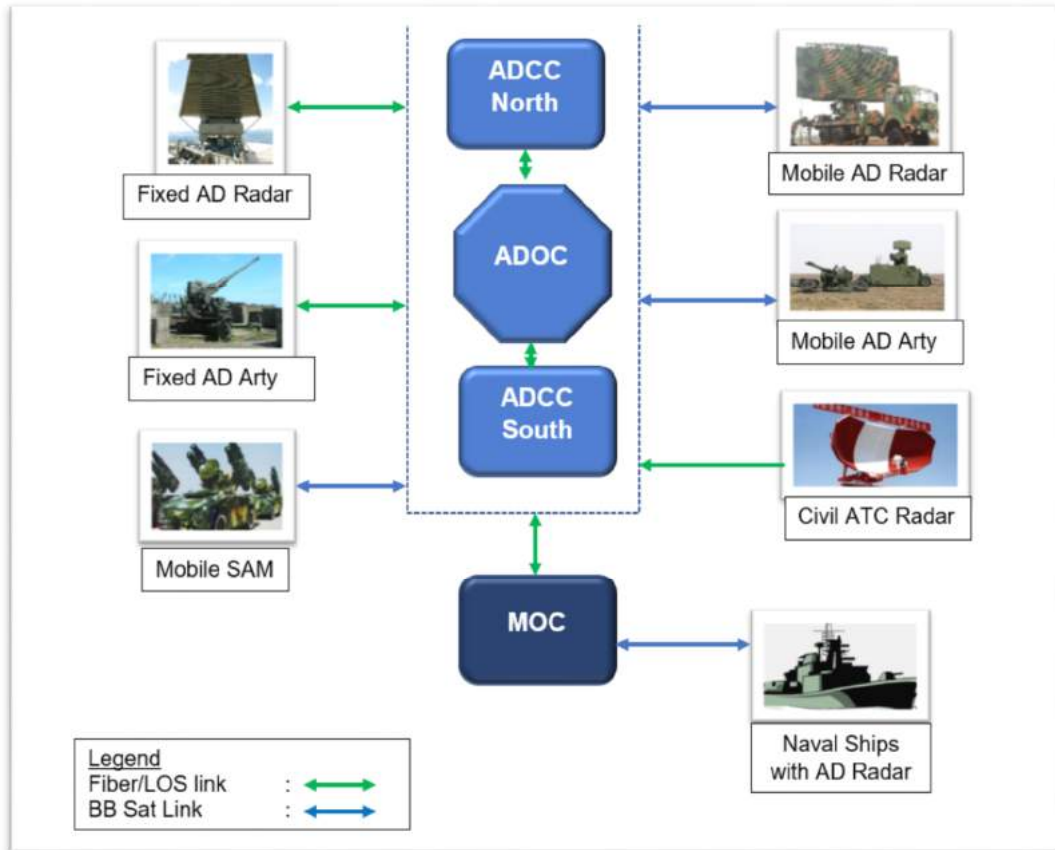
Capability of BB Sat-1 vis a vis Requirements of AD Integration: Basing on the bandwidth requirement, which is only 128 Kbps maximum, it can be deduced that any standard VSAT connected through BB Sat-1 can meet the requirement of AD element of Bangladesh.⁸

Proposed Model to Utilize BB Sat-1 for Integration of AD Assets

Basing on the requirement, this study proposed a suitable model for integrating all the AD assets of Bangladesh. This model considered BB Sat-1 link for the mobile AD assets

like BN ships and mobile radar of BAF which is the only feasible option. For other assets, fiber optic/ microwave LOS link has been considered as a cheaper and reliable option.⁹ Satellite link might also be used as a redundant link for the fiber optic. Analyzing all the factors the proposed model for integrating AD assets is as follows:

Figure 2: Proposed Model for AD Integration



Source: Author's self-construct

Challenges and Mitigations

Likely Challenges and Mitigations

Multi-Vendor Equipment: Recent procurement plan of BAF indicates that in near future, few Western origin sensors are likely to enter BAF's inventory. Latest Naval sensors are of Western origin and can support digital data. Quantum share of the Army

sensors are from China. Equipment from multiple vendors differ in terms of interface, communication protocol which pose significant challenges for integration.¹⁰

Mitigation for Multi-Vendor Equipment: It is expected that, BAF initiated project for AD integration will support multiple protocols that means the system will have the capability to equipment from different manufactures. However, interfacing with specific sensor would require befitting interfacing equipment which may be sourced from vendors.

No Dedicated Organization: Not only the hardware or software, successful implementation of the integration project would also require a dedicated group of skilled manpower. At present there is no dedicated unit/team to undertake the task. Only BAF has a handful of engineers/technicians who are skilled to undertake the task. Unfortunately, those skilled technicians are posted to different units.

Mitigations

a. **Coordinating Organization:** Integration of AD assets of three services is a joint service affair. To coordinate the integration process among the services, a Joint Committee at AFD may be formed. Existing Joint Service Communication and IT Committee may also be delegated with this responsibility. Survey result also indicated the same view; over 86% responded agreed that the integration process should be coordinated by AFD.

b. **Initiating Organization:** BAF has already initiated the project integrate her own AD assets. Moreover, BAF has experience and technical expertise to deal with the technical complexity of the integration project. Above all, AD of Bangladesh is the primary responsibility of BAF. Considering those, it becomes a natural deduction that BAF should take the lead to initiate the tri-service integration project. As anticipated, survey result also echoed the same deduction; an overwhelming 99% of the respondents believed that BAF should take the lead.¹¹

c. **Dedicated Unit:** A dedicated unit led by BAF and representation from other services may be established with primary responsibility to implement the project and carry out maintenance. To cope up with the changes in technology, the proposed unit would have to continue research and development and prepare manpower through training. Determination of exact manpower and equipment requirement for the proposed unit is beyond the scope of this research; a separate study may be conducted to ascertain the requirement.

Information Security: For any military system, information security is a paramount requirement. Integration of AD system by satellite without ensuring information security

might prove detrimental than improvement. However, careful planning and appropriate mitigation steps would reduce odds of information pilferage.

Mitigations for Information Security: Satellite communication, by virtue of its technology is difficult to intercept unlike other communication methods like HF communication. Moreover, BB Sat-1 is a Bangladesh Government owned satellite which is controlled by Bangladesh Communication Satellite Company Limited. As such, it is expected that information security of BB Sat-1 would be much better than from other foreign commercial satellites. Moreover, VSATs support state of the art data encryption. To ensure better security, data from different sensors/ weapons should be encrypted by point to point encryption system. Appropriate encryption hardware/ software should be considered during technical planning.¹²

Information Over Flood: Recognized Air Picture (RAP) forms the heart of AD system and is the central work tool at the ADOC. Various sensors, such as ground based radars, ship borne or airborne radars transmit data through a suitable communication link to ADOC. After fusing and verifying all the data, a RAP is formed. RAP provides a real time and complete air picture of the country. Using this picture, decision makers at ADOC monitor the airspace and make decisions, if a need for action arises. However, transmitting the full RAP to the point defence units might create information over flood and might in turn generate confusion. Survey results also commensurate with the same view. Over 76% of the respondents agreed to this statement.

Mitigation: The integrated AD system should have the provision to select specific sector of RAP to be transmitted to a specific unit. To avoid any information over flood, discretion is to be administered while sending information to the point defence units. Selected information basing on requirement, area of responsibility and weapon capability might be transmitted by ADOC to the concerned unit.¹³

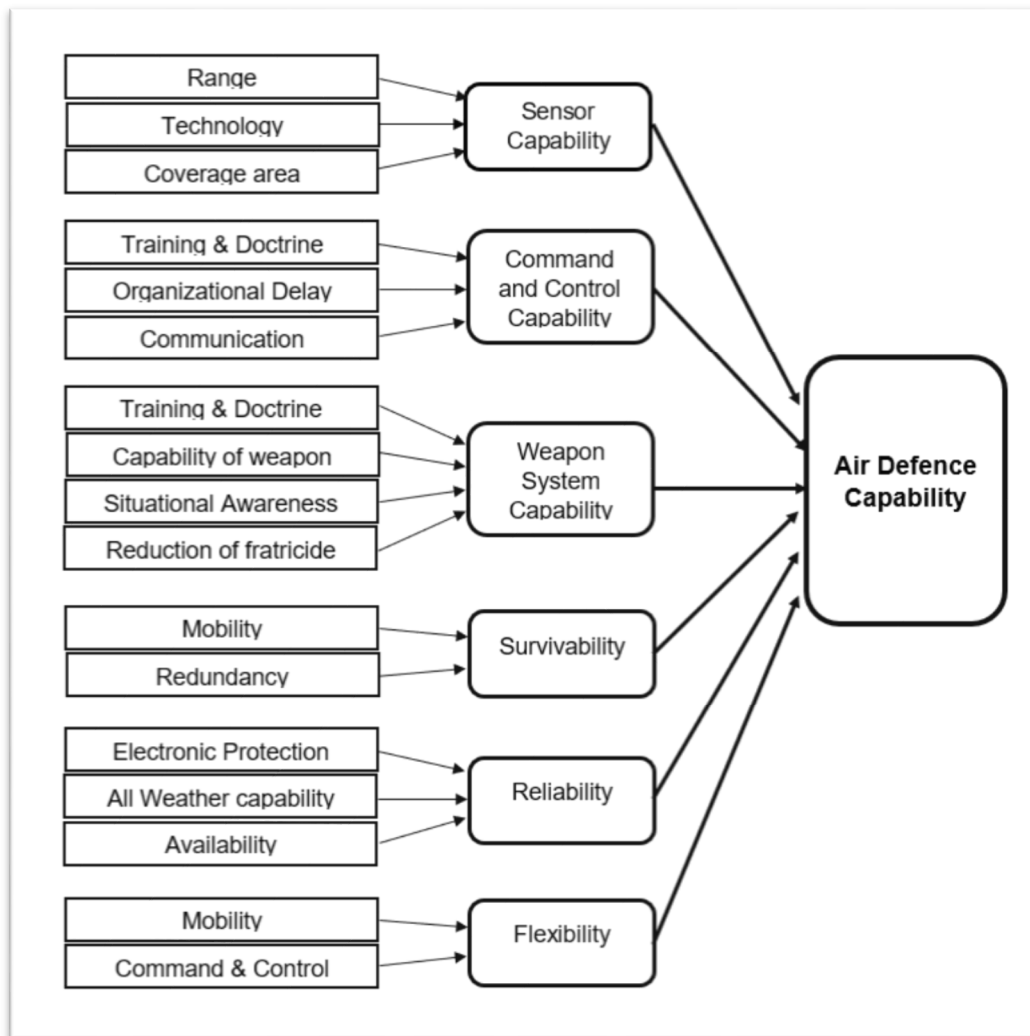
AD Capability Enhancement by Utilization of BB Sat-1

Contributing Factors for Effective AD

AD of any country is a holistic approach of the three core components of AD; namely the detection system, Command and control system and the weapon system. So, the performance of these three components will have significant influence on the performance of the system. Long range sensors, standoff weapon capability or efficient command control will definitely have positive impact on the overall capability of the system. But above all, AD always works as a coordinated system and for AD to function properly all the elements of must be integrated together to act as a system. So, level of integration among those elements plays a critical role and binds them to work as a single system.¹⁴

The contributing factors for AD capabilities and their interrelation can be shown graphically:

Figure 3: Factors influencing AD Capability



Source: Author's self-construct

Analysis: Impact of BB Sat-1

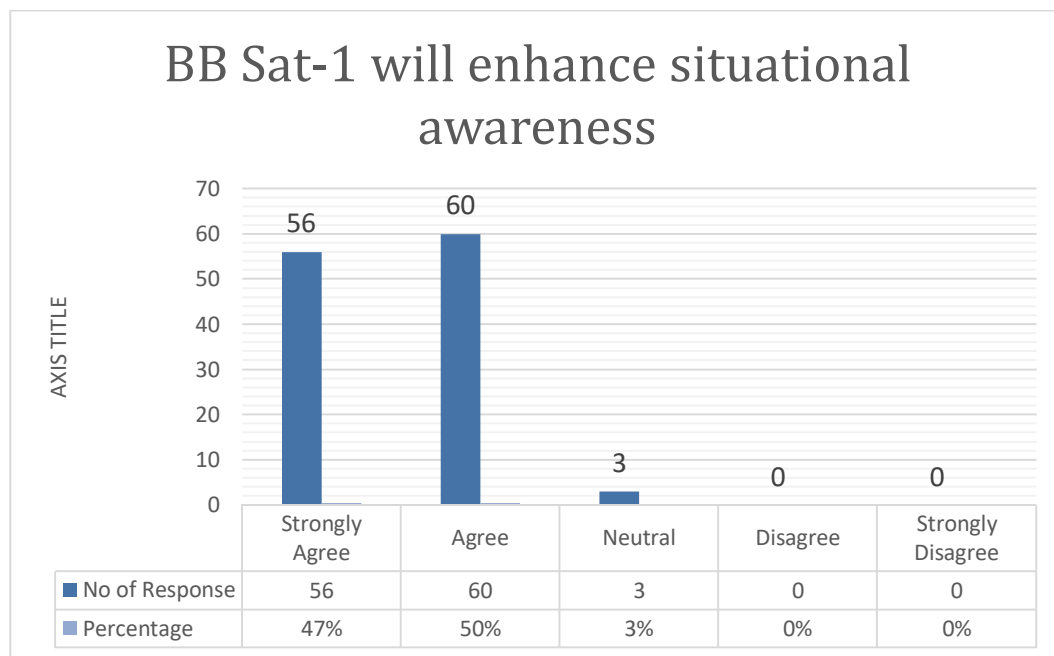
Impact on Sensor Capabilities: Sensors are eyes to the AD system. But sensors working in discrete will have very less impact, if not no impact, on the overall AD capability. Larger coverage area is always a positive factor for AD system. It provides early warning and hence allows more reaction time. Coverage area of AD system is the sum of areas covered by each individual sensor in that network. Considering the ongoing

integration project by BAF, it can be assumed that all the BAF radars will come under a same network. For the naval sensors, BB Sat-1 is the most suitable option considering the freedom of movement in the entire EEZ area of Bangladesh.¹⁵

Impact on Command and Control System: The efficiency of command and control can be measured by the ‘Organizational Delay’ incurred by that organization. Organizational delay can be termed as the time taken by the organization from the first appearance of a target on the sensor to the executive order passed by the controller. The lower the organizational delay the better the efficiency of AD system. Other than the human cognitive factors, the main source of organizational delay is the time lag incurred by communication system. In a manual system, an operator will need at least 1 minute to pass the information of 10 targets. As a result, in manual system there will be always a time lag with real time information. Manual system is also prone to human error. Whereas, time lag is less than 1 sec for satellite, that means BB Sat integration will provide real time information to the AD system.¹⁶

Impact on Utilization of Weapon System: The capability of weapon system is largely dominated by technology, quality of training, doctrine etc. However, situational awareness also plays an important role to improve the performance of weapon system. Dissemination of RAP through BB Sat link to the weapon system would enhance situational awareness and it would also reduce the risk of ‘Blue on Blue’ engagement. Through BB Sat, Naval ships might get the RAP of their concerned area even when their own radar is switched off. That means any station with or without radar, or even their own radar is switched off can get target information from the neighboring sensors through BB sat from ADOC. Survey result also commensurate with the findings from KPI. The mode of the response is ‘Agree’ and 97% of the respondents believe that BB Sat link will increase situational awareness. As BB Sat will enable to transmit voice and data in real time it would greatly reduce the risk of fratricide. The mode of the response is ‘Agree’ and 82% of the respondents agree that BB sat link will help to reduce fratricide. Basing on the data it can be deduced that, exchange of real time information through BB Sat will enhance situational awareness of all AD elements. In addition to that, naval ships will be greatly benefited by RAP even when their own radar is switched off. Real time exchange of information will reduce the chance of fratricide.¹⁷ As a whole, integration of AD elements through BB Sat will have positive impact on the weapon system by increasing its efficiency.

Figure 4: Survey Result on Situational Awareness



Source: Author's self-construct

Impact on Survivability: The most influential factors of survivability are mobility and redundancy. BB Sat can offer both to AD system. Satellite communication system is inherently mobile. Utilizing portable VSAT, it is possible to establish communication from a moving platform like ship or aircraft. Survey results also showed the similar views. About 97% respondents agreed that BB Sat-1 will ensure mobility of AD assets and hence increase the chance of survivability. Mobility also offers flexibility for the commanders to deploy the assets. On the other hand, BB Sat-1 might also be used as redundant link of the fiber optic/ microwave LOS link, HF link which will reduce the dependency on a single link and improve redundancy of the whole system. Evaluating the data, it is evident that BB Sat will enhance the survivability of the AD system of Bangladesh.¹⁸

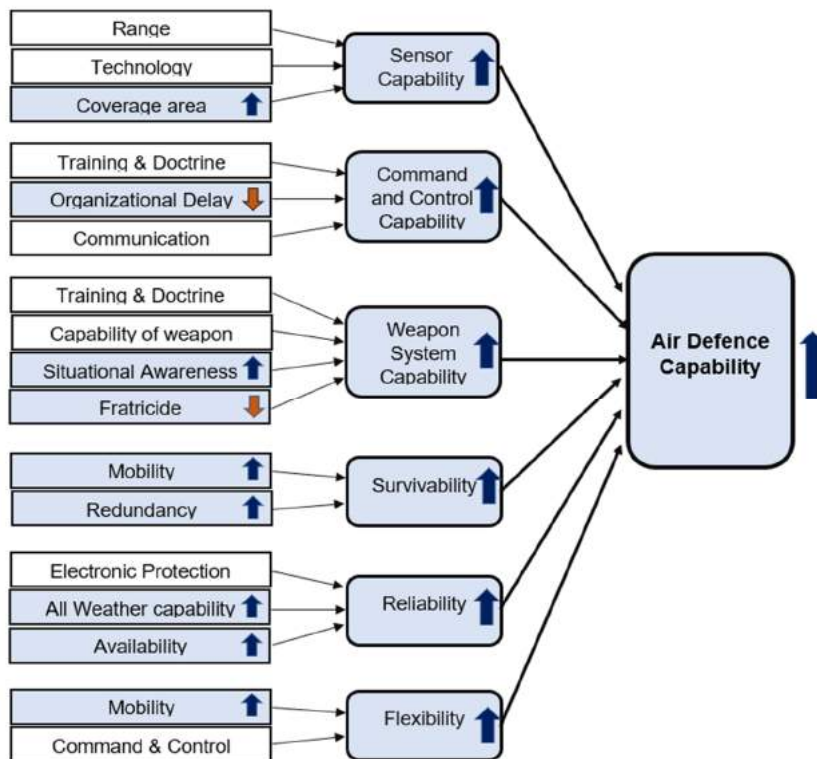
Impact on Reliability: Reliability of a communication link depends on various factors like availability, electronic security and all weather capability. Like other satellite communication systems, BB sat-1 is also very reliable with an availability rate of over 99% in its coverage area. Which makes it the most reliable communication link over all other ground based communication systems. Satellite link also supports wide range of encryption systems and advanced encryption system can also be implemented for AD network which will enhance electronic security. Basing on the data it can be deduced that

satellite link is more reliable than any other ground based communication system and utilizing BB Sat-1 for AD system integration will enhance the reliability of the system.¹⁹

Overall Capability Enhancement of AD System

Utilization of BB Sat to integrate mobile AD assets and static AD assets (as redundant link) will have positive impact on weapon system, command and control system. With its ability to provide seamless communication to the mobile AD elements, BB Sat-1 will ensure flexibility for the commanders in planning and deployment of assets. Moreover, it will also reduce fratricide, enhance survivability and reliability of the overall AD system. Basing on all the deductions it can be assumed that BB Sat integration will influence positively on AD System capability of Bangladesh. The impact can be shown graphically. In the figure, the factors in blue color indicates positive influence by BB Sat-1 and the factors in white color indicate there is no influence of BB Sat-1 on those factors.²⁰

Figure 5: AD Capability Enhancement by Utilizing BB Sat-1



Source: Author's self-construct

Conclusion

AD is crucial for any country to safeguard her sovereignty and interests in both peace and wartime. AD of any country is a coordinated system with three core components; namely the detection system, Command and control system and the weapon system. Aside from the performance of individual components, level of integration plays a critical role and binds them to work as a single system. Therefore, effective integration of AD assets is an important factor that influences the overall capability of AD system.²¹

Although BAF is primarily responsible for AD of Bangladesh, AD is still a joint service affair. All the services of armed forces have credible AD assets in their inventory. But, unfortunately, those AD assets are not integrated in a single network. Though historical lessons and doctrines of different armed forces around the world promote the concept of a unified AD network, still no initiative has been taken to create a single AD network for Bangladesh. The main hinderance to construct a single network is the technological challenge. Until recently, no suitable communication means existed to interconnect AD assets which are mobile and operate in a large geographical area.²²

Bangladesh became the 57th member of the elite club of owning a satellite on 12th May 2018 by launching the long cherished BB Sat-1 in the space which is now fully operational. Analyzing the data of BB Sat-1 and comparing them to the requirements of AD system integration, it is evident that BB Sat might solve a long outstanding technical challenge to connect mobile AD assets. This satellite also offers an opportunity to create a redundant communication link for the fixed assets. And this integration might enhance the overall air defence capability of Bangladesh.²³

Overall capability of AD system largely depends on factors like capability of sensor system, capability of weapon system, efficiency of C2 system, survivability of the system, reliability of the system and flexibility offered by the system. This study found out that Integration of AD assets by BB Sat-1 will have positive impact on all the factors contributing to the AD capability. Satellite link would provide a feasible means to connect naval radars to the central AD network of Bangladesh. Assessment of the primary data reveals that, real time data exchange offered by satellite link will enhance situational awareness, reduce organizational delay time and as well as reduce fratricide substantially. These positive shifts in the contributing variables will have optimistic impact on the sensor, C2 and weapon capabilities of the system. The most influential factors of survivability are mobility and redundancy. Analysis reveals that, BB Sat-1 can offer both to AD system. Satellite communication system is inherently mobile. Mobility also offers flexibility for the commanders to deploy the assets. On the other hand, BB Sat-1 might also be used as redundant link of the fiber optic/ microwave LOS link, HF link which will reduce the dependency on a single link and hence improve the redundancy of whole system. Reliability of a communication link depends on various factors like availability, electronic security and all weather capability.²⁴ Like other satellite communication system, BB sat-1 is also very reliable and has an availability of

over 99% which makes it the most reliable communication link over the ground based communication system. Satellite link also supports wide range of encryption system to ensure information security.²⁵

This paper also identified few challenges for the proposed integration. The major challenges, as recognized by this research, are technical difficulties imposed by multi-vendor equipment, lack of dedicated unit and ensuring information security. To mitigate those issues, this study suggested to coordinate the project at AFD and establish a BAF led unit to handle the technical difficulties. To deal with the concern of information security, this study advocated to implement point to point encryption system for the entire system. This study also suggested that discretion basing on requirement, area of responsibility and weapon capability is to be administered while sending information to the point defence units to avoid information over flood and confusion.

At the outset, this study hypothesized that 'AD sys of Bangladesh would be enhanced by integrating the mobile AD assets through BB SAT-1.' Analyzing the data from multiple sources it is evident that utilization of BB Sat-1 will increase radar coverage area in the network, reduce of organizational delay time, enhance situational awareness, reduce fratricide, enhance mobility and redundancy of the system. Positive shift of those contributing variables will, in turn, enhance the overall capability of AD system of Bangladesh.

Recommendations

Based on the findings of this study following recommendations are placed for consideration:

- a. BAF may expand going on AD automation project to integrate AD assets of other sister services and hence build an integrated AD system for Bangladesh.
- b. BB Sat-1 may be utilized to integrate mobile AD assets like naval ships, SHORAD system into the AD network.
- c. BB Sat-1 may also be used as redundant to optical fiber/ microwave LOS connectivity.
- d. Adequate encryption measures may be adopted throughout the network to ensure information security.
- e. A joint committee may be formed under AFD to coordinate the integration process.
- f. BAF may establish a unit to operate, maintain the joint service network and to develop manpower tackle technical difficulties.
- g. The same integration infrastructure may be continued for the forthcoming satellite after BB Sat-1 expires.

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Brief Biography



Wing Commander M Mahfuzur Rahman, Engineering was commissioned in Engineering branch of Bangladesh Air Force. His date of commission is 16 September 2000. He obtained B.Sc. Engineering (Electrical & Electronic) from Bangladesh University of Engineering & Technology (BUET) in 2004. He has done various professional courses at home and abroad like Aviation Communication Course, Third Level Maintenance course of Radar, Engineering Branch Integration Conversion Course, Junior Command and Staff Course, Civil Military Cooperation Course etc. He has different command and staff appointments at Air Headquarters, Central Trade Test Board and different bases and units. He has served in UN Mission in BANAIR-8, at DR Congo. Prior to the Air Staff Course, he served as Deputy Director at Air Headquarters.

HUMAN SECURITY FRAMEWORK FOR BANGLADESH

Lieutenant Colonel Md Kamrul Hassan, psc, G, Arty

Abstract

Complex security situation that emerged in the 1990s and 2000s obligated the security analysts to re-examine the then existing concepts on security. The analyst found that traditional state-centric concept of security was failing to ensure security of individuals within the states. Though the states are secured from external threats, but people are threatened by many violent and non-violent threats generated from within the states. Moreover, at the end of the cold war era there was a paradigm shift in the international security dimensions. Most of the countries became more vulnerable to non-traditional threats which generates within the state boundary. As a result, the Concept of Human Security evolved which focuses on security of individuals and emphasizes the need to protect people including their rights and freedom. It also focuses on the importance of people's ability to be able to influence decisions that affect their basic needs. Considering different social and economic indicators of Bangladesh, concept of Human Security needs to be adequately focused during formulation of national security strategy. In this article a short glimpse of the concept of Human Security is given which is followed by its relevance to Bangladesh. Finally it ends with suggesting a theoretical framework of Human Security in Bangladesh perspective.

Introduction

The concept of security has endured various transition stages in last few decades. Before the cold war, most of the countries were habitually focusing on external threats. End of cold war era has given emergence of a uni-polar world. In the existing geo-political situation, most of the countries are now confronting increasingly with various capricious cross-border threats. These threats include civil unrest, economic down turn, natural calamities, terrorist attacks, HIV/AIDS and other pandemics that are difficult for a country to handle alone. Now most of the threats to the security of a nation state emerge from within the states. Many experts believe that the world is no more uni-polar or the world is on the way to be multi-polar. The issue remains debatable and still generates lot of discussion. But, it is understood that the world is likely to take few more decades to become fully multi-polar. Emergence of multi-polarity in the balance of power may again shift the importance towards facing external threats. However, this is likely to happen for few countries, and when most of the countries of the world will still remain more prone to internal threats.

Therefore, in today's context, concept of security goes beyond long-established notions of security which mostly concerns external threats. Rather it now emphasize on many more issues related to development and respect for human rights.¹ According to OECD DAC guideline "Security is increasingly viewed as an all-encompassing condition in which

people and communities live in freedom, peace and safety, participate fully in the governance of their countries, enjoy the protection of fundamental rights, have access to resources and basic necessities of life, and inhabit an environment which is not detrimental to their health and well-being, the security of people and the security of the state are mutually reinforcing.”²Today the concerns of protecting the border have steadily receded for most of the countries both because of improving relations with neighbouring countries and other economic compulsions and priorities.³ Due to changes in the social values and believes, public sentiment is also against war in most part of the world. War will be considered as the last means to force solution to any problem and conflict of interest. Like any other country, Bangladesh is also facing many internal threats. Diversity of internal threats that Bangladesh is facing is enormous. Preponderance of internal threats makes it important for Bangladesh to shift the focus of its national security strategy to a people-centric concept of security. Moreover, Bangladesh is a democratic country. In the democratic system political power must vest in the people; hence their security should be accorded primacy.⁴In the democratic system the state remaining the ultimate guarantor of the individual’s well-being; “only the security of the individual can be rightful and meaningful objective of security.”⁵

It is very difficult to present a universally applicable model of human security since its focus and dimensions will be different for countries. The whole gamut of security needs of the individual and people is encapsulated in two fundamental concerns: “freedom from want” and “freedom from fear.”⁶ But both the aspects might not be equally important for all the countries. Besides, human security deals with various sources of insecurity, relevance and significance of those aspects also differ between countries. Therefore, discussion on concept of human security demands country specific analysis to generate practical and workable model. The aim of this write up is to discuss the relevance and significance of concept of human security in Bangladesh perspective and finally recommend a theoretical model of human security for Bangladesh. In order to do so, the study aims to discuss following issues:-

- a. Relative importance of *state centric security vis-à-vis human security* in Bangladesh perspective.
- b. Develop a *theoretical process for developing country specific model* of human security.
- c. Develop a *suitable Theoretical Framework of Human Security for Bangladesh* through identification of relative significance of “freedom from fear” and “freedom from want” and prioritization of the relevant sources of insecurities.

The write up begins with a short glimpse of the concept of human security to facilitate understanding of subsequent analysis and discussion.

Short Glimpse -Concept of Human Security

According to David A Hasting, “The idea of human security shifts the focus away from the state and makes the primary unit of analysis the individual, who is meant to live in freedom from fear and freedom from want.”⁷ Human security brings the idea of ensuring safety of the people from violent and non- violent threats. It emphasizes the need to protect people including their rights and freedom. It also focuses on the importance of people’s ability to be able to influence decisions that affect their basic needs. In the concept of human security the word “security” is used in a broader sense and includes predominantly two ideas. Firstly, connotation of “safety” itself goes beyond the concept of mere physical security in the traditional sense. Secondly, people’s livelihoods should be guaranteed through “social security.”⁸

According to Edward Newman “Security is a public good from which all other individual and societal values and goods can flourish. In its broadest sense, human security seeks to place the individual or the people collectively as the referent of security, rather than, although not necessarily in opposition to, institutions such as territory and state sovereignty.”⁹ Security can otherwise be defined as absence of insecurity and threat. To be secured, one needs to be free from two things such as: fear and want. Fear may arise from abuse, violence, persecution or death etc. People also need to be free of want of physical and mental needs such as gainful employment, food and healthcare etc. To ensure security, one needs to have capacity to identify possible threats, avoid them when possible or reduce their negative effects when those could not be fully mitigated.¹⁰ In order to provide security from all possible aspects, a comprehensive model of potential sources of human security needs to be identified.

State Centric Security vis-a-vis Human Security: Bangladesh Perspective

Bangladesh has two neighbours viz: India and Myanmar. So far Myanmar had been a friendly neighbour. Myanmar’s attempt to illegally expand maritime boundary and pushing out its Rohingya population to Bangladesh resulted strained bi-lateral relation. The issue of maritime boundary was solved through International Court but the issue of Rohingya remained as a source of tension between Bangladesh and Myanmar. Rohingya issue is a matter of deep concern for Bangladesh since it is likely to disrupt Bangladesh’s economic development and social stability.

Bangladesh has maintained friendly relationship with India since independence. Bangladesh enjoys common history, shared natural resources and land border of 4025 kilometers with India. However, Bangladesh has few unresolved issues with India which poses significant security challenges such as: sharing of water of 54 common rivers, killing of citizens of Bangladesh in the border, Illegal cross-border activities, smuggling of goods etc.¹¹

Bangladesh always preferred the option of diplomacy and showed respect to international law in dealing with conflicting bi-lateral issues. Therefore, it has kept the size of military relatively small in comparison to its neighbouring countries. On the other hand, a considerable quantum of its military strength has been deployed as UN Peace-Keeping forces to help maintaining global peace and security. Bangladesh expects that all issues will be solved amicably and everybody will be benefitted from such solution. That brings out the reality that national security strategy of Bangladesh should now focus on human centric security to ensure safe and peaceful life for all the citizens.

Most of the countries of the world are now more focused to deal with non-traditional threats than the traditional security threats. These threats are more dangerous because of few reasons such as: difficulty in identification, easy access to required resources, not bounded to any geographical, religious, social or moral boundary etc. Besides, analysis of the non-traditional threats shows that the issues cover diverse sectors. It appears to be very difficult to comprehend and manage all issues representing non-traditional threats¹². Unfortunately, existing economic condition, fragile democracy and social fragmentation have made Bangladesh susceptible to relatively more dangerous non-traditional threats. Bangladesh needs to develop a set of comprehensive policy framework providing guidelines to deal with all these issues effectively. Efforts should also be taken to establish institutional framework to implement those policies. In order to do so, most important aspect is to visualize the concept of security from human centric view instead of traditional state-centric one at national level.

Developing Country Specific Model for Human Security

Every country has to develop its own model of human security. Like, Canada has developed its own version of human security that puts more importance on the “Freedom from Fear” dimension.¹³ Same is applicable for most of the European countries. However, the Canadian viewpoint does not reflect the perspective of all the developed countries. The Japanese perspective on human security put more emphasis on “Freedom from want” than “Freedom from fear”.¹⁴ So, Bangladesh needs to develop its own human security framework for successfully integrating the concept for achieving sustainable growth. The first step of developing a country specific human security model would be to analyze the existing socio-economic dynamics and security situation of the country. The outcome of the first step will help to carry out the second step which aims to determine the relative relevance and significance of “Freedom from Want” vis-à-vis “Freedom from Fear”.

The next aspect of developing the model for human security would be prioritization of possible areas of insecurities including identification of the drivers and impact areas. All the areas of human insecurity are not applicable for every country, even if all are present to some extent, they are not equally important for every country. Attempt to over stretch the concept of human security to make it all-inclusive would exonerate it of all meaning.¹⁵ As Trenchantly mentioned, “Once everything that generates anxiety or threatens the quality of life in some respect is labeled as “security problem”, the field risks losing all focus. Such

an agenda is inconceivably rich, and is certainly inclusive, but it can also be off-puttingly vague.”¹⁶

So, a prioritization is needed to determine the focus areas during policy development, since in general human security covers very diverse areas. But, in order to make a priority list, it is important to identify relevant group of sources of insecurities for the particular country. Review of number of literatures indicates that, so far researchers have identified various ways of grouping the sources of insecurity. Table 1 shows different ways of grouping sources of insecurities into various categories. This table may act as a guide to visualize how to group different categories of sources of human insecurity and accordingly, a grouping may be made for the specific country.

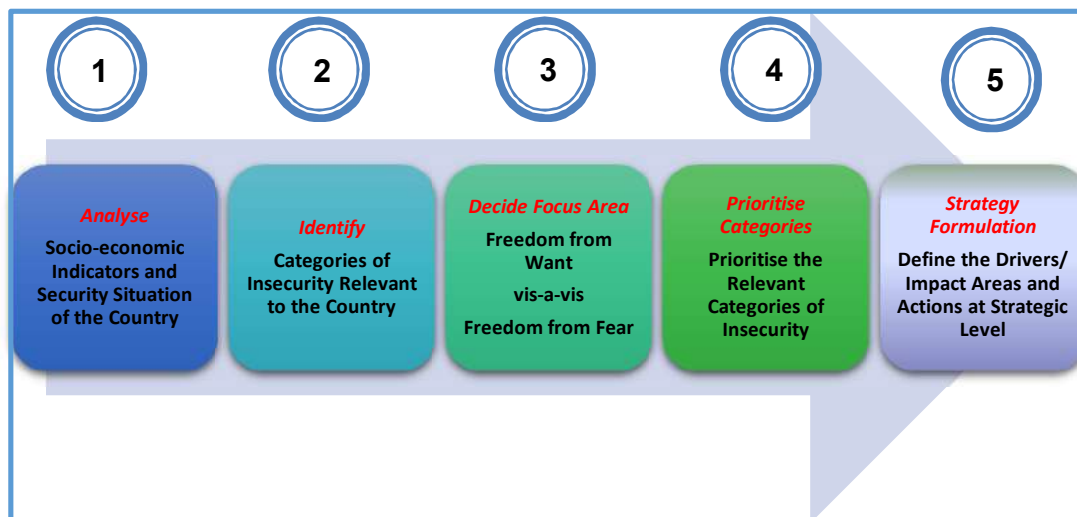
Table 1: Categories of Human Insecurity Suggested by Different Researchers

Proponent	Grouping of Categories of Human Insecurity
Steve, Lonergan, Kent Gustavson and Brian Carter ¹⁷	1. Environmental 2. Economic 3. Social 4. Institutional
Abdur Rob Khan and A. K. M. Abdus Sabur ¹⁸	1. Systematic insecurity from politics 2. Systematic insecurity from governance 3. Structural Insecurity - Gender Discrimination & Violence 4. Structural Insecurity- Ethnic and Religious Group 5. Structural Insecurity- Access to resources 5. Environmental and Health Insecurity 7. Livelihood Insecurity. 8. Personal Insecurity
Gary King and Christopher Muray ¹⁹	Defined Human insecurity as a state of generalized poverty and identified five domain such as: 1. Income 2. Health 3. Education 4. Political Freedom 5. Democracy
UNDP ²⁰	1. Economic 2. Food 3. Health. 4. Environmental 5. Personal 6. Community 7. Political
Earl C Morgan ²¹	1. Personal Sources 2. Institutional Sources 3. Social Structure and Cultural Sources
Nils Petter Gleditsch and Bjorn Otto Sverdrup ²²	1. Food 2. Health 3. Environmental 4. Personal 5. Community 6. Political 7. Water 8. Energy 9. Violence

Source: Author's self-construct

From the above mentioned list, relevant areas of insecurity may be identified as per priority to assist the policymakers in developing the national security strategy. The model would get a final shape after including the possible drivers, impact areas and necessary actions to deal with the identified areas of insecurities. Summarizing above discussion, a flowchart showing different steps for developing country-specific model for Human Security may be articulated as shown in the Figure 1.

Figure 1: Steps for Developing Country Specific Human Security Model



Source: Author's self-construct

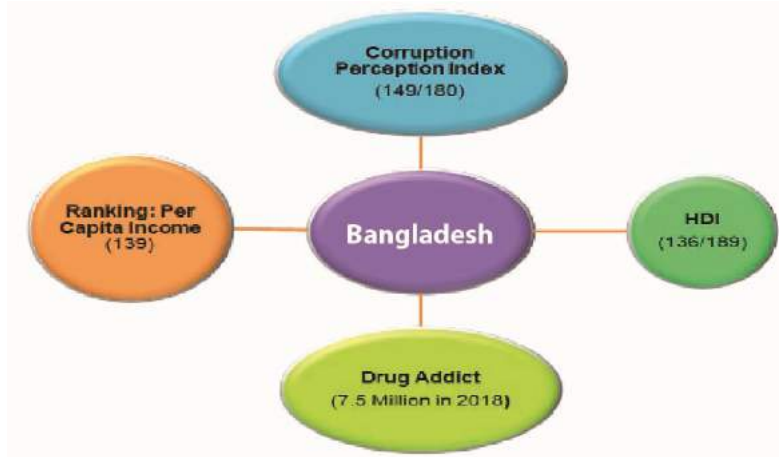
Now an effort will be taken to develop a theoretical framework of Human Security model for Bangladesh following the steps shown in Figure 1. It would be relevant to start the discussion highlighting few significant socio-economic indicators of Bangladesh (Step 1 of the process).

Developing Framework of Human Security for Bangladesh

Step 1: Analysis of Socio-economic Indicators and Security Situation: Though Bangladesh has apparently advanced in many social aspects, but endemic corruption continues to remain as a vice at all levels of the society of Bangladesh. The development could be much more in last 47 years provided the entire budget allotted for poverty reduction and infrastructural development could be properly used. 75% of the foreign aid received by Bangladesh did not reach its intended target because of corruption.²³ Corruption exacerbates and promotes poverty. Serious corruption also threatens democracy and governance by weakening institutions and mass participations, and by delaying and distorting economic development needed to sustain democracy.²⁴ Poverty and corruption is a vicious cycle, due to corruption the poor becomes poorer and the rich becomes richer.

Bangladesh is highly affected by this vicious cycle. Figure 2 shows different social and economic index of Bangladesh in 2018.²⁵ It shows that Bangladesh is still lacking in most of the aspects (especially in preventing corruption and in HDI) demanding more attention on implementing concept of Human Security.

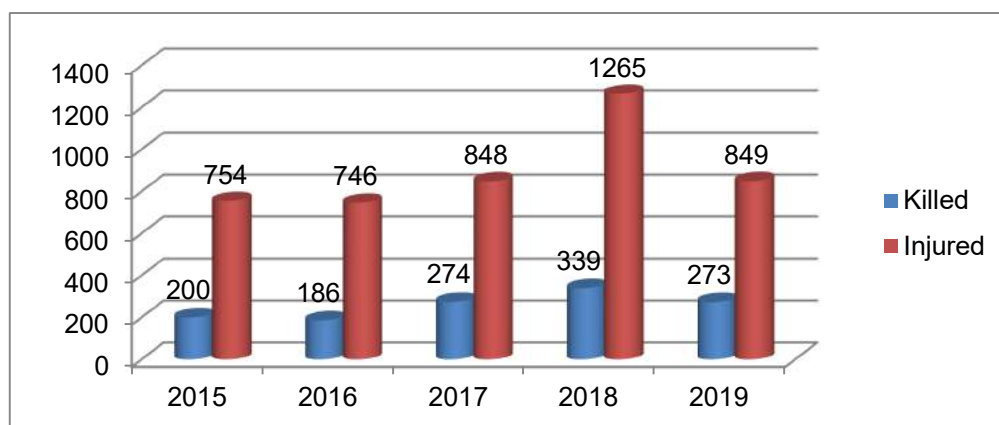
Figure 2: Different Social and Economic index of Bangladesh in 2018



Source: Author's self-construct

During Eid-ul-Fitr holidays of 2019, 273 people died in different road accidents in Bangladesh and statistics shown in Figure 3 reveal that it is a common phenomenon. These statistics show the extent of insecurity that common people faces as they travel. Ensuring safe travel facilities for the citizens (personal security) comes within the purview of state's responsibility and most of the developing countries like Bangladesh fail to do so.

Figure 3: Road Accidents during Eid-ul-Fitr Holiday in Bangladesh²⁶



Source: Author's self-construct

Two fifths of the population of Bangladesh lives below the poverty line when measured in terms of need for food. At the same time lives are constantly endangered by human rights violations and the risk of natural disasters. Violence and discrimination against the vulnerable are rampant, while floods and cyclones regularly devastate communities. According to the Asia Pacific Disaster Report, Bangladesh is the most vulnerable country in the Asia Pacific Region in terms of exposure to floods, fifth in terms of storms and eighth in terms of earthquakes.²⁷ Bangladesh is enormously exposed to non-traditional security threats that include food and water security, illegal migration and transnational terrorism, human trafficking, extortion, illegal occupation of land, smuggling of contraband items, drug peddling and dealing, money laundering, gun running etc. These all affects the personal security of the citizens of Bangladesh. The severity of these threats varies between places and group of people from different levels of the society due to their geographic location and also for other issues like level of income and access to assistance from government.

Another dimension of the social system of Bangladesh is that it makes women more prone to insecurity. Number of additional sources of insecurity affects only women. In Bangladesh, almost 90% of girls aged 10-18 are victims of public sexual harassment. Most cases of sexual harassment are unreported and unpunished due to the young girls' fear of further physical and sexual harm, being socially rebuked, or becoming the subject of local "social gossip."²⁸ Civil society and media played a very important role to bring this aspect to the notice of general mass which helped to create public awareness. But apparently it is felt that the situation in regard to the security of the women did not improve to the desired standard.

However, Bangladesh has shown very good success in achieving Millennium Development Goals. Different other social indicators of Bangladesh are far better than most of its neighbours. Bangladesh has become a role model for its success in improving Maternal Mortality Ratio and Infant Mortality Rate. Few statistics related to success in achieving Millennium Development Goals are shown in Table 2.

Table 2: Present Sate and Future Target in Different Social Indicators²⁹

Indicators	State of Progress		
	Value With Year	2015	2021
Life Expectancy	66.6(2007)	68	70
Population Growth Rate	1.4(2007)	1.3	1.0
Maternal Mortality Ratio (Per 100000 Live Birth)	320(2001)	143	57
Infant Mortality Rate (per 1000 Live Birth)	52(2007)	32	15
Underweight of Under 5 Children	41%(2007)	33%	29%
Total Fertility Rate	2.7 (2007)	2.4%	2.1
Use of Birth Control Methods	-	74%	80%
Poverty Rate (head Count, %)	31.5(2010)	22.5	15.0

Source: Author's self-construct

Bangladesh has also improved its position in Global Peace Index (GPI). Global Peace Index (GPI)-2019 published by Institute for Economics and Peace ranks Bangladesh 93 out of 163 countries. Bangladesh is in a better position than India and Pakistan.³⁰

Table 3: South Asia Rankings in 2019 Global Peace Index³¹

Country	Overall Ranking	Overall Score	Regional Ranking
Bhutan	19	1.545	1
Nepal	84	2.053	3
Bangladesh	93	2.084	4
Srilanka	67	1.954	2
India	136	2.504	5
Pakistan	151	3.079	6
Afghanistan	162	3.585	7

Source: Author's self-construct

Step 2: Identify Categories of Sources of Insecurity in Bangladesh: Categories of human insecurity developed by different researchers as shown in Table 1 include a general view of possible sources of insecurity. However, all those mentioned in the table are not applicable to Bangladesh. Some are so insignificantly relevant that those do not demand elaborate discussion. It is to be remembered that, few incidents in a year does not make it a national phenomenon and may not be considered as a source of insecurity when it is discussed in the perspective of the whole country. A major cause of human insecurity is conflict. Conflict results absence of effective political and security mechanism and creates lot of internally displaced persons and exodus of people as refugee.³² Bangladesh is free from this violent source of human insecurity.

Shaheen Afroz and Abul Kalam Azad³³ also identified few features of the socio-economic matrix of Bangladesh. This also provides a comprehensive list of sources of insecurity which can be considered for developing a human security model for Bangladesh. The issues are: Socio-economic inequality, Urban-rural disparity, Abysmal poverty, Rural deprivation, Illiteracy, Corruption, and Marginalization of poor and disadvantaged population.

Analysis of the statistics shown in the previous section indicates a few very vivid sources of human insecurity in Bangladesh. The most important cause of insecurity for the people of Bangladesh is poor governance resulting from rampant corruption. The public sector is inefficient in supplying essential services to the public; that is, the delivery of administrative services and public utilities such as water, electricity and gas. In addition, the law enforcing agencies and judiciary are not effectively protecting human rights and providing human security for its citizens. Due to corruption, Bangladesh could not achieve desired result in poverty alleviation, which also results many other causes of human insecurity. A major portion of the budget allotted for poverty alleviation does not reach to

the poor people. Due to corruption poor people are remaining poor and the rich are getting richer. So, it can be said that the two most important causes of human insecurity in Bangladesh are corruption and poverty, and they are very closely inter-linked. Corruption and poor governance is also responsible for poor health care services. Every year huge fund is allotted for development of health care infrastructure, but apparently the output is insignificant. Huge number of government doctors are recruited but due to poor governance, presence of doctors could not be ensured in remote areas.

Every year a major segment of the budget of Bangladesh goes to the education sector. Lot of infrastructures is developed and thousands of schools and colleges are established all over the country since independence. However, the quality of education remained questionable. It is to be remembered that improvement in education standard does not only mean increase in number of degree holders, rather it should focus to providing quality education. Otherwise people will only hold lot of degrees but will not be of any use to the country.

Since independence Bangladesh has witnessed political violence at regular intervals. Many people have lost their life due to political violence at different times. Violence for asserting an identity or even for achieving political ends has posed itself as an issue of great concern³⁴ in Bangladesh and significantly hindering human security.

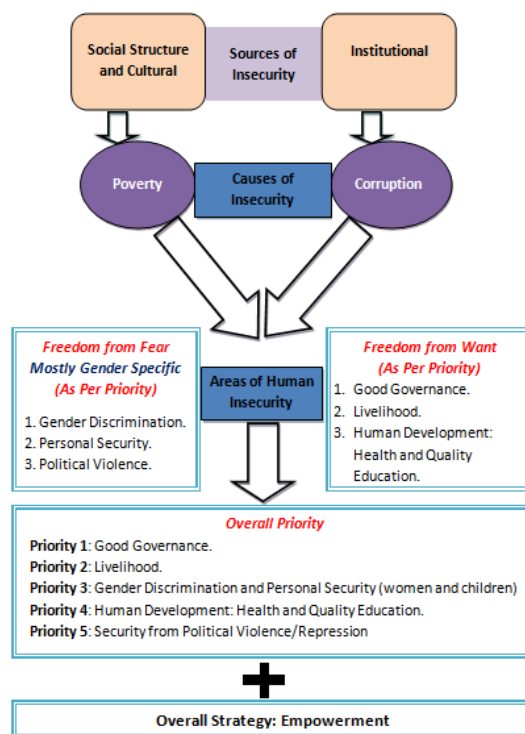
In the perspective of Bangladesh, whenever human security is discussed, issues related to women and children demands special attention. Yet the social environment in Bangladesh could not provide a safe space for the children and women to lead a secured and comfortable life. Parents of the girls need to remain under constant tension for multifarious issues that their child is likely to face on the way to their work place or education institution. Moreover, women and children are more susceptible to violence since they lack self-protection ability.

Step 3: Freedom from Want vis-a-vis Freedom from Fear, Bangladesh Perspective: Analyzing the statistics shown in the previous section indicates that Bangladesh needs to focus on a model of human security which emphasizes on both aspects such as “Freedom from Want” and “Freedom from Fear”. However, relatively more importance may be given to “Freedom from Want”. “Freedom from Fear” remains mostly a gender specific issue and relates to women and children.

Step 4: Prioritize the Relevant Categories of Insecurity: There is no need to pay equal attention to all the issues at the same time, as they are dynamic and the level of threats to human security generated by them also fluctuate.³⁵ Therefore, a general priority needs to be determined to deal with the issues in normal time. However, in exceptional cases when a particular issue becomes more pronounced, it could be brought to the fore front and put in the top priority for immediate attention. For Bangladesh, ensuring good governance through obliteration of corruption should remain as the top most priority for the government. This will also help to reduce poverty to a great extent.

Step 5: Drivers/ Impact Areas and Actions at Strategic Level: Human security has rapidly moved to the center-stage of foreign policy of a number of important global players.³⁶ Concept of human security suggests preventive measures to lessen susceptibility and abate risks. Human security can be ensured either through protection or empowerment.³⁷ Protection will demand effective institutions and legal procedures which can provide shelter to people from all types of threats. It is very difficult to establish such mechanism and takes may be centuries. Protection mechanism is more prevalent in the developed countries. Empowerment is targeted to developing potentials of the people so that they became capable enough to effectively take part in making decision that affect their day to day activities. Empowerment is a gradual process and demands modernization of many aspects of human life. In order to ensure human security, Bangladesh should focus on empowering its citizens so that they can effectively deal with their personal security issues. Considering the above mentioned aspects a theoretical framework of human security is developed in Bangladesh perspective as shown in Figure 4.

Figure 4: Theoretical Framework of Human Security – Bangladesh Perspective



Source: Author's self-construct

The model of human security also needs relevant impact areas and expected responses to deal with every issue of human insecurity to allow the policy makers to formulate

appropriate task list for various agencies. Table 4 shows the outcome/effects, impact areas and response modalities for the areas of human security mentioned in the Figure 4.

Table 4: Human Security Issues, Outcome/Effects, Impact Areas and Response

Impact Areas	Outcome/Effects	Response Modalities
Human Security Issue 1: Good Governance		
1. Infrastructural development. 2. Social welfare. 3. Law enforcement. 4. Investment (Foreign and Domestic). 5. Daily life. 6. Public service.	1. Misuse of government fund. 2. Delay in implementing development works. 3. Harassment and loss of time. 4. Absence of justice.	1. Reward and punishment. 2. Strict monitoring system through constitutional body. 3. Normative and attitudinal change. ³⁸ 4. Public awareness. 5. Ethical transformation. 6. Ensure right to information.
Human Security Issue 2: Livelihood		
1. Social Stability. 2. Involvement in drugs and arms smuggling. 3. Human trafficking. 5. Robbery/theft and other petty crimes. 6. Inappropriate/unproductive use of government property.	1. Involvement in unethical practices. 2. Inadequate mental and physical growth. 3. Huge load/pressure on health sector. 4. Forced occupation of government property for living.	1. Well established and transparent mechanism to provide government support. 2. Strict measures against corruption. 3. Public participation in monitoring mechanism. 4. Farsighted planning.
Human Security Issue 3: Gender Discrimination		
1. Women and children. 2. Societal stability. 3. Law and order situation. 4. International image.	1. Domestic violence. 2. Discrimination in workplace. 3. Acid violence/trafficking 4. Dowry related violence. ³⁹	1. Social awareness. 2. Zero-tolerance. 3. Speedy judgment.
Human Security Issue 4: Personal Security		
1. Daily life. 2. Mental stability of the members of the society. 3. Law and order situation.	1. Insecure lifestyle. 2. Brain-drain and Immigration to foreign countries.	1. Public participation (Community Policing). 2. Transparency in activities of law enforcing agencies.

Impact Areas	Outcome/Effects	Response Modalities
4. Investment (Foreign and Domestic). 5. Research and development.	3. Forced disappearance/ human trafficking. 4. Social violence/ brutalization in Society. ⁴⁰	3. Strengthening intelligence network/ organization. 4. Allow agencies to perform classical roles.
Human Security Issue 5: Human Development (Health and Education)		
1. Job market/ opportunity. 2. Public health. 3. Quality of education.	1. Shortage of technically skilled manpower. 2. Absence of facilities providing quality education. 3. Inadequate/low standard of health service. 4. Absence of job opportunity appropriate to qualification. 5. Perceived Relative Deprivation (PRD).	1. Focus on technical education. 2. Training/education basing on job market analysis. 3. Long-term vision. 4. Private-public Partnership. 5. Strict measures against corruption. 6. Ensure proper utilization of allotted fund.
Human Security Issue 6: Security from Political Violence		
1. Political environment. 2. Allocation of government fund 3. Development works. 4. Law and ordersituation. 5. Foreign investment. 6. GDP growth.	1. Instable social atmosphere. 2. Deaths and injury of innocent people. 3. Interruption in daily activities (official and personal). 4. Disturbance in economic activity.	1. Capacity building of law enforcing agencies. 2. Zero-tolerance. 3. Political consensus.

Source: Author's self-construct

Implementation of the Human Security Framework

The security of the citizens of a country is no longer confined within the realm of state security. Insecurities now often transcend state borders since most of issues creating insecurity have now global consequences. The origins of insecurities in Bangladesh are diverse, relating to social, economic, environmental, health and other factors. Only the

concept of human security can address these entire dimensions to a satisfactory level.⁴¹The concept of human security has emerged as an innovative approach, which allows all the issues to be dealt in a holistic manner. It must be noted that these threats are all interconnected and therefore attention must be given to the most significant ones without ignoring the importance of the others.⁴²Finally the paper recommends following measure to be taken at national level for effective implementation and integration of human security in Bangladesh.

Adopt Appropriate Model of Human Security: Human security is more pertinent for Bangladesh and appropriate tool for the development of security strategy. The government of Bangladesh should work towards developing a national strategy to ensure human security, and establish a multilateral coordination strategy to enable all the stakeholders to work as a single entity. Bangladesh may adopt the above mentioned (Figure 4 and Table 4) model for integrating human security in its national security strategy. However, further research may be conducted to evaluate applicability of the recommended model for Bangladesh to conceptualize human security in the overall national strategy.

Determine and Prioritize Objectives of Human Security: Bangladesh should establish its own objectives for ensuring human security and accord priority. Implementation and integration of human security in the national security strategy of Bangladesh may aim to achieve following objectives:-

- a. **Priority 1:** Deepen democratic principles and practices, establish good governance.
- b. **Priority 2:** Protection and empowerment of individuals and communities (especially women and children).
- c. **Priority 3:** Promotion of human rights and development of individuals.

Establish Integrated National Monitoring Cell: The nature and extent of the non-traditional security threats are constantly changing. Situation demands evaluation of the existing threats. Mechanism should be put into place to assess possibility of emergence of new threats. Specialist monitoring cell at national level may be established to perform these roles so that timely and effective measures may be taken to avoid a disastrous situation.

Integrate Civil Society: Due to diversity of the issues, human security could be effectively ensured through integration of civil society. Civil society can play an effective role and assist government machinery to deal with all the issues simultaneously. Social campaign through NGOs, civil society, media etc. may be organized to raise awareness and to rally public support to the government's effort to ensure human security. Every citizen has some role to play in effectively implementing human security and efforts should be taken to encourage people to play appropriate role.

Organize Seminar and Workshops: Discussion, seminar, workshop etc. may be arranged to give an in-depth understanding of human security to the policy makers. These programs should be organized to discuss concept of human security in Bangladesh perspective which may not be same as defined by the scholars of developed countries.

Conclusion

The Human Security concept provides a framework for holistic thinking about security which includes different aspects like Development, Human Rights and Security.⁴³ Development is essentially the process which thrives to improve the lives of all people by providing opportunities. Human Rights are about ensuring basic rights through protection from intrusion. Security is about protection from threats. It looks for ways to eliminate threats, if not then minimize their effects and thus allow people to survive. Human Security prudently encompasses all of these three elements.

According to human security, if security policy and security analysis are to be effective and legitimate then those must focus on the individual as the referent and primary beneficiary. The concept of human security is often contested and questioned by the scholars. Concept of Human Security is questioned for covering too many aspects which creates difficulty in conceptualizing a security strategy. It is correct that Human Security focuses on many aspects but it does not advocate dealing with all the issues with equal importance and same priority. Countries can set their own priority depending on many factors such as social, cultural, economic, cultural, religious etc.

At the end of the cold war era there was a paradigm shift in the international security dimensions. Most of the countries became more vulnerable to non-traditional threats which generates within the state boundary. Few transnational threats from non-state actors also amplified overall security concerns. This change encouraged the researchers in the field of security to identify new modalities to define security strategy. Concept of Human Security is an outcome of that effort. However concept of Human Security does to out-ride state centered security concept, rather it provides a broader perspective of security which encompasses many other dimensions.

Bangladesh being a developing country is more vulnerable to non-traditional and transnational threats. Physical threat to its sovereignty and territorial integrity, though cannot be completely overruled, remains as a remote possibility. This is true for most of the countries of the world due to presence of strong international politics and increased public awareness against war. Due to globalization, a country can now be dominated, influenced, and even controlled without physically crossing its border. War remains as the most expensive means to resolve any bi-lateral issue. Therefore, for Bangladesh, security strategy may focus and emphasize on human security rather than very traditional state-centered security concept.

Human Security demands an integrated approach from various stakeholders of a country like government institutions, civil society, NGOs, media etc. Everybody must work in

harmony with a common goal and understanding. People must be made aware of the concept and their role to ensure Human Security. Prudent security policy basing on Concept of Human Security supported by sincere effort from all stakeholders for effective implementation will surely help Bangladesh to reach its desired goal of becoming a developed country.

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Brief Biography



Lieutenant Colonel Md Kamrul Hassan, psc, G was commissioned in Artillery in 1997. He held various appointments in number of Artillery Regiments. He has served as General Staff Officer Grade- III (Operations) in an Infantry Brigade, General Staff Officer Grade-II in Directorate General of Forces Intelligence (DGFI) and General Staff Officer Grade-I in Army Training and Doctrine Command (ARTDOC). He participated in UNMIL as a Staff Officer at Force Headquarters and in MONUSCO as the Chief Operations Officer (COO) of BANBAT 1/20. He has commanded two Artillery units. He is a graduate of Defence Services Command and Staff College, Mirpur and Nepal Army Command and Staff College. He obtained Masters in Strategic Studies from Tribhuvan University, Kathmandu and Masters in Business Administration (Executive) from Institute of Business Administration (IBA), Dhaka University. Presently he is serving as Directing Staff in Defence Services Command and Staff College.

USE OF FORCE IN PROTECTION OF CIVILIANS: CHALLENGES AND WAYS AHEAD FOR PEACEKEEPERS

Lieutenant Colonel Sharif Ul Alam, psc, Arty

Abstract

Due to the changing nature of conflict and complex operating environment use of force in peace keeping operation is gradually becoming a norm rather than exception. However, there are myth, puzzle and paradoxes around principles and practices of using force by UN military Forces. Paradoxically the use of force has been marked more by its absence than by its presence and it has been a source of enduring controversy in peace keeping operation. All stakeholders of UN need to embrace the realities of the emerging complex operating environment and demand of challenging mandate. The world is changing and UN peace operations must change with it if they are to remain an indispensable and effective tool in promoting international peace and security.

To harness the combat power of UN effectively all stakeholders need to have a shared understanding of principles and practices. There is need to close the gap between peacekeeping principles and practices. New operating environments demand much greater clarity on when and how the UN and its partners will use force, under what conditions, and with what principles. In the physical dimension of military power there is a gap between the capabilities required and the capabilities provided for UN military forces. The UN units should be of such strength and quality that they suit best to defend the mandate. UN needs to modernize military capabilities to accomplish mandated tasks while safeguarding peacekeepers in complex operating environment. To implement robust mandates military component need to be resourced and supported with critical force multipliers and enabling capacities such as mobility, rapid reaction capacity and technological support. The UN needs to make full array of capabilities across member states and partners. At the same time when a broad cross section of the UN members put boots on the ground, it would generate a message of unified resolve and determination which is vital for moral cohesion among all stakeholders. There is a need of a genuine strategic unity of vision among the triad of the Security Council, the troops contributing countries and the UN Secretariat to overcome the challenges of conceptual, physical and moral dimensions of UN military power.

Introduction

A decade ago, most United Nations (UN) peacekeepers were engaged in post-conflict peace agreement implementation missions but today, approximately two-thirds of the UN peacekeepers are deployed in the midst of ongoing conflict where there is no

‘peace’ to ‘keep’.¹ Contemporary peacekeeping operation (PKO) environment is termed as ‘middle ground’, an environment between war and traditional PKO where in addition to self-defense peacekeepers often require using force in protection of mandate or protection of civilians (POC). Last seventy years of peacekeeping history reveals that in number of crisis situations UN military forces failed to use force to protect mandate or in POC.² For example, Congo (1960-1963), Somalia (1993) and Bosnia (1994-1995) are the three PKOs where UN experiences of using force were traumatic; moreover, in case of Rwanda (2005) UN forces miserably failed to use force in POC from genocide.

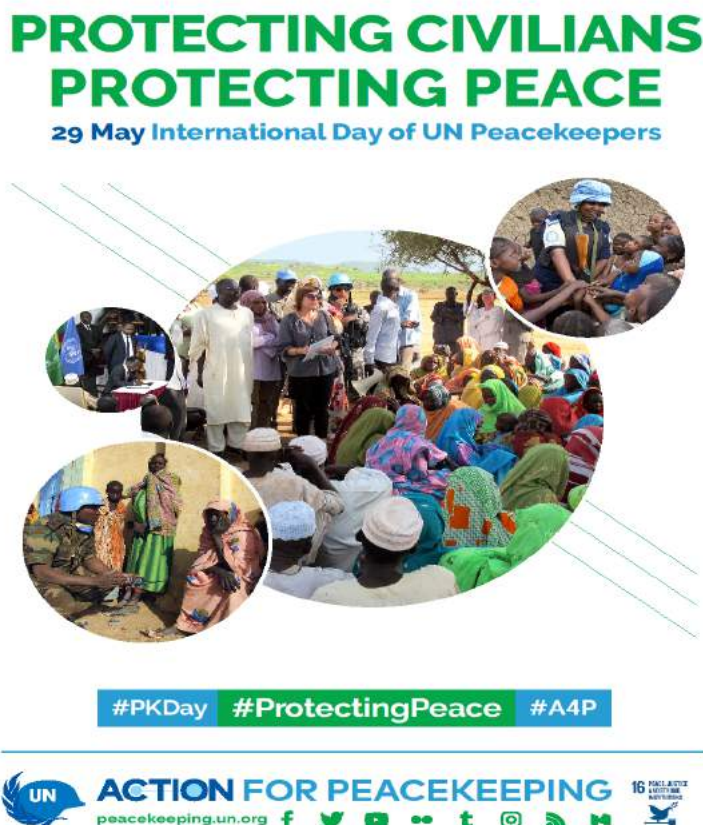
Since the failures of UN peacekeeping in Rwanda and Srebrenica in the 1990s, the UN Security Council (SC) provided UN PKO with more robust mandates. However, those mandates have been carried out with varying degrees of success. For example, the UNSC resolution 1996 (2011) mandated UN Mission in the Republic of South Sudan (UNMISS) to protect civilians by deterring violence and threat of violence against civilians. Despite specific mandate in July 2016 hundreds of civilians were killed and raped in Juba, the capital of South Sudan. Critics accuse inaction by UNMISS as one of the main reasons for massacre that led to ultimate collapse of the fragile ceasefire that existed at that time. In the same way, UNMISS is also accused of inaction in face of massacre in Malakal (a POC Site in South Sudan) on 17-18 February 2016. Médecins Sans Frontières³ in their report following the attack on the Malakal POC Site reported that despite a strong military presence at the POC site and a clear mandate to protect civilians, the UNMISS failed in its duty to safeguard the people living at the site and could well have averted many fatalities.⁴

Aforementioned incidences gave rise to the myth, puzzle and paradoxes around principles and practices of using force in PKO. Global community many a time criticised inapt role of UN forces for their failure to protect civilians or mandate in critical security scenario. Critics at times recognize professional incompetency as well as inapt leadership as causes of trigger shyness of peacekeepers. However, an indepth study on conceptual, physical and moral dimensions of UN military power unveils few fundamental structural and organizational challenges of UNPKO which at times limit combat effectiveness of military peacekeepers. This essay will illustrate challenges related to use of force by UN peacekeepers from conceptual, physical and moral dimensions of UN military forces. Alongside few pragmatic measures on overcoming those challenges will also be highlighted.

POC-An Emerging Focus of Peacekeeping

Twenty years back on 22 October 1999, for the first time UNSC explicitly mandated UNAMSIL in Sierra Leone to protect civilians. Since then POC has increasingly been at the heart of PKO. Presently, more than 90% of peacekeepers serving in eight peacekeeping operations in the Central African Republic, the Democratic Republic of the Congo, Haiti, Sudan, Lebanon, Mali and South Sudan have POC in their mandate.⁵ To reemphasize the growing importance and focus on POC the theme for UN Day-2019 was ‘Protecting Civilians, Protecting Peace’.⁶

Figure-1: The Theme for UN Day 2019- ‘Protecting Civilians, Protecting Peace’

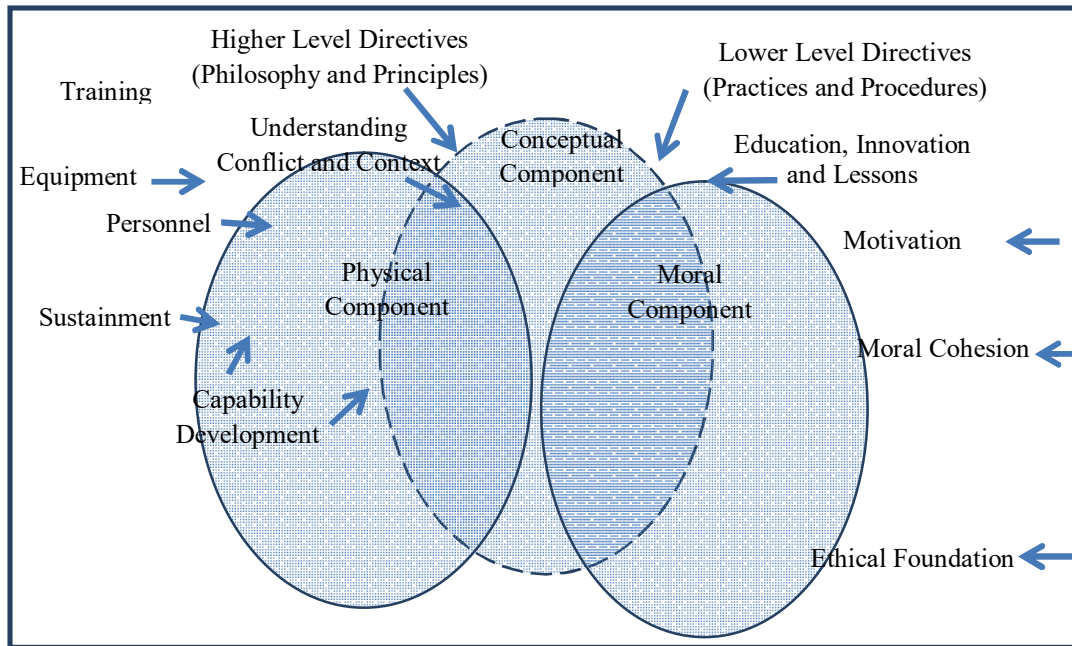


Source: Internet

On 31 July 2018, thirty-two States asked the UN Secretary General António Guterres to go a step further in addressing the failures of UN peace operations to protect civilians.⁷ Combat power components of UN forces provide a framework to analyze causes failure as well ways ahead for peacekeepers to use of force in POC.

Components of Combat Power of Military Forces

Combat Power is a concept that describes the operational effectiveness of armed forces, or any element of them. The concept guides force development and its preparation. It generally consists of conceptual component (the ideas behind how to operate and fight), physical component (the means to operate and fight) and moral component (the ability to get people to operate and fight).⁸ The military forces derives its effectiveness from harmonising all three components of fighting power.

Figure-2: Components of Combat Power of Military Forces⁹

Source: Author's self-construct

Conceptual Challenges of UN in Use of Force

Conceptual component of a military power composed of higher level directives in the form of philosophy and principles as well as lower level directives in form of practices and procedures followed by the force. These conceptual components develop over time through education, innovation and lessons. To harness the combat power of UN effectively all stakeholders need to have a shared understanding of principles and practices.

Though the judicious use of military force is becoming an integral part of peacekeeping, the UN and its major troop-contributing countries (TCC) are yet to recognize the new reality in doctrine.¹⁰ The concepts, norms and understandings of PKO still rooted in the UN Charter framework.¹¹ *The Brahmi Panel* (2000), *Capstone Doctrine* (2008), and *High Level Independent Panel on Peace Operation (HIPPO)-2015* broadened the interpretation of UN charter principles but did not question their continued validity.¹² In addition to the use of force in self-defense, the *Capstone Doctrine* introduced the right to use force to defend the mandate and POC at the tactical level.¹³ Moreover, the Brahmi Panel recommended a more robust force posture for future PKOs:

Rules of engagement should not limit contingents to stroke for stroke response, but should allow ripostes sufficient to silence a source of deadly fire that is

*directed at UN troops or at the people they are charged to protect and in a particularly dangerous situation should not force UN contingents to cede the initiatives to their attackers.*¹⁴

However, there are still paradoxes in theories (guiding documents of UN) and practices that may be confusing and present excuses for inaction by peacekeepers in the face of danger. For example, principle of ‘consent’ and the ‘non-use of force’ have repeatedly been used as an excuse for military inaction in the face of war crimes and genocide.¹⁵

There is a difference of view on the issue of the use of force between the Western Nations and the majority of TCCs; while Western Nations’ emphasize the requirement of new policy guideline considering new challenges of operational environment, the Department of Peacekeeping Operation (DPKO) and a number of TCC still focus on ‘classic’ peacekeeping principles.¹⁶ The issue is complicated by each nation’s own doctrine for use of force in PKO. Among Western Nations only the US Army acknowledges the utility of force in their peacekeeping doctrine.¹⁷ Most TCC do not have any peacekeeping doctrine rather they rationalize their actions based on principles of the UN charter. Many of the TCC are critical of more recent developments in the field of peace and security and the associated role of the UN, particularly the changing nature of peacekeeping missions, which has moved towards more robust mandates and to Chapter VII missions.¹⁸ Besides many TCCs’ peace operation doctrine lacks clear guidelines on the use of force.¹⁹ The rules of engagement articulated by each nation for their peacekeepers vary widely even in the same PKO. When states differ on the question of the use of force, the *Capstone Doctrine* does not seek to override the national military doctrine of individual TCC.²⁰ Thus, a conceptual inconsistency and confusion prevails at the tactical level, which at times causes reluctance of peacekeepers to use force even when they are mandated to do so. UN as a multinational force is yet to develop a shared understanding on the use of force at doctrinal level.

There is need to close the gap between peacekeeping principles and practices.²¹ Stakeholders are still in debate on what sort of use of force is necessary and acceptable in PKO.²² To face the new realities of the emerging complex operational environment the HIPPO noted that:

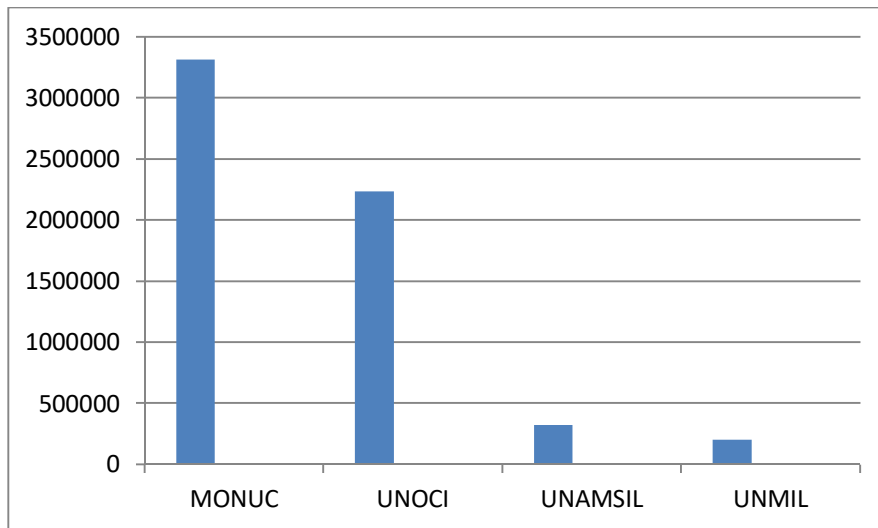
*“New operating environments demand much greater clarity on when and how the UN and its partners will use force, under what conditions, and with what principles.”*²³

Challenges in Physical Dimension of UN in Use of Force

Developing nations contribute the majority of UN military peacekeepers; as of December 2015, they provided 93.5% of UN military peacekeepers, and the twenty top troop contributors were all developing states.²⁴ At times peacekeepers are overwhelmed by spoilers of peace process in complex operational environment due to inferior qualities of military hardware as well as poor professional competency of few of the contingents.²⁵ Moreover, paucity of peacekeepers in relation to growing demand acts as

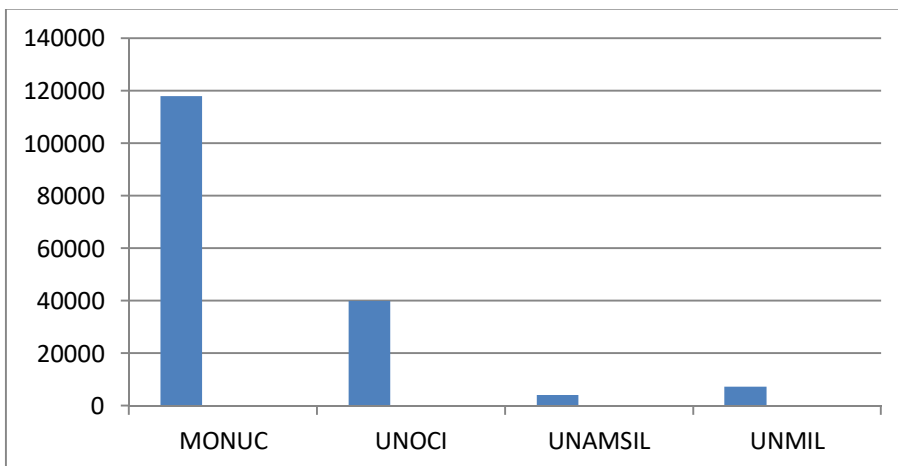
catalyst for inaction in many instances. To be effective in an area of operation peacekeepers need to have a force ratio well-matched to its mandate. Charts 1 and 2 below show the significant disparities in the ratios of UN military strength to population and surface areas for the four missions:

Chart-1-Population per 1000 UN Military Forces²⁶



Source: Author's self-construct

Chart-2- Area (Sq km) per 1000 UN Military Forces²⁷



Source: Author's self-construct

Srebrenica (Bosnia) massacre of July 1995 demonstrates that 110 Dutch peacekeepers were no match for the Serb forces that surrounded and assaulted the town. The primary lesson that emerged from Bosnia was that tasks need to use force should only be attempted by a force capable of over-matching whatever level of opposition it may encounter.²⁸ Similarly the Ituri experience of MONUC (2003) concludes that the paucity of military capability to meet the multiple protection demands of the Congo was one of the major reasons for the failures of peacekeepers there.²⁹ MONUC was not resourced materially to embark on the robust use of force beyond limited engagements.³⁰ Similarly, collapsed of UNAMSIL in May 2000 due to minor challenge by the insurgents indicates that inferior quality of military hardware as well as poor professional competency of peacekeepers caused the failure.

In his statement to the Special Committee on Peacekeeping Operations on 23 January, 2009, Mr. Alain Le Roy, Under Secretary General of DPKO highlighted inadequacy of resources such as a wide gap between supply and demand for the numbers and types of personnel and the lack of critical enabling capacities (such as air assets, drone and high-tech surveillance equipment) are one of the main reasons for peacekeepers failure to use force in crisis situations.³¹ An internal UN fact finding mission led by Manfred Eisele (a former assistant secretary general of DPKO) uncovered that:

*Poor standard of many of the military units deployed, critical deficiencies in communications, transport and intelligence equipment and above all, the absence of unity of command specially frequent refusal of contingent commanders to accept orders through the UN chain of command cause early collapse of UNAMSIL.*³²

Analysis of different failures indicates that only a well-trained, equipped and balanced ratio of military can use force in a controlled and limited way.³³ Presently, in 14 peacekeeping operations on four continents, PKO deploys more than 88,000 military and police personnel from 124 Member States.³⁴ Despite the size and breadth of its operations, peacekeeping's budget is less than one half of one percent of global military spending.³⁵

To bridge the capability gap in peacekeeping global community need to invest more in PKO as in its last 70 years peacekeeping has clearly proven to be a solid investment in global peace, security and prosperity.³⁶ In this connection on 28 March 2018 Secretary-General António Guterres at the Security Council meeting on 'Collective Action to Improve UN Peacekeeping Operations' launches the Action for Peacekeeping (A4P) initiative. The initiative focuses on transforming peacekeeping by making forces stronger and safer, and mobilizing greater support for well-structured, well-equipped, and well-trained forces. The aim of such effort is to reaffirm global community's commitment towards strengthening uniformed capabilities, performance and POC.³⁷ The necessity to generate specialized, high-performing capabilities for UN peacekeepers to meet evolving needs and new challenges, particularly high-capacity enablers is emphasized. However, there is a need to develop global political commitment in this

regard to assist the UN in its reform efforts and further galvanizing Member State support for continued capacity building.

Challenges in Moral Dimension

The Moral dimension of a multinational force comprises of motivation, moral cohesion and ethical foundation. Due to extreme multi-nationality peacekeepers possess diverse motivation, varied ethical foundation and fragile moral cohesion. Motivation among TCCs varies; they participate in peacekeeping due to five clusters of motivation: political, economic, security, institutional, and normative concerns.³⁸ These diverse motivations among the peacekeepers are major obstacles in a unified effort of the UN military force.³⁹

Moral cohesion among peacekeepers is fragile as they are of different socioeconomic and cultural background. Moreover, moral cohesion among the policy makers (mostly Western Nations) and TCCs (mostly Developing Nations) is also a challenge. Most Developing Nations who contribute the majority of military peacekeepers consider that Western Nations are not prepared to risk their troops in areas where they have no national interests.⁴⁰ British General Sir Rupert Smith, who commanded the UN forces in Bosnia in 1995 in a testimony acknowledged that he had received from Dutch authority the clear impression that 'Srebrenica with its refugee was not worth dying for'.⁴¹ The understanding was that taking additional risk for people with whom they shared nothing was not worthwhile. The same impression is communicated from absence of major powers in UN military deployments which undermines and weakens the global commitment in peacekeeping.⁴²

Extreme multi-nationality of UN forces is also a major obstacle towards achieving esprit de corps, tight cohesion, unity of command as well as unity of effort. Peacekeeping battalions succeed each other so frequently that vertical cohesion (between the different levels of the hierarchy) and horizontal coordination (between the components of multidimensional operations) hardly develops. As a general practice most TCCs only delegate the 'Operational Control' of their forces to the UN and retain the 'Operational Command' to national command. Different incidents in PKO indicate that in crisis situations peacekeepers generally obey their national command. For example, in Freetown (2000) the Jordanian contingent of UNAMSIL cut off for two days from its theater commander, no longer obeyed orders other than those from Jordan.⁴³ Thus, UN military peacekeepers lack required moral cohesion and unified motivation to an effective multinational force.

Conclusion

Due to the changing nature of conflict and complex operating environment use of force in PKO is gradually becoming a norm rather than exception. Paradoxically the use of force has been marked more by its absence than by its presence. It has been a central issue and a source of enduring controversy in PKO. Closing the gaps relating to policy, guidance

and peacekeepers capacity to use force is a need of time to make UN military forces fit for the new generation of robust PKO. To overcome the conceptual dilemma on the use of force there is a need to closing the gap between the principles and practices. All three major stakeholders- the SC, TCCs and the UN Secretariat need to recognize that peacekeeping is a creation of practice rather than law. Stakeholders need to continue the ongoing dialogue, debate and reach a unified vision on principles and guideline on use of force issue. When the UN can speak in one voice, the result will be a strengthened and renewed instrument for the advancement of international peace and security in an increasingly complex and challenging world.

In the physical dimension of military power there is a gap between the capabilities required and the capabilities provided for UN military forces. The UN units should be of such strength and quality that they suit best to defend the mandate. UN needs to modernize military capabilities to accomplish mandated tasks while safeguarding peacekeepers in complex operating environment. To implement robust mandates military component need to be resourced and supported with critical force multipliers and enabling capacities such as mobility, rapid reaction capacity and technological support. The UN needs to make full array of capabilities across member states and partners. Many of the TCCs have the potential to respond rapidly and Western Nations can provide the niche capabilities. The UN needs to set up a system to ensure cohesion among the SC, TCCs and the UN Secretariat, both at the start of and during the operation to fill up the mission specific critical capability gaps. At the same time when a broad cross section of the UN members put boots on the ground, it would generate a message of unified resolve and determination which is vital for moral cohesion among all stakeholders.

All stakeholders of UN need to embrace the realities of the emerging complex operating environment and demand of challenging mandate. Former Secretary-General Ban Ki-moon noted, "The world is changing and UN peace operations must change with it if they are to remain an indispensable and effective tool in promoting international peace and security."⁴⁴ Although the road leading to it is not without obstacles, both the UN and the TCC should install a culture of dialogue, internal control, and evaluation. There is a need of a genuine strategic unity of vision among the triad of the SC, the TCCs and the Secretariat to overcome the challenges of conceptual, physical and moral dimensions of UN military power.

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Brief Biography



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THE STRATEGIC PERSPECTIVE OF 1973 ARAB-ISRAEL WAR: AN INSIGHT

Lieutenant Colonel Md Humayun Kabir, SUP (BAR), SPP, psc, Inf

“All men can see the tactics whereby I conquer, but what none can see is the strategy out of which victory is evolved.”

- Sun Tzu¹

Abstract

A prolong conflict like Arab-Israel needs an in-depth study not from tactical perspective only but both from operational and strategic perspective. Historian Johny Mehta said “Arab Israel Conflict of 1973 would no doubt be studied for a long time for the strategic and tactical lessons it has to offer”ⁱ. The series of long drawn conflict is aptly studied by military commanders in Bangladesh Army but the domain is mostly confined to tactical and operational level. Undoubtedly, a broad brush touch on strategic perspective is given as a prelude but it needs to be studied with deeper understanding for all level of leaderships. Sun Tzu has correctly argued that strategic ball game basically decides victory. For a case like Arab-Israel, the strategic perspective offers so many enduring lessons that all military commanders must know the entire strategic gamut that evolve around the conflict. This conflict if studied properly offers an insight of individual exploits of great intrinsic interest: manifestation of courage and cowardice, of headless confusion and of brilliant improvisationⁱⁱ. Keeping this theme in mind, the paper is developed so that the strategic perspective both from Arab and Israel are understood and comprehended by all military commanders so that it serves as an engraved enduring lesson for their professional military career. The Arab Israel conflict of 1973 is taken as a base study here as it is the last fierce conflict that draws down all strategic perspective including the role of key actors involved in the conflict. The status-quo of Golan and Sinai Peninsula are surprisingly still as it had been as the outcome of the war even after 42 years of conflict. Numerous new findings are going to enlighten any reader if the paper is read with basic understanding of the conflict.

Introduction

In history, Arab-Israel conflict is termed as the most profound and protracted conflict of the twentieth century. The Arab-Israel War of 1973; the 4th one of this nature, is referred to as the Yom Kippur War by the Israelis, and the Ramadan War by the Arabs. The war was fought between Arabs (mainly Egypt and Syria) on one side and Israel on the other. Historically, the protracted conflict involved the competing claims of two people – the Jews and the Palestinian Arabs – to the same strip of land i.e. Palestine (between the River Jordan and the Mediterranean Sea). On three occasions, in 1948-49, 1956 and 1967 Arabs fought the war to extinguish Israel whereas, Israel fought to make the Jewish state

secure.² The fourth battle was for the same security issue for Israel. But, for the Arabs this battle was different from previous three in a sense, as their intention was not to destroy Israel but to avenge the defeat of 1967 including gaining control of the territory they lost. This simply answers what caused the 1973 Arab Israel conflict?

But, analysing the strategic causes that lead to 1973 conflict is not an easy task. Since, Six Day War of 1967, there was a time lapse of six years where numerous events took place evolving around this region. To put into context the in underlining issue of the conflict, answers of following question will ease up understanding. Firstly, leaving so vast land scape around the world why Jews decided to establish their homeland in the centre of an Arab dominated area? Secondly, now that Israel state is established after 1948 and on two different occasions (1956 and 1967) war broke out on Israel issue, what led them again for the 1973 war? Thirdly, there seemed to be increased interest of Super Powers i.e. USA and Soviet Russia in this particular conflict, why so? Fourthly, the issue of peace effort by non-state actors or even by Super Powers did not see any light in the dark sky, why so? And finally, having so much intelligence organizations worldwide why the war could not be stopped will be analysed to understand the causes of the 1973 conflict.

Answering these questions will perhaps give an understanding of the strategic causes of conflict. Hence, initially an endeavor will be made in this paper to paint the origin of the conflict as a whole that would hopefully answer first question. Thereafter, the prevailing politico-strategic culture prevailed within Arabs and Israel will be discussed to analyse and identify whether the war was inevitable or not (answer to second question). Later, the strategic importance of Middle East to the Super Powers and their involvement in the conflict will be highlighted and that would answer the third questions. Later, to answer the fourth question, the attempts taken for peaceful settlement and reasons for failing those efforts will be highlighted. And Lastly, the role of intelligence organization and reasons for failure to stop the war will be discussed to paint a picture how the situation lead to the H hour of 1400 hours of 6th of October 1973.

Why Jews Choose to Settle in Israel (Origin of Conflict)

A glimpse in the past - the Muslim and the Jews of present days happened to be following their Prophet Muhammad (PBUH) and Prophet Moses (PBUH) in their respective religion. They came in this world in different time frame. But, these two prophets (PBUT) are descendent of two brothers whose father was Prophet Ibrahim/Abraham (PBUH). Long ago (3500 BC or beyond) they lived in the same piece of land i.e. Arabian Peninsula. Geographically, present days Jerusalem and surroundings areas are the ancestral homeland of Jews where Prophet Moses (PBUH) brought about Judaism. Over a period of time, due to migration and emergence of different dynasty, the Jews got scattered around the world. Now, question remains why then they again decided to settle in present day Israel/Palestine. It is because the area where they live now has much religious value than a living place only. Now, let us focus on settlement issue, how

it gradually developed. Before 20th century, there were Jews in Palestine belonged to old faith who got settled more for religious than for political reasons. They had hardly any conflict between them and the Arab population. Tensions began after the first Zionist settlers arrived in the 1880's when they purchased land from absentee Arab owners, leading to dispossession of the peasants who had cultivated it.³ In 1897, in the first Zionist Congress, Theodor Herzl, an Austrian journalist and the father of modern political Zionism reflected his visionary desire of the Israel state.⁴

In his book *The Jewish State* Herzl urged for the need to re-settle in Jewish Homeland. Being the ruler of that locality, the then Sultan of Turkey (Ottoman Empire) vehemently opposed Herzl's proposal. The outbreak of World War 1 (1914-18) fuelled further Jewish emigration to Palestine. By 1914, almost 600,000 Jewish emigrants got settled buying land from Arab Land Lords. Ottoman Empire collapsed after the defeat of Germany and her allies in WW1, which also marked the end of Turkish rule over Palestine. In 1917, the British Prime Minister, Arthur James Balfour proclaimed on Her Majesty's behalf the need for establishing Jewish state in Palestine. Palestine – a land of two million people (66% Arabs and 34% Jews) was controlled by Britain under mandate from first the League of Nations, and then United Nations. In November 1947, UN decided to partition the country into a Jewish State (57% of the land) and an Arab state (42%). The Jews accepted the plan, but the Arabs did not. As a result, a civil war like situation got erupted between Jews and Palestinian Arabs. Israel was born when the British left in midnight 14 May 1948. Immediately, Arab forces attempted to crush the new Jewish state invading Palestine turning the civil war into first Arab Israel War. The Israelis were more successful from this battle; in May 1949 Israel signed an armistice with its Arab neighbours, and gained more land than the UN had mandated. Because of the Civil War and 1948 conflict, up to a million Palestinian fled from Israel, and became refugees.⁵ As a result, Palestinian became homeless in their own homeland. This disposal and distress condition of the Palestinian Arabs was viewed as an act of injustice done to them. From Arab's point of view, 'Israel is inherently aggressive and expansionist state and the real source of violence in the region'.⁶ Most Israelis on the other hand, maintain that the root cause of the conflict is not territory but the Arab rejection of Israel's very right to exist as sovereign state in the Middle East. According to this view, the basic objective of the Arabs was the liquidation of the state of Israel while Israel acted only in self-defence and in response to the Arab challenge.⁷ Discussion so far suggests that the primary cause of the conflict is the land dispute between occupant of Palestine (Arab) and Jews (Non-Arab). Being an Intra state conflict, after the creation of the state of Israel the main weight of the inter communal level conflict shifted its weight to interstate level resulting 1948, 1956 and 1967. In all these wars, Arabs got defeated. Having fought 3 such wars, was the 1973 inevitable?

Was the 1973 Conflict Inevitable?

This discussion will be broadly confined between 1967 to 1973 period. Since long, on Palestinian issue, the Arabs (largely neighbouring Israel) were planning to extinguish the

Israelis from their homeland. The situation changed dramatically after the Six Days War outcome. The Arab forces suffered a humiliating defeat, which was felt most severely by Egyptian President Nasser. Nasser tendered his resignation immediately after the 1967 defeat, but a demonstration of popular support within Egypt and much of the Arab world caused him to withdraw this resignation.⁸ But, after the defeat, though some Arab countries still voiced to extinct Israel, much concern were bestowed upon to take revenge of the humiliating defeat. The Arabs viewed their defeat in 1967 as a tremendous blow to their national prestige. Nasser's initially adopted the 'War of Attrition' strategy aimed to increase military pressure along the Suez Canal for reclaiming the Egyptian lost territory (Sinai). His "War of Attrition" from March 1969 to August 1970 failed to achieve any objective. President Nasser died of a heart attack in September 1970 and was succeeded by Anwar Sadat. Sadat exhibited greater flexibility than Nasser in pursuing diplomatic solutions, but he retained the option of improving the status quo by force. He accepted U.S.-mediated negotiations, but proclaimed 1971 the "Year of Decision". With the passing of 1971, the failure of President Sadat to conduct a retaliatory strike against Israel made him a laughing stock in his own country. For Sadat, the status quo of "No war - No peace" was intolerable. Facing a crumbling economy, deprived of Suez Canal revenues since its closure following the previous war, and still shouldering the humiliation of 1967, Sadat felt he had to do something.⁹ Ultimately, he sought decision militarily by waging war in 1973. His strategic objectives were to strengthen his position in the country, gain lost prestige, and revitalize the country's economy. Sadat's greater political end state was to bring about a change in the Middle East by establishing dominance over Arabian Peninsula. Syria, as other key Arab state in the conflict, joined Egypt for almost the same reason.

Israel as a state for itself was not in a hard standing before 1967. It was under constant threat of extinction from Arab leaders for many years. As discussed earlier, they fought all previous wars for their survival. But, the situation changed dramatically for them as well. The victory of Six Days War gave them a lever of power with diplomacy and military might. But, definitely it did not necessarily made them any closer to super power. Though one of the Israeli General, one of the most capable and bravest, was reported to have said in an incautious moment in 1973, that Israel was stronger than all European armies, and that it could conquer the whole region from Khartoum to Baghdad and Algeria within one week.¹⁰ In essence, Israel was not even medium power. Even they had capability they were not favouring an expansionist theory. No responsible politicians and even the leader of extreme right were in favour of pursuing the policy of expansion. The outcome of 1967 was just an opportunity for the Israelis to exploit where they basically started the battle to save their very existence. But, it is true that after 1967, there was no Government decision about the future of occupied territories and no clear and unequivocal statement about the Arab Israelis (Palestine). Though, within Israeli Cabinet, much discussion took place regarding Jerusalem, West Bank, Sinai, Golan and Palestinian's sovereign right but the decision makers could hardly reach any conclusion. Over the years, Israel reacted in Nasser's "War of Attrition" and prepared significantly for Sadat's "Year of Decision". The 'No war- no Peace' bit was favourable for Israel.

However, the national security strategy chosen by Israel was “total deterrence” (threatening massive retaliation for any attack) after 1967. The government for one reason or the other failed to accept any peace agreement convened by different actors in different time frames. As a result, the situation since Six Days War till 1973, both in Eshkol’s Government and later Golda Meir’s remained unchanged. This slowly paced them to war like situation.

Is the Conflict Important Geopolitically and Strategically (Involvement of Super Powers and European States)?

Though this was a conflict centred in Middle East Asia, it bore significant importance for rest of the world especially for Super Powers during Cold War period. There were few factors that made the Arab-Israel conflict strategically important. The very presence of Suez Canal is of great strategic, economic and military interest to the Western Powers. The Canal provides a short passageway to the Indian Ocean and the South Atlantic from Europe and America. The nationalization of Suez Canal by President Nasser of Egypt and the capture of the same by Israel in 1967 needed to be resolved. And, above everything the most important interest of the west in Arab World is that of oil. Western Europe imported almost 85 percent of the oil it needed from Middle East. USA imported more than half of her requirement from Middle East. Hence, any conflict was a great concern for the West. The Arab-Israel conflict remained in the nerve centre for all tension in the Cold War period.

To think from a different perspective, Middle East was a typical playground for both Super Powers as well during Cold War period. Power Projection, dominance over the Gulf region and oil were few issues in the top chart. The Alliance of USA with Israel and Soviet Russia with Arabs were mainly to establish influence in the Middle East. The results of previous conflicts till 1967 were seen as win-lose battle for both the countries. Russia for example almost saw the defeat of 1967 as their defeat. At the end of June 1967, the visit of Soviet President Podgorny with his Chief of Staff Marshal Zakharov clearly signals out the intimate relation between Egypt and Soviet Union. Inevitably, the Russians regarded Egypt’s defeat (1967) as to some extent their defeat also. Nasser encouraged this attitude because he thought it would lead to greater Russian involvement in the Middle East which was the only way in which Americans superiority in that area could be offset. It was Nasser’s firm belief that Israel was being used by the Americans as an instrument by which they could impose a new order on the Middle East.¹¹ Podgorny also did not leave any stone unturned to establish their dominance. He even desired to establish command post in Alexandria to facilitate his fleet which might act as a counter product to American Sixth fleet (believed to be Israel’s Strategic reserve). Nasser tried all out to make Egypt ready to take revenge militarily against Israel before he died in 1970. Taking lessons from previous wars, his main effort was to prepare Egyptian Air Defence against Israel. After his death Sadat took over and continued with the same strategy.

It would be tedious to analyze the strategic culture of all European countries in the issue of Arab-Israel conflict. Still, the actions of many European countries (after 6th October 1973) would paint a picture on broad canvas. There was no NATO solidarity; Turkey let the Soviet air bridge violate its air space for many days without a protest; but it did not permit America to use US bases in its territory for the air lift. Greece, West Germany, Italy and Spain did the same. Britain privately made it clear that any American request would be rebuffed. From 1967 on, following the lead given by De Gaulle, the French Government had made it quite clear that it was in France's interests to be on the Arab side in the conflict; apart from the economic question, there was the argument that the Soviet Union should not be the sole influence in the Arab world.¹² France voted fairly regularly against Israel in the UN and the arms embargo against Israel imposed in 1967 was never lifted. In the end only a single NATO country Portugal was willing to let the American use their military bases on its territory for shipping arms to Israel.¹³ The underlining/influential determinant for this dimension, perhaps is nothing but oil. Since 1948, Soviets had been advocating Arabs to use oil weapon against the west in all occasions. Finally, it was also used against USA through 'the seven sisters' (BP, Shell, Exxon, Chevron, Texaco, Gulf and Mobil) that brought positive result in favour of Arabs at the later stage of 1973 Arab-Israel conflict.

Peace Effort Within and Beyond

Having been seen fighting three previous wars and with adequate economic interest, there was no effort to stop further conflict or the very 1973 Arab Israel War. Here as well, the discussion will be limited to post 1967 period only. There were numerous efforts to settle the issue for good. Efforts were put in by the superpowers and the United Nations (UN). The same necessity was felt internally by Israel and Arab states. As regards to Israel, people saw the annexation of 1967 as a great barrier to peace. Moreover, since independence they had hardly enjoyed calm life in newly borne state. Soon after the 1967 war a public campaign for annexation produced a counter drive on Israel. An appeal signed by two hundred and fifty intellectuals was published in the Hebrew press headed 'security and Peace – Yes; annexation-No'.¹⁴ There was much debate including political reaction. Arye Eliav, former secretary General of Israeli Labour Party argued 'Both the Arabs and ourselves have been caught up in a dangerous trap of fear, threats and psychological complexes. The Arabs who have not been yet accepted our very existence, live in the shadow of Israel's 'unlimited expansionism', on the one hand, and the 'Crusader complex' of their numerical superiority (100 million against 3 million), on the other. We, who have suffered 2,000 years of exile, think 'the whole world is against us'. We live in the shadow of the Nazi holocaust, and fear the destruction of the Third Jewish Commonwealth'.¹⁵ As regard to Arab countries; due to the 1967 defeat, they refused to deal directly with the Israelis. So various go-betweens had to be called in.¹⁶ The effort put in by UN and Super Powers: both USA and Russia was also commendable but readily accepted or rejected by either Israel or Arabs for some reason or the other. First initiative was undertaken by Soviet Union (Kosygin) but did not succeed. Later USA (Roger's plan 1970) also failed to bring any peace. UN appointed Dr. Gunnar Jarrings (a Swedish

Diplomat) to negotiate the issue through UN Security Council Resolution 242 but without any success. Hence, a long war of attrition continued that failure to bring them in a common terms slowly lead the belligerent nations ultimately to the 4th conflict of 1973 Arab-Israel war.

Intelligence Failure to Stop the War

Apart from discussion above, intelligence failure will be viewed in a different perspective. Would it be justified to blame the failure of world's best intelligence organization for the strategic cause of the war? The answer is not simple. As discussed earlier, immediately after 1967, both Russia and USA wanted a peaceful negotiation of the existing situation. Initially Russia (perhaps an attempt of pursuance through diplomacy), later UN and finally USA tried to settle down the issue. But, despite all efforts it gradually paced for 1973. Arabs wanted the war, as such Russia also. Israel was partially prepared to defend herself through 'total deterrent' strategy not fully prepared to take-on a full scale attack. But, Israel knew they had full support of US in any crisis situation. Egypt and Syria with Russian support launched the attack with total strategic surprise accumulating many deceptive measures (Tahrir for 41 times, Mobilization of reserve for 23 times). Whether they would mount the attack had Israel been fully prepared (through proper intelligence) is a question that is unanswered. There were definitely intelligence failure to foresee and fed accurately the Israeli hierarchy of the gradual events that led to 06 Oct 1973. On 25 September, King Hussein of Jordan requested an urgent meeting with Israeli Prime Minister Golda Meir where he delivered the message that Syrian deployments were actually the precursor to war in collaboration with Egypt. Meir ignored it and did not dissuade from departing on a planned trip to Europe the next day. Despite having excellent internationally reputed intelligence organization like AMAN (deals with military intelligence), the Mossad (operates in foreign nations much as the U.S. CIA), the Shin Beth (concerned with internal security like the FBI), and a small research department in the Foreign Office (deals with political intelligence akin to State Department Intelligence and Research Bureau i.e. INR) Israel failed to take the full account of the attack they faced in 1973. Obviously, over the six years' time there were many information and alarms for the attack less the real one. Once the real one came it was too late to response. As such, Ms. Meir later said: "No one in this country realizes how many times during the past year we received information from the same source that war would break out on this or that day, without war breaking out. I will not say this was good enough. I do say it was fatal."¹⁷

USA wanted a war or not, the dimension is unanswered as they inevitably fall into the situation after 6th October. USA apparently not involved like Russia might have some role to play to stop the war. Through CIA and INR though Israel was alerted about the impending attack yet Kissinger himself was not convinced with the information. Hence, USA indirectly failed to stop the war by feeding proper intelligence to Israel.

Conclusion

Summarily, it can be argued that the 1973 Arab Israel War was critical event during Cold War period. Looking at immediate past, it is clearly evident that Jews wanted to establish their home land pledging ritual and ancestral right. Jews pursuance for a homeland began as early as 1880 and finally got an independent state in 1948. Arabs since Ottoman Empire and thereafter, opposed Jews settlement issue in Palestine. This contentious issue gave birth to series of conflict of 1948, 1956 and 1967. Decisions were not sought having fought in these conflicts. The conflict started with Palestinian Arabs refugee issue and terminated on loosing Sinai and Golan after Six Days War (1967). The humiliating defeat of 1967 conflict was a serious blow to the national prestige of Arabs. So, from Arab's perspective waging 1973 War was to take revenge and to gain back national prestige. Israel on the other had did not sought any decision about Sinai and Golan. These dragged both belligerent into the 1973 conflict.

Super Powers got deeply involved into the conflict for the very nature of Cold War strategy. However, beside domination and power projection, USA had a vested interest on Suez Canal and Oil. For Soviet Russia the interest was to underplay the domination of USA in the Gulf; typical cold war strategy. USA invested heavily in Israel and to counter it Soviet Russia also did the same. The defeat of 1967 conflict was viewed as defeat of Soviet Russia and as such they almost took the responsibility of preparing both Egypt and Syria to win in Yom Kippur. So, it can be argued that the war was by choice (domination of Russia) for one side whereas the other side was forced to step into it.

Needless to say that it was a protracted conflict. As such, many actors tried to settle the issue. But all efforts failed. The world was aware of the 'War of Attrition', 'Year of Decision', 'No war – No peace' issues. Over six years time, both Soviet Russia and USA tried to negotiate but failed. UN, as not state actor, tried to bring peace through UN Security Council Resolution 242 but it also failed. Finally, peace got established but through the hard way i.e. 1973 conflict. So, it can be typically argued that one of the causes of the war was failure of world body to bring the belligerent to common terms.

Intelligence failure can be argued as a strategic cause to stop the war. The Arabs and in turn Russia wanted the war. The Israeli suspected but were not equally ready to take such an attack from Arabs. Having internationally reputed intelligence organization like AMAN, Mossad etc. Israel failed to forewarn her hierarchy about the six year long preparation based attack. USA also failed to feed required intelligence through CIA and INR to Israel. Arabs attacked them gaining total strategic surprise. The question remained unanswered whether or not Arabs would go for war or Soviet Russia would give them green signal to go for war had they been aware that Israel was fully prepared to take an such attack. Hence, it can be argued that intelligence failure was one of the key factor for the 1973 Arab Israel War.

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Brief Biography



Lieutenant Colonel Md Humayun Kabir, SUP (BAR), SPP, psc was commissioned in the Corps of Infantry with 35th BMA Long Course on 13 December 1996. Apart from mandatory courses, he was the pioneer officer to attend Young Officers (Mechanized) course from India. He is a graduate of Defence Services Command and Staff College (DSCSC), Mirpur. He also attended Advance Command and Staff Course from the Defence Academy of United Kingdom. He attained Masters Degree from Bangladesh University of Professional (BUP). He has also a Masters of Arts Degree in his credentials from Kings College, London. He completed diploma in Strategic Management and Leadership from Chartered Management Institute (CMI) of London. Besides all regimental appointments, in three infantry units, he served as Grade 3 (Operations) Staff Officer in Chittagong Hill Tracts and as Brigade Major at Savar. He served as Platoon Commander and Adjutant in Bangladesh Military Academy (BMA). He also served as instructor at Tactics Wing of School of Infantry and Tactics. He commanded an infantry unit in Chittagong Hill Tracts. He also served as a Directing Staff at DSCSC, Mirpur. Currently, he is serving as Chief Analyst in Headquarters of an Intelligence Organization of Bangladesh Army.

EFFECTS OF PROLONGED POST COMMISSION ACADEMIC TRAINING ON EFFECTIVE GROOMING UP OF NEWLY COMMISSIONED OFFICERS; CHALLENGES AND WAYS FORWARD

Major Md Ariful Islam, Ordnance

Abstract

Bangladesh is a progressive nation working relentlessly to keep pace with the advancement of modern world. As such the modernisation process of BD Army is going on. To make the army more effective in future change in leadership development is also essential. Therefore, the Army took an endeavour to develop knowledge-based leadership for future generations. The change in officers' training system in Bangladesh Military Academy (BMA) is an outcome of it. The officer cadets undergo three years basic military training and also undergo honours and engineering curriculum to achieve an undergraduate degree. The academic curriculum cannot be completed within three years, and it takes additional time after the commission to complete the degree. The additional time required to achieve an undergraduate degree after the commission is called 'post commission academic training (PCAT).' Newly commissioned officers need to come back to MIST and BMA for two years and six months respectively after commissioning for PCAT. PCAT is a different arrangement with the long-standing understanding of grooming the young officers in the unit. PCAT has two-dimensional effects on newly commissioned officers. Firstly, remaining away from the unit devoid them of regular grooming up. Secondly, the period of PCAT, which is comparatively less supervised, may affect the officers' development process. The gravity of challenges posed by prolonged PCAT is yet to be realized fully. If the challenges and problems associated with PCAT and its effects are not fully understood at the earliest, a generation of officers will not be groomed up properly. Consequently the army might face critical leadership challenge in future.

At this backdrop, it is imperative to find out plausible solutions to the challenges posed by PCAT to ensure effective grooming of newly commissioned officers. Initially, an overview of the academic training system of BMA was discussed with significance of academic graduation for future leadership development. Then, the challenges posed by prolonged PCAT on the grooming of officers were found out. In sequence, the effects of the challenges were identified. Subsequently, attempt was made to bring out plausible measures to ensure effective grooming up of newly commissioned officers during PCAT. In the end, few recommendations were made for ensuring grooming friendly environment during PCAT to deal with the challenges.

Introduction

Junior officers form the backbone of Bangladesh Army. As company/platoon commanders, junior officers work directly with the under command soldiers to achieve the organisational goal of Bangladesh Army. Victory or defeat in the conflict will rely

mainly on the skills of the junior officers' professionalism and management. To face the challenges of modern warfare and diverse tasks to be performed during peacetime, the junior officers must become more competent and then have the ability to lead from the front.¹ The preparation method begins with the regimentation program, but the growth of young officers' professionalism depends mainly on the unit's teaching through their active involvement in unit activities.² 'Units remain the home of the YOs' for a considerable length of their professional lives. True soldiering begins in the unit. Indeed, during the formative phase of his career, the attitude a YO develops in the unit remains the basis for his future professional life. BMA training takes all cadets to an optimal standard to fulfil unit demands.³

BMA Training is an essential requirement and the most significant component to developing a future military leader for the BD army. Military officers' base is usually created at the academy during their basic training period. The fundamental military training includes both academic and military subjects.⁴ 'This training system took on a new shape with 75 BMA L/C and onwards, where the overall duration was four years. OCs have three years to remain in BMA until their commission. After a short period of regimentation, Faculty of Honours and Faculty of Engineering return to BMA and MIST to finish academic studies for varying periods.⁵ 'The new training system is aiding to increase the confidence of newly commissioned officers. By contrast, it adversely affects their original grooming owing to the provision of prolonged PCAT.⁶

Each transformation experiences its effect. The rapid changes in the curriculum of training will also destabilise the institution for a moment. A human being is very ordinary inclination is that anything longer than its ordinary length will have an adverse psychological effect on the mind. They (newly commissioned officers) may be out of military track.⁷ PCAT is a new phenomenon. The gravity of challenges posed by prolonged PCAT is yet to be realised fully. If the challenges and problems associated with PCAT and its effects are not fully understood at the earliest, a generation of officers may not be groomed up properly. Consequently, the army might face a critical leadership challenge in future. Therefore, a strong need is felt to identify the challenges posed by prolonged PCAT and their effects on newly commissioned officers. It is also imperative to find out plausible ways to overcome the challenges to ensure effective grooming up of these officers.

Present Academic Training System of BMA and Significance of Academic Training

BMA experienced a paradigm shift with the incorporation of a new training system since 2015. The training duration was increased from 2 to 3 years. It also included under graduation university degree in its curriculum.⁸ 'Academic training is part of BMA training since the inception of the long course in 1978. BMA offered BA and BSc pass course degree to the passed out officers.⁹ Evolution of academic training system in BMA is shown in Table 1.

Table 1: Evolution of Academic Training System in BMA

Serial No	Long Courses	Year	Degree	Duration	University
1	1 - 51	1978 - 2004	BA/ BSc	2 Years	Chittagong University/ National University
2	52 - 74	2005 - 2016	BA/ BSc	3 Years	National University/ BUP
3	75 and onward	2015 – to date	BSc (Honours and Engineering)	4 Years	BUP/ MIST

Source: BMA Training Pamphlet

A major shift was observed in the academic training system of BMA. Being a new system it has a lot of pros and cons. A clear understanding of the system is a requirement to have a complete comprehension of the changes.

Overview of Academic Training in BMA

Present Academic Training System of BMA: The selection process of the OCs for FHC and FEC starts before their joining in BMA. They appear two examinations: one before joining BMA and another after joining. Basing on the result of examinations and performance in board exams OCs are divided in FHC and FEC.¹⁰The subjects, including credit hours, are shown in the following list:

Table 2: Academic Training System of BMA

Serial No	Engineering		Honours	
	Subjects	Credit Hour	Subjects	Credit Hour
1	CE	162	BBA	120
2	CSE	161	IR	120
3	EECE	160	Economics	120
4	ME	161		

Source: BMA Training Pamphlet

Academic Training before Commission: The OCs stays three years in BMA as a cadet. Along with the military training their academic training continues for three years before their commission.¹¹During this period, the OCs of FHC and FEC completes credit hour, as shown in Table 3.

Table 3: Academic Training System before Commission

Serial No	Engineering		Honours	
	Subjects	Credit Hour	Subjects	Credit Hour
1	CE	81.5	BBA	99
2	CSE	78.75	IR	99
3	EECE	79	Economics	99
4	ME	79.75		

Source: BMA Training Pamphlet

Post Commission Academic Training: ‘The academic curriculum cannot be completed within three years, and it takes additional time after the commission to complete the degree. Therefore, according to present system, the newly commissioned officers of FHC go to BMA to complete their graduation and officers of FEC goes to MIST. According to the latest policy which is being implemented from 77 BMA LC onward duration of PCAT for FHC will be six months and duration of PCAT for FEC will be two years.’¹² A table showing PCAT duration and its credit distribution are given below in **Table 4**.

Table 4: Post Commission Academic Training

Serial No	Engineering			Honours		
	Subjects	Credit Hour	Duration	Subjects	Credit Hour	Duration
1	CE	80.5	2 Years	BBA	21	6 Months
2	CSE	82.25		IR	21	
3	EECE	81		Economics	21	
4	ME	81.25				

Source: BMA Training Pamphlet

Significance of Academic Training

Bangladesh Army is currently at the midst of unprecedented transformation. Weapons, vehicles, technology and more importantly, the new generation soldiers are the focus of future changes. Understanding the relationship between modern-day soldiers’ mentality and advance technology is a definite leadership challenge. Leading the soldiers, coupled with emerging technology in the complex battlefield scenario of information age, will

immeasurably raise the future leadership challenge. With the Army continue to change and progress forward, we need a new dimension of leadership where our leaders can adapt quickly to meet the challenge. Therefore, the army needs knowledgeable leaders and knowledge-based leadership.¹³ 92.8% Officers of the formations thinks that a university degree would increase the confidence level of young officers.

The Platoon Commanders of BMA also believe that the university graduation contributes significantly in increasing self-confidence, broaden the horizon of knowledge, increase thirst of knowledge, and even elevate social status of the young officers.

Twenty-first-century battlefield is presumed to be more complex and chaotic. The higher education would enable the officers to meet the future challenges of leadership.¹⁴ ‘The new soldiers are better educated and more confident with technology than previous generations. They demand clarification and are willing to challenge the authority. To maintain the unique disciplinary need of the army, we require leaders who can communicate and motivate the newest members. Nothing inspires confidence and respect more than a demonstration of knowledge.’¹⁵ More than 95% of officers of the formations believe that the academic graduation would allow the newly commissioned officers to remain in the psychological higher ground while dealing with comparatively higher educated young soldiers.

Challenges Posed by Prolonged PCAT on Effective Grooming up of Newly Commissioned Officers

Prolonged PCAT upset the normal development process of an officer. It will have certain effects on grooming up of newly commissioned officers.¹⁶ PCAT is a new dimension which takes much space in the foundation stage of young officers. PCAT has two-dimensional effects on newly commissioned officers. Firstly, remaining away from the unit devoid them of regular grooming up. Secondly, the period of PCAT, which is comparatively less supervised, may affect the officers’ development process.

Challenges Posed by Prolonged PCAT

Status Dilemma: A newly commissioned officer aspires to enjoy his status. Immediately after the regimentation, the newly commissioned officers joins PCAT with the identity of student officer. Here, they suffer from a status dilemma of being trapped between the status of officer and cadet. A leader without authority would always feel that dilemma.¹⁷ 86.7% officers of 75 BMA LC also felt the same dilemma during their tenure of PCAT.

Sense of Desertion: The OCs remain very much connected with their Platoon Commanders and other Instructors in BMA. After the commission, two months regimentation period seems insufficient in developing strong bonding with the unit.¹⁸ Almost 82% CO/OC/2IC thinks that newly commissioned officers undergoing

PCAT feels deserted. At the same time, 76 % Platoon Commanders of BMA and 57% officers of 75 BMA LC shares a similar view.

Sense of Confinement: The officers undergoing PCAT from both the discipline felt a sense of confinement. In both PCAT locations living space for the officers were smaller than cadet life. Actual space limitation has increased the activities of the officers in virtual space.¹⁹ 70.7% of PCAT Officers felt a sense of confinement during their stay both at BMA and MIST.

Liberty of Action: After highly supervised BMA training and Regimentation in the unit, the newly commissioned officers are given with certain flexibility and liberty of action. As an officer, they are self-responsible for their acts and deeds.²⁰ Over 83% of officers of the formation opined that sudden liberty of action could affect the grooming of newly commissioned officer, where 11.57% thinks otherwise. A similar survey shows that 81.5% BMA Platoon Commanders believes the same.

Not Having Responsibility: Most of the officers do not get appointment in BMA, thereby do not get a scope of learning to take responsibility. They are supposed to learn to take responsibilities in their units immediately after commission. For the officers undergoing PCAT, this learning process is delayed.²¹ Over 81% of officers of the formation believe that not having much responsibility would affect the grooming of newly commissioned officer, where 7.5% disagree with this opinion. A similar survey shows, 79.6% BMA Platoon Commanders believes the same.

Remaining Away Form Unit: Unit has a significant effect on the development of newly commissioned officers. It is the unit where a young officer learns the ABC of regimental life. Unit environment and regimental practices are the best teachers to a young officer.²² Almost 90% officers of the formation, including CO/OC/2ICs, think that remaining away from the unit affects the grooming of newly commissioned officers.

Different PCAT System for FHC and FEC: There are differences in the conduct of the PCAT of the officers of Honours and Engineering faculty. It varies in terms of duration, location, conducting authority. In such a scenario, there will be a difference in grooming up and professionalism between these two groups of officers.²³ 84% Officers of the formation and approximately 89% officers of 75 BMA LC thinks that there will be a difference in grooming up between the officers of FHC and FEC.

Effects of Challenges Posed by Prolonged PCAT on Grooming up of Newly Commissioned Officers

Junior officers play an important role in contributing to the attainment of high standard and proficiency at unit/subunit level. It is rather difficult to lead men in war or during a crisis without good junior officers who have not developed the essential qualities of leadership traits and professionalism.²⁴ 'The new training system is contributing to making newly commissioned officers more confident. Conversely, due to the provision of

lengthy PCAT, it is adversely affecting their initial grooming.²⁵ PCAT poses certain challenges in the overall grooming up process. These challenges may have multidimensional effects on the process of transforming a trained cadet to a professional young officer. It is invaluable to understand the effects of prolonged PCAT to set the right course for proper grooming of the newly commissioned officers.

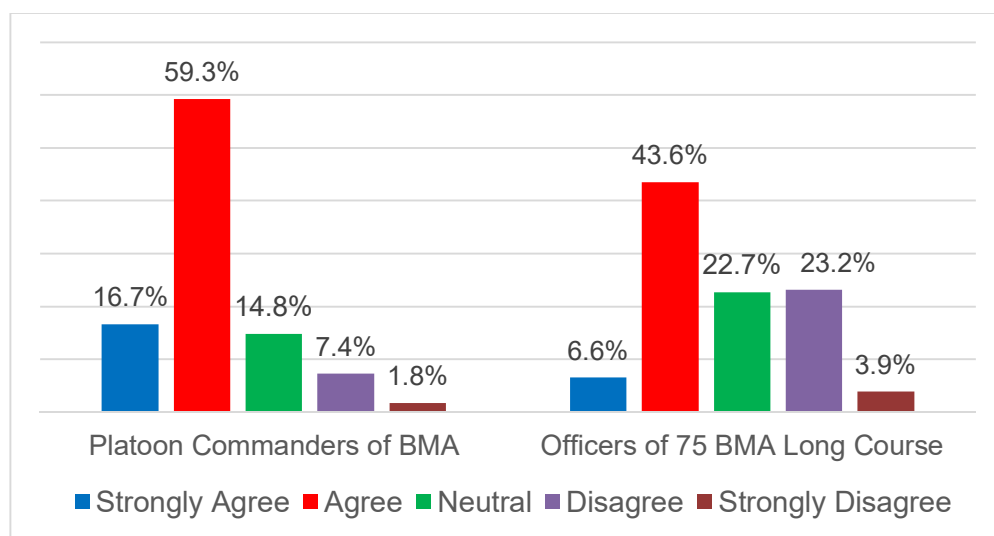
Effects of Challenges Posed by Prolonged PCAT

Low Self-confidence: The newly commissioned officers undergoing PCAT suffers from a status dilemma between cadet and officer. It creates an inferiority complex within the minds of the officers resulting low self-confidence.²⁶ A survey among the officers of 75 BMA LC shows that over 80% of them suffers from low self-confidence. 77.9% believes status dilemma is the primary reason for low self-confidence.

An Inclination of Virtual World and Social Media: In an attempt of controlling the activities of PCAT officers, they are confined in a limited space. To compensate for the limitation of actual space, they started increasing their horizon in virtual space.²⁷ ‘The addiction to social media is a societal problem; not necessarily a problem attributed to PCAT. The young officers being part of the latest generation are more obsessed with it.’²⁸

Degradation of Discipline: Individually, officers are disciplined; however, officers in a group are hard to control. There were few disciplinary issues during PCAT, which could have been avoided through motivation and supervision.²⁹ A comparative study between the opinions of BMA Platoon Commanders and officers of 75 BMA LC projects possibility of degradation of discipline as shown in Figure 1.

Figure 1: Possibility of Degradation of Discipline during PCAT



Source: Author's self-construct

High Rate of Emotional Attachment among Officers Undergoing PCAT: The effects of western culture are overwhelming the traditional understanding of our society. Emotional attachment, these days, is considered to be an ordinary matter in society. Sense of confinement, liberty of action, and easy access to social media increase the probability of emotional attachment cases among the PCAT officers.

Poor Leadership Development: The officers of the new training system are missing invaluable early days in the unit. It would certainly hamper their leadership development.³⁰ More than 89% CO/OC/2IC and other officers of the formations opined that prolonged PCAT would affect the leadership development of newly commissioned officers.

Poor Standard of Esprit-de-corps: Affection for the unit develops through involvement with its soldiers and activities. Officers of the new training system hardly get sufficient time to develop such bonding before moving back for PCAT. Again after PCAT, they will be busy with various mandatory courses. Thereby, these officers are getting less time to develop esprit-de-corps with the unit.³¹ 91.5% Officers of the formations believe that prolonged PCAT would affect the newly commissioned officers' development of esprit-de-corps.

Inadequate Knowledge of Unit Affairs: Regimentation is a programmed training which gives a basic idea about different appointments of a unit. It does not cover the entire spectrum of unit activities. Therefore, officers of the new training system would have inadequate knowledge of unit affairs.³² More than 95% of officers of the formations agree to it.

Difference of Professionalism between FHC and FEC Officers: There are differences in the conduct of the PCAT of the officers of Honours and Engineering faculty.³³

Measures to Overcome the Challenges Posed by Prolonged PCAT to Ensure Effective Grooming up of Newly Commissioned Officers

The PCAT poses multiple challenges to the newly commissioned officers. These challenges are affecting the standard development process of the officers. Challenges are part of any progressive movement. To meet 21st-century leadership demand, we need knowledge based leadership. We have to overcome all the hurdle to make our young leaders more professional and committed.³⁴ Few ways to overcome the challenges posed by PCAT on the grooming up of newly commissioned officers are discussed in subsequent paragraphs.

Measures to Overcome the Challenges Posed by Prolonged PCAT

Delegating Responsibilities: Leaders are born to shoulder responsibility. An officer having responsibility would become more sincere, committed and confident. Though there are fewer scopes of giving responsibility to a big number of officers, certain efforts

can be taken to make them responsible for PCAT's administrative affairs.³⁵ More than 85% of officers of 75 BMA LC believes that having some form of responsibility aids in developing self-confidence and leadership skill.

Conducting Co-curricular and Extra-curricular Activities: Co-curricular and extra-curricular activities refreshes' both physical and mental health. Conducting these activities by the PCAT officers will help them in developing leadership qualities and organising skills. Certainly, it would curve their attention from social media and internet use.³⁶ 68% officers of 75 BMA LC thinks that conducting co-curricular and extra-curricular activities would reduce the inclination to the virtual world, while around 13% disagree to that.

Mature Supervision and Monitoring: The important thing to remember that the participants of PCAT are officers. They should be treated as such. The newly commissioned officers must not remain in any status dilemma.³⁷ Continuous monitoring and supervision are required to have check and balance of the activities of these officers.³⁸ Constant monitoring, strict supervision, limited access to social media, and drastic disciplinary actions can reduce breach of discipline emotional attachment cases.³⁹ During PCAT 1/2 Platoon Commander can be put in charge.⁴⁰

Conducting CBM Classes (Focusing on Motivation and Case Study): Conducting CBM classes can develop an understanding of the newly commissioned officers. It will have two-dimensional effects: firstly, psychological development of the officers and secondly, case studies related to the actions of the soldiers will enhance understanding about unit affairs.⁴¹ Motivation and awareness are two most important things to remain in strong ethical point as an officer. Regular conduct of CBM classes can generate both.⁴² 63% Platoon Commanders of BMA thinks that conducting regular CBM classes would reduce emotional attachment cases between PCAT officers, while around 19% disagree to that.

Course Report/ Feedback Report: One of the ways to generate self-consciousness among the officers is to introduce a Course Report/ Feedback Report. It will provide a clear picture of the conduct of the officer during PCAT, and enable CO to deduce the correct course of action to develop the officer.⁴³ A standard Course Report/ Feedback Report form can be introduced for both FHC and FEC group.⁴⁴

Allowing Visiting Unit on Special Occasions: Celebrating traditional and special occasions like unit raising day, colour parade, a celebration of the unit's achievement are a symbol of regimental spirit. It increases the esprit-de-corps of the unit.⁴⁵ More than 92% of officers of the formation opined that visiting units on special occasions would enhance the grooming of newly commissioned officers undergoing PCAT.

Ensuring Participation in ST and WT: ST and WT provide the best opportunity for a young officer to learn about unit activities during wartime. It also allows them to apply their theoretical knowledge on ground, and practice leadership during an operational period.⁴⁶ 'FTXs like ST and WT brings the young officers close to their men. These exercises increase professionalism and spirit-de-corps of an officer.⁴⁷ Almost 98% of officers of the formation believe that participation of the PCAT officers in ST and WT would enhance their grooming.

Introducing UT&A Curricula during PCAT: One of the best ways to groom up the newly commissioned officers during PCAT would be introducing UT&A curricula. These are essential lessons for unit functioning.⁴⁸ The busy schedule of PCAT may not allow including a vast range of UT&A subjects, but priority subjects may be incorporated.⁴⁹ 89% of officers of the formation agreed that the introduction of UT&A curricula during PCAT would enhance the grooming of newly commissioned officers.

Table 5: List of Priority UT&A Subjects

Serial No	Subject	Remark
1	Safe Custody of Arms and Ammunition	
2	Daily Order Part I and II	
3	Dealing with JCOs and NCOs	
4	Conduct of Training in the Unit	
5	Stocktaking, Condemnation and Survey	
6	Unit Career Plan and Training Plan	
7	Admin in the Unit	
8	Handling of Protected Documents	
9	Ration Scale and Ration & Forage Return	
10	ADR	

Source: Survey by the author

Centralized PCAT for Both FHC and FEC Officers: All concerned recognised that conduct of PCAT in two different places would create a difference of professionalism between FHC and FEC officers. It is necessary to bring synergy in the grooming of all newly commissioned officers. Achieving the synergy is possible by conducting PCAT centrally in one location. It may be either BMA or MIST or any other place with adequate facilities.⁵⁰ BMA is probably the best place to conduct PCAT which would provide a conducive environment for the development of newly commissioned officers. Right now, BMA is not fully ready to conduct PCAT of both the group, especially FEC. Certain infrastructural and technical developments are required.⁵¹

Conclusion

Bangladesh Army is in the process of modernisation to keep pace with the developing world. Massive transformation is going on in the weapons, equipment, and also in the doctrine. This transformation demands a new dimension of leadership from our young officers. The future demands knowledge based leadership. Cadets' training in BMA is going through a paradigm shift with an increased training duration of three years, and academic graduation, ie. Honours and Engineering degree under BUP and MIST, respectively. However, the academic curriculum takes more than three years to complete. The additional time required to achieve an undergraduate degree after the commission is called 'post commission academic training (PCAT)'. PCAT is a new dimension which takes much space in the foundation stage of young officers. PCAT has two-dimensional effects on newly commissioned officers. Firstly, remaining away from the unit devoid them of regular grooming up. Secondly, the period of PCAT, which is comparatively less supervised, may affect the officers' development process. Understanding the effects of PCAT can help set the right course for the development of newly commissioned officers. Hence, the research was conducted to find out plausible solutions to the challenges posed by PCAT to ensure effective grooming of newly commissioned officers.

BMA went through a major shift in the training system. The present academic training system of BMA is unique and different from other military academies of the world. The academic training has two distinct segments: academic training before the commission, and PCAT. It is found that the new training system is contributing positively to the quality enhancement of newly commissioned officers. Therefore, it can be said that the new training system of BMA is designed to prepare knowledge based future leaders to meet critical leadership challenges of the 21st century. However, the system upsets the traditional understanding of grooming the newly commissioned officers.

The PCAT poses multiple challenges on newly commissioned officers. The challenges are two dimensional: psychological and professional. The salient aspects of psychological challenges are- status dilemma where the newly commissioned officers feel trapped between the status of officer and cadet, sense of desertion, sense of confinement, and sudden liberty of action. The professional challenges include: not having much responsibility, remaining away from unit, and different PCAT system of FHC and FEC. These challenges have certain impacts on the grooming process of newly commissioned officers.

The challenges posed by PCAT affects the grooming up of newly commissioned officers. The challenges have effects on psychological, social, and professional domain of grooming of the young officers. In the psychological sphere, it reduces self-confidence of the officers as well as increases their inclination to virtual world. The social effects include increased rate of emotional attachment between PCAT officers. Professionally, the newly commissioned officers' leadership, and spirit-de-corps development will be

affected. A difference of professionalism is envisaged between the FHC and FEC officers. Therefore, the challenges posed by prolonged PCAT have definite effects on the grooming of newly commissioned officers which need immediate attention.

It is important to find out plausible measures to overcome the challenges posed by PCAT to ensure proper grooming of newly commissioned officers. The officers' self-development can be ensured by involving them in professional activities. In this respect, delegating responsibilities may be effective. The officers undergoing PCAT may be tasked to organise co-curricular and extra-curricular activities. The officers' bonding with their units can be strengthened by allowing them to visit the unit on special occasions. Their knowledge of unit affairs can be enriched by ensuring participation in ST and WT and providing UT&A lessons. Careful and mature oversight and supervision would prevent officers from harming themselves. Regular conduct of CBM classes and the introduction of feedback/course report can benefit this process.

Recommendations

Following recommendations are made which will assist Bangladesh Army in general and PCAT authorities in particular to ensure effective grooming of newly commissioned officers:

- a. PCAT authorities may take the following steps with immediate effect:
 - (1) Certain level of responsibilities may be delegated to officers undergoing PCAT. They may be vested with the responsibilities of running the routine administration of PCAT. Creation of different appointments during PCAT may enhance the process. In order to allow all the officers to have leadership practice, there may be a system of rotating the appointments at regular interval.
 - (2) Co-curricular and extra-curricular activities may be conducted for the PCAT officers at frequent interval. These events may be conducted in the form of competition, presentation, or club activities. The events may include indoor and outdoor sports competitions, stage competitions, cultural programme, and exhibition on global affairs.
- b. A Board of Officers under ARTDOC may be organised to formulate the details for introducing UT&A and CBM lessons in PCAT curricula. The board should include appropriate representative from MIST and BUP, and also 1/2 Platoon Commander from BMA. A list of priority UT&A subjects (basing on survey results from officers of the formations) is given at Table 5. The board may identify required subjects and period distribution for CBM classes.

c. AHQ Military Training (MT) Directorate may carry out detail study regarding the participation of PCAT officers in both ST and WT. A Board of Officers may be formed under MT Directorate with appropriate representatives from Military Secretary's (MS) Branch, MIST, BUP, and both PCAT cell. The board should determine the necessary modalities to adjust the semesters in a manner that does not conflict with the training calendar of the Army. MS branch should formulate policies required to revert the officers to their parent units to ensure their participation in the annual FTXs.

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Brief Biography



Major Md Ariful Islam, Ordnance was born on 05 November 1985 at Mymensingh. He passed both Secondary School Certificate and Higher Secondary Certificate Examinations from Barishal Cadet College. He was commissioned from Bangladesh Military Academy (BMA) with 55 BMA Long Course in the Army Ordnance Corps on 20 December 2006. He has a diverse experience of serving in staff, command, and instructional appointments. He has served as a staff officer in the Army Headquarters and Ordnance Center and School (OC&S), Rajendrapur. The officer served in various regimental appointments and also commanded an Independent Ammunition Platoon. As instructor, he had the unique experience of serving in Bangladesh Military Academy as a Platoon and Term Commander. Apart from the mandatory courses for his professional career, he attended the Ammunition Technical Officers Course from OC&S, Rajendrapur, and Quartermaster Advanced Course from China. Presently, he is undergoing Army Staff Course in Defence Services Command and Staff College. He has participated in United Nations Peacekeeping Mission in Liberia as a contingent member. He is married and blessed with a son.

PROVIDING SECURITY TO BLUE ECONOMY ACTIVITIES IN THE BAY OF BENGAL BY BANGLADESH NAVY: CHALLENGES AND WAYS FORWARD

Lieutenant Commander Mohammad Arifur Rahman, (TAS), BN

Abstract

Following the settlement of her maritime boundary, many avenues of exploring and exploiting the marine resources have been revealed to Bangladesh. At present, several projects like installation of floating Liquefied Natural Gas (LNG) terminals at Maheskhal and Kutubdia, construction of Matarbari coal power plant, two dimensional seismic survey, oceanographic research and other relevant activities are on-going in Bangladesh maritime area. With the present trend of BE initiatives, these activities will increase in Bangladesh waters in future. All these enhanced BE activities deserve and demand security from natural and non-traditional threats for better and successful outcome. In line with that Bangladesh Navy is providing security to BE relentlessly. However, with the increasing maritime activities, security challenges have also increased manifold. In this context the research was undertaken to determine the BN approach to provide security to BE. Different on-going activities of BE associated maritime security threats and the difficulties of current ad-hoc deployment were analysed. Survey questionnaire, interview and FGD of concerned professionals were used as primary data. Survey questionnaire provided quantitative data and interviews provided qualitative data to validate the hypothesis. Data was collected in five-point Likert scale and analysed. Hypothesis (providing security by BN has positive impact in promoting national BE activities) was validated with chi square test. The research identified that considering the BE security requirement BN possesses capability gaps in terms of platforms, equipment, personnel and training. The research felt the necessary policy adoption and BN capability up-gradation for the successful outcome of BE. Finally, it is anticipated that the research will significantly contribute to the security study to BE.

Introduction

'Blue Economy' (BE) is the sustainable use of marine resources for economic growth and improved livelihoods while preserving the health of the ocean ecosystem.¹ BE aims for the improvement of human wellbeing and social equity, while significantly reducing environmental risks and ecological scarcities. For Bangladesh, great opportunities are there in the sea for its prosperity. To have maximum benefits from the Bay of Bengal (BoB), Bangladesh needs to focus on the ways of harnessing the BE. With the extended utilisation of BE, the question of threat and security comes; it needs meticulous and organised management and security for a better outcome.

Following the settlement of her maritime boundary, many avenues of exploring and exploiting the marine resources have been revealed to Bangladesh. At present, several

projects like installation of floating Liquefied Natural Gas (LNG) terminals at Maheskhali and Kutubdia, construction of Matarbari coal power plant, two-dimensional seismic survey, oceanographic research and other relevant activities are on-going in Bangladesh maritime area. With the present trend of BE initiatives, these activities will increase in Bangladesh waters in the future. All these enhanced BE activities deserve and demand security from natural and non-traditional threats for a better and successful outcome. Therefore, it is important for Bangladesh to safeguard and harness the maritime resources and shape-up the BE for the greater development of the nation.

GoB has designated BN as the 'Lead Organisation' for all maritime security issues under National BE Initiatives.² Consequently, BN needs to play a key role in exploring and nullifying the security threats to BE to harvest the full benefits of her maritime domain. Forecasting the safety and security necessity of local/ foreign vessels and personnel involved in BE activities, BN launched 'Operation Blue Guard' on 1st March 2017. Therefore, the Success of BN in ensuring maritime security through coordination of different stake-holders seems crucial for the successful outcome of BE activities.

Now, the question is, what should be the approach of BN to provide security to the BE activities? Does it have any positive impact on BE activities? Is BN capable to provide security to BE with her existing platforms and manpower? On the other hand, with increasing maritime activities, security challenges have also increased in the manifold and are likely to further aggravate; if a holistic maritime security policy is not formulated and put in place soon. So, it is important for Bangladesh to safeguard and harness the maritime resources and shape-up the BE for the greater development of the nation. Though there have been numerous studies about the prospects of BE for Bangladesh, there has been a very limited study on associated security challenges. As a result, the fight against the security threats of National BE has seldom been brought into the limelight. At this backdrop, this research is intended to propose a 'BE Security Framework' by BN.

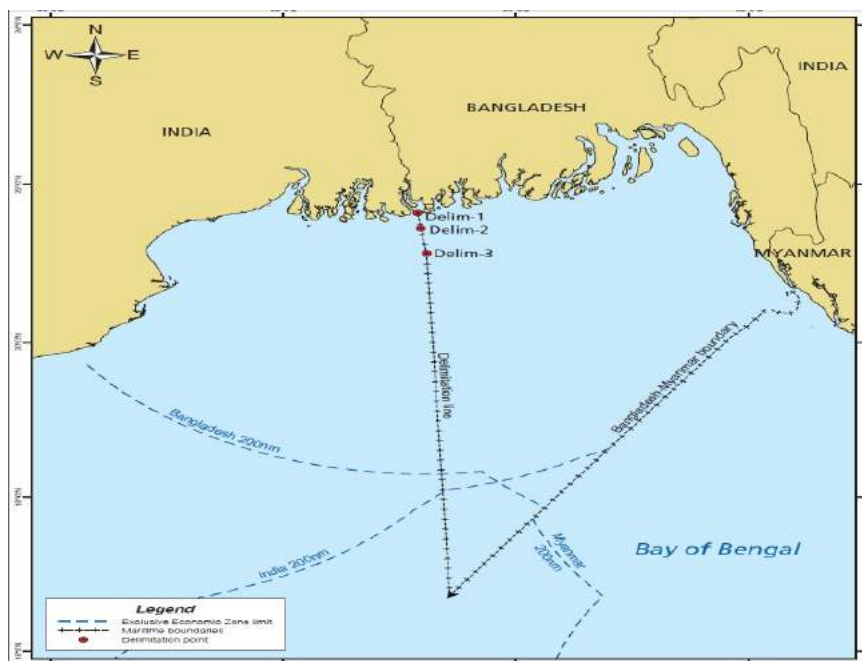
Prospects of Blue Economy in Bangladesh

Maritime Heritage of Bangladesh: Maritime heritage is one of the most significant contributors to the overall development of society. Bangladesh also has good maritime opportunities in line with her maritime culture and heritage. The Bengal seafarers had insightful knowledge in the art of shipbuilding, marine trade, piloting and navigation. Their ships traded with the countries from East Africa to Sumatra and even in the Pacific Ocean. In the middle of the 15th century, chattogram was one of the world's leading names in the construction of ocean-going ships.³

Maritime Geography of Bangladesh: Bangladesh is blessed with enormous BoB to the south. The maritime area of Bangladesh as a whole is dominated by soft substrate ecosystems that are biologically productive, providing critical ecological habitats like mangroves, algae beds, salt marshes, sandy beach and mudflats. Through the recent

verdicts, Bangladesh has established sovereign rights over sea areas of more than 118,813 sq km in the BoB as shown in Figure 1:

Figure 1: Maritime Arena of Bangladesh



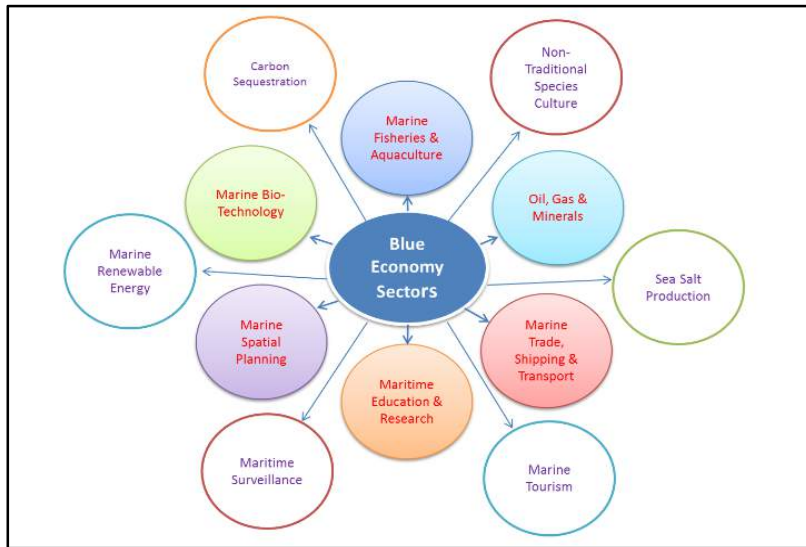
Source: Haque, 2015⁴

Sea-Based Economy: The economy of Bangladesh is seaborne to a good extent and with \$130 billion GDP the country's economy stands the 44th.⁵ Estimates suggest some 30 million Bangladeshi directly depend on oceanic economic activities like fisheries and commercial transportation. Poverty alleviation in Bangladesh is possible by fostering the growth of BE, if it is made inclusive and people-centric.⁶ The blue marine resources have enormous potentials for the economy.

Sector-Wise Prospects of the Blue Economy

The BoB is supporting diverse marine economic activities. It has enormous potential to tap into the global marine market for seafood, oil, and gas, renewable energy, tourism and new applications for health, medicine, and technology. Shipping and transportation, oil and gas, aquaculture and fishing all rely on the sea, and the contribution of marine-based industries to the economy has doubled in the last decade. As this growth continues, the country needs to make the right investment and management decisions now to secure enough benefits in the future.

Figure 2: Major Sectors Related to Blue Economy in Bangladesh

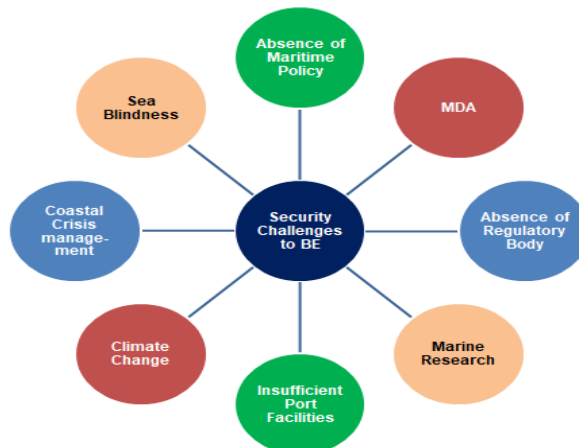


Source: Hussain, 2017⁷

Security Challenges of Blue Economy for Bangladesh

The scope to develop the BE is constrained by a series of challenges. The narrow coastal area is overused by many sectors and is increasingly affected by climate change. Technological advances, rising demand.

Figure 3: Security Challenges of Blue Economy in Bangladesh



Source: Author's self-construct

Absence of Maritime Policy: Lack of skilled manpower, technology and equipment are the main barriers in utilising the marine resources in Bangladesh. Moreover, the possession of correct data could be the prime mover to flourish the activities in the maritime sector. The foremost and fundamental need for a sustainable growth in BE is the existence of the maritime policy. Bangladesh is yet to formulate such a policy which is surely an impediment for judicial marine activities and a big challenge to manage the sea correctly.⁸

Maritime Domain Awareness: Influence and importance of the sea as a contributor to the national economy, politics and environment is one of the most neglected sectors in the perspective of peoples' know-how. On the other hand, inter-agency coordination to share information is another hurdle in MDA. The recent incident of the maritime accident followed by oil spillage at Sundarban areas is a burning example of the issue.

Nonexistence of Central Regulating Body: The BE needs the involvement of multiple agencies. It is necessary to integrate various agencies under a common umbrella to get the desired outcome. As the country does not possess such structure, complexities are dominant for dealing the matters related to maritime security.

Maritime Education and Research: The existing training facilities on maritime education are inadequate considering the huge prospect of BE of the country. The equipment and accessories used in various maritime activities are backdated. However, Bangladesh and India have signed a memorandum of understanding for joint research on the oceanography of the BoB during the visit of Indian Premier Narendra Modi.⁹ The initiative will be a collaborative effort between Dhaka University and India's Council of Scientific and Industrial Research.

Insufficient Port Facilities: Ports are the gateway to the national economy. Bangladesh has two busy seaports at Chattogram and Mongla. Recently, the development of the third seaport at Paira, Patuakhali is ongoing. The two major seaports of the country face multifaceted challenges in terms of infrastructure, traffic congestion, the outcome of slow adaptation of technology and cargo handling. The efficiency of the ports is to be enhanced addressing those challenges in order to achieve sustainable blue growth.

Coastal Crisis Management: Though Bangladesh has remarkably improved in responding and mitigating natural disasters like cyclones yet the country has far beyond the capability to manage other coastal crises. For instance, the oil spillage by a sunken vessel at River Shala in Sundarban had an adverse effect on the ecology and biodiversity of that coastal mangrove forest.¹⁰ Again, inaccessibility in the vast coastal area either for resource constraint or inadequate survey often restricts the activities to respond or mitigate any sort of natural or manmade disaster in coastal areas. As such, coastal crisis management is a big challenge to possess a smooth and sustainable BE.

Sea Blindness: Not enough people know what the sea and its resources do for us, hardly anyone appreciates the contribution of the maritime domain in overall economic activity. The challenges of overcoming the sea blindness of people from all levels need to be addressed professionally. The appropriate mindset with a positive view for the best use of the sea is a substantial factor to possess a sustainable blue growth.

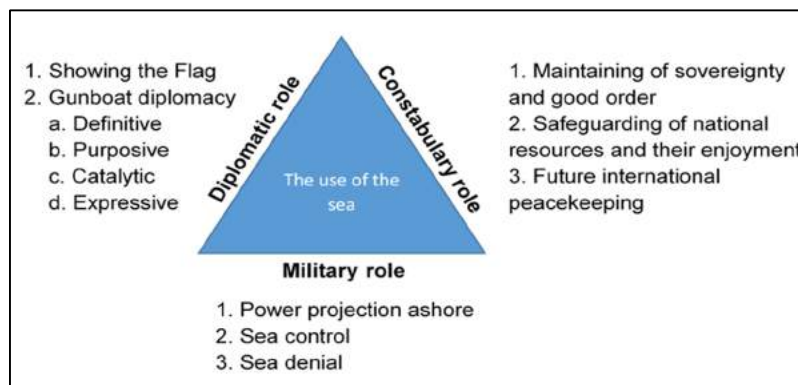
Physical Maritime Security Threat: Bangladesh is still in a developing stage to safeguard her enormous sea area. It is imperative to possess a formidable three dimensional Navy and a two dimensional Coast Guard for a sound and sustainable economy from the sea with an effective maritime security measure.¹¹ Perceived physical security challenges of Bangladesh BE efforts are multifarious like armed robbery, petty thefts, drug trafficking, narco-terrorism, small arms proliferation, illegal migration, terrorist attack against vulnerable offshore installations, illegal unreported and unregulated (IUU) fishing and so on.

Role of Bangladesh Navy in Blue Economy Activities

Traditional Role of Navy

Navies in the world traditionally employ themselves in safeguarding maritime resources besides their core military activities. Eric Groove defined the role of the navy as military, diplomatic and constabulary. Safeguarding of national resources and ensuring their safe exploration is a major constabulary task performed by the navy at peacetime. He used Ken Booth's trinity to indicate the role of the navy. Ken Booth's trinity is as follows:

Figure 4: Ken Booth Triangle – Role of Navy



Source: Role of Navy (Booth)

Role of Bangladesh Navy

The role of BN as delineated by the Ministry of Defence (MOD) and as articulated in the Bangladesh Maritime Doctrine is also in light of the role defined by Ken Booth. The

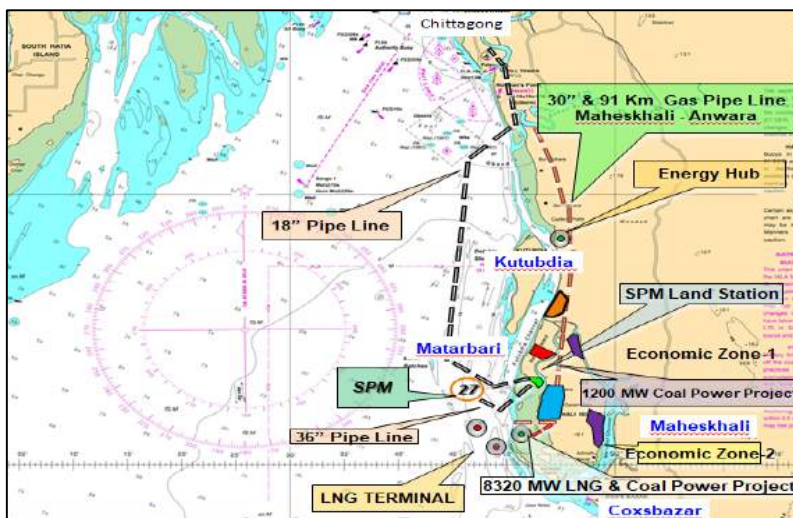
protection of maritime resources has been one of the primary responsibilities of BN since her inception. The role of BN inherently provides support to the BE of Bangladesh.¹² The last point in the role mentions ‘Any other task for which the government may deem it necessary to deploy the navy’. This means anything and everything in need, especially in the maritime domain of Bangladesh will fall under the role of BN.

Blue Economy Security Requirement

BN and BCG Force are providing physical security to BE in the BoB. These forces need to deploy as many as eight ships at sea and in the coastal waters throughout the year. BN has to deploy a minimum of five ships in Bangladesh waters round the clock. BN ships deploy in Operation TREASURESIELD, Operation PROTIRODH, Operation NIRMUL, Operation NIDHON and Operation NIPAT 365 days a year. Moreover, the ships participate in Operation JHATKA NIDHON and MA ILISH to protect and ensure hilsha growth. As a capable organ of the Bangladesh Government, BN extends her support in salvage duties in any maritime accident and SAR missions at own and international waters. However, all these involvements hamper BN, to a considerable extent, to perform and accomplish her primary military role.

Operation BLUE GUARD: Operation BLUE GUARD is a recent initiative by BN in the BoB. Dedicated BN ships are deployed in Operation BLUE GUARD to support BE. The ships carry out patrol in the vicinity of BE activities particularly in the area as shown in Figure 5. BN ships and boats escort national, private and foreign ships engaged in BE activities and protect them from piracy, theft and any untoward incidents. Separate contingents are also deployed under Operation BLUE GUARD in Pekua, Bhashanchar and Matarbari.

Figure 5: BE activities in the BoB



Source: BE Cell, 2018

Responsibility versus Capability Gap of Bangladesh Navy

Considering the BE security requirement BN possesses a distinct capability gap in terms of platforms, equipment, personnel and training. BN is toiling hard to fulfill her primary military requirement as per ‘Forces Goal- 2030.’ Mentionable that, ‘Forces Goal- 2030’ does not look after the BE requirement. Rather, BN is ensuring security to the BE activities as a part of her peacetime role. As such, the BN capability required to support BE activities is neglected in many cases. Thus, there exists an expanding gap between BN responsibilities and capabilities in support of BE. This capability gap generates coverage gaps and provides opportunities for maritime crimes.

Figure 6: Responsibility versus Capability Gap of Bangladesh Navy



Source: Author’s self-construct

Concept of Operation Based Forces Goal: Unlike other forces, BN has to deploy her ships and personnel in peacetime activities round the clock. To the contrary, Forces Goal 2030 is planned considering the Concept of Operations where mainly wartime employment is considered. Hence, the Concept of operations or Forces Goal 2030 does not address the BE security requirements.

Shortage of Purpose Oriented Platform: Generally, BN updates her inventory to fulfill her military and constabulary requirements. These (ships) are inherently capable of performing most of the peacetime role vested upon BN. However, the recent boom in BE activities demands purpose-oriented and capable ships. BN needs to procure purpose-oriented suitable (high speed with good sea-keeping) ships considering the

distance, weather and current activities. BN has limited capability to perform salvage duties, and she does not have any pollution control capability. High speed smaller ships and boats will be required to patrol in the shallow coastal area.

Inadequate Surveillance Capability: BN has limited surveillance capability in terms of ship-borne detection and identification system. Surface and air surveillance capability of BN are not adequate and an effective coastal surveillance system is yet to be developed. BN has to depend on Automatic Identification System (AIS), navigation radar and visual detection. Hence, a significant capability gap hinders her ability to conduct surveillance of the entire maritime domain.

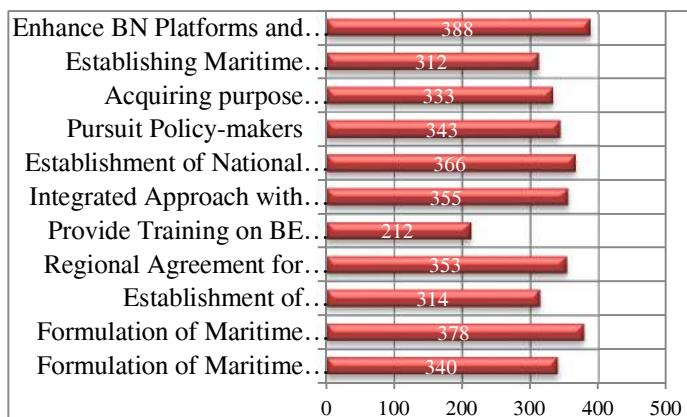
Shortage of Manpower: BN is suffering an acute manpower shortage to fulfill her daily requirements. Recent expansion and up-gradation of BN in terms of platforms, shore establishments and equipment has added the scarcity in a manifold. Moreover, BN is struggling hard to provide personnel to BCG, Rapid Action Battalion (RAB), Special Security Force (SSF) and other government Organisations. Added with these, the extended involvement of BN in the BE activities demands more manpower.

Training: BN personnel are trained and designed to perform military duties. On the contrary, BE demands some different approaches to action. Coordination among various maritime agencies, understanding the blue activities and legal issues are crucial for such duties. Therefore, deployment of BN personnel without specified training could so far achieve only partial outcome.¹³

Proposed Blue Economy Security Strategy for Bangladesh

To enhance BE benefits and to ensure security to BE, a mix of working methods and approaches will be required. Maximum survey respondents stated the requirements for the actions as mentioned in Figure 7 below:

Figure 7: Suggested Ways out for Providing Security to BE in Bangladesh



Source: Responses of Survey Questionnaire

National Maritime Policy Approach

- a. **Formulation of Maritime Policies:** The maritime policy needs to be drafted with an aim to bring comprehensive reforms in maritime vision. The policy also needs to address the country's dynamics of maritime commerce and trade, maritime security, marine pollution, marine scientific research, technology transfer, marine environmental protection, climate change and so on. A well-articulated maritime policy will inherently ensure the development of BE in the BoB.
- b. **Formulation of Maritime Strategy:** A cooperative maritime engagement strategy encompassing the political, economic and security interests of the nation needs to be formulated soon. The economic dimension will promote the conservation, preservation and management of the resources. On the other hand, security aspects will ensure the physical protection of offshore resources.
- c. **Enhancement of General Awareness:** There is a gulf of difference between the maritime scenarios before ten years and present days by the virtue of the result of maritime boundary delimitation. The benefit of this issue could be fully extracted possibly through growing awareness amongst all levels and stages of citizens. Sea and its abundant resources can be utilised as a major contributor to the national economy only with a better knowledge of using and managing the same. As a whole, general awareness activities are mandatory for sustainable development and to get the best out of the blue economy.
- d. **Establishing Maritime Authority for Bangladesh:** Bangladesh is remarkably rich in maritime resources. However, so far there is no single authority looking after the country's maritime affairs for harnessing the valuable sea resources. It demands a great effort at the national level, for which an independent regulating body is the need of the time.¹⁴ Presently, the Ministry of Energy and Mineral Resources is the lead Ministry for BE activities, which has a tiny agenda on the diverse maritime sectors. Since the dimensions of this sector are vast, there is a need to establish a dedicated Maritime Authority, preferably under the Prime Minister's Office for Bangladesh to look after all maritime activities in the country.

Cooperative Approach

- a. **Regional Maritime Policy:** Besides formulating national maritime policies, Bangladesh may propose a sub-regional and regional maritime cooperative engagement policy which may help better BE development in the Indian Ocean Region (IOR). A collective programme and action plan to overcome the adverse impact of climate change and deal with the natural disaster may also be included in it.¹⁵

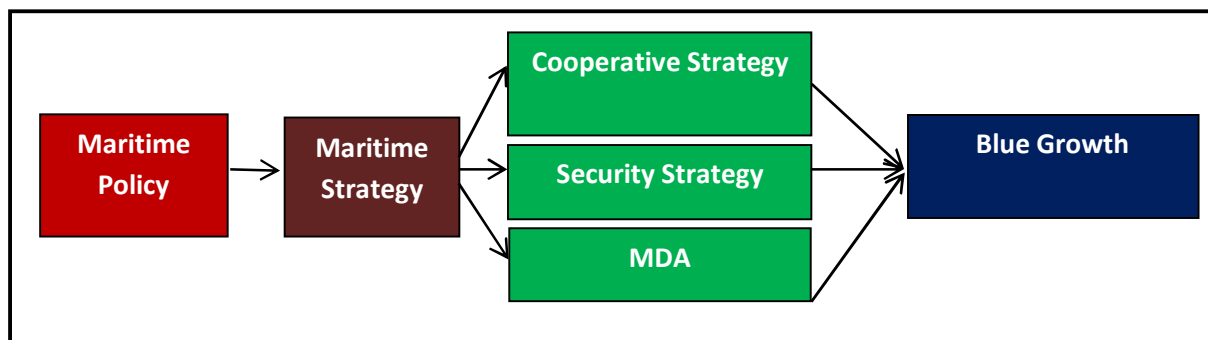
b. **Regional Forum for Harnessing Blue Growth:** Bangladesh may develop a forum with the regional countries to support each other and organize workshops to learn and share experiences in BE development. The international community, particularly developed countries, and organisations may be approached for technology transfer, financial resources and capacity building of BE sectors through this forum.

c. **Regional Agreement for Maritime Security:** In present security dynamics, terrorism is not only a national issue but also a global concern. Thus, Bangladesh needs to strengthen the regional security initiatives and make a regional agreement for combating terrorism which may include cooperative maritime area surveillance and combined operations.

d. **Coordination Among all Maritime Stake-Holders:** A good number of ministries, organisations and law enforcing agencies are involved in national BE initiatives. BN along with Bangladesh armed forces and Coast Guard looks after the security and good order at sea. Police and Nou Police looks after the legal aspects. Port Authorities, Bangladesh Shipping Corporation, Marine Fisheries, Petrobangla, Shipyards, Ship Breaking Yards and similar organisations directly contribute to BE with their economic activities. All these organisations work relentlessly with their individual efforts. Coordinated involvement of all these stakeholders will enhance the BE achievement for Bangladesh.¹⁶

Maritime nations apply different models of maritime strategies to get the best out of it. Countries have set different maritime policies, which lead them to apply cooperative maritime strategy and maritime security strategies. Whatever the strategy is, it has a direct contribution to blue growth. BE security approach may be summarized as the Figure below:

Figure 8: Effect of Different Maritime Strategy Models on Blue Growth



Source: Author's self-construct

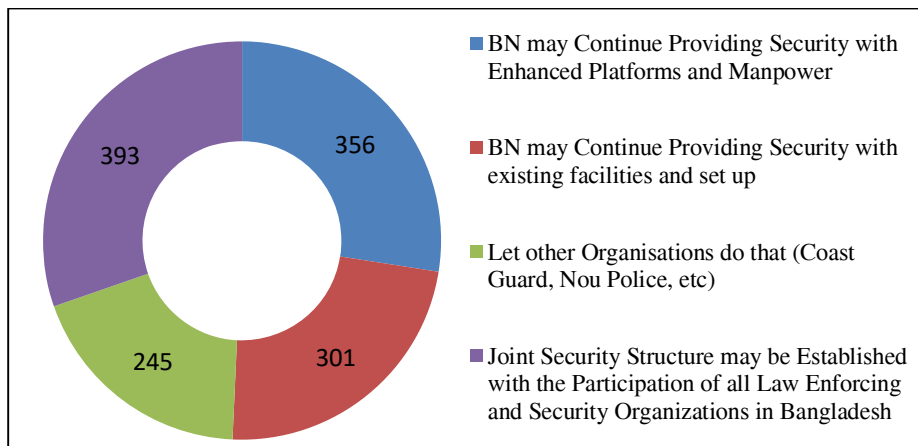
Physical Security Approach

a. **Introduction of the Maritime Operations Centre:** Maritime Operations Centre may be introduced to monitor all maritime activities and bring the water of national jurisdiction under 24/7 surveillance. Maritime Headquarters may act as a regular organisation working for maritime security. Standard Operating Procedures (SOPs) may be developed to facilitate coordination and provide security support as necessary.¹⁷

b. **Establishment of Coastal Intelligence Network:** The coastal areas often serve as sanctuaries for organized crimes. Miscreants of the adjacent coastal areas are usually involved in maritime robbery/theft. A proactive strategy for efficient intelligence system with close coordination among security agencies and civil administration is crucial for effective intelligence.

c. **Capability Enhancement of Bangladesh Navy:** To achieve a safe and secure maritime domain and to suppress many illegal and unwanted activities at sea a capable navy is essential. To protect national maritime and BE interests, BN should be capable of maintaining a deterrent presence in the EEZ. For covering offshore BE interests, larger platforms like frigates/corvettes capability may be added with BN Fleet. BN needs to have more smaller and high-speed crafts and boats to support BE in the coastal shallow waters. BN should also have credible subsurface, surface, and aerial platforms to achieve other maritime objectives. Beside 'Concept of Operations' based acquisition, BN should endeavour to procure few ships to meet BE security requirements. She needs to enhance capabilities to establish and maintain data-base on incoming and outgoing vessels in Bangladesh waters. BN also needs to increase her trained manpower for providing relentless support to BE in the coming days. Survey respondents opined for the capability enhancement of BN as mentioned in Figure 9 below:

Figure 9: Suggested Measures for BN

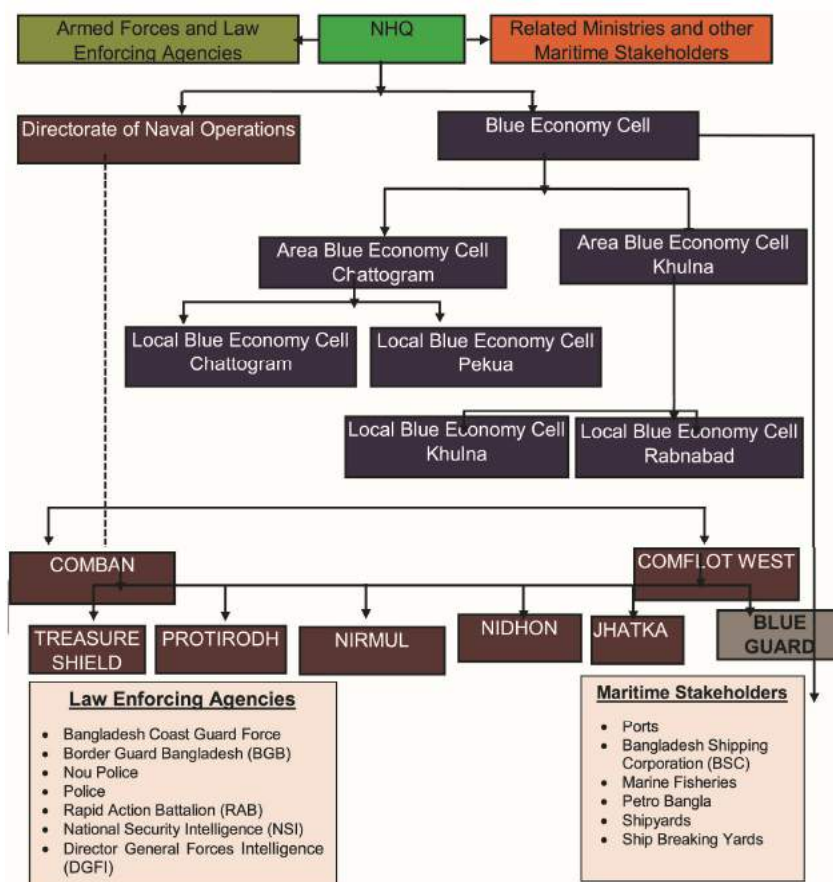


Source: Responses of Survey Questionnaire

Proposed Security Framework by Bangladesh Navy

Bangladesh maritime security agencies or organisations like the Navy and Coast Guard are already providing security to BE. Presently, Directorate of Naval Operations (DNO) and Directorate of Blue Economy (DBE) in NHQ directly monitor and provide BE security matters in Bangladesh water. On the other hand, DBE directly works as an extension of Blue Economy Cell, Ministry of Power, Energy and Mineral Resources (MPMER) to ensure security to sustainable development in terms of BE activities in the BoB. Armed forces will augment the maritime security agencies in need of quick and emergency response. BN in coordination with other law enforcing agencies (Coast Guard, Police, Nou Police) and maritime stakeholders (Port Authorities, Bangladesh Shipping Corporation, Marine Fisheries, etcetera) will be able to ensure security and that in turn, will enhance BE activities in the BoB as shown in Figure 10.

Figure 10: Proposed Security Framework by BN



Source: Author's self-construct

Conclusion

BE is all about the sustainable use of the sea for economic growth and improved livelihoods. Similar to the 'Green Economy,' BE promotes social equity and the well-being of a human. It also emphasizes on a significant reduction of environmental risks and ecological scarcities. Nowadays, the world is becoming more sea dependent as land resources are depleting. Bangladesh, being a maritime nation has scopes to utilize sea for her economic wellbeing. With the extended utilisation of BE, the question of threat and security also comes. BE needs meticulous and organised management and security for a better outcome.¹⁸

Maritime security and BE agendas are complementary to each other. While the BE captures the prospects and promises, the maritime security points to the risks and perils of the seas. Hence, maritime security practitioners and BE activists need to work together for the protection of the oceans and coastal populations. As a result, BE of Bangladesh cannot succeed without ensuring a sufficient degree of maritime security. Again, BE activities in Bangladesh are constrained by a series of challenges. The narrow coastal area is overused by many sectors and is increasingly affected by climate change. Absence of maritime policy and strategy, absence of a central regulatory body, lack of MDA, sea blindness, climate change, and relevant incidents are the prominent challenges to BE for Bangladesh. There exist also physical security threats like armed robbery, petty thefts, drug trafficking, narco-terrorism, illegal migration, terrorist attack and IUU fishing in Bangladesh waters. Bangladesh needs to mitigate all these challenges to ensure maximum blue growth in the BoB.¹⁹

BN performs her mandated tasks under military, constabulary, diplomatic and benign roles. The security initiative by BN has got a distinct impact on national BE as the initiative suppresses many illegal and unwanted activities at sea. However, despite impressive contributions, there exists a distinct capability gap in terms of platforms, equipment, personnel and training. One of the main reasons for the capability gap is the 'Concept of Operation' based Forces Goal- 2030 where wartime employment is a pivotal consideration. Thus, the BN acquisition plan seldom addresses BE security requirements. The aftermath of this is- BN lacks in purpose-oriented special and capable platforms and equipment to support BE. BN needs fast and coastal ships and boats in one hand; on the other hand, she needs long-enduring larger platforms to cover the deep sea. The non-existence of updated data-base on incoming and outgoing vessels allows miscreants to avoid identification and detection. Again, BN needs to increase her trained manpower for providing relentless support to BE in the coming days. However, with the physical presence and whole-hearted effort, BN is trying her best to support BE with present capabilities.

Case studies on different maritime nations show that maritime nations apply different models of maritime strategies to get the best out of it. Whatever the strategy is, it has a direct contribution to blue growth. The paper suggested three different approaches to

overcome the challenges in the security provided to BE. In the national maritime policy approach, it is felt necessary to set national maritime policy and strategy, enhancement of general awareness of common people and establish a national maritime authority. In the cooperative approach, it is suggested to set a regional maritime policy, make a regional forum for harnessing blue growth, regional agreements for maritime security and coordinated involvement of all maritime stakeholders. On the other hand in the physical security approach, introduction of the maritime operations centre, coastal intelligence network and capability enhancement of BN is suggested. Finally, the BE security framework by BN has been proposed. The suggested ways out to mitigate challenges to BE were properly validated through survey results, FGD and interviewing BN and government officers.²⁰

Recommendations

Based on the above analysis, the following measures, are recommended to mitigate the security challenges of BE:

- a. **Formulation of Pragmatic Maritime Security Strategy:** GoB may formulate a pragmatic Maritime Security Strategy within the purview of overall Maritime Policy and Strategy to pursue BE effectively. The strategy should primarily be focused to prevent any untoward activities related to maritime security challenges with existing resources.
- b. **Establishment of National Maritime Authority:** GoB may establish a 'National Maritime Authority' as a regulatory body to oversee the maritime activities. The regulatory body should be guided by both maritime strategy and national security strategy to maintain effective maritime domain governance. This regulatory body will also be able to ensure coordinated effort by all maritime stakeholders including maritime security/ law enforcing organisations.
- c. **Regional Cooperation Initiative:** BN may undertake pragmatic confidence-building measures with other regional countries to promote BE and maintain peace and stability at sea. Such measures should primarily be focused on arranging periodical regional cooperative initiatives for capacity building to ensure maritime safety and security including sustainable blue growth in the BoB.
- d. **Introduction of the Maritime Operations Centre:** BN may establish Maritime Operation Centre to monitor maritime activities and bring national waters under 24/7 surveillance. Until then, maritime headquarters may be activated to monitor and coordinate maritime security.
- e. **Establishment of Coastal Intelligence Network:** BN may establish an effective intelligence network to identify maritime criminals and miscreants. Intelligence staffs may develop a mechanism in collaboration with local

administration and local populations to prevent robbery, theft and other illegal activities in the coastal area.

f. **Consideration of the Blue Economy Requirement in Forces Goal:** Directorate Naval Plans may include the additional platform, equipment and manpower considering the BE security requirement in Forces Goal.

g. **Acquisition of Purpose Oriented Platforms:** BN may procure purpose-oriented suitable ships, boats and other platforms considering the distance, weather and current activities. BN may include salvage ships and pollution control ships in her inventory to act upon any related accident.

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Brief Biography



Lieutenant Commander Mohammad Arifur Rahman, (TAS), BN was commissioned on 01 December 2004 in the Executive Branch of BN. He has undergone a number of professional courses both at home and abroad. He attended Basic Submarine Orientation Course in Turkey and Long Specialisation Course on Torpedo Anti-Submarine (TAS) in BNS ISSA KHAN. The officer underwent Potential Platoon Commander's Course (PPCC) in Bangladesh Military Academy (BMA). He served in Bangladesh Naval Academy (BNA) as Divisional Officer and Cadet Gunner. Lieutenant Commander Arif served onboard various ships of Bangladesh Navy in different capacities. He commanded Missile Boat and he was appointed as Executive Officer onboard BNS DURJOY and BNS SHAPLA. The officer served in Naval Headquarters as Staff Officer Plans-I. He is a proud member of 1st Bangladesh Navy Force Marine Unit (BANFMU) in South Sudan. The officer is happily married and blessed with one son and one daughter.

EFFECT OF POST-TRAUMATIC STRESS DISORDER MANAGEMENT ON MILITARY OPERATIONAL EFFECTIVENESS: THE NIGERIAN ARMY PERSPECTIVE

Major Taimada Bladiya Dzarma, Nigerian Army

Abstract

The Nigerian Army is increasingly involved in a wide spectrum of military operations both at home and abroad. This has exposed its personnel to violent experiences which have often resulted in Post-Traumatic Stress Disorder (PTSD). As such, improved PTSD management would enhance the Operational Effectiveness of the Nigerian Army. Consequently, this research set out to confirm how PTSD is managed in the Nigerian Army and ascertain its relationship with its operational effectiveness. Additionally, it identified the challenges militating against PTSD management for enhanced operational effectiveness as well as proffered strategies to mitigate the challenges. The study established that there was a direct relationship between PTSD management and Operational Effectiveness in the Nigerian Army. Challenges identified in the course of the study include, poor understanding of condition, inadequate mental health care facilities, ignorance and poor administration. The proffered strategies to mitigate these challenges in PTSD management included, sensitization and infrastructural development. Others include implementation of Mental Health Policy as well as incorporation of Religious Leaders and Commanders in the process. Finally, the Nigerian Army could key into the Federal Ministry of Health Mental Health Programme.

Introduction

Over the course of history, exposure to traumatic experiences have always been a condition faced by man. Violent events such as war has led to psychological responses by survivors of the experiences. Literary accounts of these were captured in the works of early authors such as Homer's "The Iliad" and William Shakespeare's "Henry IV". Both authors describe soldiers traumatised by the effects of war. In more modern times, the first description of post traumatic symptoms in soldiers exposed to combat stress was termed "Soldier's Heart" in 1871 by Dr Mendez Dacosta. This was due to what he thought was a cardiovascular condition. Since then, military psychiatrists have called the problematic effects of combat stress various names such as "Shell Shock", "Combat Exhaustion" and so on, depending on diagnoses. The diagnoses were from analysis of different effects of combat exposures which lead to varying psychological traumas. Post-Traumatic Stress Disorder (PTSD) became the diagnosis we know today when it was included in the Anxiety Disorder section of Diagnostic and Statistical Manual (DSM) III Psychiatric Manual in 1980.

Frued (1917) described psychological trauma as a process initiated by an event that confronts an individual with an acute, overwhelming threat. DSM IV (2000) builds on this and goes on to mention that when the affected person can effectively integrate the trauma into conscious awareness and recognize it as part of the past, then the problem is coped with. The Manual further states that conversely, when the event is not properly integrated and is submerged from awareness, the initiating stressor is most likely to assail the person and may manifest as mental trauma. PTSD is a psychological trauma diagnosed after a person experiences symptom of psychic trauma for at least one month following a traumatic event. PTSD sufferer's exhibit persistent symptoms of anxiety or arousal that were not evident before the traumatic event, these symptoms include recurrent recollection of the event and intense psychological distress on exposure to events resembling aspects of the trauma.

In some militaries in the world, personnel remain in active service long after exposure to trauma, with the most common trauma being combat related. These traumas negatively affect victims' output and their ability to perform assigned tasks. When the effect is observed cumulatively, the operational effectiveness of the militaries could be impacted negatively unless when properly managed. In the Nigerian Army (NA), PTSD until recently was largely overlooked. This was evident from the manner in which NA troops traumatised from early military operations such as the Nigerian Civil War, Economic Community of West African States Monitoring Group (ECOMOG) operations in Liberia and Sierra Leone and various other peace support operations were managed. In most cases, these personnel were tagged as psychotic and left to cater for themselves.

In recent times, the increased involvement of the NA in Counter Terrorism and Counter Insurgency (CTCOIN) operations in Nigeria, has cast a spotlight on PTSD in NA personnel. Consequently, the NA has become conscious of the condition. However, the improper management of the condition as a result of poor understanding, knowledge and inadequate facilities, has impacted negatively on the operational effectiveness of the NA. It is against this backdrop that this research seeks to examine the impact of effective PTSD Management on the operational effectiveness of the NA. Furthermore, it will proffer suitable schemes which could mitigate the challenges to PTSD management in the NA to enhance Operational Effectiveness.

Current Management of PTSD in the Nigerian Army for Operational Effectiveness

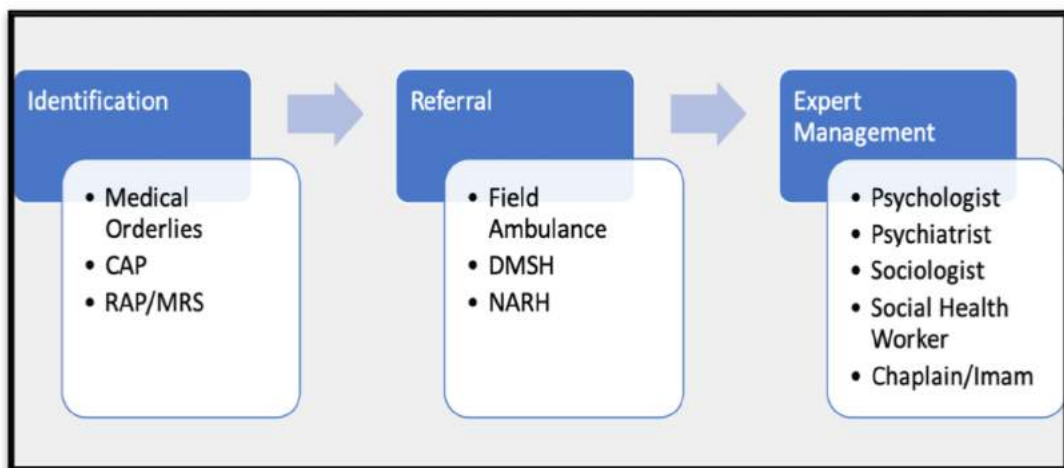
Overview of PTSD Management in the Nigerian Army: The earliest recorded attempt to investigate the prevalence of PTSD in the NA was conducted in February 1996. This study was carried out on hospitalized veterans evacuated from Liberia and Sierra Leone to establish the relationship between PTSD, Survivor's Guilt and Substance Abuse. It collected data from all hospitalized patients from Operation LIBERTY during a 4-year period which covered 1990 - 1994. Findings of the study stated that there was a 22 per cent prevalence rate for PTSD amongst the sample population, while 38 per cent of the respondents suffered from survivor's guilt. The study further associated PTSD with

protracted deployments in mission areas with its attendant consequences as alcohol addictions and other substance abuse.

Current Post-Traumatic Stress Disorder Management in the Nigerian Army

The current system employed in the NA for management of PTSD follows the normal casualty evacuation system from company aid posts up to reference hospitals. The primary task of identification lies with medical orderlies and most especially, the soldiers themselves. Once PTSD has been identified or is suspected in a patient, the patient may be referred to the respective Division Medical and Specialist Hospital (DMSH) for expert management and onward to a Nigerian Army Reference Hospital (NARH). The management of patients suffering from mental or behavioural disorders in the NA is thus carried out by a team consisting of psychologists, psychiatrists, sociologists, social health workers and chaplains.

Figure 1: PTSD Management System in the Nigerian Army



According to Ogbole (2019), there is currently a low prevalence rate of PTSD in the NA based on existing records and statistics. However, he points out that this is due to under reporting as opposed to existing management conditions. This implies that there may be greater prevalence of the condition than reported. This assessment was corroborated by Adanu (2019) when he stated that cases of PTSD are much greater in the NA now as compared to the periods of ECOMOG operations in the past. He attributed this rise to elements such as; Home Factor, Pattern of Operations and Substance Abuse. This gave credence to Ogbole's assessment that a considerable amount of personnel mask the symptoms of PTSD through Substance Abuse.

On clinical basis, the methods of treatment of PTSD used in the NA are Cognitive Behavioural Therapy (CBT) and Eye Movement Desensitization and Reprocessing (EMDR). However, the efficacy of these methods cannot be quantified as poor tracking and monitoring of patients has hindered it. Nonetheless, Ogbole states that there are signs of remarkable progress though this could not be backed up by relevant data. Therefore, in order to better understanding its prevalence in the NA and facilitate remedying it, better data collection and statistics also have to be collected.

PTSD Treatment in the Nigerian Army

Cognitive Behavioural Therapy: Hollon (1998) describes CBT as an approach to treatment based on the notion that, the way an individual thinks about an event determines in part how he or she responds to that event, both in terms of affect and behaviour. Hollon goes on to explain that in CBT, the therapist helps the patient to identify and correct erroneous beliefs and systematic distortions in information processing in the service of reducing distress and enhancing efforts to cope. In essence, Hullon states that patients are encouraged to treat their beliefs as hypothesis and are guided to do so in ways that protect against the biases and distortions that preserve the idiosyncratic misconceptions inherent in them in disorders.

Eye Movement Desensitization and Reprocessing: Shapiro and Solomon (2010) described EMDR as an integrative psychotherapeutic approach that emphasizes the role of the brain's information processing system in ameliorating the somatic and psychological consequences of distressing events. EMDR is an eight-phase treatment, including a tripartite protocol that focuses on the memories underlying current problems and those that must be specifically addressed to bring the client to a robust state of psychological health. One of its distinguishing characteristics is its use of bilateral physical stimulation, such as side-to-side eye movements, alternating hand taps, or alternating auditory tones while the person undergoing treatment is mentally focusing on aspects of various life experiences.

Figure 2: Evidence Based Psychotherapy for PTSD

Table 1. Evidence-Based Psychotherapy for PTSD		
Treatment Modalities	Main Points of Therapy	Typical Length
CPT	Learning about PTSD symptoms; becoming aware of thoughts and feelings; learning skills that challenge thoughts and feelings (cognitive restructuring); understanding changes in beliefs	4 mo of weekly sessions
PE	<i>Education:</i> learning about common trauma reactions and PTSD; understanding treatment goals <i>Breathing retraining:</i> increasing relaxation and distress management <i>Real-world practice (in vivo exposure):</i> reducing distress in a safe situation that was once avoided <i>Talking through the trauma (imaginal exposure):</i> learning to gain control over thoughts and feelings about the trauma	8-15 weekly sessions
EMDR	Identifying target memory, image, and belief about the trauma <i>Desensitization and reprocessing:</i> focusing on mental images while doing eye movements; installing positive thoughts and images once the negative images are no longer distressing <i>Body scan:</i> focusing on tension or unusual bodily sensations to identify additional symptoms that can be addressed in later sessions	4-12 weekly sessions
<i>CPT: cognitive processing therapy; EMDR: eye movement desensitization and reprocessing; PE: prolonged exposure therapy; PTSD: posttraumatic stress disorder. Source: References 1, 2.</i>		

Implication of PTSD Management on Operational Effectiveness in the NA

In the course of the study, it was established that PTSD has an effect on Operational Effectiveness in the NA. Survey results found that 95.73% of respondents believed that PTSD effected Operational Effectiveness. The survey further found that the effect of PTSD was believed to be negative by 82.56%, while 7.12% and 10.32% believed it to be positive and were indifferent respectively. The effects in the NA were found to be in the areas of personnel motivation and competencies. Additionally, area such as confidence and competence as well as commitment and faithful conduct of operations. These implications are discussed in subsequent paragraphs.

Personnel Motivation: Personnel motivation and competencies is one of the areas negatively impacted on by poor PTSD management which consequently impinges on Operational Effectiveness in the NA. It is a known fact that there is a direct relationship between personnel motivation (morale) and competency (output). Therefore, PTSD has a negative effect on their morale and their output, which affects efficiency. This assertion was verified by Nnaji (2019) when he stated that there was a marked decrease in troops' performance as a result of PTSD and its stressors. This account was also corroborated by AO Obochi (2019) and MT Nagudu (2019) as well. Ogbole surmised that the NA had witnessed a steady rise in cases of substance and drug abuse in contemporary times, as personnel try to alleviate their fears and anxiety.

Confidence and Competence: Confidence and competence with military hardware and weapon systems is a very important hallmark of an armed force's or unit's Operational Effectiveness. It is another attribute which is negatively affected by poor PTSD management. The manifestation of PTSD symptoms could also be reinforced by significant distress or impairment in social, emotional, occupational or critical areas of living. Personality changes may occur with long term intensive trauma if not quickly diagnosed and managed, which often leads to 'Complex PTSD'.

Commitment and Faithful conduct: Commitment and faithful conduct of operation entails the attitude of personnel to willingly work hard to support and achieve a task. A soldier or officer suffering from PTSD and has no access to proper care or management will consequently be distracted by the various symptoms manifest in the course of his ordeal. PTSD as mentioned, causes significant distress or impairment in occupational and social life and consequently lead loss of output. Thus, personnel commitment and faithful conduct of which are pillars for operational effectiveness are profoundly affected negatively by the condition.

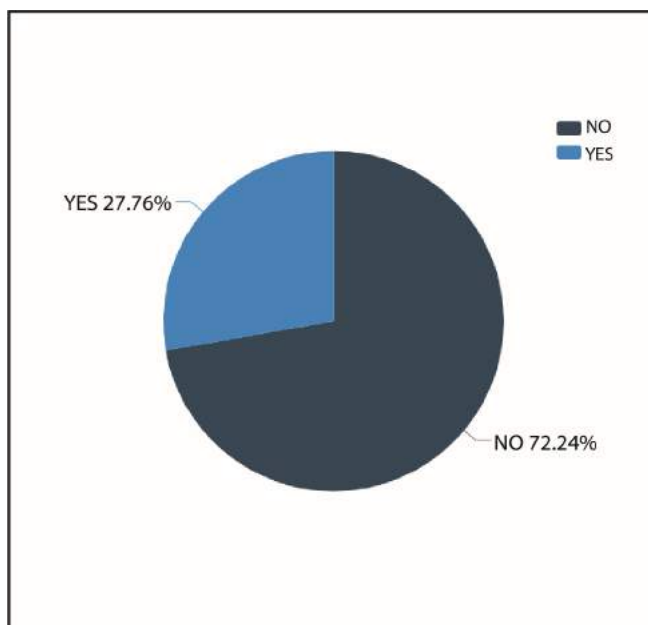
Strength Depletion: In order to function effectively, an army unit must have sufficient manpower to meet its obligations. This is an area which is greatly affected by the existing PTSD Management system in the NA. PTSD sufferers when identified, are evacuated, with units seldom getting replacements. This coupled with other medical evacuations as well as increased responsibilities, greatly impinges on its operational

effectiveness, and by implication, that of the NA as a whole. Al Mohammed (2019) also pointed to the fact that those returned to the unit after treatment, could seldom be used efficiently as a result of treatment induced restrictions. This goes to show that the existing PTSD Management system affects the Operational Effectiveness of the NA through strength depletion.

Challenges Contending Against PTSD Management for the Operational Effectiveness of the NA

Challenge in Identification: Treatment of PTSD and indeed its management relies heavily on the first step, which is identification. This is because, as stated by Adanu, it is the first step which starts the entire process. It therefore requires all involved to have a considerable grasp on the indicators of the disorder in order to facilitate identification and subsequent treatment/management. However, as stated by experts like Adanu and Ogbole, though there is fair knowledge of the condition, there is a lack of awareness as to what the indicators are. This was corroborated by survey results where 72.24% of respondents didn't know what the indicators of the PTSD were though a combined 80.78% were familiar or fairly familiar with the condition.

Figure 3: Level of Awareness of PTSD Indicators in NA Personnel



Poor Understanding and Awareness of the Condition: Poor understanding of PTSD is one of the factors militating against PTSD management for Operational Effectiveness in the NA. This is corroborated by Ogbole, who posited that NA personnel with low academic background tend to be less knowledgeable on issues surrounding PTSD.

Additionally, there is still a distinct lack of understanding. Reasons for the poor understanding of PTSD and its related or co-morbid manifestations could be adduced to a dearth of research and enlightenment on subject in the NA. In the course of the study, it was discovered that the subject has not been adequately addressed by the NA medical authorities, though there is considerable improvement compared to erstwhile operations. This obvious lapse has therefore resulted in poor awareness and understanding of the condition at all levels of the military hierarchy.

Inadequate Care Facilities: Inadequate health care facilities are another impediment to PTSD management for Operational Effectiveness in the NA. In the Armed Forces of Nigeria in general and the NA in particular only 44 and 68 NARH in Kaduna and Lagos respectively are designed military hospital established with mental health care delivery capabilities. According to Ogbole, these hospitals are the only 2 general health care facilities which have successfully tried to integrate mental health into their services. These hospitals are however too poorly equipped to give comprehensive coverage to all mental health cases in the NA, let alone the entire Armed Forces. The hospitals are deficient in equipment and facilities needed for the treatment of mental health cases. This assertion is substantiated by a survey of medical experts which ranked lack of infrastructure, facilities and equipment as major impediments to adequate management of PTSD in the NA for its Operational Effectiveness.

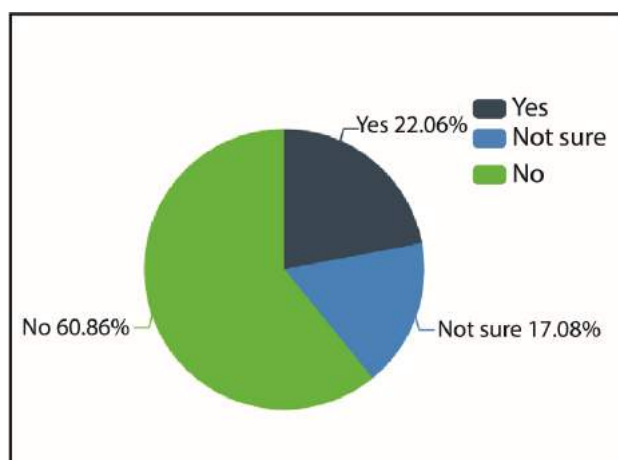
Ignorance: Ignorance is one of the main contributory factors resulting from cultural beliefs which militates against PTSD management for enhanced Operational Effectiveness in the NA. Ignorance of PTSD and related mental conditions is as a result of poor enlightenment of personnel. According to Adanu, though the Nigerian Mental Health Policy (MHP) was formulated in 1991 and was meant to include components like advocacy, promotion, prevention, treatment and rehabilitation. It is sad to note that successive NA leaderships have not kept to the 'spirit' of the MHP, as there has been no attempt to reduce stigmatization of mentally ill individuals in society and also integrate mental health care into general health care. According to Adanu, this has adversely affected mental health care in the NA, as it has affected the ability of people with these conditions to come forth for assistance. It is noteworthy to mention that the NA in its bid to address this challenge embarked on quarterly sensitization programmes in Operation LADIYA DOLE in Nigeria's northeast. However, this exercise has to be expanded to encompass the entire NA.

Poor Administration: Poor administration is another identified challenge militating against efficient PTSD management for enhanced Operational Effectiveness in the NA. Poor administration is not only reflected in operational, logistics and administrative areas, but also affects the administration of mental health care. According to Ogbole, this may be adduced to the partial implementation of the NA MHP by the Army Headquarters. This omission has led to a poor Mental Health Delivery Structure (MHDS) which negates mental health delivery in the NA. There is thus the need to address the challenge of poor

administration in the management of PTSD in order to improve the Operational Effectiveness of the NA.

Cultural Stigmatization and Spiritual Connotations: Adanu states that a significant number of NA personnel suffering from PTSD tend to keep the conditions to themselves. He adds that the majority of such personnel do this as a result of cultural stigmatization, a misconception based on religious or spiritual beliefs or both. Consequently, the conditions of such victims remain concealed and thereby rapidly deteriorate, impinging on their efficiency. A survey conducted revealed that a combined 39.14% of respondents believed (17.08% were not sure) that there was a spiritual connotation to mental disorders, thereby corroborating Adanu's assessment. This insinuation poses a substantial obstacle to efforts to identify, treat and manage these personnel.

Figure 4: Notion on Spiritual Connotations in PTSD



Strategies to Mitigate the Challenges of PTSD Management for Enhanced Operational Effective in the Nigerian Army

Sensitization: The challenges of ignorance and poor understanding as well as stigmatization and religious connotation could be addressed by sensitization of personnel and their families. This could be achieved by pursuing an aggressive publicity drive aimed at all levels in the NA. It is suggested that the Medical HQ and facilities should embark on an aggressive enlightenment drive to educate personnel and families on various symptoms and manifestation of PTSD. In the operational theatres, the NA could harness the various Medical HQs in conjunction with Public Relation Outfits to prepare pocket booklets on PTSD. This process should be continuous and made a mainstay in NA forecasts and activities. In so doing, the challenges of poor understanding, stigmatization and religious connotation regarding the condition would be addressed squarely.

Implementation of Nigerian Army Mental Health Policy: The challenges of poor understanding of the problem as well as poor administration could be mitigated by the implementation of the NA MHP 2015. This would entail the COAS convening a committee made up of experts in the field of psychiatry from the NA as well as other relevant stakeholders to deliberate on the need for the integration of MHP into the NA Primary Health Care structure. This could then be subsequently followed by the inauguration of another committee to prepare guidelines for achieving the said objectives. This MHP could include supervisory bodies, performance measurement indicators, tenure for review of policy and the date of policy commencement. The policy could then be implemented at various formation level.

Synergy Between Health Care Personnel Military Commanders and Spiritual Leaders: The corporation of religious leaders and commanders could mitigate the challenge of stigmatization and spiritual misconceptions in personnel which is militating against PTSD management in the NA for enhanced Operational Effectiveness. The role of commanders, religious leaders and chaplains cannot be overemphasized in the proper management of PTSD in the NA. These group of individuals oversee personnel administratively and spiritually as they are positioned to elicit the trust of personnel and their families. Commanders and religious leaders could take advantage of the trust reposed in them by their subordinates, followers and their families to monitor and recognise changes in behaviour of personnel. They could also use such avenues as durbars, padre hours, Jumaat prayers and Sunday Services to intimate and impart knowledge to personnel about PTSD.

Infrastructure Development: The challenge of inadequate health care facilities could be addressed by the establishment of new mental health care facilities and upgrading the existing facilities in 44 and 68 NARH Kaduna and Lagos respectively. This could be achieved by the NA setting aside funds towards this end. In the interim, the NA which is presently at the forefront of PTSD management in the Armed Forces of Nigeria could be made to conduct rapid upgrades of the 2 Reference Hospitals first. The upgrade activities could involve the construction of sufficient bed facilities at both hospitals, which should also include padded rooms, adequate restraints, straitjackets and well stocked pharmacies. Furthermore, rapid recruitment of psychologists, psychiatrist, sociologist and other relevant experts could be conducted.

Keying into the Federal Government of Nigeria Psychiatric Disorder Programme: The challenge of poor administration could be addressed if the NA keys into the Federal Ministry of Health's (FMH) Mental Health Programme: This could be achieved through the NA using Operation LAFIYA DOLE as a tool to lobby the National Assembly to pass the National Mental Health Policy (NMHP) 2013. The NA could then key into the areas of advocacy, promotion, prevention, treatment and rehabilitation. This would lead to the accreditation of established NA professionals and mental health facilities by FMH in order to benefit from future allocations for registered mental hospitals.

Implementation Plan for the Proffered Strategies

In order to improve PTSD management for enhanced Operational Effectiveness in the NA, there is a need to articulate an implementation plan for the strategies proffered in this study. Accordingly, a 3 - Phased Implementation Plan is hereby proposed for the proffered strategies. These are explained subsequently, while a graphical representation of the implementation plan is detailed at Figure 5 below.

Figure 5: Implementation Plan for the Proffered Strategies

Serial	Strategy	Implementation Plan			Action
		Phase 1	Phase 2	Phase 3	
(a)	(b)	(c)	(d)	(e)	(f)
1.		The COAS convenes stakeholders meeting to strategize on integrating MHP into Primary Health Care in the NA. b. NA Medical Corps Commanders issue White Paper on commencement of MHP in various formations. c. The COAS endorses and implements the MHP. d. PTSD enlightenment programme for all NA personnel and families commences. e. The distribution of PTSD Checklist/Handbook to all troops of the NA, beginning with those in operational areas and then to those in barracks, as well as their families.	Committee set up to work out modalities for integrating NA MHP into the FMH Mental Health Programme. b. Army HQ sets up lobby group in conjunction with relevant stakeholders to push for the implementation of the NMHP 2013. c. A committee is set up to work out modalities for referrals, cooperation and capacity building of Mental Health Care professionals in the NA and FMH personnel. d. Committee to draw up all requirements for integration of mental health care services in all hospitals at various levels in the NA.	The COAS flags off the integration of mental health care services in the NA into the FMH National Mental Health Programme/Policy. b. Budget drawn up for effective implementation of MHP by the NA. c. The construction and equipping of special wards for mental health care in all NA hospitals and aid posts.	COAS
2.	Upgrade of Existing NA MHC Facilities				AHQ, Medical Corps
3.	Formulation and Review of MHP				AHQ Medical Corps
4.	Incorporations of Spiritual Leader				Formation HQs, Medical Corps
5.	NA keys into FGN Mental Health Care Programme				AHQ

Phase 1: Phase 1 is the preliminary and preparatory phase. Activities involved in this phase include the following:

- a. The COAS convenes stakeholders meeting to strategize on integrating MHP into Primary Health Care in the NA.
- b. NA Medical Corps Commanders issue White Paper on commencement of MHP in various formations.

- c. The COAS endorses and implements the MHP.
- d. PTSD enlightenment programme for all NA personnel and families commences.
- e. The distribution of PTSD Checklist/Handbook to all troops of the NA, beginning with those in operational areas and then to those in barracks, as well as their families.

Phase 2: Phase 2 is the implementation phase. It could entail the following activities:

- a. Committee set up to work out modalities for integrating NA MHP into the FMH Mental Health Programme.
- b. Army HQ sets up lobby group in conjunction with relevant stakeholders to push for the implementation of the NMHP 2013.
- c. A committee is set up to work out modalities for referrals, cooperation and capacity building of Mental Health Care professionals in the NA and FMH personnel.
- d. Committee to draw up all requirements for integration of mental health care services in all hospitals at various levels in the NA.

Phase 3: Phase 3 is the consolidation and evaluation phase. It will include the full implementation of the strategies proffered and the continuous monitoring, evaluation and review of the strategies. These are as follows:

- a. The COAS flags off the integration of mental health care services in the NA into the FMH National Mental Health Programme/Policy.
- b. Budget drawn up for effective implementation of MHP by the NA.
- c. The construction and equipping of special wards for mental health care in all NA hospitals and aid posts.

Modalities for seamless referral system could be initiated between the NA and FMH Neuro-Psychiatric institutions.

Conclusion

The research has appraised the impact of PTSD Management on Operational Effectiveness in the NA. It began by briefly highlighting the history of PTSD in the NA and its management. Subsequently, the research delineated the overview of the current PTSD Management system in the NA and examined it. Issues associated with PTSD

Management were also highlighted and some challenges identified. Subsequently, measures to mitigate the challenges were proffered. Data was sorted at both quantitatively and qualitatively. Generally, quantitative results received conformed to expectations. From statistics obtained, there was an estimated 95.73% affirmation in responses that PTSD has an effect on Operational Effectiveness. The identified areas of impact include; personnel motivation, confidence and competence, commitment and faithful discharge of duties as well as unit strength depletion. Data from the study identified the challenge in identification of PTSD sufferers as one of the major stumbling blocks to effective PTSD management for Operational Effectiveness in the NA. Surveys revealed an overwhelming 72% of respondents were not aware of the common indicators of PTSD in a person. Results also showed that awareness levels were fair, however only 46.26% of those who were aware were made so through the NA, indicating that the NA needs to do more in terms of sensitization. Furthermore, issues like ignorance, lack of adequate care facilities and poor administration were identified by experts as mitigating factors in the delivery of effective PTSD Management in the NA. The challenges of poor understanding, stigmatization and religious misconceptions associated with PTSD were found to also pose a significant impediment to Operational Effectiveness in the NA. Adanu and other experts asserted that a significant number of NA personnel suffering from PTSD hide their conditions due to these reasons. To overcome these challenges, it was found that the NA could embark on a radical sensitization drive to create awareness amongst personnel of the NA as well as their families in order to reduce the stigma attached to the condition. Infrastructural development as well as implementation of NA MHP were also identified as measures which would facilitate improved PTSD management in the NA. Overall, Operational Effectiveness of the NA could be enhanced by ensuring efficient and adequate management of PTSD amongst personnel suffering from the condition. Consequently, it can be deduced that Improved PTSD management would enhance the Operational Effectiveness of the NA. The hypothesis is thus validated and accepted.

Recommendations

Based on the findings of this research, it is recommended that:

- a. The NA should conduct PTSD sensitization campaign at all levels in the NA.
- b. The NA should implement the NA MHP 2015 and key into the FMH Mental Health Programme.
- c. The NA should incorporate religious leaders and commanders in tackling PTSD Management.

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Brief Biography



Major Taimada Bladiya Dzarma was born on 02 January 1985. He was commissioned in the Nigerian Army on 29 September 2007 from the Nigerian Defence Academy, Kaduna. In addition to the mandatory courses, Major Dzarma has attended several other courses. Some of these include, Regimental Intelligence and Security Officers' Course, UN Military Observer Course and Disaster Management Course. Since commission, he has served in various Nigerian Army units, formations and establishments, holding various staff and instructional appointments. Before joining the Defence Services Command and Staff College Bangladesh, he was Staff Officer Grade II G3 (Operations) at the 27 Task Force Brigade, Nigerian Army. He has successfully graduated from Nigerian Defence Academy with B.Sc. Mathematics and Computer Science. His hobbies include travelling, computers, gadgets and watching football. He takes keen interest in contemporary affairs.

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