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“Read! In the name of your Lord Who has created (all that exists)”

Surah Al-Alaq (Verse 96)



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MESSAGE FROM THE CHIEF PATRON

National Defence College has been striving since 1999 with a vision to be the premier national centre of excellence on leadership, defence, security, strategy and development studies - meeting all the challenges of the 21st century. Since its inception, the college has been relentlessly presenting time - befitting academic curricula to the potential policy planners, senior leaders and strategic thinkers of the future. The college aims to create a balanced outlook and bring a visualization amongst the Course Members with a strategic and operational level understanding. The chronicles of the past 24 years testify the viability of the academic system that has contributed to this leading institution in gaining reputation of excellence both at home and abroad.

National Defence College being the highest level national institution in Bangladesh, has always been emphasizing on conducting research on contemporary issues of national importance. The common aim of research work is to enable Course Members to make original contribution to a subject of national or international interest, which has influence on national security and development. The NDC journal reflects the notable research works carried out by the Course Members and the Faculty of the college. I am assertive that the Research Papers included in this journal encompassing varied subjects would be considerably useful for the readers.

I congratulate all the authors who contributed to this journal. I appreciate the sincere efforts of Research and Academic Wing and acknowledge the hard work of editorial board to publish this journal in due time.



Md Akbar Hossain, SBP, BSP, SUP(BAR), afwc, psc, G+, PhD
Lieutenant General
Commandant

EDITORIAL

National Defence College, Bangladesh, is the premier national centre of excellence on leadership, security, strategy and development studies. The College believes that a senior officer from military and civil services should have a good understanding of the major economic, political and social issues of the nation and be able to recommend measures to meet the challenges. Hence NDC regularly conducts various research works on contemporary issues of national as well as international importance.

NDC Journal is a bi-annual publication of National Defence College publishing selected research papers prepared by the Course Members. The articles for the journal (Volume 22, Number 1, June 2023) are mostly selected from individual research papers that the Course Members had submitted as part of the course curriculum. National Defence College has been very regular in bringing out the 'NDC Journal' every year in time. This speaks of the laborious effort and genuine commitment on the part of both the editorial staff and the writers.

A total of 13 (thirteen) Research Papers have been adjudged for publication in the current issue in abridged form. The articles reflect complex and intricate multidimensional issues emanating from the long diversified experience of the Course Members and the curriculum based deliberations and discourse on various topics concerning comprehensive national security during the training. This volume includes papers of different categories that will be able to draw the attention of varied groups of readers.

We would like to express our sincere gratitude to the Chief Patron Lieutenant General Md Akbar Hossain, SBP, BSP, SUP (BAR), afwc, psc, G+, PhD, the Commandant of NDC for his valuable guidance. Research is a highly committed undertaking. Despite all efforts, unintentional errors in various forms may appear in the journal. We ardently request our valued readers to pardon us for such unnoticed slights and shall consider ourselves rewarded to receive any evocative criticism. We hope that all papers included in this volume will be able to satisfy our esteemed readers.



Md Mostagousur Rahman Khan, BSP, SGP, ndc, afwc, psc, M Phil
Major General
Senior Directing Staff (Army-2)

ABSTRACTS

**CONFLICT DYNAMICS OF POST-COUP MYANMAR WITH
SPECIAL REFERENCE TO RAKHINE STATE VIS-À-VIS FUTURE
OF FDMN REPATRIATION**

Brigadier General Mahbus Samad Chowdhury, BSP, ndc, psc

The military coup on 1 February 2021 sparked a protracted civil war in Myanmar. Following the coup, the National Unity Government (NUG) failed to reconcile the Ethnic Armed Organizations (EAOs) and the civil resistance groups. As a result of an ad hoc ceasefire agreement between the Tatmadaw and the Arakan Army (AA), the security situation in Rakhine was relatively calm for the initial few months, in contrast to other regions. However, as the AA expanded its administrative control in Rakhine, renewed conflicts in Northern Rakhine destabilized Northern Rakhine's security situation. This local conflict's spill-over into Bangladesh also heightened the likelihood of an international conflict. This qualitative research has analysed the post-coup conflicts and developed potential future scenarios, resulting in the finding that a peaceful and stable Myanmar, particularly Rakhine, is essential for the safe, secure, dignified, and sustainable repatriation of Forcibly Displaced Myanmar Nationals (FDMN) or Rohingyas from Bangladesh.

Keywords: Tatmadaw, National Unity Government (NUG), Ethnic Armed Organizations (EAOs), Arakan Army (AA), Forcibly Displaced Myanmar Nationals (FDMN), Rohingya, Coup, Conflict, Repatriation.

**APPROACHES TO PREVENT INTER-STATE CONFLICT: SOUTH
ASIAN REGION**

Brigadier General Mohammad Aksar Khan, ndc, psc, PhD

South Asian Region is seen as a region of friction and latent conflict. India-Pakistan and India-China rivalries are the major interstate rivalries in South Asian Region among whom all are nuclear powers. India and Pakistan fought wars in 1947, 1965, and 1971 and there was a conflict situation in 1999, 2002, 2008, and 2016. Indo-China war took place in 1962 and tensions erupted over the disputed border in 2013, 2014, 2017, and 2020-2021. There are multiple sources and dimensions of this rivalry at bilateral, regional, and global levels, as well as across multiple domains: geopolitical, economic, technological, ideological, and soft power. South Asian Region needs 'conflict prevention' arrangements to reduce the risk of interstate armed conflict. But there is no regional conflict

prevention mechanism or other effective multilateral arrangements in place to prevent conflict. The existing bilateral Confidence Building Measures (CBMs) are also insufficient, ineffective, or defunct. This thesis makes an endeavour to get an insight into the issue and find out the suggested conflict prevention approaches to prevent interstate conflict in South Asia for peace, security, and regional stability.

The research followed a qualitative method to conduct the study using primary data from textual analysis of documents and conducting the semi-structured interview of experts. Suggested conflict prevention approaches in the region are bilateral approaches for issues of high politics and multilateral approaches for issues of low politics. A combination of bilateral and multilateral approaches is likely to reap a better result. The economic cooperation approach is very workable that develops economic interdependency and prevents violence by increasing the cost of conflict. The peace education approach is significant in the longer term to develop a society that rejects violence and promotes peace. The cultural approach and environmental cooperation approach may also be pursued in South Asia. However, the multi-actor or 'multi-track approach (combination of the number of approaches)' is the most suitable approach in South Asia where both state and non-state actors need to participate in conflict prevention for sustainable peace in South Asia.

Keywords: Inter-state Conflict, Border, Conflict Prevention, South Asian Region.

GRADUATION OF BANGLADESH FROM LEAST DEVELOPED COUNTRY (LDC) TO DEVELOPING COUNTRY: CHALLENGES AND WAYS FORWARD

Brigadier General Md Ahsan Habib, SUP, ndc, psc

LDC graduation is a milestone achievement for the entire population of Bangladesh. A nation that leaves the LDC category successfully receives global recognition for its development achievements. This is meant to raise the amount of confidence that international financial actors have in the relevant nation's markets. Bangladesh government places a high premium on ensuring that the graduation process is straightforward, sustainable, and able to keep up with the demand. Bangladesh must design a comprehensive LDC Transition Strategy for the next five years and beyond. This strategy should include a roadmap to graduate with momentum, utilize the opportunities and handle any potential negative consequences of LDC graduation. In order to maintain profit margins, entrepreneurs will be required to be more innovative and adaptable as per the increased compliance standards.

Keywords: Socio-economic Backwardness, Road Network, Consensus Decision-making, Sharing Responsibility.

QUAD IN THE INDO-PACIFIC REGION: IT'S CONSEQUENCES AND IMPACTS ON BANGLADESH

Brigadier General Mohammad Humayun Kabir, ndc, afwc, psc, G

The Quad, officially the Quadrilateral Security Dialogue, is a group of four countries: the United States, Australia, India, and Japan. Maritime cooperation among them began after the Indian Ocean tsunami of 2004. But today the countries work on a far broader agenda, which includes tackling security, economic, and health issues. Over the years, the Quad's diplomacy has waxed and waned. Japan initially emphasized the democratic identity of the four nations, whereas India seemed more comfortable emphasizing functional cooperation. Australian leaders have been reluctant about creating the impression that the group is a formal alliance. Australia and Japan are U.S. treaty allies, and India is an important strategic partner. The Donald Trump administration worked closely with these countries, and the Biden administration is expanding the Quad's agenda. The Indo-Pacific spans two oceans and several continents, making it important to U.S. maritime interests. China's growing willingness to challenge the regional status quo worries Washington, and Beijing's challenging of democratic values over the past year has deepened other Quad partners' concerns as well. However, the Quad's agenda is not all about China. Leaders of the four nations also see a need for a more proactive approach to mitigate the humanitarian and economic challenges caused by COVID-19. It is important to understand how have different Southeast Asian stakeholders reacted to the Quad. Could the members of the Quad have successfully made the case that the grouping is not primarily a securitized alliance against China, and the prospects of ASEAN engaging with the Quad without upsetting its long-cherished stance on non-alignment? Can the Quad leverage existing initiatives, like the Blue Dot Network, to tap into the strong regional desire for investment, vaccines, climate change and emerging technology, and other critical needs in the region? How are these going to impact on a small but strategically important South Asian nation like Bangladesh? This research has attempted to answer these questions. It is a descriptive research using both primary and secondary data collected through various papers, journals, researches and numerous interviews of concerned scholars, academicians and subject matter experts. The findings and recommendations might assist Bangladesh to take appropriate steps in the field of foreign relations.

Keywords: ASEAN, Quad, Indo-Pacific Region, Balance of Power.

DEVELOPMENT OF MARITIME PORTS IN BANGLADESH: PROSPECTS AND CHALLENGES

Commodore Ziaur Rahman, (TAS), NGP, ndc, afwc, psc, BN

Efficient maritime port endows a nation's prosperity. The Bangladeshi maritime ports are operating with various administrative, operational and infrastructural limitations which pose challenges to development of maritime ports. Eliminating these limitations alone can enhance port efficiency significantly and reduce the cost of trade considerably. Besides, challenges in respect to lack of integrated hinterland connectivity and regional connectivity with prospective landlocked countries in the region hinder tapping benefits of the maritime ports of Bangladesh to full extent. With economic development at national and regional level, projected maritime trade volume is expected to rise in future which demands development of maritime ports in Bangladesh. Due to pattern of the subject, Cross-sectional Descriptive Research has been conducted under Non-Experimental Research. Both, primary and secondary data had been analysed qualitatively and quantitatively. The research outcome has shown that challenges posed by various administrative, operational and infrastructural limitations can be overcome by taking measures to counter those in enhancing efficiency of the existing ports. Gap analysis between projected volume of maritime trade from Bangladesh and from the region in the next 2 decades e.g. by 2041 and projected capacity of the maritime ports of Bangladesh demands timely completion of various development projects of the maritime ports. In addition of recommending prospective sites for new Deep Sea Port (DSP) and Single Point Mooring (SPM), preparation of National Port Master Plan has been recommended for holistic development of maritime port sector in Bangladesh for the next 2 decades.

Keywords: Projected Maritime Trade, Projected Capacity of Ports, Deep Sea Port, National Port Master Plan.

EMERGENCE OF BANGLADESH AS A HUB OF CONNECTIVITY FOR ECONOMIC GROWTH

Air Commodore Mohd Miraj Patwary, GUP, ndc, afwc, psc, GD(P)

Bangladesh is in a unique position to take advantage of the changing global landscape including economic movement from the west to the east. Due to the increased economic activity and connectivity, the aviation sector will grow very fast in this region, and Asia-Pacific will lead the global aviation growth. The airport serves as a hub for linking passengers, goods, and aircraft. In today's world, hubs

or mega airports are seen with huge volume of cargo, passengers, aircraft and lots of quality services. The focus points of the air hub are cost, pricing, and schedule analysis. The aviation sector of Bangladesh represents a sizable and as-yet unexploited opportunity to become a connectivity hub. Due to ignorance and a fear of the unknown, this area has thus far gone unnoticed. Therefore, it is important to identify the possibilities and challenges of making Bangladesh a regional air hub of connectivity which will also suggest the requirement of establishing maintenance, repair, and overhauling facilities. The airline companies find challenges as it is yet to get proper friendly policy and infrastructure support from the government. Problems compound with the management system, quality service, safety and security standard of the fleet, high import tax on aircraft and spare parts, high value added tax, high fuel cost, high bank interest, lack of maintenance, repair, and overhauling facilities, shortage of skilled manpower, and above all shortage of air-minded people. The way forward is to develop a strategic roadmap for the aviation industry and all the stakeholders should work together to prepare Bangladesh as an aviation hub.

Keywords: Aviation, Connectivity, Hub, Maintenance.

EXPORT DIVERSIFICATION: A SUSTAINABLE ECONOMIC GROWTH TRAJECTORY FOR BANGLADESH

Joint Secretary Md. Fazlul Haque, ndc

Export diversification significantly contributes to regulate volatility of export revenue and provides a more stable path for equitable growth. Currently, Bangladesh highly needs to diversify her export basket in compliance with multilateral, regional and bilateral trading rules and regulations to overcome challenges that would emerge after the country's graduation from the group of LDCs in 2026. Moreover, for becoming upper middle income country within 2031, developed country by 2041 as well as for implementing SDGs 2030 and Delta Plan 2100 huge revenue inflow is a crying need. Henceforth, the prime objective of the research is to predominantly contribute to the existing literature with an optimal diagnostic solution to a sustainable growth pathways through export diversification for financing her envisioned development goals. Based on the qualitative investigation this research provides an insight into the existing empirical literature through establishing a relationship between export diversification and sustainable economic growth of Bangladesh. Using data on various export products from 1972-73 to 2020-21, it is found that the export sector of the country is highly concentrated, because 85 percent of Bangladesh's

export earnings is received only from a single sector-RMG. This concentration is being continued for a significant period of time. The impacts of export diversification on sustainable economic growth are discussed through exploring structural features of the country's exports and economic growth trend and sustainability analysis. In this context, discussions regarding the weaknesses of the country's export sector and future challenges, prospects, policies, incentives and institutional support for export diversification reveal that export diversification has not been playing any significant role in the current robust GDP growth of the country. Hence, Bangladesh should emphasize on export diversification by means of harnessing both vertical and horizontal potentials and exploring new countries and regions for ensuring sustainable economic growth pathways which can substantially help reduce any unforeseeable volatility in export earnings.

Keywords: Export Diversification, Export, Sustainable Economic Growth Trajectory, GDP, Growth Trend.

DEVELOPING STRATEGIC COMMUNICATION ARCHITECTURE AGAINST EMERGING INFORMATION THREATS AS PART OF NATIONAL SECURITY STRATEGY

Brigadier Mahipal Singh Rathore, SM, VSM, ndc (India)

Through information, deception, and misinformation, antagonistic states, governments, non-state groups, and terrorists constantly construct their own narratives. It is extremely necessary to develop a strategic communications architecture both for domestic and international arena to be able to holistically counter the emerging information threats in order to safeguarding national security. The survey inputs clearly brought out that strategic communications are a crucial part of national security. The study made use of a mixed design, which included quantitative and qualitative methodologies. Statistical tools were also used to gauge how much of a correlation exists between the variables. The key findings were that democracies like India and Bangladesh need to take a whole-of-nation approach in addition to a whole-of-government approach to protect their own citizens from falling victim to information or digital influence attempts and reorganising their national strategic communications architecture and formulating policy guidelines through global and bilateral cooperation on data protection, data access and legal frameworks. These systems are required in quick time as others are exploiting these nuanced threats to fracture the societies of democracies with large populations, as attempts to cause social unrest and disharmony using social media platforms are increasing by the day. Strategic Communications are a crucial part of the national security strategy and an important tool for controlling false

narratives and offering a consistent and factual viewpoint. In order to successfully construct one's own strategies as part of efforts to promote national security, it is essential to use Strategic Communications as a tool for fending off SM-based information threats and disseminating one's own points of view to local as well as international audiences. These initiatives are a part of the national security effort. To combat the dangers posed by SM-based material, the governments of India and Bangladesh must undertake effective counter measures in addition to creating a Strategic Communications architecture.

Keywords: Digital Influence, Social Media, Strategic Communications, National Security, Information threats

COUNTER INSURGENCY AND NATIONAL SECURITY IN NIGERIA: AN ASSESSMENT OF GEOSPATIAL INTELLIGENCE

Group Captain Abang Kenneth Oyong, ndc (Nigeria)

How has the absence of Geospatial Intelligence (GEOINT) affected Counter Insurgency (COIN) operations to the detriment of national security in Nigeria? This question needs to be answered in order to address the challenges encountered by the Armed Forces of Nigeria (AFN) in their fight against the Boko Haram insurgents. Conventional wisdom suggests that the use of traditional intelligence collection methods such as Open Source Intelligence (OSINT) and Human Intelligence (HUMINT) will produce the desired result in the fight against the Boko Haram Terrorists (BHT). In contrast, this research argue that OSINT and HUMINT are necessary but not sufficient in defeating the BHT. This research contend that the use of smart technology such as GEOINT has become inevitable in the COIN operations to enhance national security in Nigeria. According to Liddel Hart, most insurgencies possess the characteristics of mobility and invisibility which give them some advantage over conventional forces. However, Andrew Terrill argues that regular forces would have greater advantage over such insurgents through the adoption of smart technologies such as drones and GEOINT. The researcher, therefore, concur with Andrew Terrill and employed a qualitative research method to test the validity of the argument. Data were derived from primary and secondary sources including document analysis. The research findings suggest that Nigerian COIN success against the BHT has been impeded by the following factors: Continuous dependence on OSINT and HUMINT, failure to employ GEOINT, absence of a central geospatial coordination center and lack of a central intelligence fusion center. The Researcher employed the Technology Acceptance Model (TAM) theory and found that the inability of the security forces to accept and adopt GEOINT in their COIN operations has

negatively affected their COIN effort. Overall, the findings of the study provided valuable insights on the importance of adopting technology such as GEOINT in COIN operations to enhance the efficiency of the Armed Forces. This research has useful policy implications for the AFN. It stresses the need for the Nigerian Government to make policies that ensures the inclusion of GEOINT in COIN operations for enhanced National Security in Nigeria.

Keywords: Counter Insurgency, National Security, Geospatial Intelligence, Open Source Intelligence.

EVALUATION OF THE ACADEMIC CURRICULUM FOR THE OFFICERS OF BANGLADESH ARMY: A QUEST FOR EXCELLENCE

Lieutenant Colonel Md Emdadul Islam, afwc, psc, G, Artillery

The academic curriculum for military officers should be able to complement the military curriculum and should be able to impart the necessary knowledge that an officer of the 21st century must possess. Nevertheless, when examining the academic curriculum of the officers of Bangladesh Army, it can be observed that the academic curriculum of the BMA aligns itself with the national curriculum, rather than offering a tailored educational programme. Furthermore, there seems to be a lack of direct correlation between the current Honours curriculum at the BMA and the subsequent Master's curriculum that officers pursue throughout their careers. Against this backdrop, the primary aim of this study was to assess the adequacy of the academic curriculum provided to officers within Bangladesh Army, with the objective of aligning it with the demands of the 21st century. The researcher undertook an 'Exploratory Research' and followed a 'Mixed Method Approach'. The research encompassed the analysis of both qualitative and quantitative data. Primary and secondary data were collected through perception surveys, interviews, focus group discussions (FGD) and content analysis. After the research, it was evident that a well-designed customized academic curriculum for the cadets of BMA and linking the curriculum with the Master's Programme that the officers undergo later in their career by introducing structured academic curriculum in those programmes would prove beneficial. Consequently, it is imperative to undertake a comprehensive restructuring of the academic curriculum throughout the officers' careers within Bangladesh Army at the earliest opportunity, aiming to enhance the overall effectiveness and progress of the organization.

Keywords: Education, Academic Curriculum, Military Education, 21st Century, Officers of the Bangladesh Army.

BUILDING PROFESSIONAL RESILIENCE AMONGST THE MID-LEVEL OFFICERS OF BANGLADESH (BD) ARMY: A COMPREHENSIVE APPROACH

Lieutenant Colonel Mohammad Kamrul Hasan, SUP, afwc, psc, Infantry

Professional resilience is one of the important qualities which allows military officers to perform better in their respective workplaces. Mid-level officers (Officers between the rank of Captains and Lieutenant Colonels) are the backbone of the officers' corps of BD Army since they hold key positions at different levels. Senior leaders mostly rely on them to convey their ideas and concepts for implementing those at ground level. In addition, they are impacted by their social environment and family members' requirements. External factors are likely to hinder the performance of the mid-level officers until and unless they are equipped with adequate professional resilience. BD Army needs to adopt a comprehensive strategy to affect all relevant aspects that contribute to the development of professional resilience of the mid-level officers. The objective of this research was to find out the relationship between professional resilience and efficiency at the workplace environment. This was a causal research which established a relationship between professional resilience and efficiency of the mid-level officers of BD Army. For the research, both qualitative and quantitative data were collected. All the data were analyzed through SPSS software version 24. The responses reflected that there were relations between professional resilience and efficiency. The study also identified four domains of building professional resilience. These are: physical, psychological, cognitive, and social. It is identified that all the stakeholders – individual officer, family, unit/institution, and society – need to perform their roles to develop comprehensive resilience amongst the officers. To that end, the research developed a model for building resilience amongst the mid-level officers of BD Army. While officers may work to develop their own professional resilience, units/institutions, families, and society as a whole need to be supportive enough to aid officers in this area.

Keywords: Resilience, Professional Resilience, Comprehensive Approach, Mid-level Officers of BD Army.

BANGLADESH-INDIA BILATERAL DEFENCE COOPERATION: CHALLENGES AND WAYS FORWARD FOR FOSTERING BETTER TIES

Lieutenant Colonel Sheikh Ramiz Uddin Md Waseem, SPP, afwc, psc, AC

The relationship between Bangladesh and India is a unique one and deeply rooted in the history. There are a plenty of reasons to have friendly relations between

the two countries. The existing relation is surely multi-faceted with defence cooperation being an important one. The bilateral relation is often referred to have reached a new height in the recent past by the concerned stakeholders of both the countries. However, there are quite a few inhibitors in that too. It is also often alleged that the existing cooperation is asymmetric in manifold, the outcome of which favours India mostly, failing to meet a win-win formula. Hence, this research is based on the problem statement – ‘Bangladesh and India are not reaping maximum out of their enormous mutual potential of cooperation in the defence sector.’ The broad objective of the research has been to suggest enhanced defence cooperation modalities between Bangladesh and India with a view to achieving an enhanced bilateral relation and growth. The author took an effort to develop an understanding on the current state of bilateral cooperation between the two countries. Outcome of the data collected following both quantitative and qualitative methods revealed that there are quite a few challenges in improving the bilateral defence cooperation further, some being core defence issues while some are associated ones. These must be addressed to foster a more meaningful cooperation. Accordingly, the paper postulated a few suggestive measures to improve the bilateral defence cooperation between the two countries from a holistic point of view. An enhanced defence cooperation will effectively contribute to an overall better bilateral relation and fetch growth for both the countries. Thus, ‘security and growth together for both the countries’ can be ensured.

Keywords: Defence Cooperation, Bilateral, Bangladesh Armed Forces (BDAF), Indian Armed Forces (INAF).

SUBJECT MATTER EXPERT: A FEASIBILITY STUDY FOR THE OFFICERS OF BANGLADESH ARMY

Lieutenant Colonel Md Reazul Islam, SUP, afwc, psc, Artillery

Subject Matter Experts (SME) possess understandings on their fields of specialty that are uncommon, making them invaluable to concerned organizations. Their roles are particularly significant to project development and management, planning and implementation of training, professional consultation for policy and strategy formulation, or even handling of a particular system/equipment. Having been coined in business and project management arena, SMEs are gradually making their headway into military domains too. Few modern armies have already embraced the concept institutionally. Bangladesh (BD) Army is at natural disadvantages as it is statistically outnumbered and outgunned by its

potential adversaries. To avoid being outwitted and to offset the status-quo, like Israel and Singapore Defence Forces, it should maximize its human capital that largely banks on the officers. While countries like the UK, the USA and China are increasingly relying on SMEs on military matters, the idea is nascent for BD Army. At this backdrop, this article is attempted to study the feasibility of nurturing and managing recognized SME officers for BD Army. The article highlighted many aspects where incorporation of SMEs would be practical necessities in future. Some of them, inter-alia, are- aiding formulation of policies/strategies, doctrines and publications; planning and conduct of specialized training; assisting in smart decision making; enhancing defence industrial capabilities; strengthening futuristic capacity building programs; bolstering overall Research and Development (R&D) efforts; and bringing better focus in career management of the officers. However, present Human Resource Management (HRM) regime poses multiple challenges to implement the idea. To overcome those, options suggested in this article include- proper need assessment, conduct of arms/service specific feasibility studies, decision on competency and capacity building requirements of the SMEs and generating their career management options, and finally phased execution through perspective planning after necessary piloting, etc.

Keywords: Subject Matter Experts, Military Specialists, Human Resource Management, Career in Military.

CONFLICT DYNAMICS OF POST-COUP MYANMAR WITH SPECIAL REFERENCE TO RAKHINE STATE VIS-À-VIS FUTURE OF FDMN REPATRIATION

**Brigadier General Mahbus Samad Chowdhury,
BSP, ndc, psc**

Introduction

On February 1, 2021, the Myanmar military (Tatmadaw) seized power in a bloodless coup deposing Aung San Suu Kyi's National League for Democracy (NLD). Myanmar is no stranger to military rule, but this time the general populace reacted differently with unprecedented levels of protest and violence. Some ex-NLD leaders formed the National Unity Government (NUG), a parallel government, calling for a national resistance movement against the military regime and attempted to unite all ethnic minorities, including the Rohingya, and also established the People's Defence Force (PDF) – a militia to fight alongside Ethnic Armed Organisation (EAOs) to overthrow the military regime. The NUG attempted to rally support from around two dozen active EAOs but was unable due to their disparate interests and affiliations. However, some EAOs extended their training and operational support towards the PDF. The Tatmadaw, on the other hand, adopted a 'carrot and stick policy' to keep the EAOs divided against the NUG. EAOs that reached an agreement with the Tatmadaw were allowed certain leverages, while those who did not, were punished with violent military actions, such as artillery and aerial bombardments.

Myanmar, ruled by the military from 1962 to 2010, remained somewhat isolated from the rest of the world. Since 2011, it had been steadily progressing towards democracy and economic liberalisation under the leadership of Aung San Suu Kyi and her NLD party. However, Suu Kyi's stance on Rohingya Muslims remained unchanged. The previous military regime's systematic persecution

of Rohingya Muslims with state support continued. In 2012, anti-Muslim violence in Rakhine state erupted and eventually led to extensive genocidal operations in August 2017. Around 750,000 Rohingyas were forcibly displaced from Rakhine due to Tatmadaw's brutal clearance operations. Bangladesh provided Rohingyas with shelter and protection on humanitarian grounds, and Cox's Bazar is still home to the world's largest refugee camps. Over the last five years, Bangladesh has made extensive diplomatic efforts, but due to Myanmar's non-cooperation, no Forcibly Displaced Myanmar National (FDMN) (Rohingya) have been repatriated.

The Rakhine State, a political and economic backwater in Myanmar, never developed due to its poor socioeconomic conditions and insecurity. The Arakan Army (AA) in Rakhine has been fighting for the autonomy of the multi-ethnic Arakanese population since 2009. In November 2020, just three months before the coup, the AA and Tatmadaw signed an ad hoc peace treaty. The AA capitalised the situation in the post-coup period and expanded its control over more than half of Rakhine, including the judiciary and government services. To counter the AA's rapid ascendancy to power, the Tatmadaw launched a massive ground offensive in Northern Rakhine in August 2022, which spilled into Bangladesh heightening tensions along the border.

Refugee repatriation must be safe, voluntary, dignified, and sustainable, according to international law. Nonetheless, the FDMN refuses to be repatriated until Myanmar's constitution recognises their ethnic Muslim identity and citizenship. They also demand special protection for their communal safety and security, as well as return of their destroyed homes. Bangladesh faces challenges due to Myanmar's refusal to cooperate, FDMN's unwillingness to repatriate, Rakhine's uncertain security situation, and dwindling humanitarian support for the refugee camps. Bangladesh ardently wants a diplomatic and peaceful resolution to the FDMN crisis. Yet the concern is whether it will be able to repatriate FDMN if there is no conducive security environment in Rakhine, and what steps Bangladesh could take to resolve the challenges if repatriation is delayed for an extended period.

Rationale, Objectives and Methodology

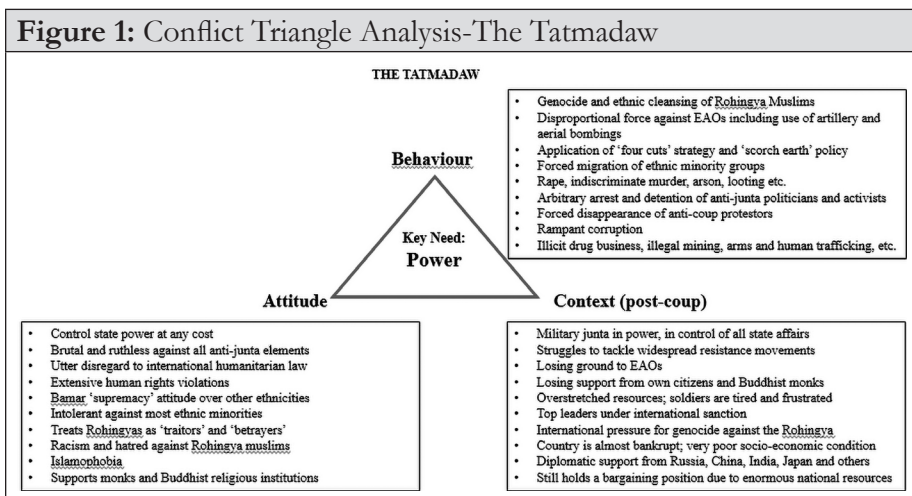
The significance of the research lies in the belief that a stable and peaceful Rakhine is a prerequisite for the repatriation of FDMN. In the current context, this study is crucial because it provides suggestions to Bangladeshi policymakers on potential courses of action in the event of an unforeseeable delay in the repatriation of FDMN. The main objective of the research was to examine the viability of a sustainable FDMN repatriation in the context of post-coup conflict in Myanmar (in general) and Rakhine (in particular). To achieve the objective, a qualitative research approach was used. Although a questionnaire was used to compile a set of perceptions, the study's results were not measurable or quantifiable. The researcher's prior knowledge and on-the-job experience in managing the security of FDMN camps (in 2020-2021) provided a number of benefits for this particular approach.

The research strategy was based on the collection and synthesis of the perspectives of a variety of subject matter experts from diverse sectors, news and media sources. The primary arguments of the research were based on the results of a conflict analysis utilising Johan Galtung's "ABC Triangle." This result, along with the collective perception analysis provided by the questionnaire, helped in the development of likely future scenarios and their implications for the repatriation of the FDMN. This methodology also helped in the formulation of pertinent recommendations for the Government of Bangladesh (GoB).

Rohingya Conflict Analysis

Conflict usually refers to "incompatibility of goals". This chapter analyses the Rohingya conflict using Johan Galtung's 'ABC Triangle,' which identifies mutually exclusive goals and analyses all elements associated with attitude (A), behaviour (B), and context (C) for each of the primary actors within a specific time (post-coup) and space (Rakhine). In this analysis, the key actors in the conflict are: The Tatmadaw, AA and Rohingya.

The Tatmadaw. The Tatmadaw is the most powerful institution in Myanmar. By the constitution of 2008, it holds 25 per cent of seats reserved in the parliament for serving military officers. It also remains in charge of the ministries of defence, home and border affairs. After the coup, the military responded to the resistance movements with brutality and a blatant disregard for human rights violations. However, they have not yet been able to establish complete control over the country. In contrast, they are losing ground to the EAOs, PDF, and other anti-junta militias in rural areas. The military junta appears to be steadily losing the war while desperately clinging to power. So, power has been identified as the key need of the Tatmadaw. The following ABC conflict triangle (Figure 1) summarises the major factors.

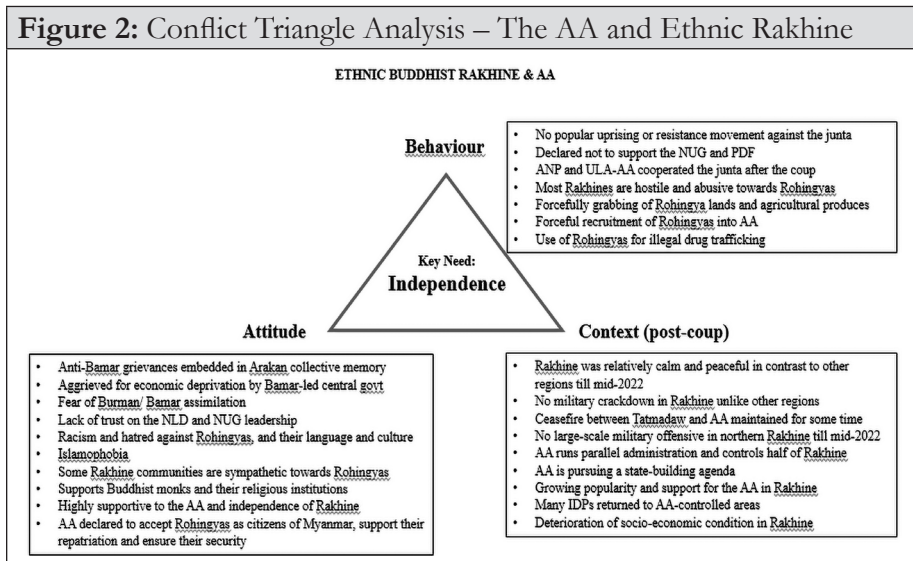


The AA and Ethnic Rakhine. The AA, founded in 2009, became a prominent EAO in less than a decade. The local Rakhines' support was crucial to their rapid growth. It is believed that the AA's strategic relationship with China helped them to form the Northern Alliance-Burma (NA-B) with other EAOs in 2016 (Mizzima Foundation, 2022). Initially, the AA operated from the neighbouring Chin State, but they now claim control over 60% of the Rakhine State's territory with more than 100 battalions of 300 men each (Myanmar Peace Monitor, 2022). They improved their

relations with Rohingyas during the post-coup period and allowed many internally displaced Rohingya families to return to their villages. They also allowed them to have access to local businesses and essential public services such as health care and education. Despite this, Rohingyas continue to be sceptical of the AA and local Rakhines.

In Arakan (or Rakhine), ethnic Rakhines and Rohingya Muslims coexisted peacefully for generations. However, the relationship deteriorated when Rohingyas supported the British in World War II and desired to join Pakistan during the partition of the Indian subcontinent. Since the 1960s, the state-sponsored propagation of anti-Rohingya narratives has instilled Myanmar society with a deep-seated animosity and islamophobia, resulting in communal riots and the systematic persecution of Rohingya Muslims. Currently, the Myanmarese do not even use the term “Rohingya,” instead refers to them as “kala” or “Bengali”. Since 2017, relations have deteriorated because ethnic Rakhines have actively supported the Tatmadaw’s genocide against Rohingyas. Therefore, it will take generations for the traumatised Rohingyas to forget such horrifying memories.

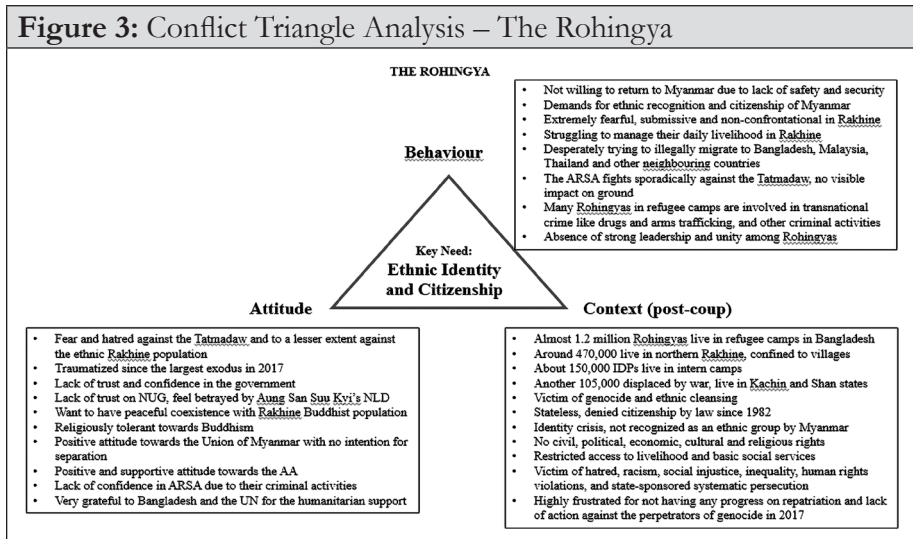
The ethnic Rakhines still hold a collective memory of their grievances against the Bamar (or Burman) who invaded and ravaged the Arakanese kingdom in 1784. However, in their actions against the Rohingya, they actively cooperate with the Tatmadaw. Again, both Rakhines and Rohingyas feel marginalised by the majority of Bamar and hold strong resentments against the central government, a condition commonly known as “centre versus periphery conflict.” Hence, local Rakhines support the AA’s struggle for self-determination and an independent Rakhine state. Therefore, the ‘independence’ of the Rakhine State has been identified as the key need for the AA and Rakhine ethnic groups. The ABC conflict triangle in Figure 2 summarises the major factors affecting the attitude and behaviour of the AA and Rakhines towards Rohingyas.



The Rohingyas. The Rohingyas are the most persecuted ethnic minority group in the world. Despite credible historical evidence that Rohingyas have lived in Arakan since the ninth century, the Citizenship Law of 1982 denied their citizenship. They were excluded from the list of Myanmar’s ethnic minorities. As a consequence, the Rohingyas lost their centuries-old civil, social, and political rights. The majority of Rohingyas in Rakhine State currently reside in confined villages and internment camps. They are routinely subjected to indiscriminate violence, hate crimes, public beatings, land grabbing, pillaging, rape, and murder. They have no right to seek justice whatsoever. They are severely restricted in their movements and denied access to essential social services. They practically depend on the local Rakhine population for their lives and livelihood. On the contrary, the situation is little better in the AA-administered areas where Rohingyas enjoy limited access to basic services (such as healthcare and education), agriculture, markets, and businesses. There are allegations, however, that they are frequently used for drug trafficking, and coerced into joining the AA.

In Bangladesh, nearly 1.2 million FDMN live in crowded refugee camps administered by the United Nations High Commissioner for Refugees

(UNHCR) and International Organization for Migration (IOM). But, rising criminality and drug trafficking in these camps are posing serious security threats to Bangladesh. Day by day, the host population is also becoming hostile against the FDMN. The ARSA, which claims to fight for the Rohingya cause, has become extremely unpopular in FDMN camps due to their involvement in criminal activities and murder of prominent Rohingya leader Muhibullah, who was a strong advocate for FDMN repatriation. The majority of FDMN are bitterly disappointed by the lack of progress in repatriation. However, they want to return to Myanmar only if their ethnicity is recognised and they are granted citizenship under the national constitution. As a result, “ethnic identity and citizenship” have been identified as essential needs for the Rohingya. The ABC conflict triangle (Figure 3) summarises the primary factors influencing Rohingya attitudes and behaviour (living in Rakhine and Bangladesh).



Similarities and Differences between Conflicting Parties

The ABC triangles illustrate that the three major Rakhine actors have vastly dissimilar and incompatible goals; consequently, there is no simple solution to the conflict. There is no singular determining factor upon which all parties

could reach an agreement without conditions. The Tatmadaw would seek absolute power and authority to preserve Myanmar's sovereignty and territorial integrity. The AA would continue to pursue its state-building agenda. But the Tatmadaw would not tolerate the AA's growing expansion into Southern Rakhine or forming a coalition with PDF/NUG. Therefore, it will be very difficult for the AA and ethnic Rakhines to realise their "Arakan Dream," i.e. establishing an independent Rakhine State. In regard to FDMN, there is no better alternative to safe, dignified, and sustainable repatriation. However, this is a far cry from reality. Bangladesh has not yet achieved diplomatic success, Myanmar is not collaborating, and the Russia-Ukraine war has distracted global focus away from the FDMN/ Rohingya crisis. The United Nations and the international community appear to be more concerned with the restoration of democracy through a "regime change" rather than repatriation of FDMN. Moreover, a safe, stable and secured environment in Rakhine and Chin State is crucial for the sustainable repatriation of FDMN. But it will be challenging to repatriate FDMN without the Government of Myanmar (GoM's) assurances of their ethnic recognition and citizenship, which is only attainable by amending the national constitution. These are significant contradicting variables with vastly incompatible goals that are difficult to resolve and reconcile without the intervention of major external powers.

Progress of Repatriation

As of 29 July 2022, there were 925,380 refugees in Cox's Bazar, comprising 35,519 Rohingyas who were registered in 1991-1992, and 773,972 Rohingyas who arrived after 25 August 2017 (UNHCR, 2022). There is no visible progress in repatriation since 2017 and no viable solution either. The process of repatriation remained confined to talks only. In the 72nd UN General Assembly in September 2017, the Honourable Prime Minister of Bangladesh Sheikh Hasina provided a five-point solution which also reflects the Kofi Annan Commission's plan and China's three-point plan, which are mentioned below (BISS Joint Webinar, 09 November 2021):

- Myanmar must unconditionally stop the violence and the practice of ethnic cleansing in Rakhine immediately and forever.
- The UN Secretary-General should immediately send a Fact-finding Mission to Myanmar.
- All civilians irrespective of religion and ethnicity must be protected in Myanmar. For that ‘safe zones’ could be created inside Myanmar under UN supervision.
- Ensure a sustainable return of all FDMN presently staying in Bangladesh to their homes in Myanmar.
- The recommendations of the Kofi Annan Commission Report must be implemented immediately, unconditionally and in its entirety.

In November 2017, Bangladesh and Myanmar signed a repatriation agreement in Naypyidaw. A month later, the initial repatriation attempt failed after 2,260 FDMN identified for repatriation refused to return to Myanmar without assurances of safety. A second attempt to repatriate FDMN failed in August 2019 when just 3,450 FDMN were cleared by the GoM from a list of 55,000. The FDMN demanded that safety, security, and citizenship be made preconditions for their repatriation (Diplomat, 2022). In 2017, a Joint Working Group and a Technical Working Group were established, and as of June 2022, Bangladesh and Myanmar had participated in five meetings without achieving any progress. China mediated a virtual tripartite conference in January 2021, at which Bangladesh proposed a “village-based repatriation process”. But Myanmar wanted to begin by repatriating 42,000 refugees who were verified from a list of 830,000. (Diplomat, 2022). Obviously, Myanmar’s proposal was a part of their “delay strategy.” A few weeks later, the Myanmar military staged the coup, resulting in no further trilateral meetings. The GoB has adopted a multi-track approach and tried everything diplomatically, but no progress could be made due to the non-cooperation of the GoM. In addition, the Covid-19 pandemic, the Russia-Ukraine war, and the global economic situation have further complicated the regional and global scenario.

Key Findings from the Research Survey

A survey was conducted with over fifty senior military and civilian officials from Bangladesh and abroad, as well as academics and subject matter experts. The key findings are enumerated below:

The Military is Likely to Stay in Power for a Long Time. The majority of respondents agree to the fact that Myanmar's military junta's power is gradually waning, but they will still be able to control major urban areas through their "hard approach"; however, this may not be possible in rural and border areas, causing them to lose additional territory to EAOs in border regions. Most respondents also believe that the junta will likely continue to rule the country for as long as they will be able to maintain strong diplomatic ties and military cooperation with China and Russia.

The Conflict in Myanmar is Likely to Protract. The majority think that the national resistance movement led by the PDF/NUG will wane slowly and gradually due to their diverse interests and cohesiveness, and the status quo will likely persist indefinitely. This suggests that the violence in Myanmar will be likely to continue for an extended period.

The Conflict between the AA and Tatmadaw in Rakhine is Inevitable. The majority of respondents believe that the conflict in Northern Rakhine will worsen because the Tatmadaw will prevent the AA from growing and expanding their influence towards the centre and south, and in this context, the Tatmadaw will keep Rakhine unstable and insecure in order to prevent the repatriation of the FDMN.

Rakhine's Independence is Likely to Create Opportunities for Rohingyas. The majority of respondents believe that Rakhine, as an independent state or autonomous province, could create opportunities for sustainable FDMN repatriation. Opinions differ on whether Rohingyas should actively assist the AA. The majority, on the other hand, believe that the ARSA was incapable of meeting the Rohingya's aspirations and should not be trusted due to its alleged covert relationship with the Tatmadaw and involvement in criminal activities.

FDMN Repatriation is Likely to be Delayed Significantly. Most respondents believe that FDMN repatriation will never be successful until Rakhine's security situation allows Rohingya resettlement and social reintegration. Many fear that Myanmar may forcibly 'push in' the remaining 550,000 Rohingyas in Rakhine. Many believe repatriating the FDMN will never be possible, so Bangladesh should look for peaceful alternatives. Such options may include concurrent bilateral and multilateral diplomacy, enhancing institutional communication, and exploring the strategy of "security through development" by expanding trade, commerce, and investment, among others. However, the majority of respondents stated that the FDMN should not be locally integrated within Bangladesh and that law and order must be strictly maintained in FDMN camps, as rising criminality and drug trafficking may affect the repatriation process.

Common Suggestions from the Majority Respondents

- The FDMN crisis must be resolved peacefully. The problem was created by Myanmar, so it has to be resolved by Myanmar. Bangladesh cannot afford to engage in an armed conflict with Myanmar or to affiliate with the AA or any other EAO.
- Bangladesh should seek strong diplomatic support from the regional and international community (especially China, Russia, and India), the United Nations, and international humanitarian and legal organisations, among others, in order to increase pressure on the GoM.
- To prevent further Rohingya infiltration and forced migration from Myanmar, Bangladesh should strengthen the operational and intelligence capabilities of its military and law enforcement agencies.
- The GoB should develop a long-term strategy to employ over a million FDMN through education, training, and skill development.

Likely Future Conflict Scenarios Vis-À-Vis FDMN Repatriation

At present, Myanmar is experiencing a civil war and a severe economic crisis. Still, the Tatmadaw controls the major cities and receives diplomatic support from China and Russia, whereas it is losing territory in remote regions, especially along the border. The PDF and other resistance forces are intensifying and expanding their operations. The NUG seeks to unite the main EAOs and garner international support. Northern Rakhine is still recovering since the Tatmadaw's ground offensive against the AA in August 2022, which spilled into Bangladesh and heightened the security situation. Rohingyas in Rakhine remain in a deplorable state, and there is no chance of repatriation for the FDMN in Bangladesh. The international community's attention is shifting away from the Rohingya issue due to the Russia-Ukraine war. Against this backdrop, the following paragraphs examine some plausible future scenarios through 2030.

Scenario 1: The Military Regime would Remain in Power, the Civil Resistance Movement would Continue, and the AA would Continue to Expand Its Territory in Rakhine.

Likelihood. Such a scenario would result in a protracted civil war in Myanmar. The Tatmadaw would continue to suppress the civil resistance movement and prevent the EAOs from uniting under the leadership of the NUG. In the event of increasing international pressure, the GoM would carry out a “symbolic repatriation” of FDMN in order to ease international sanctions against the regime. In Rakhine, the AA would continue to aggressively pursue its state-building objectives. They might even offer lucrative incentives to encourage Rohingyas to fight against the Tatmadaw. This scenario has a ‘Very High Likelihood’ potential.

Effect. The Tatmadaw would not allow the AA's southerly expansion. They would eventually launch large-scale military operations to drive the AA from Rakhine and Chin. Any offensive military campaign in Northern Rakhine could destabilize the bordering region and cause further Rohingya migration to Bangladesh.

Implications of Repatriation. Such a scenario would seriously undermine Bangladesh's security and FDMN repatriation. In the short term (one to three years), the security situation in northern Rakhine State may remain stable, which may encourage a small number of FDMN to return willingly, but most would be fearful of an AA-Tatmadaw full-blown conflict. If the AA-Tatmadaw relationship continues to deteriorate, a further escalation of conflict is probable, which would eliminate any prospect of FDMN repatriation. Instead, a war in northern Rakhine would destabilize bordering areas near Bangladesh, increasing lawlessness and transnational crimes like drug trafficking, human trafficking, gun running, etc. In the worst case, the conflict might spread to Bangladesh's territory.

Scenario-2: Partial Democracy would Return through a Negotiated Deal with the NLD/NUG while the AA would Continue to Expand in Rakhine.

Likelihood. This situation resembles pre-coup conditions. Under pressure from China, Russia, Japan, ASEAN, and others, the Tatmadaw might negotiate a power-sharing agreement with the NUG/NLD in order to restore democracy partially. However, it is improbable that the GoM would amend the constitution to resolve citizenship and ethnicity issues. The AA would not give up its state-building agenda or its pursuit of total autonomy. The probability of this scenario is "Less likely" because the Tatmadaw would not want to give up its power and authority.

Effect. In this scenario, democracy might be partially restored, but the conflict in Rakhine would likely to escalate quickly. To re-establish state control, the Tatmadaw would initiate a full-scale offensive against the AA under this pretext. This could result in a protracted conflict in Rakhine. Such a circumstance would devastate the northern Rakhine and southern Chin states and internally displace thousands of Rakhines and Rohingyas. Consequently, such a circumstance would be disastrous for both Rohingyas and ethnic Rakhines.

Implications of Repatriation. This scenario would be detrimental to both Rohingyas and Rakhines. The 'democratic' government in Myanmar

might undertake some initiative to resolve the FDMN (refugee) crisis, but any form of repatriation would likely be very slow. However, the underlying issues of ethnic identity and citizenship of the Rohingya might not be resolved at all. Rather, a major armed conflict in northern Rakhine would drastically deteriorate the security situation, rendering repatriation nearly impossible.

Scenario 3: The NUG/NLD would Win the Next Election, Democracy would be Restored, and the Tatmadaw would be Reformed as a Federal Army, while the AA might Proclaim Independence of Rakhine State.

Likelihood. This is a dream like scenario for the people of Myanmar, but it is not unrealistic. However, the situation may not be as favourable for Rohingyas and some EAOs. In such a scenario, the NUG/NLD would endeavour to amend the constitution and implement significant reforms of the Tatmadaw and building a Federal Army by integrating the EAOs. The government may receive significant support from the United States and its western allies in its efforts to uphold democratic values, human rights, social justice, and the rule of law. This could create a favourable environment for implementing the FDMN repatriation and resolving the Rohingya ethnicity and citizenship issues. In response, China might persuade the AA to declare Rakhine's independence in an effort to destabilise the security situation in the region. Such a situation could significantly expand the United States' influence in the Bay of Bengal. However, in the immediate future, this scenario is deemed "Extremely Unlikely."

Effect. This scenario suggests an ambitious undertaking that may encounter serious resistance from the Tatmadaw and key EAOs. Furthermore, this scenario is likely to exacerbate tensions in the Indo-Pacific region between China and the United States. The GoM, particularly the Tatmadaw, would not compromise Myanmar's sovereignty or territorial integrity, and would eventually wage a war to eliminate the AA in Rakhine. In such a situation, Rohingyas might be caught in the crossfire. This scenario that involves the superpowers in the conflict could severely destabilize the regional security situation.

Implications of Repatriation. This is the most favourable scenario for the repatriation of FDMN, despite the fact that it may not resolve the fundamental issues of identity and citizenship. However, it will depend on international pressure, Bangladesh's diplomacy, and China's willingness.

Conclusions Derived from Probable Scenarios

- A conducive and stable security environment in Rakhine would be necessary to implement the FDMN repatriation from Bangladesh.
- FDMN would not volunteer for repatriation unless the GoM guarantees their fundamental demands, including ethnic recognition and citizenship, by amending the constitution.
- At any moment, the ongoing violence in northern Rakhine could intensify, leading to an increase in Rohingya infiltration and forced migration into Bangladesh.
- The NUG/PDF and the AA are two key actors in the overall security dynamics that demand deeper analysis by the GoB.
- Bangladesh should be able to combat transnational crimes along the border with Myanmar.
- The Rakhine conflict has the geostrategic potential to escalate into a significant regional crisis involving superpowers such as the United States and China.

Major Challenges for the Repatriation of FDMN

Geo-Politics in Myanmar's Favour. Despite various sanctions imposed on the military junta, Russia, China, Japan, and even India continue to provide diplomatic and economic support to Myanmar. Many developed countries, including the EU and the United States, have maintained their investments in Myanmar in order to reap economic benefits. The ASEAN and the UN Security Council could not do much against Myanmar's military regime either.

Non-Cooperation of the GoM. In August 2017, the Myanmar military was the primary architect of ethnic cleansing operations against Rohingya. As long as the military is in charge, it is highly unlikely that they will cooperate with the UN or Bangladesh. It would be nearly impossible to repatriate the FDMN peacefully without Myanmar's cooperation and willingness. The Myanmar military would almost certainly use a variety of excuses to delay the process. However, they may engage in symbolic repatriation to demonstrate their "good" intentions to reduce international sanctions.

Difficult Preconditions for FDMN Repatriation. Even though Bangladesh is not a signatory to the 1951 Refugee Convention, it is still obliged to respect universally accepted norms and laws. The fundamental prerequisites for repatriation in this regard are voluntariness, safety, dignity, and sustainability. As was previously mentioned, it might not be possible to create such a favourable situation to satisfy such prerequisites in the near future.

Criminal Activity in FDMN Camps. The internal security situation in Bangladesh's FDMN camps is deteriorating as many FDMN are getting involved in the illegal drug (yaba) trade, kidnap, murder, etc. The Arakan Rohingya Salvation Army (ARSA) is involved in most of the illegal activities, and it is suspected that they have covert ties with the Tatmadaw. In case of increased lawlessness in FDMN camps, the GoM would label the FDMN (Rohingyas) as "Muslim terrorists" and deny their repatriation.

Unstable Security Situation in Myanmar and Rakhine. Myanmar is already in a protracted civil war. The security situation in Rakhine might worsen owing to the escalation of hostilities between the Tatmadaw and the AA. The repatriation of FDMN would be impossible without establishing a safe and secure environment in Rakhine.

Suggestions for Way Forward

The three conventional refugee solutions are refugee repatriation, relocation to a third country, and local integration. All of these alternatives are quite

elusive and may need considerable time and diplomatic effort. Statistics indicate that refugees may be displaced for an average of 10 to 26 years (The Borgen Project, 2003). In 2016, only 3% of refugees found one of these solutions, and only 2.5% could return to their home country, according to the Brookings Institution (The Brookings Institution, 2018). In this context, Bangladesh should conduct long-term scenario planning with experts from all possible sectors to determine, if the repatriation drags on, what measures by the GoB and other stakeholders could be undertaken.

Diplomacy with China, Russia, India and ASEAN. Bangladesh should continue to pursue diplomatic support more vigorously. Presumably, it is a challenging proposition, but Bangladesh's effort must not wane owing to delay or disappointment. The Rohingya issue must be kept alive both regionally and internationally.

Increase Bilateral Communication at Institutional Level. In addition to Bangladesh's bilateral and multilateral diplomacy, communication at the institutional level in both the public and private sectors of the two nations might be expanded. Such sectors may include commerce and trade, tourism, fishing, agriculture, scientific research and exploration, sports and culture, etc.

Press on International Court of Justice (ICJ) Verdicts. Bangladesh has been able to support the genocide case brought before the ICJ by the Gambia. Even though it is a lengthy process, Bangladesh should continue to help Gambia. The verdict in favour of FDMN might not enforce repatriation, but it will be a moral victory for Rohingyas as well as for Bangladesh.

Mobilisation of Funds for FDMN Camps. In light of the global economic and financial crisis caused by the Russia-Ukraine war, the GoB should pursue the United Nations and other donor countries to ensure that financial aid and other support to FDMN camps do not decrease. The GoB should engage other parties, particularly ASEAN, to share the burden of managing FDMN camps.

Relocation of FDMN to Other Countries. The GoB should pursue the relocation of FDMN to as many countries as possible, especially ASEAN and other wealthy nations. In this effort, the GoB should organise meaningful dialogues with the UNHCR and IOM.

Engaging the Rohingya Diaspora. Bangladesh's foreign ministry and high commissions should engage with the Rohingya diaspora in the United States, United Kingdom, Canada, Australia, the European Union, Saudi Arabia, Malaysia, and other nations so that they start advocating for the peaceful repatriation of FDMN to Myanmar through seminars, symposiums, discussions, newspaper articles, social media, etc. They may also raise the issue of reuniting with family and friends through the relocation of FDMN from Bangladesh's refugee camps to their countries.

Curbing Criminality in FDMN Camps. Bangladesh's Law Enforcement Agencies (LEAs) must be able to counter all sorts of criminal activity in FDMN camps, including drug trafficking and arms smuggling. In this regard, LEAs should improve their intelligence collection and anti-terrorism capabilities. They should be able to limit FDMN movement outside of camps and prevent social confrontation with the host community.

Productive Employment of FDMN. The GoB may permit the technical/skill development of FDMN with the assistance of the United Nations and NGOs and may consider their employment in and around the camps, but only in an organised and controlled manner. The GoB may even consider large-scale FDMN employment in Cox's Bazar's special economic zones.

Rohingya Leadership and 'Go Home' Campaign. The FDMN in Bangladeshi refugee camps should not abandon hope of returning to their homes in Myanmar. Regarding repatriation, they must maintain their unity. They ought to be able to choose a competent leader who can represent them in the world community. On special occasions, the FDMN should organize "go home" campaigns under their own leadership, and such campaigns should receive sufficient international media coverage.

Recommendations

The research paper would make the following recommendations for consideration by the policymakers of the Government of Bangladesh (GoB):

- The GoB may intensify its diplomatic efforts to keep the FDMN issue alive and secure support from China, India, Russia, the United States, the EU, ASEAN, and other international organisations for the repatriation of FDMN and humanitarian funding for FDMN camps.
- The GoB may conduct long-term scenario planning with all stakeholders to analyse the implications of an independent Rakhine on Bangladesh and to reconsider its strategy towards the NUG and AA.
- The GoB should strictly maintain law and order in FDMN camps and strengthen the capacity of law enforcement authorities to prevent transnational crimes such as drug trafficking and gun running.
- The GoB may enhance military/para-military forces and intelligence organisations' operational and intelligence capabilities in order to prevent and counter further Rohingya infiltration and forced migration from Myanmar.

Conclusion

Following the coup on 1 February 2021, widespread protests in Myanmar erupted into armed conflict. Myanmar eventually plunged into a protracted civil war. However, the situation was relatively calm in Rakhine in the initial few months owing to the informal ceasefire agreement between the Tatmadaw and the AA. Taking advantage of some leverages granted by the Tatmadaw, the AA gradually acquired control of more than half of Rakhine's territory. They allowed Rohingyas limited freedom of movement and access to essential services but compelled them to fight the Tatmadaw and take part in illegal drug (yaba) trafficking. In August 2022, the Tatmadaw launched massive offensive operations against the AA in Northern Rakhine to prevent their southerly expansion. Yet, the AA

continued with its state-building agenda in pursuit of its “Arakan Dream”; thus, a considerable escalation of conflict in Rakhine is unavoidable. Such a conflict would eventually spill over into Bangladesh and deteriorate the security situation along the border.

The Rohingya conflict, analysed using Johan Galtung’s ‘ABC Triangle’, reveals that the three opposing parties in Rakhine, the Tatmadaw, the AA, and the Rohingyas, have mutually exclusive and incompatible goals that are extremely difficult to resolve. As a result, the Rakhine State will continue to bear the burden of conflict until all warring parties reach an agreement for long-term peace and stability. In regards to FDMN repatriation, Bangladesh’s diplomatic efforts have been futile for the past five years due to Myanmar’s non-cooperation, and no FDMN has been repatriated. Despite allegations of genocide and human rights violations, Myanmar maintains normal diplomatic relations with Russia, China, India and Japan. International sanctions on Myanmar have not made much impact as western nations continued to invest in the country. Meanwhile, the Rohingya crisis is losing international attention, potentially impacting humanitarian funding for Bangladesh’s 1.2 million FDMN.

After analysing three probable future scenarios, it is presumed that existing conditions in Rakhine will not permit the safe, dignified, and sustainable repatriation of FDMN in the near future. FDMN would also not return voluntarily if their fundamental demands for ethnic identity and citizenship are not met through amendments to the constitution. In this circumstance, Bangladesh has almost no options other than to pursue a peaceful repatriation process through diplomatic means. Bangladesh should not resort to armed conflict or retaliate against Myanmar’s provocations. However, Bangladesh might wish to review its strategy regarding the NUG and AA. The GoB should also strictly maintain the law and order in FDMN camps, curb transnational crimes and prevent societal conflict with the host community. The GoB may also re-evaluate skill-based training and productive employment of FDMN if repatriation is considerably delayed.

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Author

Brigadier General Mahbus Samad Chowdhury, BSP, ndc, psc, is currently posted at the Army Headquarters as the Director of Infantry Directorate. Before attending the National Defence Course (NDC) in 2022, he was the Brigade Commander in Ramu cantonment and the Task Force Commander for the security of FDMN (Rohingya) camps. His firsthand knowledge of FDMN security challenges inspired him to conduct research on the Rohingya conflict in NDC 2022. He has an illustrious military career with a perfect blend of command, staff and instructional appointments. He served as Colonel Staff and General Staff Officer (Grade-1) of an infantry division and Brigade Major of an independent infantry brigade. As a Lieutenant Colonel, he also served as a P-4 at the Current Military Operations Service, Department of Peacekeeping Operations in the United Nations Headquarters. He commanded an infantry battalion, participated in two peacekeeping missions in Africa, and served as an instructor of Tactics Wing of School of Infantry and Tactics. He graduated from both the Bangladesh Army Staff College and the Pakistan Army Staff College, where he earned two Master's degrees in Defence Studies and a third in Peace and Conflict Studies from the Bangladesh University of Professionals (BUP), for which he received the Chancellor's Gold Medal for distinguished achievement. He is an avid reader and writer with several publications to his credit. He enjoys playing golf and reading peace and conflict-related books and articles.

APPROACHES TO PREVENT INTER-STATE CONFLICT: SOUTH ASIAN REGION

**Brigadier General Mohammad Aksar Khan,
ndc, psc, PhD**

Introduction

South Asian Region is seen as a region of friction and latent conflict (Gul, Saifuddin, and Khalil, 2003). India-Pakistan and India-China rivalries are the major inter-state rivalries in South Asian Region and all of them are nuclear powers. India and Pakistan fought wars in 1947, 1965, and 1971 and there was a conflict situation in 1999, 2002, 2008, and 2016. The disputes between India and Pakistan are mainly ideological, territorial, prestige, and military security disputes with a few policy-issue-oriented disputes. The major problems are the Kashmir question, cross-border terrorism, the nuclearization of the region, water sharing dispute, the refugee problem, the arms race, terrorism, multifarious cultures, cultural ascendancy through media, asymmetric economic development, Afghanistan issue, etc. (Gul, Saifuddin, and Khalil, 2003).

Indo-China war took place in 1962 and tensions erupted over the disputed border in April 2013, September 2014, in 2017 at the Bhutan-China-India trijunction (Doklam) and in 2020-2021 at multiple points, primarily in Ladakh (Madan, 2021). There are multiple sources and dimensions of the China-India rivalry. It may be played out at bilateral, regional and global levels, as well as across multiple domains: geopolitical, economic, technological, ideological and soft power (Madan, 2021). Another source of tension is the issue of Tibet and the refuge of the Dalai Lama in India. Besides, water sharing of the Brahmaputra River, the reluctance of China's recognition of Jammu and Kashmir (J&K) as part of India, not reaffirming China's one China policy by India, China's partnership with South Asian countries including strategic relationship with Pakistan, India's growing

alignment with other major powers - all have fueled the feud. Besides, both countries are in rival course in the Indian Ocean over transit route, spheres of political influence, and points of military vulnerability (Markey, 2015). A series of disputes in quick succession or their simultaneous emergence could lead to an armed confrontation between India and China which will be worse than 1962 (Markey, 2015).

Such a volatile region needs 'conflict prevention' arrangements to reduce the risk of armed conflict. Conflict Prevention is intended to prevent disputes from escalating into armed conflicts, to prevent old conflicts from recommencing and to prevent existing conflict from spreading (SIPRI, 1998). It includes measures mentioned in Chapter VI of the United Nations (UN) Charter, including diplomatic initiatives-preventive diplomacy, negotiation, mediation, conciliation, arbitration and judicial settlement-and preventive deployment of troops (SIPRI, 1998). Conflict prevention also includes fact-finding missions, warning, inspection and monitoring (SIPRI, 1998). Conflict prevention is carried out by many actors in the international community -the UN, regional organizations, individual states or groups of states and even individuals (SIPRI, 1998). Non-governmental organizations (NGOs) and agencies also contribute in the peace process (SIPRI, 1998).

Conflict prevention is less costly in political, economic and humane terms than that of managing a conflict that has already taken place (Carment & Schnabel, 2003). Both Boutros-Ghali and his successor, Kofi Annan, have emphasized the intrinsic humanitarian and cost-saving value of conflict prevention (Michel, 2003). The same is applicable for the South Asian Region. It is important to note that there is no regional conflict prevention mechanism in the region. Regional organizations like the South Asian Association for Regional Cooperation (SAARC), Bay of Bengal Initiatives for Multi-sectoral and Technical Cooperation (BIMSTEC), Indian Ocean Rim Association (IORA), etc. are not mandated to prevent conflict though they all promote cooperation in the respected fields. Neither India nor Pakistan has been serious enough to resolve its conflicts with determination

and the few attempts that had been made to resolve the issues have not been proved as fruitful enough (Gul, Saifuddin, and Khalil, 2003). There is also lack of political will on the part of the ruling political elites of the two countries. Moreover, states of the South Asian Region are non-cooperative to external involvement in their conflict prevention. Whether in inter-state or intra-state disputes, any form of external intervention is seen as counterproductive in South Asia and further exacerbating existing tensions, mostly as part of a negative colonial legacy (Price, 2017). In case of Sino-Indian conflict, the set of boundary agreements, norms and protocols that Beijing and Delhi had put in place to manage the dispute and avoid escalation are insufficient, ineffective, or defunct (Madan, 2021). The role of the UN in conflict prevention in South Asia is also very limited. In this situation, it is important to look into different approaches of conflict prevention in South Asia for peace, security and regional stability. Since India, China and Pakistan are the major stakeholders of conflict in the Region, prevention of conflict needs to be focused on the rivalries of India-China and India-Pakistan.

Reviewing the existing literature, we find that there are diversified conflict prevention approaches in theory and in practice. From the world's perspective, it is seen that the initiative of conflict prevention has success, limited success, and as well as failure in preventing conflict. In the context of South Asia, the existing literature fall short in mentioning the suggested approaches to conflict prevention in a comprehensive way. The literature has focused the discussion on managing conflict on high political issues (like border disputes) in a bilateral way with special mention to Confidence Building Measures (CBMs) and falls short of addressing issues of low politics like transnational threats which could lead to high political issues as well. This scientific research has aimed at identifying suggested approaches to prevent inter-state conflicts in the South Asian Region, especially in the case of the conflicts between India-Pakistan and India-China to add to the discourse of promoting sustainable peace and stability in the region and beyond.

Research Questions

Based on the literature review, the questions to be addressed in this research work are as follows:

- What are the major approaches to ‘conflict prevention’ and their effectiveness?
- How do ‘conflict prevention’ approaches work in South Asian Region?
- What are the suggested ‘conflict prevention’ approaches for South Asian Region to prevent inter-state conflicts?

Objectives of the Research

The objectives of the research are as follows:

- To identify and analyze ‘conflict prevention’ approaches and their effectiveness in the world perspective.
- To examine the present state of inter-state ‘conflict prevention’ arrangements in South Asian Region.
- To find out the suitable inter-state ‘conflict prevention’ approaches in South Asian Region.

Research Methodology

In order to suggest different approaches for preventing inter-state conflicts in South Asian Region, the qualitative method has been adopted for the research work because the subject of the study is more subjective in nature and an in-depth analysis is needed to address the issue. The research has drawn upon two sets of primary qualitative data: one-to-one interviews of experts in the field (17 persons), and document analyses. Its design and methods have been tailored according to the specific research questions and objectives of this study. Interview questions have been prepared as per

the research questions and as appropriate. Interview data and document analysis have complemented each other and helped to develop the main argument of the study.

Findings

Major Approaches to Conflict Prevention and Their Effectiveness

Major approaches to conflict prevention of inter-state conflicts are: bilateral, the UN, multilateral, third country, Track II, people-to-people contact, economic cooperation, CSOs/NGOs, environmental cooperation, women's diplomacy, media, peace education, cultural and religious cooperation, military diplomacy, forum of retired military officers, multi-track approach (combination of number of approaches), arbitration and judicial settlement, etc. (Michael 2002, SIPRI 1998, Ackermann 2003). This list is not an exhaustive one and any new approach can come out of innovation basing on conflict realities. The nature of conflicts has changed particularly in the 21st Century which has blurred the differences between inter-state and intra-state conflicts, made conflict prevention challenging and, therefore, demands innovation in conflict prevention approaches.

Conflict prevention is a useful concept that can save human casualties and reduce the cost of conflict. The nature, extent, place and issues of the conflict dictates the type of conflict prevention approach that might work. Conflict prevention and its effectiveness also need to be understood through the lens of conflict beneficiaries who might want continuation of conflict.

Multilateral arrangements may insist the conflicting parties to go for a settlement of disputes. The UN, regional organizations, and good office of the UN in different situations may be successful in preventing conflict. Despite setbacks in number of occasions, the UN approach is still in demand which gives a normative flavour to conflict prevention but depends on the willingness and meaningful cooperation of conflicting parties. The big powers can also play a positive role in conflict prevention.

Cultural cooperation and initiatives of celebrities can contribute to the peace process. Nowadays, citizens are being empowered globally in all regions of the world and therefore citizens can also play a role. The idea of conflict prevention is a European one and therefore, the conventional way of conflict resolution may not be fully applicable in the context of Asia and Africa and hence needs customization and innovation.

Considering the changing nature of conflict, diffusion, involvement of multiple stakeholders etc. it is hardly seen that the contracting parties to the conflict are solving the conflict bilaterally now-a-days. But a bilateral approach may work in the case of small conflicts/disputes or sporadic conflicting issues like water sharing problems, or boundary problems or violation of boundary or violation of air space, unauthorized fishing, etc. Confidence building between states is instrumental for conflict prevention. Building confidence among the people of the rival countries, among the policy makers, among the civil society, and other stake holders, military etc. is of paramount importance. A comprehensive set of tools needs to be utilized to address the challenges of conflict prevention. In the era of globalization, there is complex interconnectedness and no single approach can handle the conflict drivers and causes of conflict in the complex and changing dynamics of world affairs. A multi-actor or multi-track, multidimensional and multilayered approach has been successful to some extent till now. Cooperation needs to be done in soft issues which will pave the way of cooperation in hard issues and contribute in conflict prevention. But then, conflict gets prolonged if the multi-actor approach is not successful. At times, in the case of intractable conflict, arbitration and judicial settlement also work. At the global level, geopolitical conflicts and economic cooperation of big powers exist side by side and a big economic interdependence is observed between China and the US, India-China, Russia-EU, etc. This increases the cost of conflict and hence economic approach or development and interdependence approach is an important approach for conflict prevention from a global perspective which makes the states to go for cooperation or at least of the status quo.

Existing Conflict Prevention Arrangements in South Asian Region

The issue of conflict prevention between India-Pakistan and India-China needs to be seen in the context of multipolarity coming up. India believes in bilateral negotiation and diplomacy and many times India and Pakistan do not want to sit at the negotiation table. There is a practice of not utilizing multilateralism including the UN. That is why the crisis is prolonged and there is a strong lack of trust between the two states. There are non-state actors who are working to expedite the conflict. Different approaches to conflict prevention have not been that effective in South Asian Region although a few are existing. However, it appears that the bilateral approach between India-Pakistan and India-China has been successful in preventing major wars for quite a long time. But the question remains whether the situation may escalate or not and that is why the issue of conflict prevention comes forward.

India and Pakistan signed a total of 47 bilateral treaties between 1947 and 2022 (Indian High Commission in Pakistan, 2022). There are CBMs on nuclear installations, notification of military exercises, airspace violations, employment of troops in Siachen, etc. (High Commission of India in Pakistan, 2022). Conflict is managed to some extent through these CBMs but there are often violations that infuse tension. The UN passed a resolution (UNSC Resolution 39, adopted on January 20, 1948) of arranging a referendum in Kashmir where the Kashmiri people would decide their status. But India did not accept the resolution of the referendum as India considers Kashmir as an integral part of India. In 1948, India and Pakistan went into a war and the UN peacekeepers came under UNMOGIB (United Nations Military Observer Group in India and Pakistan) which are still in place.

The absence of multilateralism is one of the crises in South Asia. There is no multilateral mechanism or regional organization in the region which has come up to resolve conflicts and promote peace. SAARC, which is now ineffective due to rivalry between India and Pakistan was created as an economic organization and SAARC has no security role. India initiated

BIMSTEC where Pakistan and China are absent. Shanghai Cooperation Organization (SCO) has contributed to developing economic and security cooperation (counterterrorism, Afghanistan issue, etc.) between India and Pakistan as both of them are a member of SCO. In 1965, the then USSR engaged itself to bring peace, and the “Tashkent Agreement” was signed between India and Pakistan. During Kargil War, President Clinton himself took the initiative and prevented the escalation of conflict between India and Pakistan. In the 1960s, Pakistan and India under the mediation of the World Bank signed the Indus River Treaty for sharing the waters of the river in Panjab and other areas which is surviving till today. However, environmental cooperation is very less in South Asian Region.

On 10 March 1983, Pakistan and India signed an agreement establishing an Indo-Pakistan Joint Commission to strengthen good neighbourly relations and promote cooperation. Four sub-commissions were established to promote cooperation in economic, health, science and technology, sports, travel, tourism, and consular matters (Indian High Commission in Pakistan, 2022). WB, ADB, AIIB, BRICS Banks, USAID, etc. have contributed in fostering economic integration of the region by investing mainly in infrastructure and developing connectivity. The SAFTA initiative did not get currency due to the India-Pakistan rivalry. There have been a number of discussions on trade and economic issues and business exchanges between India and Pakistan and bilateral trade was more than US\$ 2.5 bn in 2018-2019 (Indian High Commission in Pakistan, 2022). Trade continued in other sectors during the Kargil War in 1999.

People-to-people contact between India and Pakistan is limited and Track II diplomacy is not made public. They signed an accord and MoU to increase cultural cooperation and exchange in the fields of visual and performing arts, exhibitions, publications and other areas of mutual interest. Cricket exchange during Kargil War defused tension but the same is not taking place for a long time. The media of India and Pakistan remains in an obsession on the question of inter-state dispute and cannot play a constructive role of peace journalism. Judicial settlement worked

once; Rann and Kuch dispute between India and Pakistan was settled by the International Court of Justice in 1968.

The cornerstone of conflict between India-China is border dispute and both India and China are in favour of bilateral arrangements to address the issue. There are a good number of bilateral agreements or CBMs and frameworks for discussion between India and China. A good number of mutual visits and discussions of state leaders were the main driving force behind these CBMs and frameworks. 'Panchsheel' or the 'Five Principles of Peaceful Co-existence' is the first bilateral agreement between India and China which was signed on April 29, 1954, with the aspirations to co-exist and prosper together in peace and harmony (Ministry of External Affairs of India 2022, Deepak, 2020). But Panchsheel could not stop the Indo-China war in 1962. Agreements and CBMs were signed in 1993, 1996, 2003, 2005, 2013, 2014 and 2015. The CBMs of 1993 and 1996 are often treated as no-war pacts between India and China (Deepak, 2020). In 2012, both sides also agreed to undertake joint operations against pirates and share technological know-how on seabed research. But all these efforts could not stop a major border tension in 2020 where the situation became quite critical though tension was defused through the existing mechanism. India-China has an 'Expert Level Mechanism on Trans-border Rivers', MoU on "Implementation plan on the provision of hydrological information of Yaluzangbu/Brahmaputra River in flood season" and MoU for the provision of hydrological information on the Sutlej River (Embassy of India in China, 2022).

Despite all the disputes, tensions, and border skirmishes, trade between India and China is increasing which is now about 120 bn USD which indicates a significant economic interdependence between the two. China is India's highest source of imports. There are Institutional Bilateral economic and commercial dialogue mechanisms between India and China like the Joint Group on Economic Relations, Science and Technology (JEG), Strategic Economic Dialogue (SED), etc. Multilateral fora like BRICS and SCO facilitate cooperation between India and China (Ministry

of External Affairs of India, 2022). Both countries have High-level of Mechanisms on Cultural and People-to-People Exchanges in the fields of sports, culture, museums and traditional medicine, visiting religious sites, etc. China and India have also interactions between scholars, academicians, experts, and strategic thinkers on both sides (Ministry of External Affairs of India, 2022).

Suggested Conflict Prevention Approaches for South Asian Region

The bilateral approach appears to be more applicable for conflict prevention between India-Pakistan and India-China. This is because, the dominant theme of inter-state relation of these three states are bilateral and the main issues of the conflict are a matter of high politics or hard issues like border dispute, land, etc. which is connected with prestige, identity, and sovereignty. Both India and China are in favour of bilateral arrangements to address this land dispute and would not allow space for other stakeholders to get into mediation. However, Pakistan is interested to settle disputes with India both bilaterally and multilaterally including the UN. But bilateral negotiation does not become successful on hard issues if there is a symmetry of power. As such, the Kashmir issue between India and Pakistan and the border dispute between China and India are not likely to be solved in bilateral terms. The most important thing would be to keep the situation in a state where the dormant conflict does not erupt, tension does not cross the threshold, and escalate into violence. If high politics is not stable then it is difficult to work in the areas of low politics like non-traditional security issues. Though the dispute has not been settled and tensions have erupted a number of times, bilateral approaches between India-Pakistan and India-China have been able to prevent major conflict in the last 50 years. In South Asia, high political issues are dealt bilaterally and low political issues can be dealt through other approaches. Treaties, CBMs, exchange of visits, and interactions of senior leadership and officials are activities of bilateral approaches that can reduce tensions. There is a need for a mixture of bilateralism and multilateralism in the case of South Asia.

The most important issue is how to build confidence between the two countries and increase discussion.

The economic approach is also a good way of preventing inter-state conflict in South Asia where trade (formal and informal) and investment create economic interdependency among the states and refrain them from choosing the path of conflict. Here, the mega business community works as a pressure group on the state for a peaceful approach to settle disputes and diffuse tension. The higher cost of the conflict will act as a safeguard to prevent conflict. Through the promotion of economic role, some kind of understanding and confidence building would take place, and then countries can move to resolve into other challenges including disputes in hard issues. India, China, and US investment in South Asia will reduce the risk of conflict in South Asia. If the interest of the state, the interest of power elites, and the development-oriented trade, investment, and activities can be connected then they will have an important role in conflict prevention in the South Asian context. Economic activities may be increased both by bilateral track and multilateral track like SAFTA, SCO, BIMSTEC, RCEP, BRICS, BRI, etc. International financial organizations like ADB, WB, AIIB, BRICS Bank, USAID, etc. also contribute in the economic integration of India-Pakistan and India-China through investment, economic integration, regional connectivity, etc.

Imparting and extending peace education is a good way of conflict prevention which develops a culture of peace among people from all walks of life and makes people aware of what is a real security issue and what is a constructed security issue made by vested corners. Peace education develops a society that rejects violence and promotes peace. This should not be considered only for the tertiary education but peace education needs to be brought in primary and secondary level as well. Universities of South Asian Region have the potential to contribute to conflict prevention by conducting studies and generating constructive knowledge for conflict prevention. Diplomacy, negotiation, mediation, etc. need to be supported by appropriate information. Therefore, collaboration is needed

between the state and university on research and development on conflict prevention. The corporate sector also needs to come forward in such initiatives by providing funds. Connecting research finding to the policy-making level is important. There may be a consortium for peace education among universities in South Asia that can conduct joint research and find out alternative perspectives on resolving disputes.

Track II diplomacy has the potential to play a role in conflict prevention in South Asia by informing the position of own state to the other state, presenting ideas to policy levels, exploring areas of developing inter-state relations, conducting collaborative research for conflict prevention, etc. But presently, in India, China, and Pakistan- institutions of this kind have limitations in their contribution.

Considering the conflict realities in South Asia, a multitrack approach is likely to work better for conflict prevention in the region. This is because there are multiple bilateral issues of both high and low politics, longer time duration conflict, domestic politics, regional and extra-regional geopolitics, a number of stakeholders in the conflict scenario and no single approach can adequately address the issue of conflict prevention. A multiple set of approaches would be more helpful in terms of bringing down the tensions. Both the state and non-state actors need to participate in conflict prevention. An increased number of levels of engagement of the contracting parties will make the naught of conflict prevention stronger. Both the policy-making level and the citizenship level need to be addressed so that a comprehensive narrative can be created that can cover the citizen, the policymakers and can bring positive engagements among the regional countries. It is not only conflict prevention, it is needed to go further down to build confidence among the people of the countries, among the policymakers, among the civil society, among military and other stakeholders etc. A comprehensive set of tools needs to be utilized to address the challenges of conflict prevention. Some of the approaches would be more effective but no single approach is enough for conflict prevention. A multi-track approach is necessary for sustainable peace in South Asia.

The UN approach is less likely to be effective in South Asia. This is due to China being a permanent member of the UN, there is a structural problem with the UN approach to conflict prevention between India and China. Moreover, both China and India do not welcome the UN or any third state in their bilateral affairs and want to address the contentious issues bilaterally. Also, the UN suffers from the trust issues where it is looked upon as a tool for fulfilling the agenda of the west. But Pakistan is willing to engage the UN in India-Pakistan issues. However, the UN can work on issues of low politics like disputes over the common river, cross-border organized crime, transnational issues, etc.

A Multilateral approach can also play a positive role in conflict prevention in South Asia, mainly in soft issues like water sharing, climate, pandemics, etc. non-traditional security issues of transnational nature. Multilateral arrangement pushes high contracting parties to resolve conflict. There can be a tripartite approach of India, China, and Pakistan to address different issues. BRICS, SCO, etc. can play a positive role in conflict prevention by strengthening existing CBMs. These multilateral organizations can work on common issues of these countries and establish a multilateral mechanism for aligning national development strategies through better coordination and consultation which can become norms. It is difficult for SAARC to contribute to conflict prevention as SAARC has been ineffective for a long time due to the rivalry between India and Pakistan. However, there is scope to make SAARC more effective.

People-to-people contact is likely to be a workable approach in the South Asian Region which will help in defusing tensions in the long term. This includes interaction between faculties of universities, intellectuals, the interaction between universities, etc. Such interaction creates a condition and environment which will help to reduce differences and conflicts between countries.

The cultural diplomacy and celebrity approach can play a positive role in conflict prevention. Celebrities in sports, movies, and writers can promote the message of peace and prevent conflicts. Sports and cultural diplomacy,

and cultural exchange (music, movie industry cultural display, etc.) are very good ways of conflict prevention and building trust and good relationship.

Environmental cooperation can play a role in conflict prevention in South Asian Region. Sharing of water of common rivers has good prospects in defusing tension as it is prevalent between India-Pakistan in the case of the Indus River. Water-sharing treaties could also influence other sectors where contention exists. Presently environmental cooperation is very less in the Region. Management of forests, green environment, afforestation, and disaster management (flood, cyclone, earthquake, nuclear accidents, etc.) are other probable areas of cooperation.

Military diplomacy can play an important role in conflict prevention in South Asia. Interaction between military to military especially, the high officials is very important which develops confidence and cooperation. The ultimate goal is to protect the core values like sovereignty and at the same time to ensure human security. Security forces can assess the cost of conflict and can inform the leadership which can create an alternative perspective of waging armed conflict.

Early Warning (EW) mechanisms, which are instrumental in conflict prevention, are not existing in South Asia. EW mechanisms may be developed within the existing bilateral mechanisms of conflict prevention like Confidence Building Measures (CBMs). Joint arrangements between Foreign Ministries of the countries can also give EW by monitoring the situation on a regular basis with the counterpart. There may be bilateral Joint Research Centres where competent representatives from both countries may participate, monitor situations, give EW, find out fault lines, and suggest measures to avoid conflicts. The EW system needs to be very objective and absolutely apolitical.

South Asia is battered by transnational threats like food insecurity, energy issue, pandemic, climate, migration, human trafficking etc. but there is no regional collaboration to address such issues. Tensions are prevalent in South Asia over transnational issues and these low political issues have

the potential to create high political issues. To address this situation, collaborative approach between government and non-governmental actors is required. A coordinated approach in maritime matters is also needed. Multilateral forums would be more effective to deal with the transnational issues. But if a minimum level trust cannot be made at bilateral level then it is difficult to reach an effective stage at multilateral forum which is true in the case of India and Pakistan. On the other hand, if transnational issues could be taken to some confidence level at multilateral forum then it influences the bilateral level. A common governance of Himalayas is needed. There may be early warning of common issues like flood, heavy rainfall, etc. There may be common fund, common position and common management of water shortage. For thousands of years, the people of South Asia have similar type of lifestyle. But due to climate change, a new lifestyle needs to be adopted and a new strategy needs to be devised.

In South Asia, decisions are mostly state-dominated despite what people think about them. However, awareness of people about actual national security and constructing security issues in the interest of vested corners and public opinion can influence policy making. Non-state actors like the private sector, development activists, and civil society can also contribute to decision-making to some extent. The power elites of South Asia have an important role in setting the course of conflict.

Recommendations

- Joint research platforms between India-Pakistan and India-China at universities may be developed by the states. In this regard, a consortium of universities in the South Asian Region for peace activism and peace research may be organized by the states of the South Asian Region.
- University-government collaboration in research on conflict issues and funding for research on conflicts at universities may be undertaken. This partnership will enable the research findings to be considered in policymaking.

- Induction of peace education in the education curriculum for a lasting peace may be considered by the states. This needs to be done at the primary, secondary, and tertiary levels. Peace education is needed not only in social science but in other disciplines of tertiary education.

Conclusion

The type of conflict dictates the type of approach. The world is going towards a multipolar world and the situation is very complex. It is difficult to distinguish between inter-state and intra-state conflicts and global powers get involved in both types of conflicts. South Asia is a region of latent conflict where the possibility of conflict looms high due to existing conflict realities, internal dimensions, and regional and extra-regional geopolitical competition. inter-state conflict prevention in the South Asian Region especially the rivalry between India-Pakistan, and India-China needs to be addressed with suitable conflict prevention approaches and in the context of multipolarity coming up. It appears that conflict prevention in the region has not received adequate attention both within and outside the region.

Suggested conflict prevention approaches in the region are bilateral approaches for issues of high politics and multilateral ones for issues of low politics. A combination of bilateral and multilateral approaches is likely to reap a better result. The most important issue is how to build confidence between the two countries and increase discussion. The economic cooperation approach is a very workable one that develops economic interdependency and prevents violence by increasing the cost of conflict. The peace education approach is significant in the longer term for cultural transformation and developing a society with a culture of peace that rejects violence and resorts to a peaceful solution to problems. Collaboration is needed between the state and university on research and development on conflict prevention and between the universities of South Asia to promote peace. The approaches like cultural approach and environmental cooperation may also be pursued in South Asia. However,

the UN and third country approach may not be that effective because of the structural problem of China being a permanent member of the UN, the non-acceptance of India and China of the UN or any third state in their bilateral affairs, and trust issue where the UN is looked upon as a tool of fulfilling the agenda of the west. Approaches like Track II, people-to-people contact, CSOs/NGOs, media, etc. may not get currency as states are the dominant actors in all three countries, the unwillingness of states to give space to other stakeholders, and difficulty to work beyond the state narrative. However, the multi-actor or 'multi-track approach (combination of a number of approaches)' is the most suitable approach in South Asia where both state and non-state actors need to participate in conflict prevention. This multi-track approach may not be an integrated one but may be multi-layered and multi-dimensional. An increased number of levels of engagement of the contracting parties will make the naught of conflict prevention stronger. Both the policy-making level and the citizenship level needs to be addressed so that a comprehensive narrative can be created that can cover the citizen, and the policymakers and can bring positive engagements among the regional countries. It is not only conflict prevention, it is needed to go further down to build confidence among the people of the countries, among the policymakers, among the civil society, and other stakeholders, military, etc. A multi-track approach is necessary for sustainable peace in South Asia.

Early Warning (EW) mechanisms which are instrumental in conflict prevention and non-existent in South Asia need to be developed by the states. Tensions are prevalent in South Asia over transnational issues and these low political issues have the potential to create high political issues. A collaborative approach between government and non-governmental actors is required in this regard including cooperation in the maritime domain. Common governance of the Himalayas is needed. The power elites of South Asia have an important role in setting the course of conflict. A people-centric strategic approach is needed and for that South Asia needs quality leadership. The disputes between India-Pakistan and India-China may or may not be solved but the efforts should be on to reach to a

mutually compatible and equitable solution for conflict resolution. The most important thing would be to keep the situation in a state where the dormant conflict does not erupt, does not cross the threshold, and escalate into violent conflict.

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Author

Brigadier General Mohammad Aksar Khan, ndc, psc, PhD was commissioned on 16 December 1993 in the Corps of Infantry (The East Bengal Regiment). He commanded the 44 Infantry Brigade and the 40 East Bengal Regiment. He served as Colonel Staff in the 10 Infantry Division, General Staff Officer Grade-1 in the 11 Infantry Division, Brigade Major 21 Infantry Brigade, and General Staff Officer-3 (operations) in the 305 Infantry Brigade. He was Assistant Defence Adviser at the Bangladesh High Commission, New Delhi, and Controller of Examinations at Bangladesh University of Professionals. Brigadier General Aksar served twice under the blue helmet at UNIKOM (Iraq-Kuwait Border) and UNMIS (Sudan). He also served in a number of infantry battalions.

Brigadier General Aksar is an alumnus of Defence Services Command and Staff College (Mirpur), Infantry School at Fort Benning, Georgia, USA, and National Defence College, Mirpur. He obtained PhD in International Relations from Jahangir Nagar University. He also obtained Masters in Defence Studies from the National University, and Masters in Peace, Conflict, and Human Rights Studies from Bangladesh University of Professionals.

GRADUATION OF BANGLADESH FROM LEAST DEVELOPED COUNTRY (LDC) TO DEVELOPING COUNTRY: CHALLENGES AND WAYS FORWARD

**Brigadier General Md Ahsan Habib,
SUP, ndc, psc**

Introduction

According to the Committee for Development Policy (CDP), Bangladesh is one of the fewer Least Develop Countries (LDC), who is aspiring to have an upper middle income nation status and has satisfied the threshold of “three vulnerability criteria; (i) Economic Vulnerability Index (EVI), (ii) Gross National Income (GNI) per capita and (iii) Human Asset Index in 2018” and were given another 3 years to sustain these criteria (Bose, 2021). Despite the COVID-19 pandemic threat, the country achieved the entire threshold in 2021 and satisfied other UN regulations. After that achievement, CDP declared on 24 November 2021 that Bangladesh would officially become a developing nation on 24 November 2026.

Due to LDC graduation, Bangladesh is also anticipated to face a number of obstacles; such as relinquishing of privileges and preferences creating a severe shock to garment exports, and withdrawal of agriculture sector subsidies, assistance for infant industries, patent waiver for pharmaceutical industries and the loss of preferential access to climate funding. Once Bangladesh graduates from the LDCs category and becomes a developing nation, Duty-free and Quota-free (DFQF) access to a number of export destinations would end (Khatun, 2021). Development ventures will not get low-interest loans and grants. Once the nation’s status is improved, it will no longer be eligible for some LDC privileges like concessional treatment.

Literature Review

In order to carry out a systematic research, a good number of books, articles, government white papers and different policies have been studied to understand the evolving form of geo-economic context, policy restrictions, policy gaps and scopes of diplomatic approaches. The key focus of the preliminary review of available literatures is to understand the LDC facilities, graduation criteria, and opportunities on graduation. Efforts are made to understand the policy barriers on graduations and the ways and means to overcome various challenges of graduation and how those can be applied successfully in the context of Bangladesh.

In such scenario, this research will make an attempt for an in depth analysis on the graduation opportunities, challenges and identify the ways forward for Bangladesh to address the future challenges. The areas where further research may be conducted are highlighted below:

- The comprehensive transition plan from LDC to developing country: The perspective of Bangladesh.
- The pragmatic diplomatic approach for Bangladesh to cash the LDC graduation and sustained economic development.
- Graduation of Bangladesh from LDC and an effective road map to increase FDI.
- Graduation of Bangladesh from LDC and diversification of economy not relying on the garments sector only.

Significance of the Research

The purpose of this research is to evaluate the opportunities and challenges for Bangladesh in graduating from LDC to a developing country. The study will also make an effort to evaluate and identify as how Bangladesh can utilize its resources, capabilities and expertise to overcome those challenges in achieving sustainable development. The outcome or the recommendations of the study will identify suitable approach to contribute in the different sectors of Bangladesh.

Objectives of the Research

Primary Objective. To analyze the graduation of Bangladesh to a Developing Country from the Least Developed Country (LDC).

Secondary Objectives. In order to meet the broad objective of the research, following specific objectives are set:

- To understand the graduation process from LDC to developing country and associated opportunities.
- To critically analyze the numerous challenges that Bangladesh is likely to face due to graduation from LDC.
- To suggest measures that will address the challenges on LDC graduation for Bangladesh.

Research Methodology

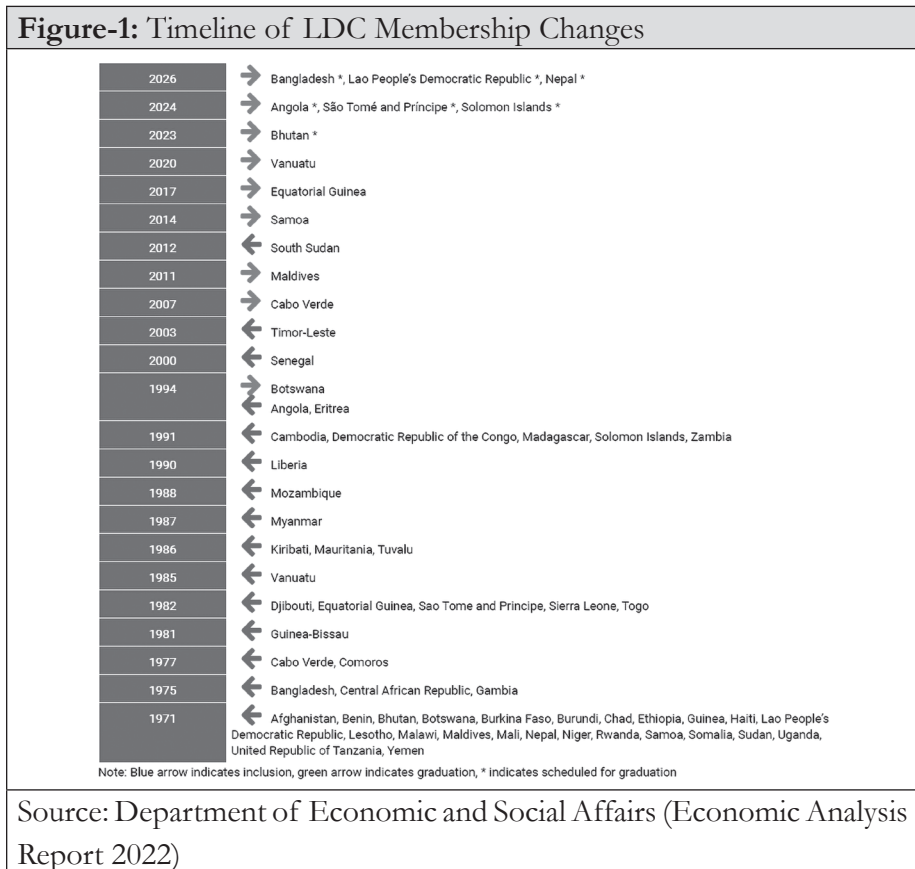
This is an exploratory research following qualitative method of data collection from the primary means. The research is fundamentally a study on the economic and business sector of Bangladesh which also entails a good number of numerical data. Therefore, a mixed method approach is followed based on numerous sources of information.

The proposed study is carried out in two segments. One is the analysis and reviewing of the prevailing policies with regard to Bangladesh by interviewing the personnel in different institutions and department. At the same time detailed review of the study is carried out which is so far documented in this field. Secondly, field survey is carried out by exploring the current scenario with regard to connect with the recent issues.

LDC Graduation Process and Likely Opportunities for Bangladesh

LDC Graduation is a lengthy process since the graduating nation must meet the standards during two consecutive triennial assessments. Once a

nation has been judged to be eligible for graduation for the first time, an assessment takes place on that eligible country. This is based on research conducted by the UN Department of Economic and Social Affairs (UNDESA) to estimate how a change in status and the loss of LDC-specific benefits will affect the graduating nation. Inputs from other UN entities, namely the UN Country Teams, and prospective elements that may be considered for a seamless transition strategy are also incorporated into the graduation review (ECOSOC, 2015). Following diagram illustrates the entry to and exit from LDC (UNCDP, 2022):



Bangladesh's Progress towards LDC Graduation. CDP, a branch of the Economic and Social Council (ECOSOC) is responsible for assessing the category of LDCs every three years and monitoring their progress

after leaving the category. Currently, three criteria are used to assess LDCs, whether they should be graduated from this status. These criteria are; (i) Human Assets Index (HAI), (ii) GNI per capita, and (iii) Economic and Environmental Vulnerability Index (EVI). In order to be recommended for graduation, an LDC must meet any two of the three criteria in two consecutive triennial assessment. There is another alternative method; the GNI per capita of an LDC must be at least twice the graduation threshold in two consecutive triennial evaluations (income-only criterion). The ECOSOC adopts the proposal, and the United Nations General Assembly (UNGA) accepts it formally.

During the past twelve years, Bangladesh has made significant socio-economic progress under the leadership of the Honorable Prime Minister Sheikh Hasina, whose leadership has been characterized by vision. The nation met all the three graduation requirements (GNI, HAI, and EVI) reviews on a triennial basis in 2018 and 2021 consecutively. The CDP has recommended Bangladesh for graduation on February 26, 2021, following a preparatory period of five years. Bangladesh is the first nation to be recommended for graduation after meeting all the three criteria. The ECOSOC formally endorsed the recommendation on June 8, 2021.

Graduation Criteria. During its 76th session, held in November 2021, the UNGA took note of Bangladesh's proposal for graduation. Bangladesh will have preparation time till 2029 for a peaceful transition and the new challenges of global commerce, business, collaboration, and technology.

GNI Per Capita. Bangladesh surpassed the graduation threshold level for the first time in 2018 due to a sustained rise in GNI per capita (USD 1274 against threshold of USD 1230). Meanwhile, the nation's per capita GNI climbed by 150 percent of the needed benchmark to pass the triennial review in 2021.

HAI. Bangladesh obtained this specific graduation threshold for the first time in the triennial assessment of 2018. Bangladesh achieved 73.2 points against the threshold of 66.

EVI. In terms of its economic and social performance, Bangladesh could prove sustained improvement. The figure below gives a concise summary of Bangladesh’s achievements and graduation requirements:

Table-1: Graduation criteria and Bangladesh’s achievement

| Criteria | Threshold for 2018 Review | Bangladesh’s Score for 2018 | Threshold for 2021 Review | Bangladesh’s Score for 2021 |
|--|---------------------------|-----------------------------|---------------------------|-----------------------------|
| GNI* Per Capita | USD 1230 or More | USD 1274 | USD 1222 or More | USD 1827 |
| Human Assets Index (HAI) | 66 or More | 73.2 | 66 or More | 75.4 |
| Economic and Environmental Vulnerability Index (EVI) | 32 or Less | 25.2 | 32 or Less | 27.0 |

* Average of last 3 (three) years (calculated by ATLAS method)

Source: Committee for Development Policy (CDP) Handbook

Table-2: Process and Timeline of Bangladesh’s LDC Graduation

| Timeline | LDC Graduation Procedure |
|--------------------|---|
| 2018 | CDP finds Bangladesh eligible for graduation during the triennial review UNDESA formally notifies Bangladesh about the findings |
| 2018-2021 | UNCTAD prepares the vulnerability profile and shares it with Bangladesh UNDESA prepares an ex-ante impact assessment and shares with Bangladesh |
| 2021 | 2ND TRIENNIAL REVIEW 22-26 FEBRUARY 2021 Bangladesh meets the graduation criteria for the second time CDP submits graduation recommendation to ECOSOC ECOSOC endorses the CDP recommendations UN General Assembly takes note of the recommendation |
| 2021-2026 | Bangladesh establishes consultative mechanism, prepares the smooth transition strategy Development and trading partners participate in consultative mechanism and provide targeted assistance <ul style="list-style-type: none"> • CDP monitors Bangladesh’s development progress and reports annually to ECOSOC. • ISMs continue. |
| 2026 | Bangladesh formally graduates from the LDC category Bangladesh no more eligible for most of the International Support Measures except few exceptions. DFQF in EU continues until 2029.] |
| 2026 Onward | <p>Bangladesh</p> <ul style="list-style-type: none"> • Bangladesh will implements and monitors the transition strategy • Submits to the CDP progress reports on its implementation annually for the first three years after graduation, and triennially at two triennial reviews <p>Development and trading partners</p> <ul style="list-style-type: none"> • Support the implementation of the transition strategy • Avoid abrupt reduction of LDC-specific support <p>CDP</p> <p>Monitors development progress of the country; reports its findings to ECOSOC annually for the first three years after the country’s graduation, and triennially at two triennial reviews afterwards</p> |

Source: Committee for Development Policy (CDP) Handbook

Opportunities of LDC Graduation

A nation that leaves the LDC category successfully receives global recognition for its development achievements. This is meant to raise the amount of confidence that international financial actors have in the relevant nation's markets. Bangladesh will continue to benefit from DFQF access to the EU and UK markets for an extra three years following graduation. Bangladesh will continue to have access to the LDC Technology Bank and benefit from Aid for Trade (A4T) under the Enhanced Integrated Framework (EIF) for five years following graduation:

Branding Value. Graduation may be viewed as a great accomplishment for Bangladesh and unquestionably demonstrates the country's sustained socio-economic improvement. Bangladesh's new position as a developing nation showcases its strength and competence.

Improve Credit Ratings. Bangladesh's graduation from the LDC category will be a global acknowledgement of its achievements in growth and development, which would improve the confidence of foreign lenders. Bangladesh's creditworthiness is expected to rise as a consequence of an improved understanding of market risks.

Improve Domestic Tax Collections. Increasing investment will create more employment opportunities for Bangladeshi individuals, which will ultimately increase the country's per capita income and domestic tax revenue. On the other hand, post-graduation access to external development funding and receipt of overseas remittances are expected to remain unchanged.

Structural Development under Strict Compliance. To graduate from LDC status, Bangladesh will need to compete in a highly competitive market, which will gradually require Bangladesh to transform into automation, infrastructure development, technology transfer, skilled labour development, good governance, compliance with labour law and other international standards.

Bangladesh will establish itself in the international world as a self-confident and respected emerging nation. This recognition will provide further advantages to Bangladeshi entrepreneurs. The country's sovereign rating could not be increased, because LDC was always considered as the risky country for the investment and business purpose. Due to this, Bangladesh was compelled to accept higher interest rates on both securities and commercial loans received from the private sector. This graduation will improve the nation's standing. Bangladesh's image among international investors will improve.

Graduation Challenges for Bangladesh

Bangladesh government places a high premium on ensuring that the graduation process is straightforward, sustainable, and she is able to keep up with the demand. Bangladesh will face significant obstacles if it leaves the LDC group, since it will lose many of the rights and benefits it presently enjoys as a LDC group member. The following is a list of likely challenges Bangladesh is anticipated to confront after receiving its graduation:

Challenges Regarding Policy Matters

Impact on Duty-free Quota-free Market Access. After Bangladesh has graduated, they will no longer be eligible for DFQF programme and other preferential market access (World Trade Organization, 2020). It is anticipated that Bangladesh would be the most affected LDC on RMG and apparel sector due to graduation. In addition, Bangladesh is graduating at a time when the WTO's status is deteriorating due to the rise of protectionism on the international market.

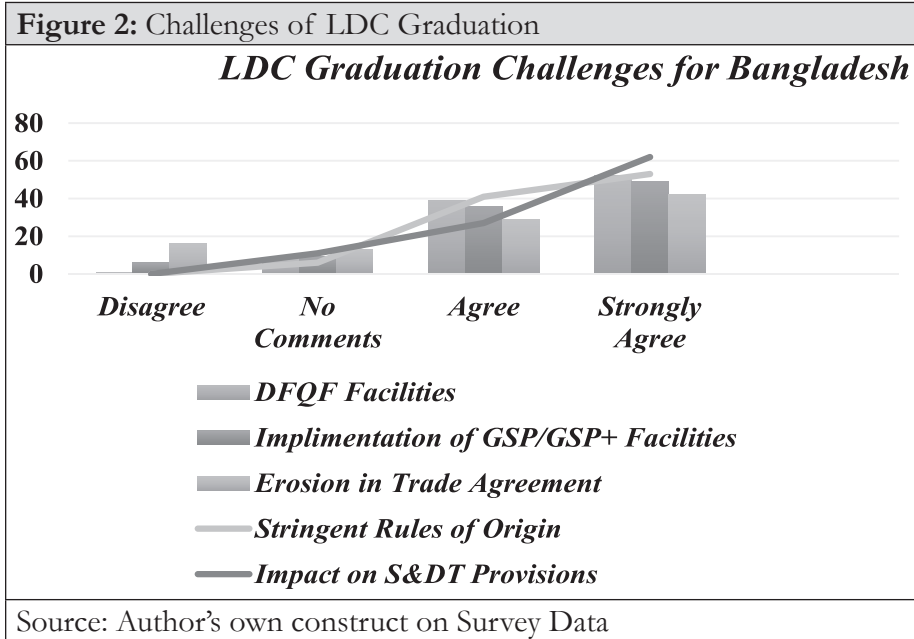
Relinquishing the Generalized System of Preferences (GSP) Facility. Due to the LDC's special position and privilege, tariff reductions are much more significant. Bangladesh will face extreme difficulties due to its graduation from LDC. Bangladesh will continue to enjoy preferential market access in the EU after graduation, but not duty-free market access (World Trade Organization, 2020).

Erosion in Bilateral or Regional Trading Arrangement. India grants DFQF market access for all goods including apparel to four LDC members and Bangladesh is one of those four. Similarly China also provides preferences to Bangladesh under China's LDC program. So, there will be consequences in the form of preference erosion as Bangladesh graduates from LDC.

Stringent Rules of Origin. According to the Rules of Origin (RoO) for both Standard GSP and GSP+, each textile and garment item must undergo two different transformations (double-stage transformation) before export. LDC graduation will introduce stringent RoO for Bangladesh and will create further hurdles for the RMG industry.

Impact on Special and Differential Treatment Provision. It is very evident that following four areas are the concern for Bangladesh for the graduation; (i) the loss of flexibility in receiving specific export subsidies on agricultural products under the Agreement on Agriculture (AoA), (ii) the termination of exemptions from complying under the Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement for LDCs, (iii) exemption from prohibition of export subsidies for non-agricultural goods under the Agreement on Subsidies and Countervailing Measures (ASCM), (iv) immunities related to investments under the Trade Related Investment Measures (TRIMS) agreement.

A survey was conducted amongst 230 personnel from different platform and portfolio. A composite question was asked whether Bangladesh will face challenges with regard to policy matters. Details explain in figure 2.



Challenges on Financial Matters

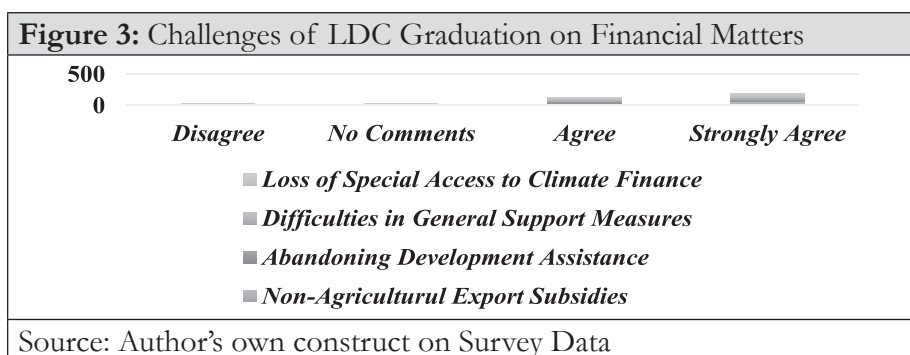
Impact on Agricultural and Non-Agricultural Export Subsidies. Bangladesh receives export subsidies for non-agricultural items. As soon as the country graduates, many of the subsidy schemes will be discontinued completely or altered severely. The largest sector of Bangladesh, i.e. agricultural sector will also suffer in a significant way (Ministry of Agriculture, 2016).

Abandoning Development Assistance. As the LDC graduates would no longer have access to concessional financing, the cost of development finance and debt servicing liabilities will be increased for Bangladesh.

Reduction in General Support Measures. General measures include (i) reducing LDCs' financial contributions to the budgets of the UN, the International Labor Organization (ILO), and other organizations, (ii) Diplomat training programs and other fellowships for LDC people, (iii) travel expense reimbursement for LDC officials attending intergovernmental

meetings. The LDCs that will graduate from this category will no longer be eligible for the caps and discounts on payments to the budgets of the UN system and nor for the LDC-specific travel subsidies.

Loss of Special Access to Climate Finance. Bangladesh will no longer be eligible to receive assistance from the Green Climate Fund (GCF), where the monies set aside for LDCs. This will make it more difficult for Bangladesh to adopt steps to adapt to the severe harm caused by the consequences of climate change.



Other Associated Challenges

Additional Infrastructure and Strict Compliance. If Bangladesh is no longer considered as an LDC, its DFQF facilities on the global market would likely be eliminated. As a result, both the volume of exports and the income from those exports will decrease significantly.

Factory Automation and Unemployment Problem. Bangladesh will have to face the competitive market in the global export market. Besides increasing the production volume, production time and production error must be reduced with setting up of automated factories.

Shortage of Skilled Manpower. Stringent compliance, increased production volume, reduction of production time and cost will require automation and latest technology in all the associated sectors (i.e. factories, transportation, port etc). At this point of time, Bangladesh lacks in skilled manpower.

Bangladesh has already achieved the land mark of Middle-Income Country (MIC), which will enforce the country to pay the additional cost of borrowing from the global lenders. Infrastructural development, stringent compliance and mobilization of domestic resources will invariably shrink the incentives that the RMG sector had been enjoying in the previous years. Bangladesh government has already taken a number of steps to utilize the graduation opportunities and to find out the ways and means to address the challenges for Bangladesh being an LDC graduate.

Ways Forward for Bangladesh

Graduation from LDC is certainly a remarkable achievement for Bangladesh. To ensure the prolonged existence of this success, the government has implemented a number of policies, initiatives, and programs.

- Economic Relations Division (ERD) of Bangladesh and UNDESA collaborated to create an ex-ante impact analysis.
- The government has established the National Committee on LDC Graduation (NCG), whose chairman is the Prime Minister's Principal Secretary. The NCG promotes graduation sustainability by including all relevant stakeholders including ministries, required organizations and experts both from public and private sector.
- Seven thematic subcommittees have been established under the guidance of the NCG to address a variety of important issues surrounding graduation, including preferential market entree and trade agreements, Intellectual Property Rights (IPR), WTO issues (other than market access and trips), financial venture and security, development of market both domestic and global, export diversification (both in terms of product and destination), mobilization of internal resources and tariff rationalization, smooth and effective transition strategy, and global branding of Bangladesh.
- During the planning stage, the UN encourages graduating LDCs to work with the UN system to build a Smooth Transition Strategy

(STS) for the country. A nine-member subcommittee has been formed chaired by the Secretary, of the ERD and co-chaired by the Secretary of the Prime Minister's Office.

- The government intends to conduct sectoral studies, research, and technical publications to assess the effects of LDC graduation and provide appropriate solutions. A joint study is being conducted by the 'Bangladesh Foreign Trade Institute (BFTI)' and the 'Indian Foreign Trade Institute (IFTI)' on the boundary, terms and conditions, and implementation criteria of the agreement (tbsnews, 2021).
- Bangladesh has consulted with the commercial counsellors from 20 countries and has selected seventeen products¹ as an effort to promote exports considering Bangladesh's graduation from the LDC.

Preparation of a Comprehensive and Smooth Transition Strategy

There must be a clear milestone set for it to ensure time-bound progress during the grace period. Renegotiating DFQF, Rules of Origin (RoO), TRIPS waiver, restriction on non-agricultural export subsidies, technical assistance such as Enhanced Integrated Framework, Aid for Trade program of the WTO, etc. should be of utmost priority. So, it will be a pivotal stance for the government to ensure predictability, coordination and implementation of the revised policies, such as; Monetary Policy, Fiscal Policy, Import Policy, Export Policy, etc.

Negotiation at Global Level

Negotiation for Support Measures. The United Nations General Assembly resolution A/RES/67/221 recognizes the importance of support measures for the smooth transition from LDC to developing country and as well as their time periods, characteristics, and modalities, in terms of financial aid, technical assistance, and trade-related measures.

1. The products comprise: woven fabrics of jute and jute yarn, footwear, leather goods, antibiotic, electronics, furniture, ceramics, frozen fish and crustaceans, sacks and bags and jute articles, pharmaceuticals, plastic goods, toys, bicycle and motorcycle, fruits and vegetables, paper and cardboard, and Information Technology (IT) and IT-enabled services.

Negotiation for ODA Fund. The developing country is also eligible for a slice of ODA fund if that is necessary for the development. Significant multilateral international donors have their own criteria for concessionary periods.

Miscellaneous Fund from other Donors. Bangladesh could contact UNCTAD and EIF to enquire about additional trade-related preference opportunities under SDG framework as it is committed in achieving the SDGs by 2030.

Negotiations with Strategic Trading Partners. Bangladesh has to intensify the negotiation with the strategic trading partner to protect market access interests, and to secure transitional support and extension of “ISMs” for sufficient period of time following graduation. Bangladesh’s RMG sector has strategic commercial partners, such as; EU, the UK, the USA, Canada, Australia, Japan, and Turkey.

Negotiation with GSTP Trading Partners. Although, Global System of Trade Preferences (GSTP) does not contain any preferential treatment, however, Bangladesh can join as a trading partner on graduation and may negotiate for some concession as the new developing country.

Regional Trade Agreement

Negotiation with ASEAN. If Bangladesh is successful in negotiating an FTA with Association of Southeast Asian Nations (ASEAN), bilateral agreements will not be required with any of the ten countries in the ASEAN.

Benefit through SAFTA. South Asian Free Trade Area (SAFTA) is a multilateral treaty which promotes and sustains mutual trade and economic cooperation within the SAARC (South Asian Association for Regional Cooperation) region through the exchange of concession but with a special preference to the LDC. Bangladesh needs to succeed an effective negotiation and do such arrangement to reap the benefit from SAFTA.

Benefit through APTA. Bangladesh should negotiate with other Asia Pacific Trade Agreement (APTA) members and open an avenue to grapple the benefit like Maldives that they are seizing through SAFTA.

Bi-lateral Trade Agreement. The feasibility of other FTA and PTA should be researched thoroughly. The small and medium-sized enterprises (SME) suggested to start immediate negotiation with Japan, Malaysia, Thailand, Vietnam and Eurasian Economic Community. The SMEs also mentioned that Bangladesh must not miss out the opportunity to sign trade treaties with Jordan, the United States, Iraq, Lebanon, Myanmar, Nigeria, Mali, Macedonia, and Mauritius. Effective diplomacy must be accomplished to grab the advantages through bi-lateral or regional agreement with the tested friends.

Domestic Arrangements

Increase Competitiveness in Export. After the graduation, country's private sector enterprises will need to become globally competitive in delivering value-added goods and services and capture a rising share in the global market.

Diversification of Export Products and Destination. The SMEs suggested that Bangladesh must look outside Europe and USA and play an effective role in regional and sub-regional forums (BBIN², BCIM³, BIMSTEC⁴, etc.) for balancing the burden of preference attrition, risk mitigation and escaping monopoly in the export sector.

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2. The Bangladesh, Bhutan, India, Nepal (BBIN) Initiative is a sub-regional architecture of countries in Eastern South Asia, a sub region of South Asia. It meets through official representation of member states to formulate, implement and review quadrilateral agreements across areas such as water resources management, connectivity of power, transport, and infrastructure.
 3. The Bangladesh, China, India and Myanmar Economic Corridor (BCIM) is a proposed corridor connecting India and China through Myanmar and Bangladesh as a corridor. In 2015, China proposed including the corridor as part of its vision for the Belt and Road Initiative (BRI).
 4. The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) is an international organization of seven South Asian and Southeast Asian nations. The BIMSTEC member states are Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka, and Thailand, the countries dependent on the Bay of Bengal.

Preparing for GSP+ Benefits. After graduation, Bangladesh will have a scope to qualify for the⁵ GSP+ facilities in the European market, because, Bangladesh has ratified almost all major conventions except for a fundamental convention of the International Labour Organization's Minimum Wage Convention.

Recommendations and Conclusion

LDC graduation will definitely increase investible resources, domestic tax collection, FDI and access to external development funds (CDP and ECOSOC, 2015). Expected increased investment will boost manufacturing and generate additional employment opportunities. Graduation will also force the R&D sector and other policy makers to think differently, improve their ideas, negotiation skills, and planning efficiency (Bari, 2018). LDC graduation will raise public and private investment in higher education, training, and healthcare sector. The government has already initiated a number of enormous initiatives, including the development of high-tech parks and special economic zones.

- In light of comprehensive transition plan, country should take up joint action plan to harmonize mutual trade rules, regulatory measures and streamline bilateral institutional cooperation in the respective fields.
- Bangladesh must continuously engage with WTO so that the transition period of the LDC graduation (at present five years; from 25 November 2021 to 24 November 2026) is extended for additional 5 years or at least 3 years for the better and sustainable preparation.
- The RTA/PTA/CEPA on the negotiation table must be considered as priority project of the government and signing should be completed as soon as possible.

5. The GSP+ is a special incentive arrangement for sustainable development and good governance. It slashes tariffs to zero for vulnerable low and lower-middle-income countries that implement 27 international conventions (7 UN conventions on human rights, 8 ILO conventions on labor rights, 8 conventions on environment protection and 4 conventions on good governance) and two numerical criteria.

- Government must focus on attracting FDI with technology transfer, infrastructure development of skilled manpower and increased domestic production.

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Author

Brigadier General Md Ahsan Habib, SUP, ndc, psc was commissioned on 19 December 1994 with 31st BMA Long Course in the Corps of Infantry. The General has a balanced military career with a perfect combination of Command, Staff and Instructional experiences. He commanded respectively 72 Infantry Brigade as Brigade Commander and 4 East Bengal Regiment as Commanding Officer. As a staff officer he served in Headquarters 203 Infantry Brigade and General Staff Officer-2(Army), Operations & Planning Directorate in Armed Forces Division. In his instructional career he has served in the School of Infantry and Tactics as Instructor Class-B at Special Warfare Wing and Tactics Wing, Instructor Class-A in Defence Services Command and Staff College, Senior Instructor and Chief Instructor in Bangladesh Institute of Peace Support Operation Training. The General attended a number of courses both at home and abroad. He is a graduate from National Defence College, Bangladesh and Defence Services Command and Staff College, Mirpur. Beside these courses, he has attended Infantry Company Commander Course in China and Counter Terrorism Fellowship Programme in the USA. Brigadier General Habib has served under the blue helmet as a contingent member in BANBAT-1 UNMIS, Staff Officer in Multinational Sector Headquarters, East UNOCI and Military Affairs Officer (P4) in Force Generation Service of UNHQ. He completed two Master Degree namely; MSc in Military Studies and MBA. Currently he is pursuing PhD in the Jahangirnagar University in International Relations. He is married and blessed with a daughter and a son.

QUAD IN THE INDO-PACIFIC REGION: IT'S CONSEQUENCES AND IMPACTS ON BANGLADESH

**Brigadier General Mohammad Humayun Kabir,
ndc, afwc, psc, G**

Introduction

The Quadrilateral Security Dialogue (QSD) is an informal strategic conference comprising the United States of America (USA), India, Australia, and Japan. The creation of a free, open, prosperous, and all-inclusive Indo-Pacific region is one of the Quad's major concerns. The group convened for the first time in 2007 in connection with the Conference of the Association of Southeast Asian Nations (ASEAN). The coalition of democratic maritime states enjoys widespread support. The forum is kept going by a number of events, such as meetings, summits, sharing of intelligence, and military drills in which all member nations take part. The leaders of the Quad get together regularly to talk about important global issues and share their views on things like new technologies, connectivity and infrastructure, cyber security, maritime security, disaster aid, human aid, and education.

The primary purpose of the Quad is to protect the political and economic interests of its member nations in the Indo-Pacific area. In addition to the primary objective of undermining China's regional hegemony, this is a secondary objective. In recent years, China's growing influence in the South China Sea and Indo-Pacific region has frightened both the western world and Asian and Pacific states. The Quad is projected to exert a considerable influence on the future course of this part of the globe. In fact, many scholars believe it will soon take the form of a defence pact, eventually becoming the 'Asian NATO.' They also anticipate that the militarization of the region will increase and become more conspicuous. This is evidenced by the fact that all four members of the Quad are currently participating in a joint naval exercise in Malabar. The purpose of this military exercise was

to demonstrate strength or send a message to China. Additionally, Quad members participate in bilateral and international military exercises.

In this context, it is crucial to appreciate how various Southeast Asian parties have responded to the Quad. It is possible that participants in the Quad may have persuaded the audience that the alliance is not solely a security alliance against China, and it is also possible that ASEAN could engage with the Quad without violating its unwavering non-alignment policy. What non-strategic security initiatives-related opportunities does the Quad face in Southeast Asia? The location of Bangladesh at the crossroads of Asia makes it a natural link between South Asia and Southeast Asia. Bangladesh must be included in any regional cooperation between ASEAN and the South Asian Association for Regional Cooperation (SAARC). The country is also a vital geopolitical ally to India since it has the power to promote more integration between Northeast India and Central India. This makes the nation an important geopolitical ally of India. How will this affect Bangladesh, a small country that is important to the growth of South Asia as a whole?

Methodology

Information for the study was collected from both primary and secondary sources. Primary data was collected through interviews of key persons. Secondary information was collected from books, journals, newspapers, and other published documents. Mostly qualitative data is used to address the objectives of the study. Other researchers' observations are also incorporated in the study.

This paper examines Quad's development using the Balance of Power theory. Balance of power theory holds that states will form an alliance to fight a dominant or hegemonic power if it threatens their security. In an anarchic world where each person is responsible for his or her own safety, states must rely on their relationships with other nations for safety. They increase their relative power to assure their own safety in international politics. Nations seek equilibrium in the face of a threat to their security

(Deb & Wilson, 2021). This study analyses the view of Quad among Southeast Asian countries in light of the founding principles and steady change over the past ten years. It identifies the strategic challenges and potential for Bangladesh as a result of the Quad to highlight the necessary steps and policy options available to Bangladesh.

Strategic Significance of Quad in The Indo-Pacific: Analysis of Different Factors

Comprehending Indo-Pacific

‘Indo-Pacific’ is both a geostrategic and a geoeconomic concept. Its importance in global discourse has expanded during the previous decade. ‘Indo-Pacific’ refers to the Western Pacific, Eastern Pacific, Eastern Indian Ocean rim, and Western Indian Ocean, which together create a geo-strategic arc to East Africa. The once-dominant Asia-Pacific region is becoming less important for trade, investment, competition, and collaboration (Ganguly, 2017). ‘Indo-Pacific’ has replaced ‘Asia-Pacific’ in geostrategic talks. Asia-Pacific states are reacting to western ideas of a new world order, exacerbating regional tensions (Rumley, 2003). Each of the Indo-Pacific’s marine regions and littorals has its own cultural practices, religious beliefs, economic theories, and political structures. The term Indo-Pacific is meant to highlight the need to incorporate a bigger geographical region and more contacts, not to replace Asia-Pacific. The trend of Americans adopting ‘Indo-Pacific’ instead of ‘Asia-Pacific’ is a fascinating trend. In this interpretation, India is considered vital for the upcoming century. Geographers call this the ‘heartland’ and the ‘rimland’ (Srinivasan, 2011).

Geo-political Location

Since the 1970s, the Indian Ocean region has been a geoeconomic battleground. The world’s major powers would turn it into a geostrategic and geopolitical battleground. Several of the world’s most powerful

politicians believe that Asia-Pacific is the world's political center. The former United States secretary of Asia writes 'The Pivot: The Future of American Statecraft in Asia'. Kurt M. Campbell delivers a clear, thought-provoking assessment of Obama's Asia Rebalancing Strategy (Kempbell, 2016). His opinions agree with Hillary Clinton's in her Foreign Policy article 'America's Pacific Century'. Asia-Pacific is important geoeconomically, strategically, and politically (Clinton, 2011). As Asia's geopolitical and geoeconomic importance grows, the Indian and Pacific Oceans have become the region's most vital trading routes, driving economic expansion. Asia, North and South America, Africa, Europe, and the Middle East trade between these waters. The Indian Ocean possesses the most critical sea line of communication (SLOC) for oil trafficking between the major Asian economic states. The Straits of Hormuz, the Strait of Malacca, and the Bab el-Mandeb Strait are Indian Ocean choke points. Each strait transmits 40% of global crude oil. This region hosts over half the world's violent wars (Pandey, 2017).

Threat Perception/Security Challenges/Maritime Security Cooperation

The Indo-Pacific is a superpower battlefield. Long-standing tensions over marine territory, sovereignty, and resources have worsened. Piracy, terrorism, drug trafficking, and climate change challenge nation-states. Natural resources, energy, and trade make regional stability vital (Bishoyi, 2016). Indo-Pacific commons security affects air and marine routes, undersea crossings, cyber networks, and communication satellites. Conventional and nonconventional enemies can easily disrupt these channels. Territorial disputes over uninhabited islands and rocky chains, varying interpretations of territorial seas and EEZs, and fishing fleet clashes stress and confuse the region. The Indo-Pacific prioritises protecting waterways for which India, Japan, and the US are concerned. Powerful nations build new security coalitions. India, Japan, and the US forged a 'Trilateral Partnership' for Indo-Pacific security. 'Trilateral Malabar Naval Exercise 2015' is a significant part. It solves China's problem symbolically. The Indo-Pacific Alliance is its cornerstone (Adnyana, 2022).

Maritime security cooperation can affect security concerns and offer military cooperation solutions for other fields. The Quad's ability to directly influence maritime security challenges may be more interesting, whether it restrains an expansionist China or secures a US presence in the region. Collaboration among Quad members on maritime security will likely benefit their relationship and security concerns. Given the ease of state collaboration in the marine sector, adopting a cooperative strategy to address maritime security is simple. Since no state has control over the high seas, the international community must respond quickly to security problems. Even crimes that occur in a state's territorial waters, like drug smuggling or illegal fishing, begin on land, transit via other states' territorial seas, and end in a different state. Multiparty cooperation is needed to eradicate marine crime (Percy, 2018).

Economic Interest, Connectivity, and Sea Lanes of Communication

Powerful nations are creating pivots in Asia to take advantage of its economic expansion and geopolitical strife. The US's economic plan and troop rebalancing aim is to tilt the United States towards Asia. Developing powers are connected to the United States through a hub-and-spoke network. These countries' economic ties to the US support its security. India's commercial ties with Pacific nations are growing and strengthening. The developing Pacific powers have invested in India and have created a limited foothold in the Indian Ocean. India and other developing nations in the Indo-Pacific region are cooperating economically and strategically (Ganguly, 2017). The Quad determines the value of Indo-Pacific connectivity concepts. The November 2017 consultation with Australia, India, Japan, and the United States on the Indo-Pacific includes discussions on connectivity based on international law and norms and responsible finance. The Quad aims to apply freedom of passage to all vital maritime communication routes in the Indo-Pacific. Australia's economy depends on Middle Eastern oil imports. 64% of Australia's petroleum products come from Asian refineries, and 79% of its feedstock comes from the

Middle East. 53% of India's crude oil and 62% of its LNG come from the Gulf. 20% of Japan's LNG and 85% of its crude oil come from imports from the Middle East. Japan and India trade via the Red Sea's 'sea routes of communication.' The US has emphasised the strategic importance of these communication constraints (Mukerji, 2019).

Military Strength

The Quad launched the yearly 'Malabar Exercise' to maintain connectivity and good relations with major democratic powers in the Asia-Pacific region. The Quad also thinks that it's important to maintain good relations among the major democratic Asia-Pacific nations. Many think that the substantial naval presence is aimed at preventing China's aggressive posture in the Indo-Pacific and is the focus of US foreign policy in the Indo-Pacific maritime security arrangement. The drill is being used to show the military's readiness (Vasudeva, 2020).

| Table: Quad member states firepower overview (2021) | | | | |
|--|---------------------------|-------------------|---|----------------------------------|
| Rank | Country Name | Defence Budget | Manpower | Index Ranking (Global Firepower) |
| 1. | United States of America | 740.5 billion USD | 2,245,500 (1.4 million active, 845,000 on reserve) | Rank 1 (0.0718) |
| 2. | Republic of India | 73.65 billion USD | 5,127,000 (1.4 million active, 2.5 million paramilitary and 1.1 million on reserve) | Rank 4 (0.1207) |
| 3. | State of Japan | 51.7 billion USD | 319,000 (250,000 active, 55,000 on reserve, and 14,000 paramilitaries) | Rank 5 (0.1599) |
| 4. | Commonwealth of Australia | 42.7 billion USD | 80,000 (60,000 active, 20,000 on reserve) | Rank 19 (0.3378) |
| Source: Global Firepower, 2021 | | | | |

The Quad's presence in the Indian Ocean region was a clandestine achievement of a geopolitical goal regarding China. The Quad may become a regional NATO, increasing China's anxiety about the U.S. (Satake, 2020). As China modernises in opposition to the US, Japan, and Australia on its eastern front, Australia on its southern front, and India on its western-southern front, the Quad's look was also intended to show a strategic, coordinated, powerful, and stable military power. When the Quad states' defence budgets are examined, China's interregional geopolitical movements become harder to evaluate. Because it decides the result of any potential confrontation between them and other Quad forces. Numerous scholars and the US administration are concerned about China's military modernization, which will affect US relations with China and the Indo-Pacific area (Cimbala, 2015).

Potentiality of Greater Balance

Since the end of the Cold War, China and India have been the main beneficiaries of globalised trade and investment flows. Both countries have maintained bilateral connections despite being adversaries for years (Menon, 2017). China's growth in the global economy is important for the Indo-Pacific area. The rebirth of geopolitics in the 21st century includes China's economic, political, and military expansion. (Menon, 2017): Rebalancing strategies, new state and non-state actor capabilities that aren't limited by institutions or cooperation, and growing geopolitical competition between the US and China have all contributed to the region's continued instability. Because of great-power dynamics in the Indo-Pacific, major governments have stepped up efforts to ensure internal stability. This shows China's growing influence and active foreign policy in the region. A former Bangladeshi UN ambassador argues that, the Quad has no power-balancing benefit. He sees China and India as ancient civilisations fighting. Quad gives US little leverage (Hannan, 2022).

China-India ties in the Indo-Pacific indicate security. China and India are emerging as maritime powers due to Indo-Pacific developments. This

affects Indo-Pacific security (Brewster, 2016). Their border conflict has strained relations (Soumyodeep Deb, 2021). The Quad's growth addresses shared interests and maintains regional cohesiveness (Economic Times 2021). A 'free and open' Indo-Pacific is essential to the US and its partners' interests (Economic Times 2021). China's maritime border claims and escalating military activities in the East and South China Seas show its expansion and influence in the Indo-Pacific. China may utilise oceans and nationalist rhetoric to keep the US out of its orbit (Bishoyi, 2016). Quad intends to restrict China and reduce its naval activity in the Indo-Pacific, said by experts. Sino-US tensions threaten Indo-Pacific security. China's emergence is the largest obstacle since the Cold War ended. 'Pivot to Asia' slows China's rise (Soumyodeep Deb, 2021).

Challenges for South East Asian Countries

Quad, ASEAN and Indo-Pacific

Southeast Asia won't embrace the Quad if it's just another manifestation of great-power disputes at the expense of ASEAN interests. The East Asia Summit (EAS), the ASEAN Regional Forum (ARF), the ASEAN Defence Ministers-Meeting Plus (ADMM Plus), and the Indian Ocean Rim Association are seen as prospective communication forums with Indo-Pacific nations (IORA). The Quad aims to build a regional security plan to maintain a rules-based order. This is the goal of ARF, ADMM, ADMM Plus, and the political and security domains. ASEAN nations recognise the importance of expanding maritime cooperation to develop trust and maintain peace, security, and stability. The Expanded ASEAN Maritime Forum (EAMF) and the ASEAN Maritime Forum (AMF) are responsible for defending over flight and navigation. How would the Quad benefit ASEAN? India has stressed the importance of 'ASEAN centrality and unity' for Indo-Pacific peace and development. This centrality underpins India's Act East policy. Given the divides within ASEAN over the development of the 'Indo-Pacific' and the necessity for external powers to have a more overt role in the South China Sea dispute, the discussion over whether

ASEAN members should be included in the Quad will further damage an ASEAN-centered institutional system in Asia (Saha, 2018).

South-East Asia and the Belt and Road Initiative

Quad Accord and Indo-Pacific independence and openness are covert competition with Belt and Road Initiative (BRI). China's BRI relies on this region. Each ASEAN country's willingness to aid China's BRI differs. Malaysia and Thailand are key to the scheme's success (Yongke, 2017). BRI surpasses 'free and open Indo-Pacific' in terms of resources. Malaysia must trade more with China to tap its resources. If Japan doesn't promote a 'free and open Indo-Pacific,' Malaysia's position on the Quad initiative won't change (Saha, 2018). The Philippines and Indonesia are possible Chinese BRI partners. Due to territorial and maritime conflicts, the Philippines and China have a strained relationship. Due to these challenges, they can't have a close relationship with China. Indonesia wants to lead ASEAN. It has a history of limiting other nations' influence and is conscious of the threat posed by the expansion of other ASEAN states' spheres of influence (Yongke, 2017). In contrast to Indonesia's Global Maritime Fulcrum (GMF) programme, China's investment in Indonesia aims to boost the country's interior connectivity (Saha, 2018). Singapore is benefitted economically from its connection with China, but avoids forging a particular relationship, especially on national security problems. Singapore has the potential to be a key economic and cultural partner for China, while not being a BRI core partner. Vietnam is more cautious than Cambodia with China. Given the South China Sea, Vietnam seems unenthusiastic about the BRI (Yongke, 2017). According to ASEAN-China trade data from 2000 to 2018, both countries' total trade volume and subcomponents expanded dramatically. China's exports to ASEAN countries rose from \$22.7 billion in 2000 to \$129 billion in 2010 to \$299.8 billion in 2018. In fewer than 20 years, China's exports to ASEAN surged 13-fold. In 2018, China imported \$202.7 billion from Southeast Asian countries, up from \$16.9 billion in 2000, \$54.7 billion in 2005, and \$114.4 billion in 2010. China has a trade surplus (TRAN, et al., 2020).

Perception of South East Asian Countries

The way in which people perceive the Quad has caused challenges for it. Even though it is purportedly an informal security organisation involving Japan, the US, Australia, and India, it is commonly considered that it annoys China and poses a challenge to ASEAN; as a result, it would garner very little support from neighbouring nations. There was not a single piece of credible evidence to support this position. The Australian Strategic Policy Institute commissioned a quantitative poll to determine how policy and expert communities in South-East Asia evaluated the Quad. The research was undertaken by the institute. Responding to the survey were 276 employees of government organisations, military branches, academic institutions, think tanks, private enterprises, the media, and universities from all ASEAN countries. Southeast Asia's views on the Quad vary, according to the report. 10% of respondents oppose the Quad, while 39% support it. Most ASEAN respondents say the Quad helps regional security. 57% of the respondents agree. 46% of the respondents feel the Quad helps ASEAN-centered regional security arrangements, whereas 13% believe it has no impact on ASEAN. The Quad is expected to impose rules-based order, according to 69% of the respondents (Thu, 2018).

Bangladesh-ASEAN Economic Relations

Bangladesh's commerce with ASEAN is important. Bangladesh and Indonesia traded \$1913.82 million in fiscal 2020-21, with exports totaling 68.22 million and imports totaling 1845.6 million. In FY 2020–21, exports totaled 306.57 million USD and imports totaled 1573.50 million USD with Malaysia. Bangladesh and Singapore traded \$2584.57 million in fiscal 2020-21, with exports totaling \$116.57 million and imports totaling \$2468.0 million (Anon., 2022). Bangladesh's economic growth and stability may urge ASEAN to accept it as a conversation partner and eventual inclusion. Bangladesh will spend the next three to six years negotiating bilateral PTAs and FTAs to boost exports and market access. The country aims to become a developing country by 2026 and is considering PTAs with 44

more countries. Bangladesh has had long-standing trade ties with ASEAN and this has affected Southeast Asian economy, especially in Singapore and Bangkok. Bangladesh should cooperate with ASEAN countries and develop regional and international partnerships. Also, the country must retain its commitment to SAARC and its close ties to India. Despite the COVID-19 pandemic, Bangladesh's economy has flourished in the age of regionalization. Bangladesh is a strong candidate for the ASEAN strategy to revitalise their economies by developing links with China and Japan. ASEAN was formed to prevent a superpower from dominating Southeast Asian politics. ASEAN nations favour increasing ties with Bangladesh and India due to their strategic position. ASEAN countries are pursuing connectivity with South and Northeast Asia, which will allow additional South Asian states, like Bangladesh, to become East Asian allies in the future (Chakrovorty, 2022).

Challenges and Prospects for Bangladesh

Geo-political and Geo-Strategic Reality for Bangladesh

Bangladesh, the lower riparian nation, relies on India's rivers for water. Rivers connect the two nations. Similar to its reliance on China's supply chain, this country relies on India's. Investment-wise, China and India are incomparable. Chinese and Japanese investments outweigh Indian ones. India and Bangladesh's relationship fluctuates due to historical, cultural, religious, and ethnic links (Karim, 2022). Bangladesh is adjacent to Arunachal Pradesh, which India and China claim and where they fought in 1962. The Siliguri Corridor connects the Indian mainland to seven undeveloped northeastern provinces and six additional Indian states near Bangladesh. This is the only route connecting seven northeastern states to India. Bangladesh is committed to offer India transit and transshipment facilities so India can transfer its goods from the Indian mainland to these seven developing states at a reduced cost and with fewer risks utilising Bangladeshi roads and rivers. Chittagong Port, the principal port of Bangladesh, gives India priority services, allowing Bangladesh to export

products to Agartala and Nagaland at a lesser cost and with fewer risks. If India and China clash over Arunachal Pradesh, Bangladesh's national security could be threatened. If China restricts the Siliguri Corridor, which connects China to Bangladesh, Bangladesh will have to determine which side to support or whether to remain neutral or equidistant. Bangladesh is now conducting the operation in peace. Considering this, the objectivity may be difficult. Topography may prevent it (Karim, 2022).

Bangladesh battles the Bay of Bengal and Myanmar. Myanmar's military forced Rohingya refugees into Bangladesh. More than a million of them have found refuge in Bangladesh in the previous four to five years, which increases the risk of a limited conflict using conventional and non-conventional means. In the Bay of Bengal, on the Andaman and Nicobar Islands, a three-force joint command monitors the Malacca Strait. Bay of Bengal affects Bangladesh's economy and culture. Bangladesh needs Bay resources and communication lines to survive. Bangladesh is also affected by climate change, and millions of its citizens may be forced to evacuate since, according to the UN, much of southern Bangladesh might be inundated by the end of the century. Concerns and resources in Myanmar may prompt US Indo-Pacific Command to act in the Bay of Bengal. This region is near Arunachal Pradesh and the Malacca Strait. India considers the Bay an Indian lake and participates in Quad military drills there. China is concerned because its maritime lanes pass via the Malacca Strait and around the Bay. It's currently searching the Indian Ocean. Some compare South China Sea to Bay. The Malacca Strait connects them. This is ominous (Karim, 2022).

Dilemmas for Bangladesh

Bangladesh joined the Belt and Road Initiative and the Bangladesh-China-India-Myanmar Economic Corridor. Bangladesh is on the Maritime Silk Road. US and India's Indo-Pacific initiatives compete with the BRI to slow China's economic growth. India says China's influence is expanding in Bangladesh. China's 'string of pearls' policy covers Bangladesh. China

and Bangladesh put business first and Bangladesh isn't in China's 'sphere of influence'. Japan talks to Bangladesh and wants to enter Bangladesh. 160 million people live in this little country of Bangladesh. Japanese geopolitical goals include BRI. Japan contributed quality infrastructure projects to Bangladesh. The Times of India reported in 2016 that Tokyo, New Delhi, and Washington urged Dhaka to reject the Chinese-led Sonadia deep-sea port project. China perceives US plans to expand the Quad to the Quad Plus a danger to its sovereignty, despite the Quad Plus simply examining COVID-19 relief. China thinks India and the US would urge Bangladesh to join. Bangladesh's strategic location and closeness to the Bay of Bengal have elevated its geopolitical relevance in the Indo-Pacific region (Bhattacharjee, 2021). China advised Bangladesh against joining the Quad. Chinese Ambassador to Dhaka, Li Ji-ming remarked on May 10, 2021, 'Bangladesh joining the anti-China alliance will hurt bilateral relations' (Haider, 2021). Bangladesh isn't in Quad. All of this proves that Bangladesh is important in all these battles.

Ways Forward for Bangladesh

The strategic independence of Bangladesh must be preserved at all costs. According to all accounts, it is a challenging prospect; therefore, diplomacy will need to play a sophisticated and smart long-term game. The Bangladeshi military must place a high focus on upgrading its technological capabilities in the future. Bangladesh should strive to establish a more robust economy by maximising both local and foreign resources and placing national interests first at all times. It should rely primarily on domestic resources rather than imports from other countries. Internally, this implies that the Bay of Bengal is also included, as it represents the nation's new security and expansion frontier. Bangladesh should prioritise the development of the blue economy. Bangladesh will die of starvation if its sea channels of communication are cut off in any way, especially in terms of its energy source (Karim, 2022).

Bangladesh's foreign policy is objective and evaluable. Bangladesh's 'friendliness with everyone' and non-alignment policy make military

alliances difficult. Bangladesh will not join any coalition against any nation, so China need not to worry. Bangladesh is always vigilant in this area. Bangladesh's 'neutral and balanced' foreign policy informs all decisions. The country balances the world's major powers and on a variety of economic issues, it works closely with China. Dhaka hopes this will attract more foreign investment in Bangladesh. It also means that any dispute over it should be resolved economically, not politically. Unless the country escapes the Quad's geopolitical trap, its economy will suffer (Zongyi, 2021). The constitutional impediment will prevent Bangladesh from joining the Quad, according to a former ambassador. Bangladesh or the Quad should not take direct or indirect military action (Hannan, 2022).

Recommendations

Following recommendations are put forward for considerations:

- Bangladesh should play its cards with extreme caution to avoid joining the Quad or any other security partnership that contradicts the nation's foreign policy principles in order to avoid falling into the Quad's geopolitical trap.
- Within the relevant economic and development sectors, Bangladesh shall increase its links and collaborations with ASEAN member states and the regional organizations.
- Bangladesh should prioritise its support for regional organisations such as SAARC and BIMSTEC, among others, and participate in bilateral economic cooperation with Quad members.

Conclusion

Bangladesh is in a complex situation as far as Quad is concerned. Bangladesh has already endorsed the BRI of China, which offers potential economic benefit. On the other hand, there might be an evolving requirement to come to a decision as regards to endorsing or joining

Quad in the future due to the fact that both the US and India, two of Bangladesh's important partners, may put indirect pressure. Ours, being a nonaligned country, may indirectly get benefitted from the Quad through regional forums such as ASEAN. Due to its foreign policy, Bangladesh is unable to participate in any military coalition. Again, any commercial connection with Quad may annoy China, Bangladesh's most important and dependable development partner. Bangladesh may therefore strengthen its economic and development-related ties and partnerships with ASEAN and ASEAN member states. Joining the Regional Comprehensive Economic Partnership (RCEP) is a good alternative for Bangladesh (Siam, 2022). This is likely to offer better economic opportunities and strengthen bilateral relations with Asia-Pacific countries. This will help Bangladesh better align itself with Quad's perspective while evaluating whether to support Quad. Consequently, neither China nor the other members of the Quad will feel alone. According to Hannan (2022), 'the United States, India, and Japan will always be trading partners. Additionally, the Bangladeshi government is eager for market diversification. We must move with the utmost caution and forethought as we proceed. 'The ASEAN and Quad are mutually exclusive' (Hannan, 2022).

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Author

Brigadier General Mohammad Humayun Kabir, ndc, afwc, psc, G was born on 03 March 1976 at Noakhali district of Bangladesh. He was commissioned in the Corps of Artillery with 34th BMA Long Course on 07 June 1996. His duties and appointments include Regimental Staffs, General Staff Officer Grade-3 (Operations) in the Headquarters 9 Artillery Brigade, Instructor Gunnery & Senior Instructor Gunnery in the School of Artillery, Brigade Major in the Headquarters 11 Artillery Brigade, General Staff Officer Grade-1 in the Headquarters 9 Infantry Division and Colonel Staff at Army Headquarters. He commanded 3 Field Regiment Artillery as Commanding Officer. Under the blue helmet, he has served as a Contingent Member in MONUC (DR Congo) and as a Military Observer at UNOCI (Ivory Coast). He attended a number of courses at home and abroad. He is a graduate of both Defence Services Command and Staff College and National Defence College at Mirpur Cantonment. He obtained his Masters in Military Studies from Bangladesh University of Professionals.

DEVELOPMENT OF MARITIME PORTS IN BANGLADESH: PROSPECTS AND CHALLENGES

“No matter how Information Technology advances, the world trade cannot be materilised without the ports. That is exactly why every country needs to develop much more advanced and efficient ports for its prosperity.”

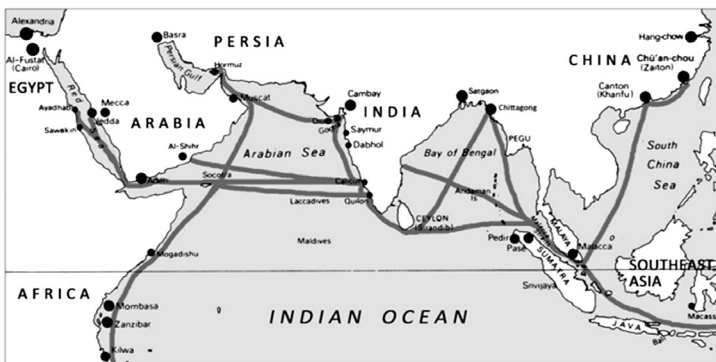
- Dr. Mahathir Mohammad, Malaysian Prime Minister

**Commodore Ziaur Rahman,
(TAS), NGP, ndc, afwc, psc, BN**

Introduction

The riverine geography of Bangladesh had played a major role in architecture of maritime trade in trade and commerce of the Bengal since time immemorial. The port towns of Bengal were part of ancient maritime silk route as they traded with China, Sumatra, the Maldives, Sri Lanka, the Middle East and East Africa during the 13th to 16th Century period (Sheikh, 2020). With such glorious maritime history, the maritime ports of Bangladesh offer glaring hopes of opportunities of development to present day Bangladesh – a population burdened country with limited land resources.

Map 1: Maritime Trade Route during 1200-1500



Source: Deyell 2019

Maritime flows, representing 90% of the external trade, are the lifeblood of Bangladesh's trade and is crucial for future economic well-being (Alam, 2019). The Government has formulated the Perspective Plan 2021-2041 to switch Vision 2041 into a growth strategy. The 20 year strategy has set target of attaining 9.9% growth in Gross Domestic Product (GDP) by settling investment to 46.88% of GDP by 2041 (GED, 2020). With the materialization of the Vision 2041, external trade volume of Bangladesh will grow to manifold. Besides, the Blue Economy of Bangladesh focuses on 26 thrust areas which includes shipping, port and maritime logistics, deep sea fishing, exploration of gas and oil in 22 offshore blocks in the Bay of Bengal (BoB), etc. (MOFA, 2012). Much deliberated Blue Economy is expected to increase marine transportation and usher varied economic activities at sea and in coastal area in Bangladesh.

Three maritime ports of Bangladesh are the gateway for her seaborne trade with outside world. These ports are playing vital role in accelerating the economic development of the country. Average rate of import and export has seen a steady growth of 12.9 % and 13.6 % respectively during the period from July 1987 to December 2021 (CEIC, 2022). Vessel turn around time, container dwell time and other indicators of the maritime ports, infrastructure and maritime transportation facilities of Bangladesh shows that present capacity is not sufficient to handle this enormous growth. Prospect of establishment of regional connectivity with landlocked neighbouring countries e.g. Nepal, Bhutan and Northeastern states of India is rising. Bangladesh is expected to be transformed into a regional hub in near future. These countries will have huge volume of transshipment and transit cargo for maritime trade and commerce using maritime ports of Bangladesh. The Bangladeshi maritime ports are operating at their saturation level at present with number of administrative and operational limitations. Overall, the maritime transportation will increase in manifold in coming years in the BoB for which the maritime ports and related support installations need to be developed in Bangladesh. This research has focused on ways to address various challenges and prospects at national and regional level to develop maritime ports in Bangladesh.

Research Objectives

Main Objective

The main objective of the research is to identify the prospects and challenges of development of the maritime ports in Bangladesh in a scenario of projected requirements of maritime trade for the next 2 decades e.g. in 2041 for Bangladesh and the region comprising Nepal, Bhutan and Indian North-eastern Region.

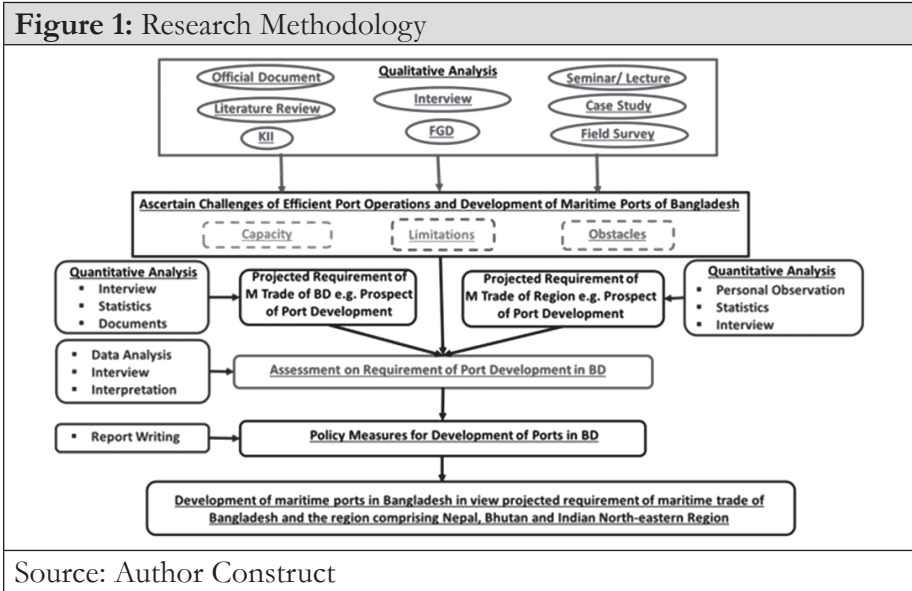
Specific Objectives

- To analyse the present capacity, limitations and obstacles of maritime ports which pose challenges to efficient maritime operations and port development in Bangladesh.
- To evaluate the prospects of maritime port development in Bangladesh by assessing the projected requirement of maritime trade of Bangladesh and regional countries e.g. Nepal, Bhutan and Indian North-eastern Region keeping 2041 timeframe in view.
- To ascertain the policy measures for development of maritime ports in Bangladesh keeping the projected requirement of maritime trade of Bangladesh and stated regions for the next 2 decades e.g. 2041.

Research Methodology

Due to pattern of subject, Cross-sectional Descriptive research had been conducted under Non Experimental Research. Qualitative research method, with mix of quantitative research method has been carried out to work out various sources of information. Interviews, Lectures, Subject Matter Experts (SME), Key Informant Interviews (KII) and Focused Group Discussion (FGD), Case Study and data analysis had been conducted. Official Documents/Survey e.g. Feasibility study conducted by the World Bank, Asian Development Bank (ADB), Japan International Cooperation Agency (JICA) had been studied. Research Ethics and Non-disclosure Commitment had been maintained.

Figure 1: Research Methodology

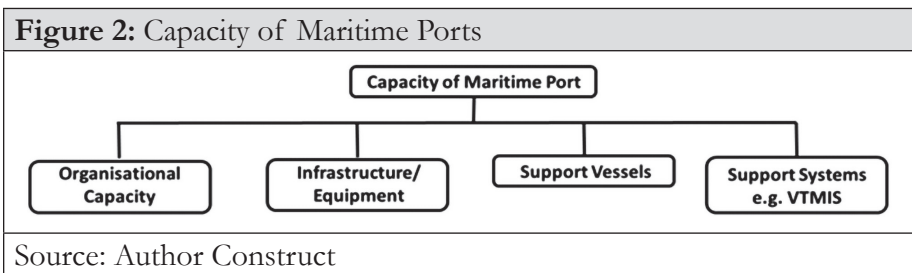


Source: Author Construct

Capacity of Maritime Ports

Assessment of capacity of maritime ports through study of relevant elements of the ports had shown that their capacity varies due to organization, infrastructure etc.

Figure 2: Capacity of Maritime Ports



Source: Author Construct

Chattogram Port. Chattogram port is handling above 90% of the trade of Bangladesh. About 70% of this trade volume is from/ to Dhaka region while 30% originates from/ goes to Chattogram region (ESCAP, 2018). Cargo handling by the port had 13% yearly growth in 2021. The port secured 64th rank among the best 100 ports globally (Llyods List, 2022).

Container handling in 2021 had been the highest in the 133 year history of the port, which went into operation on 25 April 1888 (Business Standard, 01 January 2022). In 2021-22, a total of 4,231 ships visited the port and vessel arrival growth rate is 9.43% over last decade (Dainik Purbokon, 02 July 2022).

Table 1: Cargo and Container Handling by 03 Maritime ports

| Year | Chattogram Port | | Mongla Port | | Payra Port | | Remarks |
|---------|------------------|------------------|------------------|-------------|-----------------|-----------|---------|
| | Cargo | Container | Cargo | Container | Cargo | Container | |
| 2020-21 | 116.6 million MT | 3.2 million TEUs | 18.24 million MT | 43,959 TEUs | 1.55 million MT | - | |

Source: CPA, MPA and PPA, 2022

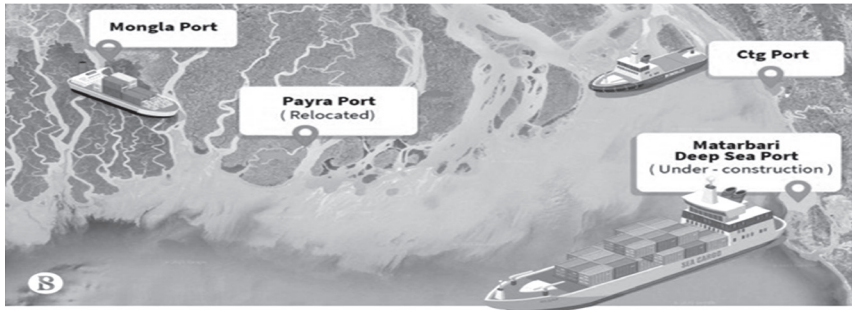
Mongla Port. A total of 1301 vessels called on the port in 2020-21 and vessel arrival growth rate of Mongla is highest (15.61% average) among the maritime ports in Bangladesh. Various development projects and dredging of the channel has facilitated vessel entrance and cargo movement (MPA, 2022). River and road connectivity are available at relatively lower cost from Mongla port to all over the country. Construction of Padma Bridge has facilitated direct road connectivity with Dhaka.

Payra Port. The Payra Port is one of the 10 ‘Mega Projects’ taken by the Government of Bangladesh (GoB) to develop infrastructures for economic emancipation. Payra port was established in 2013. River way distance of Payra port to Dhaka is 267 km whereas Mongla to Dhaka and Chattogram to Dhaka river way distance is 354 km and 222 km respectively. Road distance from Payra to Dhaka is 190 km (New Age, 25 June 2022).

Challenges of Efficient Port Operations and Port Development in Bangladesh

Existing Maritime Ports of Bangladesh. Bangladesh has 03 maritime ports at present, namely: Chattogram Port, Mongla Port and newly established Payra Port which are run by the Chattogram Port Authority (CPA), Mongla Port Authority (MPA) and Payra Port Authority (PPA) respectively. Besides, a Deep Sea Port is also being established at Matarbari, Cox’s Bazar.

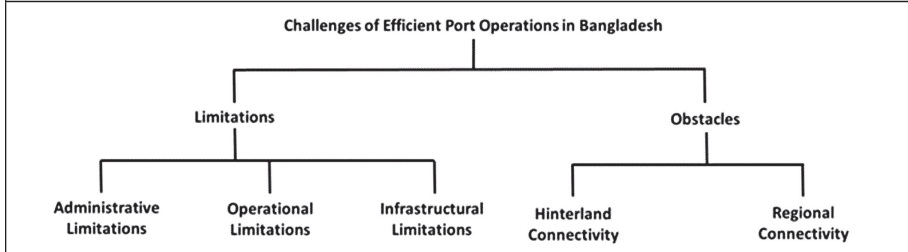
Map 2: Maritime Ports of Bangladesh



Source: The Business Standard, 19 April 2021

Efficient and operational maritime port contribute to national economic growth immensely while inefficient and poor performing maritime port can become burden by increasing cost of trade. There are number of limitations and obstacles which limits the productivity of the port. These are indeed the challenges of efficient port operations and development of maritime ports in Bangladesh.

Figure 3: Challenges of Efficient Port Operations in Bangladesh



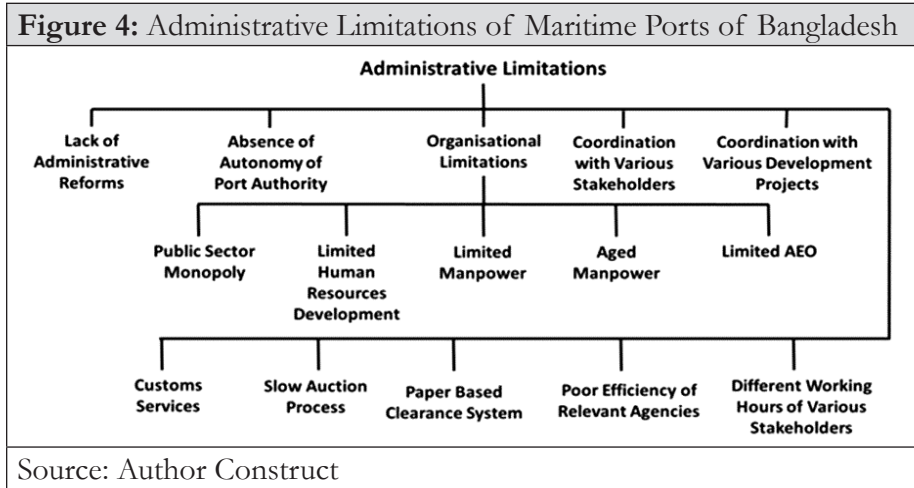
Source: Author Construct

Limitations of Maritime Ports of Bangladesh

Critical analysis of the administration, operations and infrastructure of the ports has identified the challenges of improving the efficiency of the existing ports.

Administrative Limitations of Maritime Ports of Bangladesh

Number of Administrative limitations had been analysed.



Lack of Administrative Reforms. The Bangladeshi ports need to adopt number of administrative and management measures to meet future demand of maritime trade to become ‘Service Oriented Ports’ or ‘Service Provider Ports’ (Field Survey-CPA, 2022).

Lack of Autonomy in Port Administration. Although the Port Authorities are autonomous as per the Acts, the Port Authorities cannot thoroughly exercise respective power in the area of finance, administration and development (Begum, 2003). The bureaucratic formalities, inadequate and slow investments in port equipment and infrastructure in turn have caused lower productivity (Alam, 2021).

Organizational Limitations

Public Sector Monopoly. The current governance arrangements of the 03 Port Authorities are controlled by public sector in handling containers. Some development partners e.g. ADB assumes that the present regulations are unsuitable for operating a modern port and private sector engagement

needs to be increased following the pattern of other ports in South-east Asia (ADB, 2015).

Manpower of the Ports. The Chattogram Port area at sea has been extended by 7 times due to increase in number of vessels. Thus, area of operation and workload has increased. Although proposal of another 6,000 manpower had been forwarded, the complete approval is yet to be received by the Ministry and is being granted in phases on piecemeal basis (Field Survey-CPA, 2022).

Human Resource Development in Port Sector. The service rule of 1991 of the Port authorities lacks standardized career development and seniority is assumed to be the main criteria for promotion. Despite being service cum commercial organization, the salary structure in the port authorities are similar to the public service organization which demotivates the personnel working for 24/7 (Begum, 2003). Survey has shown that tailored training programmes for port personnels need to be undertaken to develop capacity building of the ports as well.

Coordination with the Various Stakeholders. The Port Authorities opined that regular stakeholder meetings are being conducted and logical opinions are taken into consideration for port operation (Field Survey CPA, 2022). However, few of the stakeholders opined that the Advisory Committee Meeting should be held once in every 3 months (Field Survey – MBBSOA, 2022).

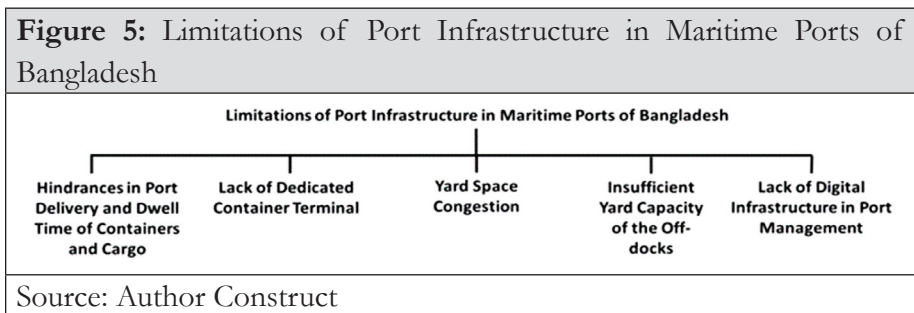
Customs Services. Efficient port operations require simultaneous and efficient operations by port and the customs. Although Customs has deployed ASYCUDA++ software for quick and faster processing of documents in Chattogram and Benapole Customs Houses since 2003 (Customs, 2022), port users opine that the customs clearance method for import comprises of 13 to 16 steps which is paper ledger based and list-oriented process. Lack of trust among the port users exists due to the absence of modern technology in controlling and appraisal method of the Customs.

Other Administrative Limitations

- Limited Number of Authorized Economic Operators (AEO).
- Coordination with City Development Projects.
- Slow Auction Process.
- Paper Based Clearance System.
- Poor Efficiency of Relevant Agencies.
- Different Working Hours of Various Stakeholders.

Limitations of Port Infrastructure in Maritime Ports of Bangladesh

Infrastructure plays major role in the port operations. Berthing delay or waiting vessels coupled with the slow rate of disembarkation and embarkation caused by lack of storage space, lack of efficient handling equipment affects the Vessel Turn Around Time. The congestion delays cause an increase of costs of about \$150 per 20 ft container in demurrage and other costs. The conditions in the port cause an average increase of 20% in the shipping costs (Alam, 2021). Thus, limitations in infrastructure pose major challenges to port operations and limits the output of the port.



Hindrances in Port Delivery. Dwell time of containers at CPA was to 9.07 days in August 2022 which is quiet long considering Global and Regional Port Standard (CPA, 2022). Statistics has shown that reduction of container dwelling time by 07 days has reduced the amount of expenditure

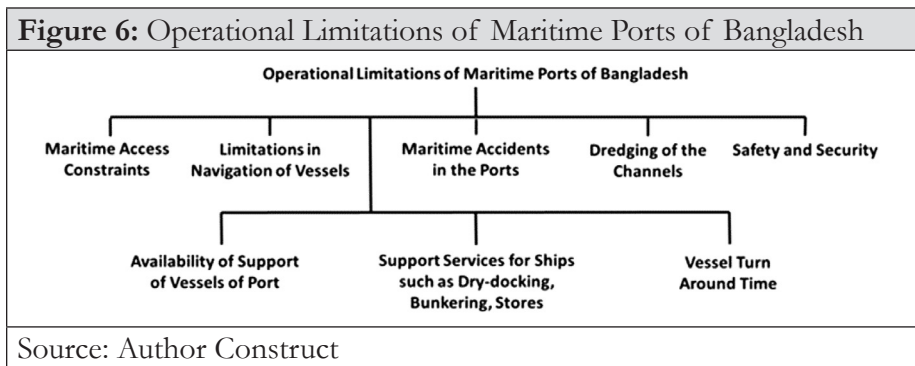
for business persons significantly where they had paid \$55.68 million, which was half of previous payment for almost double the amount of containers in Chattogram port.

Insufficient Yard Capacity of the Off-docks. There are 19 Inland Container Depots (ICDs) which are also known as Off-Dock. These Off-docks handle almost 100% of export goods for shipments and 38 various types of import goods. The ICDs ease out congestion at Chattogram port. These ICDs have a cumulative capacity of 76,255 TEUs containers (The Business Standard, 05 June 2022). The yard capacity of the Off-docks are not sufficient considering projected volume of container traffic. Besides, recent fire incident in the Sitakunda ICD shows that safety issues are not been adhered to in the Off-docks (SME Interview, Islam, 2022). Thus, specialised ICDs need to be established for chemicals, explosives, pharmaceuticals, oil and fuel, toxic materials so that corresponding level of fire safety measures, handling equipment and trained manpower are developed.

Other Limitations of Port Infrastructure

- Lack of Dedicated Container Terminal.
- Yard Space Congestion.
- Lack of Digital Infrastructure in Port Management.

Operational Limitations of Maritime Ports of Bangladesh



Maritime Access Constraints and Limitations in Navigation of Vessels. The larger vessels carrying cargo for Chattogram or Mongla or Payra port need to disembark their cargo through lighterage operation due to the draught restriction. The lighterage operation is time consuming, costly and is susceptible to inclement weather.

Maritime Accidents in the Ports. Sixteen maritime accidents involving collisions, aground/ sinking of vessels, fire onboard and pollution took place in the Chattogram port during period from 1989 till 2004. Channel peculiarity, absence of navigational aid, lack of safe berthing, chaotic movements of smaller craft, pilotage errors, shortage of tugs, communication gap, night navigation with improper vessels, high range of tide, strong current, cyclones, fog, freshet, etc. had been the salient causes of these maritime accidents (Rahman, 2004).

Dredging of the Channels. Discharge of household waste and hundreds of tons of industrial chemicals are drained into the Karnaphuly river every day (Daily Star, 01 November 2022). This has caused accumulation of human waste, plastic, polyethylene and silt layer ranging between 2 m to 10 m on the river bed. The siltation has restricted entrance of larger and deep draught ships and is the cause of higher shipping cost. Similarly, Zulfikur channel of Mongla port and Payra channel need regular dredging. Shipping cost at Chattogram port is expected to reduce by about 60% as a fully dredged Karnaphuli River will allow berthing of 10 m vessels (Business Standard, 21 July 2022).

Table 2: Cost Comparison between Vessels of Different Size

| Vessel Size | Total Cost/ day at Sea | Cost per TEU/ day at Sea |
|-------------|------------------------|--------------------------|
| 12500 TEUs | \$1,55,382 | \$12.43 |
| 18000 TEUs | \$1,97,198 | \$10.96 |
| 22000 TEUs | \$2,20,892 | \$10.04 |
| 24000 TEUs | \$2,29,693 | \$9.57 |

Source: Van Marks, 2018

Safety and Security. Despite strict measures by the Law Enforcing Agencies (LEAs) to curb petty theft cases in the maritime ports of Bangladesh, sporadic breach of security like ‘loosing of ships’ store’ had caused image crisis of the ports both at home and abroad.

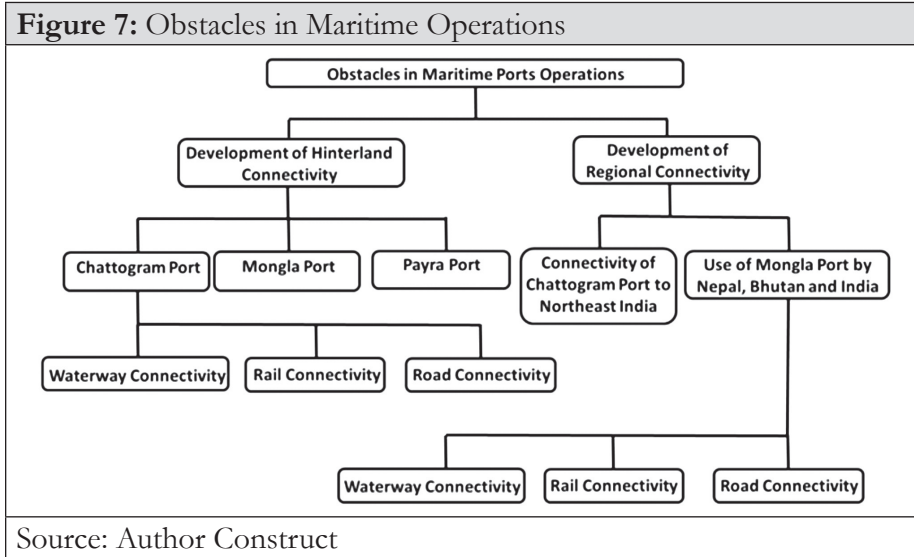
Availability of Support of Vessels of Port. The maritime ports need to have adequate number of dredgers, tug boats, specialized and utility vessels to provide support in port operations. Poor maintenance, aged vessels and shortage of such support vessels cause limitations in safe port operations.

Support Services for Ships such as Dry-docking, Bunkering, Stores. Efficient maritime ports not only provide transfer of goods smoothly, but also provide dry docking, maintenance facilities, bunkering and storing etc. so that sustainability of vessels is maintained. Such quality maintenance facilities, dry-docking, bunkering, etc. are not available in Bangladesh maritime ports (Islam, 2022).

Vessel Turn Around Time. Vessel Turn Around time of Chattogram Port in 2021-22 was 2.37 days for a container ship which is the shortest time in the last six years. It was 2.90 days for a container ship at Mongla port which is 0.7 day in Singapore, 1.42 days in India, 1 day in Malaysia and 1.8 days in China for a container ship (UNCTAD, 2020). Such longer duration increases cost of business as the Bangladeshi businessmen have to pay tk 8.5 to 12.7 lakh per ship for each day of overstaying in the port (Business Standard, 05 January 2022).

Obstacles of Maritime Ports of Bangladesh

As port operations are dependent on the hinterland connectivity by rail, road, water and airways to the destinations inside country and regional connectivity with the regional countries, these factors has also been reviewed to ascertain the obstacles posed to efficient port operations in Bangladesh.



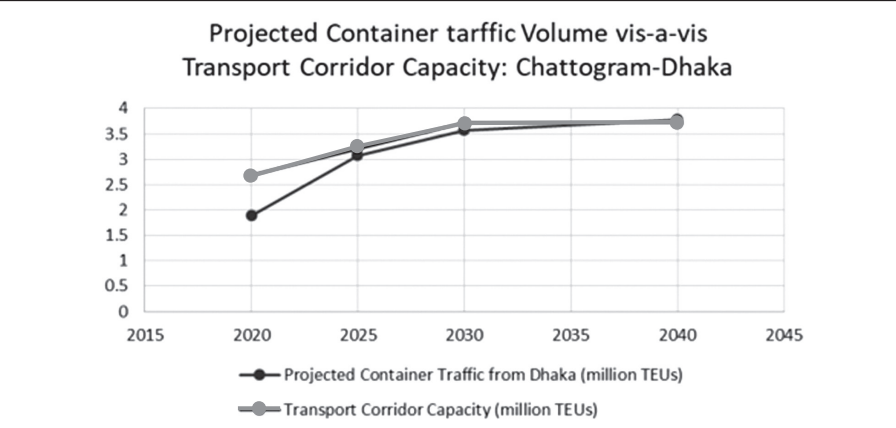
Hinterland Connectivity and Outcome of Assessment of Hinterland Connectivity. The maritime ports of Bangladesh are connected with hinterland by riverine routes, rail and road connectivity. Chattogram port faces the traffic and transportation challenges at two levels. First, congested traffic and circulation in and around the port at local level; second, stretched out capacity of the road connectivity between Dhaka and Chattogram at the inter-regional level. Analysis of relevant data shows that road, rail and waterway connectivity between Dhaka-Chattogram will be saturated by 2035 in transporting the projected number of containers even after implementation of the respective master plans. By 2040, there would be shortfall of transportation capacity of 0.06 million TEUs of container in Dhaka-Chattogram transport corridor (ADB, 2015). The other challenge is to enhance the rail's share up to 10% of overall port traffic. Besides, increase of utilisation of widely expected inland waterways to reduce the road share remains as challenge to hinterland connectivity. Similarly, shortfalls have been identified for hinterland connectivity in respect of Mongla and Payra ports for which number of measures have been recommended in this research.

Table 3: Projected Container Traffic from Dhaka to Chattogram and Transport Corridor Capacity

| Year | Projected Container Traffic from Dhaka (million TEUs) | Road Capacity (million TEUs) | Railway capacity (million TEUs) | Waterways Capacity (million TEUs) | Transport Corridor Capacity (million TEUs) |
|-------------|---|------------------------------|---------------------------------|-----------------------------------|--|
| 2020 | 1.89 | 2.4 | 0.12 | 0.16 | 2.68 |
| 2025 | 3.08 | 2.5 | 0.47 | 0.24 | 3.21 |
| 2030 | 3.57 | 2.5 | 0.98 | 0.24 | 3.72 |
| 2040 | 3.78 | 2.5 | 0.98 | 0.24 | 3.72 |

Source: ADB, 2015

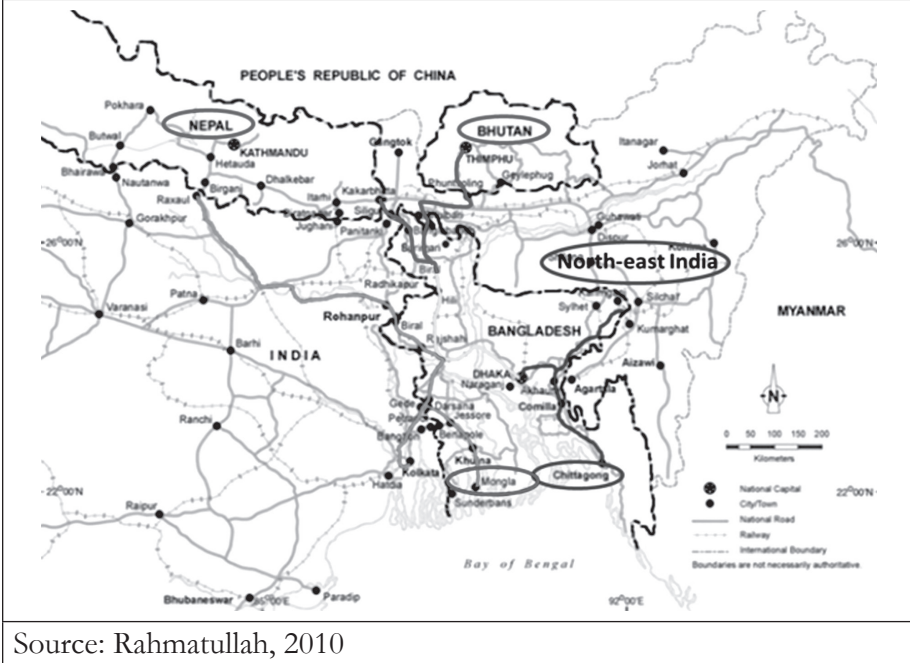
Figure 8: Projected Container Traffic from Dhaka to Chattogram and Transport Corridor Capacity



Source: ADB, 2015

Regional Connectivity. Bangladesh is located between South Asia and Southeast Asia. There are potentials of becoming the regional hub and growth centre. Bangladesh is also endeavouring to reap benefits of regional connectivity shrugging off initial mistrust on connectivity due to security considerations. Despite huge potentials, lack of trust among the regional countries and lack of infrastructure including lack of agreement on Customs, Immigration, Transport Regulations, etc. have hindered establishment of effective regional connectivity with Nepal, Bhutan and North-east Indian states with maritime ports of Bangladesh.

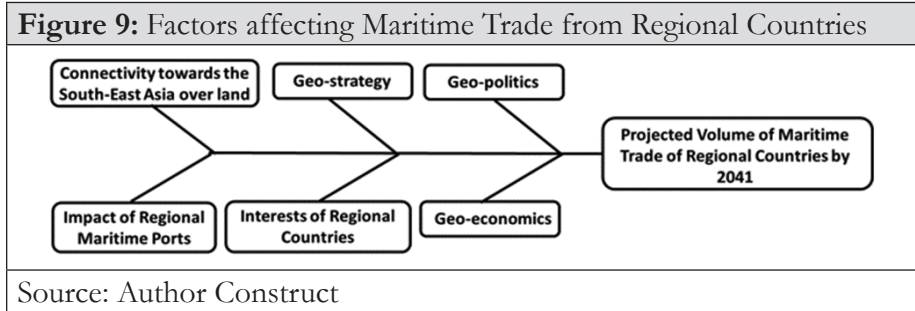
Map 3: Potential Regional Connectivity Options between Bangladesh-Nepal-Bhutan-India



Source: Rahmatullah, 2010

Prospect of Maritime Port Development in Bangladesh

Projected Volume of Maritime Trade from Regional Countries by 2041. Ongoing national effort for connectivity towards the South-East Asia over land has potentials of transportation of goods over land. Besides, relevant factors had been analysed in assessing tentative volume of trade from the region. Total population of these regional countries is 75.68 million (Nepal 29.14 million, Bhutan 0.77 million and 07 Northeast Indian States 45.77 million) (Google, 2022). Analysis of variables having impact on the volume of maritime trade from regional countries by 2041 indicates that total volume of cargo is likely to be approximate 5.1 million MT (Alam, 2021).



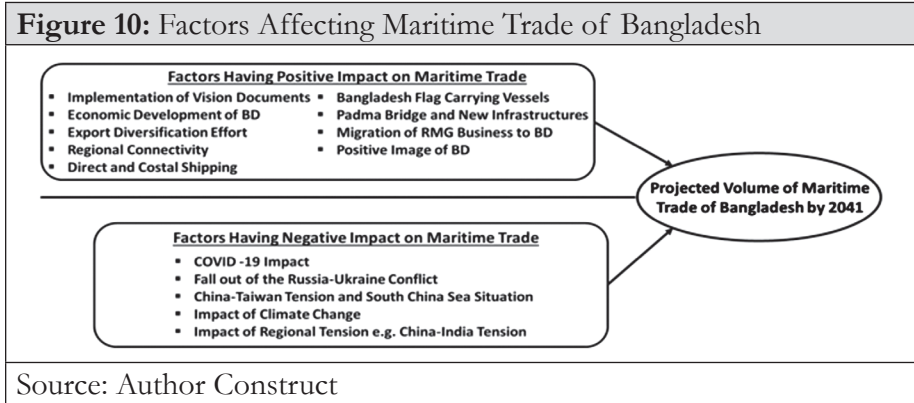
Growth Rate of Maritime Trade in Bangladesh. The statistics shows that the maritime ports have seen average growth of cargo at rate of 11.71% while growth of container transportation was 5.49%. Low rate of container transportation is apparently caused due to economic fallout of COVID 19.

Table 4: Growth of Maritime Trade in Bangladesh

| Year | Cargo (MT) | | | | | Container (TEUs) | | | | | |
|--------------------------|--------------|-------------|-----------|-----------|------------|--------------------------|--------|-------|---------|------------|--------|
| | CPA | MPA | PPA | Total | Growth (%) | CPA | MPA | P P A | Total | Growth (%) | |
| 2014-15 | 6,17,25,865 | 44,29,449 | - | 66155314 | | 18,67,062 | 42,137 | - | 1909199 | - | |
| 2015-16 | 7,11,56,387 | 57,09,664 | 98,531 | 76964582 | 16.34% | - | 41,953 | - | - | - | |
| 2016-17 | 7,99,82,519 | 74,28,105 | 1,99,691 | 87610315 | 13.83% | 24,19,481 | 26,952 | - | 2446433 | 14.12% | |
| 2017-18 | 9,29,23,228 | 95,68,899 | 3,15,121 | 102807248 | 17.34% | 27,05,909 | 42,989 | - | 2748898 | 12.36% | |
| 2018-19 | 9,82,40,655 | 1,11,79,878 | 2,99,992 | 109720525 | 6.72% | 28,08,499 | 57,732 | - | 2866231 | 4.27% | |
| 2019-20 | 10,15,65,272 | 1,08,95,416 | 14,57,749 | 113918437 | 3.82% | 27,91,190 | 59,476 | - | 2850666 | -0.54% | |
| 2020-21 | 11,37,39,373 | 1,82,44,596 | 15,51,115 | 133535084 | 17.21% | 27,68,184 | 43,959 | - | 2772543 | -2.74% | |
| 2021-22 | 11,81,74,160 | 9,23,9381 | - | - | - | 32,55,358 | 26,258 | - | - | - | |
| Growth (2014-21) | | | | | 75.26% | Growth (2014-21) | | | | | 45.22% |
| Average Growth (2014-21) | | | | | 11.71% | Average Growth (2014-21) | | | | | 5.49% |

Source: CPA Overview 2022, MPA 2022 and MMA 2022

Factors Affecting Maritime Trade of Bangladesh by 2041. Number of factors play positive and negative role in national economy and trade volume. All of these factors had been assessed in the research to figure out prospective maritime trade volume from Bangladesh by 2041.



Various Estimates of Projected Trade in Maritime Ports from Literature Review.

Table 5: Projected Volume of Container Traffic by Different Source

| ADB Estimate for Chattogram Port | | CPA Estimate for Chattogram Port | | Royal HaskoningDHV for Bangladesh | | PCI Japan | |
|----------------------------------|-----------------|----------------------------------|-----------------|-----------------------------------|-----------------|-----------|-------------|
| Year | Volume (m TEUs) | Year | Volume (m TEUs) | Year | Volume (m TEUs) | Year | Growth Rate |
| 2014 | 1.6 | - | - | - | - | - | - |
| 2020 | 2.7 | - | - | 2020 | 4.3 m | 2006-2020 | 8.1% |
| 2025 | 4.4 | 2025 | 4.4 | - | - | - | - |
| 2030 | 5.1 | 2030 | 10.1 | - | - | 2021-2035 | 7.4% |
| 2040 | 5.4 | 2040 | 14.9 | 2050 | 20.9 m | 2036-2055 | 3.6% |

Source: ADB, 2015; CPA, 2022; Pacific Consultants International (PCI), Japan and Royal Haskoning DHV

Author’s Assessment on Future Growth of Maritime Ports of Bangladesh. Based on relevant factors, present growth of container and cargo volume of individual ports and individual factors relevant to that port, estimated growth of container and cargo for each of the ports for the next 2 decades are projected in table 6:

Table 6: Author’s Assessment on Future Growth of Maritime Ports of Bangladesh

| Ser | Forecast for Cargo | Forecast for Container |
|---|--|--|
| 1. | Total Volume of Cargo in 03 Maritime ports of Bangladesh (2021): 13,35,35,084 MT | Total Volume of Container in 03 Maritime ports of Bangladesh (2021): 27,72,543 TEUs |
| 2. | Average Growth of Cargo (2014-21): 11.71% | Average Growth of Container (2014-21): 5.49% |
| 3. | Estimated Growth of Cargo volume till 2041: Scenario 1: 12.5%. Scenario 2: a. 10% till 2031, b. 7% till 2041. | Estimated Growth of Container volume till 2041: Scenario 1: 7%. Scenario 2: 10%. |
| <p>Note:</p> <p>1. Scenario 1: The estimated growth rate for Scenario 1 is kept at par with present growth rate of cargo (11.71%) and container (5.49%).</p> <p>2. Scenario 2: Growth will become saturated as Bangladesh closes to achieve Developed Country status as same had happened with other Developed Countries also. Thus, growth of cargo is reduced to 7% after 2031 in Scenario 2. However, container traffic is likely to grow due global trend of containerisation of cargo. Thus, growth of container is expected to be at 10%.</p> | | |

Source: Author Construct

Author’s Estimate on Projected Maritime Trade Volume of Bangladesh by 2041. Estimated volume of cargo and container for Bangladeshi maritime ports till 2041 as per scenario 1 and 2 are shown below.

Scenario 1

Table 7: Scenario 1: Estimated Volume of Cargo and Countainer in Bangladeshi Maritime Ports

| Year | Cargo (MT) | Container (TEUs) | Remarks |
|----------------|----------------------|--------------------|---|
| 2022 | 16,90,05,340 | 29,66,621 | a. Growth rate of Bangladeshi cargo 12.5% and container 7%. |
| 2026 | 27,07,13,873 | 41,60,836 | |
| 2031 | 48,78,35,187 | 58,35,785 | b. Volume of cargo from regional countries is estimated to be 51,44,000 MT in 2045. |
| 2036 | 87,90,94,846 | 81,84,988 | |
| 2041 | 1,58,41,57,453 | 1,14,79,867 | |
| Regional cargo | 51,44,000 | - | |
| Total | 158,93,01,453 | 1,14,79,867 | |

Source: Author Construct

Scenario 2

Table 8: Scenario 2: Estimated Volume of Cargo and Container in Bangladeshi Maritime Ports

| Year | Cargo (MT) | Container (TEUs) | Remarks |
|----------------|--------------|------------------|---|
| 2022 | 16,15,77,451 | 30,49,797 | a. Growth rate of Bangladeshi cargo 10% till 2030, 7% thereafter till 2041. |
| 2026 | 23,65,65,544 | 49,11,725 | |
| 2031 | 38,09,91,171 | 79,10,319 | |
| 2036 | 53,43,59,823 | 1,27,39,741 | b. Container growth 10% till 2041. |
| 2041 | 72,89,23,292 | 2,05,17,478 | |
| Regional cargo | 51,44,000 | - | c. Volume of cargo from regional countries is estimated to be 51,44,000 MT in 2045. |
| Total | 73,40,67,292 | 2,05,17,478 | |

Source: Author Construct

Assessment on Scenario 1 and 2. Although the economic growth rate is assumed to be 9% till 2041 for Bangladesh (Perspective Plan 2041), various ‘Wild Card’ events¹ like backlashes of COVID-19 Pandemic, Russia-Ukraine War, climate change effects etc. may limit the growth within 6-7% during period under discussion. It is unlikely that sustained growth of 12.5% in cargo will be possible for 2 decades in such economic growth. 10% growth for a decade and thereafter 7% growth for next decade seems to be more practical as growth of cargo will be slowed down after certain period as it had happened with developed economies in past. However, container traffic is likely to see a sustained growth of 10% for next 2 decades in face containerisation of maritime trade and inclusion of trade of Nepal, Bhutan and Northeast Indian states during period under discussion. Thus, Scenario 2 is more likely case of maritime trade for Bangladesh by 2041. From the projected volume of cargo and container in 2041, it can be ascertained that the volume will multiply by almost 7 times in the next 2 decades. Capacity to transport such volume of cargo and container needs to be planned for maritime ports of Bangladesh by 2041.

¹ In Environment scanning or futures studies and foresight, “Wild Cards” are low-probability, high-impact events. This concept is introduced into anticipatory decision-making activity in order to increase the ability of organizations and governments to adapt to surprises arising in turbulent environments. Such sudden and unique incidents might constitute turning points in the evolution of a certain trend or system. Wild cards may or may not be announced by weak signals, which are incomplete and fragmented data from which foresight information might be inferred.

Planned Capacity of the Maritime Ports till 2041

| Table 9: Planned Capacity of Maritime Ports in Bangladesh by 2041 | | | | | |
|---|--|---|--|---|--|
| Item | Chattogram Port | Matarbari Port | Mongla Port | Payra Port | Total |
| Cargo (1000 MT) (Implementation Year) | a. 124 million MT in 2043 (ADB, 2015). b. Author's estimate: 200 million MT along with capacity of BCT. | a. Official estimate not available. b. Author's estimate: 125 million MT | a. 24.9 million MT (2030) b. 47.4 million MT by 2040 (MPA, 2022). | a. 1.5 million MT (2021). b. Official estimate not available. c. Author's estimate: 125 million MT. | 497.4 million MT = 500 million MT |
| Container (TEUs) (Implementation Year) | 7.5 million (2028-30) | a. 1.1 million (2025); b. 4.4 million (2041) | 1.5 million | 5.0 million (2035) | 18.4 million (2041) |

Source: Business Tribune, 2021 and Business Standard, 05 May 2022

Gap Analysis: Planned Capacity of Ports and Projected Maritime Trade Volume by 2041

Gap analysis shows that there is requirement of developing approximate 2 million of TEUs of Container facilities in the maritime ports of Bangladesh by 2041. Besides, there is requirement of developing additional cargo handling capacity by 234 million MT in the maritime ports of Bangladesh by 2041.

| Table 10: Gap Analysis: Planned Capacity of Ports and Projected Requirement Maritime Trade by 2041 | | | | | | |
|--|-------------|-------------|--------------------|------------------|-------------|---------------|
| Year | Cargo (MT) | | | Container (TEUs) | | |
| | Capacity | Requirement | Gap | Capacity | Requirement | Gap |
| 2041 | 500.00 m MT | 734.06 m MT | 234.06 m MT | 18.4 m | 20.51 m | 2.11 m |

Source: Author's Estimate

Opinion in View of Gap Analysis

Adequacy of Present Development Plan of Maritime Ports of Bangladesh. Above Gap analysis shows that there is requirement of increasing the cargo and container handling capacity of the maritime ports in Bangladesh by 234 million MT and 2 million TEUs by 2041 respectively.

Mid Term Assessment on Maritime Trade and Requirement of Developing Maritime Port. Re-assessment is recommended after a decade e.g. 2030 to check back the correctness of the present assessment.

Development of New DSP and Single Point Mooring (SPM) in Bangladesh. As per present Gap analysis, there is no requirement of developing new DSP other than ensuring timely completion of the ongoing projects in Matarbari, BCT and other existing ports. However, decision on the issue of developing another DSP may be taken based upon the outcome of the Mid-term Assessment in 2030. Suitable options for future DSPs are at Sonadia Island, Akram Point in the Sundarbans while SPM may be established at North of 'Swatch of No Ground' at the BoB.

Development of Hinterland Connectivity. Coordinated study by the Roads and Highways, Bangladesh Railway and BIWTA at national level on requirement of hinterland connectivity for maritime ports is essential.

Development of Regional Connectivity. There are a number of pending issues at border and beyond border. Agreement between the concerned countries is required in respect to developing standard operating procedures, harmonization of standards and customs procedures, and service charges and user fees for transit facilities.

Formulation of National Port Master Plan (NPMP). Development of the maritime ports in Bangladesh had taken place on piecemeal basis e.g. solution had been worked out only once a requirement had popped up. However, a holistic approach is required in preparing the port development plan of all maritime ports of Bangladesh taking projected volume of

trade of next decades from Bangladesh and from the regional countries. Thus, there is a need to formulate National Port Master Plan (NPMP) for harmonised and balanced port development of all maritime ports.

Recommendations

Based on research findings and discussion done so far, followings are recommended for efficient port operations and for development of maritime ports in Bangladesh.

Capacity Enhancement of the Existing Maritime Ports

- Various capacity development projects of the Chattogram Port Master Plan may be implemented in scheduled time. Major projects are: construction of Bay Container Terminals (BCT), Matarbari Port Development Project, construction of Multi-purpose Terminal in Chattogram port, etc.
- Feasibility studies for various epoch making projects of Mongla port e.g. coal and LNG terminal at Joymonirgol, construction of floating jetty at Akram Point, etc may be carried out.
- Various digital infrastructures in port management may be materialized.

Addressing Administrative Limitations

- The Port Authorities may be empowered with certain degree of autonomy in terms of investment, financial policy, tariff policy, labour policy, licensing, conduct of research and legal matters to become a 'Service Oriented Port' or 'Service Provider Port'.
- Issue of bringing change in the port management system akin to a private enterprise, without changing the public status of the ports, may be considered as it is expected to enhance accountability and responsibility.

- Approval of additional manpower and HRD development in port sector may be given focus in terms of effective training, career development, promotion policy, etc based on performance.
- Reform in Customs by bringing more transparency, skill development program for Customs officials, adopting policies and process for quick and efficient clearances of commodities and cargoes, introducing online systems, etc may be adopted.
- Capacity enhancement programme may be undertaken for relevant agencies e.g. immigration, bank, insurance company, shipping agent, clearing and forwarding agent, railway, trucking company, etc.

Addressing Infrastructural Limitations

- Procurement of container handling equipment, introduction of automated container handling system, effective hinterland connectivity, induction of more number of ICD at suitable place etc. may be planned.
- More Off-docks may be established close to the production sites e.g. SEZs, EPZs for quick customs formalities. Besides, specialised ICDs may also be established for chemical, explosives, pharmaceuticals, oil and fuel, toxic materials.

Addressing Operational Limitations

- Operational limitations of the maritime ports may be eliminated by arranging adequate navigational aid, dredging of channels, ensuring safety and security, ensuring availability of support vessels of the port, providing support services for ships e.g. dry docking, bunkering, stores etc. for the ships at sea and at harbour.
- Capital and maintenance dredging of all channels of the ports may be conducted on regular basis to facilitate berthing of larger vessels to reduce the handling of cost and time.

Recommendations on Development of Hinterland Connectivity

- Rail's share of container traffic from Dhaka to Chattogram may be increased to 10% from present 4% share.
- Necessary study may be conducted to avoid congestion of traffic and circulation in and around the ports at local level to avoid bottleneck before entrance of the port.
- Necessary rail, road and water connectivity for Chattogram port, BCT and Matarbari DSP may be/ assessed for timely construction of the connectivity. Therefore, coordinated planning and implementation is necessary in coordination with Bangladesh Railway, Roads and Highways Department and BIWTA.
- Missing rail link between Dhaka-Payra may be established.

Recommendations on Development of Regional Connectivity

- Agreement between the regional countries may be planned to develop standard operating procedures, harmonization of standards and customs procedures, and service charges and user fees for transit facilities.
- Confidence Building Measures may be undertaken for better understanding and development of trust among the regional countries for flourishing maritime trade through the maritime ports of Bangladesh.

Options for New DSP or SPM and National Port Master Plan

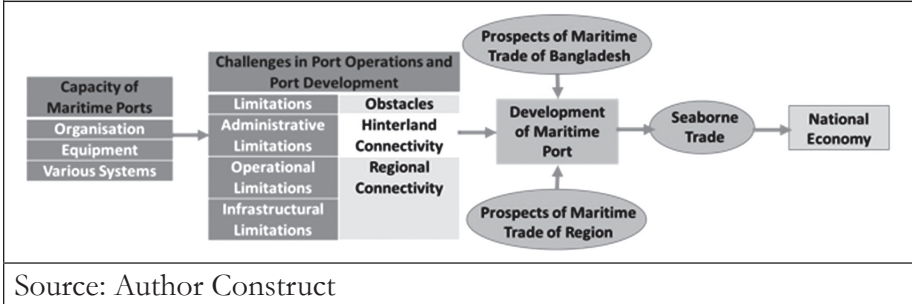
- In addition to the capacity enhancement of existing maritime ports, decision of developing another DSP may be taken based upon the outcome of the Mid-term Assessment which is recommended to be conducted in 2030.

- Feasibility studies may be carried out on development of DSP at Sonadia in Cox's bazar area and Shibsa in the Sundarbans area should there be a requirement of establishing new DSP in Bangladesh in future.
- Feasibility studies may be carried out on establishment of SPM at Swatch of No Ground in the BoB, south of the Sundarbans as strategic option of lightering of petroleum and LPG/ LNG as alternative to Chattogram area.
- National Port Master Plan including the hinterland connectivity, regional connectivity etc. may be formulated based on the projected maritime trade.

Conclusion

In order to overcome various limitations in respect of administrative, operational and infrastructure, various policy measures have been worked out. Besides, number of capacity enhancement measures are recommended for the maritime ports in Bangladesh. Identified obstacles of hinterland connectivity and regional connectivity need appropriate level of attention to facilitate domestic and regional trade for the maritime ports. In addition to finding ways out for such connectivity, options for new DSP and SPM had been analysed for projected scenario when more maritime port support would be required to cope up with future maritime trade. Besides, it was evident in the research that development of maritime ports in Bangladesh are being planned on a piecemeal basis due to absence of National Port Master Plan. A National Port Master Plan needs to be worked out to provide strategic and holistic guidance on maritime port development in Bangladesh.

Figure 11: Challenges and Prospects of Port Development and Impact on National Economy



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Author

Commodore Ziaur Rahman, (TAS), NGP, ndc, afwc, psc, BN (P No 932) was commissioned in German Naval Academy in July 1993. He completed specialization in Anti-Submarine Operations Course and Anti-Submarine Warfare Course from Dalian Naval Academy, China and Underwater Warfare School of PNS BAHADUR, Pakistan respectively. He has obtained Masters in Defense Studies (MDS), Masters in Military Science and Masters in Philosophy from the National University Bangladesh, Royal Saudi Staff College and Bangladesh University of Professionals (BUP) respectively. He took part in Regional Maritime Security Course (RMSC) in Naval War College, India. The officer can speak in German and Arabic. Commodore Zia has fine blend of instructional, staff and command appointments both at sea and ashore. He has served in UN as Staff Officer in Force HQ in United Nations Mission in Liberia (UNMIL) and as Military Observer in United Nations Mission in Cote d'Ivoire (UNOCI). He received Nou Gourab Padak (NGP) as recognition of outstanding service rendered to Bangladesh Navy.

EMERGENCE OF BANGLADESH AS A HUB OF CONNECTIVITY FOR ECONOMIC GROWTH

**Air Commodore Mohd Miraj Patwary,
GUP, ndc, afwc, psc, GD(P)**

Introduction

Connectivity offers better economic growth. The geographical location of a country doesn't pose any limitation on its economic choices if the country is well connected with the rest of the world with better cooperation (Dr. Sabbir, 2022). Considering the advantage and disadvantages of geographical location, connectivity can be increased by sea, land, and air. Air connectivity can play an important role and can contribute better to the national economy. The global population has reached more than 7.5 billion people and Asia is the largest continent, with a total population of over 4.68 billion people (world population review, 2021). Moreover, the economy of Asian countries is uprising and the global economy is shifting from the west to the east. As a result, Asia will be the center of the geo-economical battlefield (Razzaque, 2022) and at the same time, Asia-Pacific will lead global aviation growth. The economy of Bangladesh is getting bigger and bigger and according to the Centre for Business and Economic Research (2021), Bangladesh will be the 24th largest economy in the world by 2036. Due to the increased economic activities of this region the volume of passenger, cargo, and tourist activities will increase in this region.

The aviation industry itself is an economic force due to its operation (Mannafi, 2022) and its effect on other related industries such as freight and logistic hubbing, aircraft parts manufacture and repair, supply of goods, retail shop, hotels, travel agents, sightseeing attraction, tourist, etc. is huge. Due to globalization, technological advancement, and a better socio-economic environment, millions of people participate in air travel each

year (ICAO, 2010). This air transportation demands huge requirements of commercial aircraft, investment for operation, and sufficient infrastructure facilities. It also forecasts the feasibility of regional alliances for strategic management.

Hub is the concentration of traffic in airports. As per the general description, hub requires minimum an airport in a given geographical location from which it takes minimum flying time and cost to travel to regional and extra-regional destinations. Hub airport should have good airport facilities to process passengers rapidly and provide some margin for observing delays. Before the declaration of a hub, a country should study few factors to identify whether it can be a hub or not. The factors may includes; the domestic and international market, suitable geographical location, a strong and vibrant economy, liberalization attitude and its trend, sufficient number of aircraft, good passengers' facilities, adequate terminal and slot capacity, low aircraft handling fees, low fuel cost, good and efficient ground service facilities, efficient screening procedures, integration of public transport with airport facility, friendly regulation of the country for business and above all air-minded people who can contribute to develop the aviation sectors. It is also mandatory to maintain strict compliance with safety regulations and also maintain the airworthiness of the fleet. To handle this industry, Bangladesh will require huge skilled manpower which will be produced by Bangabandhu Sheikh Mujibur Rahman Aviation and Aerospace University (BSMRAAU). To utilize these professionals, a partnership needs to be developed between BAF, CAAB, BATC, and BSMRAAU.

Hubbing and Connectivity Concept

Air transportation plays an important role in the national and global economy. The global aviation market size was 838 billion in 2019 and this is forecasted to rise 4.36% per year for the next 20 years (ICAO). Air travelers are estimated to increase to 8.2 billion by 2037 (IATA). The airline industry is investing heavily to improve customer service and fulfill future

requirements. The aviation sector will support 15.5 million employment and \$1.5 trillion in global GDP by the year 2036. These figures might increase to 97.8 million employment and \$5.7 trillion in GDP once the effects of international tourism are taken into account.

Air Hub

The general aspect of hubs has been discussed by different researchers in different ways ranging from air transport economics, history, and others. The focus points of the air hub are cost, pricing, and schedule analysis. The definition of an air hub is lacking with empirical classification or what it should consist of. Some researchers have shown the relationship between the hub's geographical location and city developments. However, there are some empirical works done by the researcher in the Asia Pacific, Southeast Asia and East Asia regions. The airport and its facilities is the aviation infrastructure to connect the people. The airport gateways of a city reflect the overall economic and social activity which will serve more people of the country. As per the traffic control perspective, the hub is the concentration of traffic in airports. It is not related to the airlines that carry the passenger.

With the introduction of hub-and-spoke networks, the airline industry was able to gain cost savings through economies of scale, scope, and density by expanding its networks (Werner, Herbert, Stefan, Sascha, 2005). The airline industry uses Available Seat Kilometers (ASK) or Revenue Passenger Kilometers (RPK) to achieve economies of scale by lowering overall costs and boosting population volume (RPK). Economies of scale are also determined by additional passenger services, improved ground handling agency services, airport infrastructure facilities, available maintenance facilities, and fleet network expansion. At peak arriving and departing periods, the hub does not need to perform better with more aircraft and ground workers. Hub-and-spoke networks have the privilege to operate in the thin aviation market efficiently. When the unit cost of tickets on an existing route decrease as traffic volume increases, the economy of density

occurs, allowing the operation of an additional flight or larger aircraft with higher seating capacity. The economy of traffic density will be determined by the hub airlines' dominance. Passengers will be connected to hub airlines in greater numbers if hub airlines have a greater hub dominance. The frequency of flights is the second key aspect that has an impact. Passengers will enjoy benefit from greater freedom as flight frequency increases.

When we can integrate two or more product lines into one group while keeping costs constant, we have a scope economy. Cost savings or cost-benefit analysis occur in hub-and-spoke networks depending on the number of markets served by the airlines. By altering the flight schedule, the airline can lower unit costs by creating a new city- pair market. A critical number of aircraft with arrival and departure slots is required for scope economy. By adding a new destination, this economy of scope and density provides a lot of amenities to hub-and-spoke networks. To keep unit costs low, we need to establish a code-sharing agreement and expand our reach by working with airlines to expand the network's market, frequency, and passengers.

Regulation and liberalization in the Aviation Industry

Regulation and liberalization have a great impact on the aviation industry. There is a debate around the world about how to regulate and liberalize the aviation industry. As per article 1 & 6 of the 1944 Chicago Convention "every state has the exclusive rights of airspace over its territory and special permission is needed for operating air services into the airspace of foreign states". To operate in foreign states airspace "Freedom of air" right is established by ICAO where bilateral and multilateral air services agreement is needed known as Air Service Agreement (ASA). Bilateral Air Service Agreement is established by states where respective national flag carrier get the maximum privilege. Sometimes this privilege enjoyed by the state's own carrier may not be the best option in international aviation policy. To avoid these issues some countries moved towards privatization and some moved towards granting international operating license to the other home lines of the country. In the light of globalization, some countries

moved towards deregulation which led to the liberalization of air service agreements. The Government of some country becomes confused that at what extent freedom should be given in favor of the aviation market. The basic principle of international aviation regulation may be followed to remove the confusion and liberalize the aviation sectors.

Prospect of Bangladesh as Hub

The global aviation industry supplies the world's quickest transportation network making it easy for global trade and tourism. The aviation sector has not only aided in the production of wealth in industrialized countries but it has also aided emerging nations by showing their commerce and tourism possibilities. Around 5 million people work in more than 4800 companies around the world in the repair, maintenance, and supply chain, which generates a total of 29 million employment worldwide. The MRO facilities which are also one of the requirements for a connectivity hub are discussed in the next chapter. However, to become connectivity hub for economic growth countries need to have sufficient capability and capacity to handle national and foreign airlines. The possibility of Bangladesh becoming a connectivity hub is discussed in the subsequent paragraph.

Stakeholders' Views

Interviews were conducted with Govt officials, personnel from the airline authority and the Civil Aviation Authority of Bangladesh. A summary of the findings of those interviews is appended below:

Liberalization Attitude and Trend. Both deregulation and liberalization have a substantial impact on the aviation industry to develop. Liberalization of air services brings more benefits to the national economy. The trend of liberalization attitude in Bangladesh is restrictive (Zia, 2022). Bangladesh needs to open up more to allow more airlines to operate. Open skies agreement will allow third-party to operate in Bangladesh as per their interest which will bring lots of revenue. Deregulation will

obviously increase competition between airlines and in turn, will provide better services (Mahbub Jahan, 2022). Liberalization will also promote connectivity between the airports which will help to establish air hub. Code sharing and interlining are also other factors to boost connectivity. Stakeholders' interviews stated that Bangladesh does not allow code sharing between two third-party airlines. Biman Bangladesh Airlines expect that all agreements should take place with them only. This situation needs to be analyzed and a broader mindset may be established to address this issue. Quality service and safety records are also another factor for code sharing. Biman Bangladesh Airlines was unable to maintain such performance as such other international airlines are also unwilling to share code with Biman Bangladesh Airlines (Mofidur Rahman, 2022). On the other hand, Sri Lankan airlines fly almost 45 destinations with more than 90 code sharing (Zia, 2022).

Controlling Body Structure. Policy and regulations are made for a clear understanding of the system by all levels but in Bangladesh policies and regulations are very ambiguous and contradictory to the airlines company. These regulations restrict the potential expansion of aviation sector. The CAAB has become both the regulatory body and also the service provider. The private airline company cannot complain about any bad services provided by the airport to the CAAB because they also act as a regulatory body or work directly under CAAB. The aviation tariff is set by the CAAB and approved by the Finance Ministry. In this type of case also, the private airline company may not react to the tariff due to the fear of the regulatory body (Mofidur Rahman, 2022). This type of system is not available in any other country in the world. The airport authority who is the only service provider, became the boss of the airport because of the regulatory body's attitude. To solve all the issues related to aviation, a task group/advisory group may be assembled with all the expert and air minded people to make the future aviation strategy of Bangladesh (Mofiz, 2022).

Viability as a Hub. There is a possibility for Bangladesh to become air connectivity hub in the region (Mofidur Rahman, 2022) considering the shift of economic growth from the West to the East, the booming of

the aviation industry in the Asia Pacific, and the force of globalization. Aviation hub brings speed to the business sector including the tourism sector. Decision-making for the investor becomes easier and faster which ultimately influences the business activities to grow faster. Lots of revenue/tax/financial charges are earned from the aviation sector because of the increase in the number of airline operators.

The present infrastructure is not viable to become a potential air hub and Bangladesh is not yet ready to become air hub (Mofidur Rahman, 2022) as also said by the other Key Informant. However, the third terminal of HSIA is going to increase the operational capability of Bangladesh. Besides the existing facilities including the third terminal, other facilities which are essential for suitable air hub are appended below:

- Another parallel runway at HSIA is required with the existing runway. But it is not possible to make another runway due to the shortage of land. The existing runway with third terminal will be sufficient enough to operate till 2035 (Zia, 2022). However, close-by airports like Cox's Bazar and Chattogram can be used as an alternative to the parallel runway. These airports can also be used as hub airports.
- Uninterrupted power supply with necessary infrastructure to support the airport facilities (Muktasim, 2022). Airport authority should have skilled and trained manpower to provide the service and not to become a checker always.
- Sufficient suitable hotels/accommodations close to the airport having uninterrupted rapid transportation facilities. Suitable hotels/accommodations are available at HSIA and Cox's Bazar but need to make a necessary arrangement at SAIA. The third terminal will have uninterrupted transport facilities including the underpass to the metro rail system (Mofidur Rahman, 2022).
- There is a lack of capital-to-capital connectivity in SAARC and D-8 countries. To travel between cities, it is necessary to transit in the Middle

East (Dubai or Doha) or the Southeast (Singapore or Thailand) which increases the cost and time to travel (Amin, 2022). These limitations of intra-regional connectivity undermined the potential for interactions of traders and investors to engage in the business transaction.

- Need to increase good passenger facilities. This can be increased by providing a variety of amenities like dining facilities, retail shops, toilet, lounge seats, showers, kids zone, massage chair, and day room for sleeping as well as the overall feel of the airport such as landscaping. Present passenger facilities are not sufficient enough in all the airports. However, completion of the third terminal will increase the passenger facilities. This kind of facility needs to be planned at SAIA and Cox's Bazar Airport during the expansion process. Aggressive marketing needs to be carried out for branding Bangladesh as air hub.

Operational Cost. Higher operational costs affect the commercial viability of any routes. In Bangladesh, higher operational cost is prevalent in many cases like ground handling, airport charges, and fuel cost etc. Some of this can be addressed by policy change such as revisiting monopoly rights accorded to ground handling. The GoB had issued retroactive Value Added Tax (VAT) assessments on airlines operating international air transport services to and from the country. These VAT assessments, dating back to 2009 and in contradiction with accepted taxation policies, cannot be reclaimed or credited and will result in significant financial expenses to airlines. To the extent, this tax treatment will lead to the reduction in overall economic benefit from air transportation to the economy of Bangladesh in terms of lower GDP, jobs, and investment (IATA, 2018)

- The cost of fuel in Bangladesh is more than the international market. Normally the cost of fuel is set by the Bangladesh Petroleum Cooperation (BPC) which does not have any competitive market and remains higher than the neighboring countries (Mofiz, 2022). Due to the additional VAT and tax for the fuel of domestic flights, there is a difference between fuel costs for domestic and international flights. This system is not available in any other country of the world (Mofiz, 2022).

- Aviation business is risky for all the countries and Bangladesh is no exception to that. Due to the risk, investors of this sector always remain low. With that impression, the advance corporate tax adds extra fuel to the situation which needs to be paid in advance (Mofiz, 2022). In Bangladesh, airline companies pay 30% corporate tax which is a little higher and need to be reduced to attract investor.
- To keep the aircraft serviceable, lots of spare parts are required which need to be procured from abroad. In Bangladesh, while procuring these items from abroad, 20% to 150% of duty is needed to be paid (Mofiz, 2022), which is also higher. Need to change policy for tax waiver on aircraft parts in line with the duty structure of neighboring countries which is much below than Bangladesh.
- To run the airlines, airline companies need to pay aeronautical and non-aeronautical charges at high rates. In addition to these charges, 50% VAT was also added which makes the operational cost very high in Bangladesh (Mofiz, 2022). Due to the non-aeronautical charges, cargo airlines also could not flourish in Bangladesh. This huge amount of cargo is carried by foreign airlines (Mahbub Jahan, 2022).
- Parking charges in Bangladesh is relatively high and charged in relation to the landing charges which is not seen in any other parts of the world (Mofiz, 2022). National private airlines engaged in international flights are charged in international rate which is also very high. As a result, airlines operating international flights suffer losses and are unwilling to operate international flights.

Privatization. Many countries in the world are rethinking to form privatized airports and their facilities as the private sector can provide better facilities and can run the airports more efficiently. There is also evidence to privatize the national flag carrier. Privatization will provide greater efficiency, allow non-traditional sources of capital, lower the labor cost, and enable the conversion of public airports and airlines into taxpayer entities. However, there are also some disadvantages in privatization like monopoly played by

the airport authority, private airports and airlines sometimes go bankrupt, etc. Considering all merits and demerits partial privatization can be done for better service to passengers. In Bangladesh, ground handling by Biman Bangladesh Airlines is a monopoly played by the airline authority (Zia, 2022). To get better service ground handling can be privatized.

Ease of Doing Business. As per the World Bank ease of doing business index, Bangladesh ranked 168 positions out of 190 countries in 2020. That means business rules and regulations are not business-friendly in Bangladesh. The regulatory body needs to be conducive to business operators or for strong protection of property rights. The confusing and conflicting regulations create a big hindrance to the airline business (Mofiz 2022). Other airline business-oriented indexes like the passenger facilitation index, air trade facilitation index (117/124), visa requirement score, and e-freight friendliness indexes (last position) need to be addressed for better business (IATA 2021). Passenger facilitation index in Bangladesh, that is airport and ground handling services below the average score of 4.4 in the Asia Pacific means more upgradation is required in the airport and ground handling services.

Bank Interest. The airline business is a capital-oriented business. Entrepreneurs and financial institutions do not have experience in this sector and they think that it is a risky business. As such investment in the sector is less. The GoB also does not give any budget allocation to this sector. Moreover, the bank interest rate is very high compared to the neighboring countries. This financial limitation can be solved by attracting the FDI and creating a public-private partnership (PPP). Bank interest needs to be reduced and long-time loans with less interest may be permitted for the airline company (Mofiz 2022).

Extra Benefits of Bangladesh Biman. Biman Bangladesh Airlines enjoys some extra facilities from the government which hampers fair competition among the airline companies (Mofiz 2022). It does not even pay the airport charges and the government taxes. Sometimes fuel bills are also written off by the government. As such, she can offer lower ticket price than the

other private airlines. In this situation, it is difficult for the other airlines to sustain in the market. These extra facilities or subsidies need to be stopped for the growth of airline sector which will help Bangladesh to become a connectivity hub.

Recommendations

The following suggestions are offered to establish a connectivity hub in Bangladesh in light of the general discussion and analysis:

- To develop an aviation plan for Bangladesh, it is necessary to assemble a task group (all air-minded people) of aviation and technical specialists, economists, bureaucrats, and attorneys. This group will keep track of the expansion of aviation worldwide and provide necessary advice for improvement. This team will also be utilized to establish good governance and reduce corruption.
- Aviation-related rules and regulations need to be reviewed with the aim to facilitate the growth of the aviation sector. Liberalization trends must be highly transparent.
- Service provider like airport authority need to be separated from regulatory body, CAAB.
- The facility which is required for the passenger needs to be developed in all the hub airports including hotels, transport, and sightseeing facilities. The Tourism Board of MoCAT may take appropriate measures to attract tourists.
- The Biman Bangladesh Airline's ground handling services need to be privatized in order to get better facilities for passengers. The GoB may commission an expert team to investigate the viability of privatizing BB airlines and hub airports. The GoB must stop all kinds of subsidies to BB airlines immediately.

- Need to increase the fleet size of all the Bangladeshi airlines operating international flights with strict compliance with safety and security regulations.
- Passenger facilitation index, air trade facilitation index, visa requirement score, and e-freight friendliness indexes need to be addressed for better aviation growth.
- Fuel costs with other charges like parking charges, landing charges, and aeronautical charges need to be brought down compared to the neighboring country.
- VAT and all kinds of Tax need to be reduced in coordination with NBR.
- Need to review the ASA/BASA with the aim to increase code sharing and interlining systems.
- Bank loans may be arranged with low bank interest with some business package to attract the PPP and also encourage the new entrepreneurs.
- HSIA may be considered as a hub airport. However, close-by airports like Cox's Bazar and SAIA may be used as an alternative if necessary.
- Partnership may be developed to produce and utilize skilled manpower with BSMRAAU, BAF, and BATC.
- Awareness training may be arranged in BATC to train all the personnel working in the airport so that they behave and work as asked by the authority.

Conclusion

Big waves of productivity growth, the Industrial Revolution, and two world wars caused huge changes in the economic world order. From 1950 to 1980, Japan, Germany, the Asian 4 Tigers, India, and China gained economic growth due to recovery from war setbacks, productivity,

and market-oriented policy. The economic power of the 21st century is shifting from west to east centering in the Asia Pacific region. As a result, Asia will be the center of the geo-economical battlefield. More economic activity will demand more engagement and trade between countries. Only air transportation will be able to fulfill those timely demands of the people. Moreso, Eastern and Western world is taking lots of initiative to develop the infrastructure for economic growth like BRI, IPS, FOIP etc. in South and South East Asia. Bangladesh being the developing country, trying to maintain geo-strategically neutral position and to get the benefit from all the initiatives. Due to the increased economic activity of this region the volume of passenger, cargo, and tourist activity will also increase in this region.

The airplane and the airport are the two basic elements of air travel. In today's world, we came to know about the hubs or mega airports where the huge volume of cargo, passengers, and aircraft are seen with lots of quality services. The criteria like the large domestic and international market, suitable geographical location, a strong and vibrant economy, liberalization attitude and its trend, sufficient number of aircraft, good passengers facilities, adequate terminal and slot capacity, low aircraft handling fees, low fuel cost, good and efficient ground service facilities, efficient screening procedures, integration of public transport with airport facility, friendly regulation of the country for business and above all air-minded people who can contribute to developing the aviation sectors.

Bangladesh has a lot of potentials to serve as a hub airport given its proximity to both India and the Asian superpower China. The present infrastructure of Bangladesh is not viable to become a potential air hub and Bangladesh is not yet ready to become an air hub. The trend of liberalization attitude in Bangladesh is restrictive. Open skies agreement will allow third-party to operate in Bangladesh as per their interest which will bring lots of revenue. Code sharing which is missing in Bangladesh and interlining are also other factors to boost connectivity. Bangladeshi policies and regulations are very ambiguous and contradictory to the airlines companies. The CAAB has become both the regulatory body and also the service provider. The

airport authority who is the only service provider, became the boss of the airport because of the regulatory body's attitude.

In Bangladesh, higher operational cost is prevalent in many cases like ground handling, airport charges, and fuel cost etc. Some of this can be addressed by policy change such as revisiting monopoly rights accorded to ground handling. The GoB had also issued retroactive Value Added Tax (VAT) assessments on airlines operating international air transport services to and from the country. The cost of fuel in Bangladesh is more than the international market. Normally the cost of fuel is set by the BPC which does not have any competitive market and remains higher than the neighboring country. Biman Bangladesh Airlines enjoys some extra facilities from the government. It does not even pay the airport charges and the government taxes. Sometimes fuel bills are also written off by the government. As such, she can offer lower ticket prices than the other private airlines which hamper fair competition among the airline companies.

The aviation industry in Bangladesh has a sizable market, and foreign airlines dominate much of it. To take advantage of this opportunity, the GoB and policy-makers must design a practical, all-encompassing strategy with domestic and international aviation specialists as well as with the available military, public, and private resources to expand the aviation sector. The MoCAT team that creates policies must include aviation experts and stakeholders' representatives. This will offer the aviation industry the required boost for long-term expansion, which will ultimately advance the nation's economy.

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Author

Air Commodore Mohd Miraj Patwary, GUP, ndc, afwc, psc, GD (P), was commissioned in 31 May 1994 in GD (P) branch. He is a helicopter pilot and a qualified flying instructor. In his service career, he held various staff, instructional and command appointment in BAF. He is a graduate from Defence Services Command and Staff College (DSCSC), Mirpur and National Defence College, Bangladesh. He has also obtained Master of Science in Defence Studies from National University, Bangladesh. The officer has served in UN mission in Kuwait and in DR Congo.

EXPORT DIVERSIFICATION: A SUSTAINABLE ECONOMIC GROWTH TRAJECTORY FOR BANGLADESH

Joint Secretary Md. Fazlul Haque, ndc

Introduction

Export diversification significantly contributes to regulate volatility of export revenue and provides a more stable path for equitable growth. It is important now in the wake of slowing global growth due to worldwide pandemic of COVID'19 and which is imperative in many developing countries to increase the number and quality of job.

Bangladesh followed very much obstructive and intricate set of trade and industrial policies for a significant period after the independence that did not contain and withstand any significant export prospective and consequently which had not been favorable for the improvement and growth for manufacturing sector.

At the very outset of nineties, several significant trade policy reform measures were undertaken with a view to reducing huge trade deficit and improving BOP's deplorable situation for ensuring overall macro-economic stability. Amongst them four pertinently important measures are: i) Sharp reduction and rationalization of tariffs, ii) Significant import liberalization through removal of bans/ Quantitative Restrictions (QRs) and import licensing, iii) Shifting from fixed to flexible exchange rates and iv) Converting the current account. These trade liberalization initiatives were deep and pervasive. The strategy of export-led growth impacted by trade liberalization policies had eventually taken a firm hold in the policy space of the country. Bangladesh Bank, in 2004, launched a floating/ managed exchange rate from flexible one along with the final elimination of all bans/ QRs on import for protection reasons. The infrastructure development surcharge (IDSC) was eliminated and absorbed with custom

duties (CD). Regulatory duties (RD) of three percent across the board as a new para tariff was introduced in 2010. In such a context, WTO in its 2019 trade policy review states that tariffs and para-tariffs are still the notably mentionable instruments of trade policy regime in the country.

The revolutionary liberalization initiatives and trade reform measures undertaken till now had significantly played a vibrant role to the growth and diversification of export sector. Yet, there has been a plenty of tasks necessitated to be ended ahead of time. Virtually, it is right now which is the earnest moment of taking challenges and overcoming them through the pertinent choice of export diversification resorting appropriate policy and reform measures and its proper implementation.

Bangladesh will become a lower middle income country by 2026 and later on an upper middle income country by 2031. She is committed to attain her Sustainable Development Goals (SDGs) within 2030 and she is also vowed to be a developed country by 2041. Moreover, the country will be in a position to implement its 'Delta Plan' within 2100. The country has been maintaining a 6.5 percent GDP growth rate on an average for the last one decade with an exception to the pandemic period. Her ambitious development targets proper implementation needs and huge budgetary supports. Moreover, recently most of the big development projects like the Padma Bridge has been implemented from the source of the country's domestic revenues. Dependency on foreign source of every years' national budget has been utterly insignificant. Though export earnings of the country is increasing almost for one decade, yet it is tremendously lagging behind the import spending. Hence, paramount trade deficit is evidenced. Country's current account balance had so long been positive because of expatriate workers' remittance income in spite of sustaining a deficit trade balance for the last one decade though very recently her current account balance has been negative owing to declining trend of remittance inflow and extravagant cost of import due to the increase of overall international price level as because of the adverse impact of Ukraine war and longstanding COVID'19 pandemic. Main

source of export earning of the country is received predominantly from RMG which accounts for 85 percent compared to other exportable items. Due to the Global Value Chain (GVC) the country gets only insignificant share of total value addition because most of the inputs are assembled by importing them which incur huge cost. Moreover, the Government is providing substantial incentives to the RMG sector and that is why other sectors are converging towards this incentivized sector even with having capacities and experiences of diversifying their products in other exportable sectors. However, heavy dependency on such an absolutely concentrated exportable item like RMG poses a predominant challenge in achieving her ensuing ambitious development goals through maintaining a sustainable growth. It is mentioned that currently the country's both exportable items and markets are gradually being diversified. Countries unlikely Bangladesh, Vietnam, Nepal and Sri-Lanka have been far advanced in diversifying their export products in view of reducing their risks of dependency on a single exportable item to avoid the deterioration of their terms of trade and external revenue shocks. Likewise, Bangladesh also has potentials to diversify more items like ship-building, IT products, leather products, agro-based products and so on in more countries. Thus through horizontal (export into completely new export sectors) and vertical (out of primary into manufactured exports) diversification the country can avoid the risk of dependency on a single exportable item like RMG and can earn more export revenue which in one hand can ensure sustainable economic growth and on the other hand can help smoothly implement the current ambitious development goals of the Government.

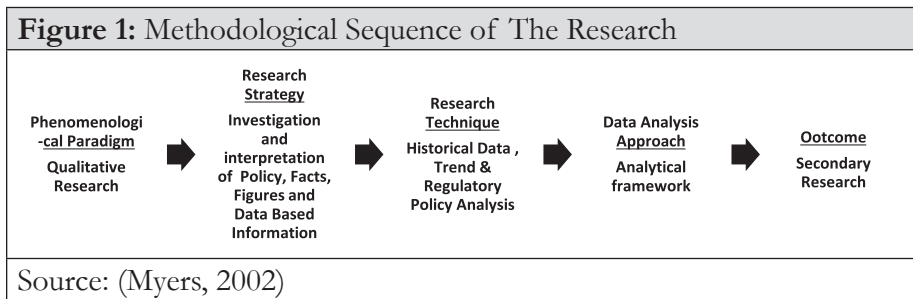
Objectives of Research

The prime objective of the research is to predominantly contribute to the existing literature through providing an optimal diagnostic solution to a sustainable growth pathways for Bangladesh by means of export diversification to finance her envisioned development goals.

Research Methodology

Research methodology denotes to systematically solve the research problem (Kothari, 2005). Moreover, it is a holistic approach to the research process (Creswell, 1994). The methodology of this research is encircled with purpose, technique or approach, cause and outcome. From the practical context, this research pursues qualitative approach. In view of the purpose it will be of interpretative/analytical in nature. As an approach or strategy to the method, it will follow analytical approach and as a research technique, it will consider a due investigation and consultation of policy, facts, figures and data based on evidence and information. In view of these methodological attitudes, this research may be referred to a secondary research based on deductive approach. Because, in this research existing theories on positive relationship between export diversification and sustainable economic growth will be tested.

Methodological sequences are shown as following manner:



The method has been selected based on the ‘theoretical context’ sustained in author’s ontology (Crotty, 1998:3). His objective is to understand the role of export diversification on sustainable economic growth of Bangladesh that creates meaning for him and possibly for others is beached in his ‘research paradigm’.

Results

Structural Features of Export Sector

Bangladesh export regime has experienced a versatile change since its independence. Country's composition of export items has undergone a remarkable gradual evolution keeping with the pace of structural changes in its pattern of production and the world export demand scenario. Table 1 reveal its commodity-wise share of export receipts as percentage in 1973 and 2021 respectively.

| Year | RMG | Engineering Products | Handicrafts | Leather and Leather Products | Agricultural Products | Frozen and Live Fish | Chemical Products | Jute & Jute Goods | Others |
|------|-----|----------------------|-------------|------------------------------|-----------------------|----------------------|-------------------|-------------------|--------|
| 1973 | 0 | 0 | 0 | 4 | 0 | 1 | 0 | 81 | 14 |
| 2021 | 85 | 1 | 0 | 2 | 3 | 1 | 1 | 3 | 4 |

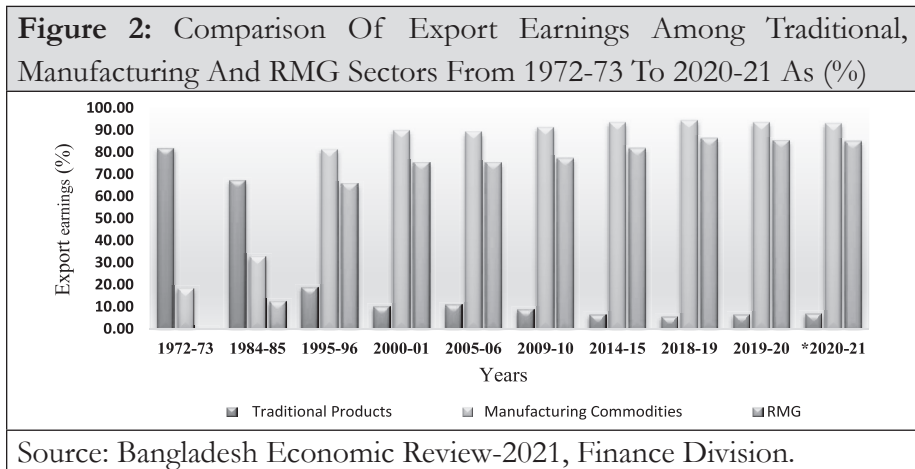
Source: Bangladesh Economic Review-2021, Finance Division

The frozen and live fish is a very striking growth performer and predominantly remains as a labour intensive sector and therefore the country has large potential to develop it. This product has been found with a very high export elasticity as well.

Exports of agricultural products including vegetables, fruits, spices and raw jute have been significantly contributing towards economic development of the country through remarkable export revenue earnings since its independence. This sector has a great potential for increasing export income by fully utilizing the ample opportunities of the country's abundant cheap labour.

Labour intensity being the utmost conspicuous characteristics of ready-made garments export system which has predominantly led this sector to be emerged as a vibrant segment of the country's economy in terms of both export receipts and employment generation.

According to Export Promotion Bureau export receipts from leather and leather products stood at US\$ 16.18 million in 1972-73 which increased to the highest of US\$ 1019.78 million in 2018-19 significantly declined to US\$ 739.39 million in 2020- 21 due to the heavy toll of COVID'19 pandemic and environmental non-compliance even though a huge quality raw leathers are persistently being produced in the country.



It is learnt from Figure 2 that primary products of Bangladesh are no longer seen as an effective source of export earnings. Consequently, it is the pertinent time for the country to shift her export strategy towards the promotion of non-traditional and the manufacturing items as a means of sustainable growth.

Elasticity estimates of traditional items of exports are found to be very low, while that of non-traditional items are apparently very high (Matin, 1986). Export elasticity of non-traditional items such as frozen food and ready-made garments are also found to be very high (Bahar and Samad,1995). In this context Bangladesh should speed up her efforts to enhance the export of manufactured and non-traditional products.

A comparative picture of the export trend of Bangladesh to some selected countries has been shown in Table 2 in terms of percentage of export earnings in 1973 and 2021 respectively.

Table 2: Country Wise Export Incomes as (%)

| Year | USA | UK | Germany | France | Belgium | Italy | Canada | Japan | Netherlands | Others |
|------|-----|----|---------|--------|---------|-------|--------|-------|-------------|--------|
| 1973 | 20 | 8 | 3 | 3 | 7 | 4 | 2 | 2 | 0 | 49 |
| 2021 | 17 | 10 | 15 | 5 | 2 | 4 | 3 | 3 | 3 | 38 |

Source: Bangladesh Economic Review-2021, Finance Division

It is revealed from the above table that the exports from Bangladesh, with the passage of time, have been concentrated to a few industrially advanced countries like USA. Germany and U.K.

From the percentage of country wise export earnings, it is discernible that Bangladesh should look for more and more new export destinations through diversifying her manufacturing and non-traditional items with respect to changing demand of importers across the world as the share of export earnings as percentage keeps on declining from the industrially advanced countries especially like USA though it was very much concentrated during the past.

It is also apparent that our export trade is seriously exposed to the three specific trade blocks like G20, G7, and EU which may face any unpredictable bleak future due to unforeseen man-made or natural volatile catastrophic situation created in these blocks.



From Bangladesh Bank data it is experienced that trade deficit is increasingly going up and which indicates that the country is heavily concentrated on a single sector-RMG for its export earnings. Due to high value imports of industrial and manufactured product’s input items as well as highly demanded importable consumer goods trade deficit is showing an upward trend. Form Bangladesh Bank source it is also learnt that Terms of trade (TOT) scenario of the country is gradually deteriorating.

It is learnt that only export diversification through newer and innovative products and prospective destinations can be a trustworthy growth path for sustainable development through substantial improving of trade deficit and deteriorating TOT.

Economic Growth Trajectory and Sustainability

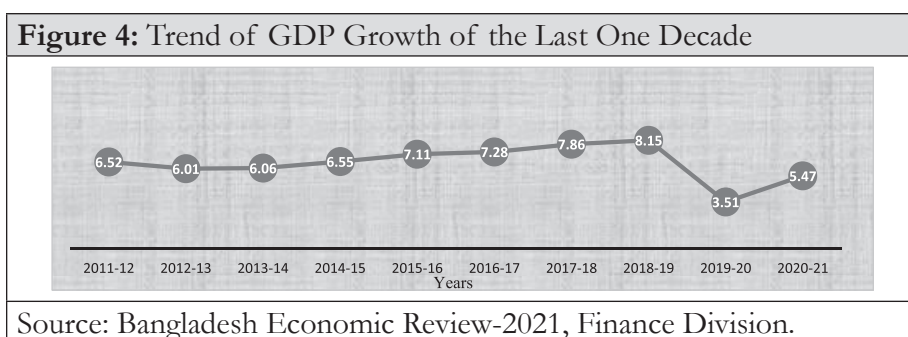
It is evidenced from table 3 in 1973 and 2021 that the economy has considerably transformed from traditional agriculture to modern industrial and manufacturing sector creating incremental incomes, employment and GDP growth.

| Table 3: Contribution of 3 Broad Sectors to GDP | | | | |
|--|---------|-------------|----------|--------|
| Year | Service | Agriculture | Industry | Others |
| 1973 | 46 | 39 | 15 | 0 |
| 2021 | 52 | 13 | 35 | 0 |

Source: Bangladesh Economic Review, 2021.

Last- one- decade GDP growth rate and trend has been reflected in Table 4 and Figure 4 as well as historical average GDP growth trend since 1950 to 2021 is shown in Table 2 respectively.

| Table 4: Trend of GDP Growth of the Last One Decade | | | | | | | | | | | |
|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------------|
| YEAR | 2011 -12 | 2012 -13 | 2013 -14 | 2014 -15 | 2015 -16 | 2016 -17 | 2017 -18 | 2018 -19 | 2019 -20 | *2020 -21 | Average Growth |
| GDP % | 6.52 | 6.01 | 6.06 | 6.55 | 7.11 | 7.28 | 7.86 | 8.15 | 3.51 | 5.47 | 6.45 |
| Source: Bangladesh Economic Review-202 1, Finance Division. *Provisional | | | | | | | | | | | |



| Table 5: Average GDP Growth Rate as % from 1950 to 2021 | | | | | |
|--|-----------|-----------|-----------|-----------|-----------|
| YEAR | 1950-1970 | 1971-1990 | 1991-1999 | 2000-2011 | 2012-2021 |
| GDP (%) | 3.2 | 4.0 | 5.0 | 5.8 | 6.45 |
| Source: Bangladesh Economic Review-202 1, Finance Division. | | | | | |

According to the Planning Commission, differences between actual and targetted Five Years Plan growth is much wider which is required to be narrowed down through higher income and employment generation.

Progress of Decent work and Economic growth (SDG-8) through its two indicators (8.1 and 8.2) has been reported in Table 6.

| Table 6: Progress of SDG Indicators 8.1 and 8.2 (Decent Work and Economic Growth) | | | | |
|--|-------------|------------------------|------|------|
| Indicators | 2030 Target | Actual Growth rate (%) | | |
| | | 2016 | 2017 | 2018 |
| 8.1.1 Annual growth rate of real GDP per capita | 7.55 | 5.70 | 6.05 | 6.40 |
| 8.2.1 Annual growth rate of real GDP of per employed person | 6.50 | 6.27 | 4.99 | 5.56 |
| Source: SDG Tracker, BBS and GED | | | | |

Pursuing the SDG goals within 2030 and for becoming a developed country by 2041 influx of huge revenue is inevitable and for which there is no alternative to promotion of export through both horizontal and vertical diversification in order to put in place a robust and sustainable growth trajectory for Bangladesh.

Discussions

Weaknesses of the Country’s Export Sector

Narrow Export Basket. Among 98 products RMG accounts for 85 percent. Any in-house shock or external environments will bring about a catastrophic scenario for the entire economy. Most of the export-products are at risk either internally or externally.

Insufficient Production Capacity and Lack of Quality. A significant proportion of its market has been shifted towards others’ command.

Infrastructural Bottlenecks. Difficulties with ports, transport, telephones and uninterrupted internet connectivity for sending products within stipulated schedule are tremendously faced. Lack of developed and efficient transportation system and Traffic congestion led to losses and pilferages, workers’ strike, blockade exposed export diversification in a bumpy way.

Volatile Exchange Regime. Infrequent devaluation of Taka against US\$ is pushing the inputs price of exportable items high as our export is predominantly imported inputs based. Process centric exports suffer from internalized irregularities. Trade policy highly demands for reinvigorated consideration.

Hostile Relationship among the Government, Management and the Labour Union. Antagonistic relationship and the subsequent large number of labour strikes, lock-out and other forms of turbulence are frequently prevailed. Politically patroned Labour Union is surfaced. Besides, the authority does not apply discretionary power.

Lower Productivity of Labour. Lack of adequate academic and technical education, lack of motivation, on-going job oriented required training, etc. are increasingly sustained. Companies are unwilling to extend training facilitations for the fear of losing skilled staff.

Import-Intensive Exports. If any barrier of import is surfaced, that will rigorously disrupt the overall export records. Lack of efficient procedures for natural movement of imported stuff for export also came up as a serious hindrance.

Highly Regulated Private Sectors. It prevents from optimally utilizing the workers and consumers as a whole. Ineffective and inefficient facilitation of export sector by regulating the means of production significantly increase the cost of doing business.

Malpractices and Abuses of Discretionary Business Power. This highly impairs the consumer and concerned business people's interest that compels the Government to impose restrictions and regulations. Self-regulating mechanisms are put in place in different countries which are yet to be introduced in Bangladesh

Lack of Due International Standards and Practices. Erratic business practices prevails and no money is spent for staff training and Technical Assistance (TA). It is obligatory to get approval from Bangladesh

Investment Development Authority (BIDA) to take loan from foreign countries or companies for investment that impedes the capacity building of Export regime.

In Most Cases Our Exporters, Entrepreneurs and Trade Related Information Explorers are denied with due information and required assistances by our Diplomatic Missions and Commercial Wing: Lack of commitment, professionalism, strong ties with the recipient country, lack of providing required information and statistics, lack of skilled negotiation capacity and proactive mindset create increasing challenges for export diversification.

Future Challenges

Challenges Emanated from Post Graduated LDC Status. Suspension of current duty free access to export market, no low-interest loans and grants to finance her development project and export development scheme, withdrawn of concessional loans, paying normal duties and taxes for access in international market are the daunting challenges among others which may severely impact on her on going sustainability and development. Moreover, 8-10% exports are apprehended to erode due to loss of duty free and quota free access to export market. To protect this loss FTA with USA, UK, China & India will have to be initiated soon for zero duty. Pro-RMG biases in the policies and programs, high cost of doing business and low public spending on health and education lead to low productivity & skill development for non-RMG export diversification.

Exaggerated Rules and Regulations & Compliances of MTS. Strictly imposed Labour and environmental standard for exports, compliances of child labour under ILO convention (138: minimum age & 182: worst form) are stringently obligatory as a serious hindrance of market access.

Benefits like EDF & GSP Pronounced in Technical Detailed Documents that are not familiarized with Business People & so are not reaped out. Lack of understanding regarding rules of origin, the

rates of GSP, the product coverage, and the appropriate system of exact documentation are widely prevalent. Being unable to comply with tough rules and regulations of EU and to maintain the quality of shrimp, frozen food etc. GSP utilization capacity was declined during the past years. Though the Govt. role is positive, yet the alike scenario may appear in near future.

Stiff Competition Faced from Neighboring Countries like China, India and Vietnam. Low labour productivity due to inefficient management and unskilled workforce is grounded. Despite the prevailing relatively low- wage -rate, overall wage cost of production are comparatively high. Narrow export base and market access without duty free and quota free in post LDC period may pose severe challenges.

Prospects

Rational Enlargement of Supply Base Using both Hard & Soft Power. Hard power including eliminating the bottlenecks of infrastructure, power, port, technology etc. and soft power mentioned as reforming the existing incentive structures and market improvement intermingled with proactive trade and economic diplomacy through our foreign missions can open up the newer horizons of export versatilities. Here, clear and visionary strategies for export variability is unanimously required.

Expansion of Marketing Channel. Existing policy of Govt. for the prevailing market-space along with penetrating in the prospective regions has given an ample opportunity for expansion. Financial assistances are being extended to inaugurate the market deal in the possible and untapped market spaces.

Unexplored Productive Capacity in Agricultural Sector. Demand for processed and various delicious fruits, horticulture, vegetables are on the increase. Efficient cultivation techniques with appropriate technology can increase the targeted productivity. Natural fibers like wool, cotton and jute can recapture market instead of synthetic.

Comparative Advantage of Cheap Labour for BD Export Sector. A great prospect with the comparative advantage of massive endowments of capable, promising and hardworking human resources exists (Stem Nicholas H, 2002). Enabling and resilient environment with favorable policy and prerequisite facilitation is necessary.

TA of WTO & UNCTAD until 2026 for Development of Export Base. UNCTAD's ICP for Development and Diversification of Export is prevailed. Such technical assistance from WTO, ITC, UNDP, the World Bank, and the IMF remains available subject to need assessment.

Exploring the Untapped Potentials of ICT. Some in-built prospective including a huge pool of educated under employed and unemployed human resources and a significant quantity of business tycoons are presently involved in computer software. Thailand, Philippines, India, Malaysia and Sri-Lanka's amazing breakthrough in ICT domain are witnessed. Our greater prospect with policy support for ICT and Software sector is optimistically expected.

Medicine. Medicine is currently being exported to 148 foreign countries. Export value increased to Tk.4069.27 crore in 2020 from Tk.421.22 crore in 2011. Number of exporting countries increased to 148 in 2020 from only 87 in 2011. Potentials to become the 2nd largest export earner after RMG. Availing the opportunity of patent exemption by the TRIPs remains till 2033. Measures are required to be undertaken for central drug testing laboratory, API Park, bioequivalence test laboratory etc.

Ensuring Congenial Atmosphere for FDI. Friendly regulation, investment incentives, simplifying regulatory practices to use huge potentials are inevitably required.

A New Horizon for Export opened up by BD-EPZ. 38 countries including USA, UK, Japan, and Germany have invested. Diversified exports of EPZs are electrical & engineering products, bi-cycle, leather products & footwear etc. Eight EPZs are playing vital role for export

diversification and job creation. Process automation system is being carried on by BEPZA.

Higher Yields, Resilient Stance & Greater Scope for Agriculture.

Bangladesh has much potentials in exporting vegetables, cotton and beverage based on effective cultivation technique and technological improvements. For instance, outputs of vegetables & oil are stimulated in Brazil, Indonesia and Argentina even in world falling prices.

International Halal Market. Global demand for halal food is 2.1 trillion annually. Bangladesh earned US\$ 1.00 billion in 2021. According to Ministry of Commerce she can earn US\$10 billion per year. Despite having potentials she is still not importing in UAE & other Gulf countries. Effective policy intervention to exploit such potentials is solicited.

Horizontal Diversifications in Agriculture Sector. Production of cut flowers or horticultural products, or semi-precious stones offers itself resilient demand and high income elasticity. For instance, Colombia has diversified in Horticulture & Chile in fruits even with limited scope.

More General Export Oriented Industrialization of Vertical Diversification. As it is low skill & technology based manufacturing so, it is much prospective for Bangladesh. Other source of comparative advantages for such industrialization can be adopted following the example of East Asian countries.

Policies, Incentives and Institutional Support for Export Development (ED)

Policy and Institutional Supports for Non-Traditional ED

- Exporters will enjoy open and duty-free access to their imported inputs.
- Providing easy access to credit and credit subsidies as financial incentive.
- Providing rebates on income taxes and concessionary duties on imported capital machinery as fiscal incentive.

- Reinforcing the institutional framework in facilitating export promotion.
- Extending all out facilities to GOB and the private sector trade bodies and associations on WTO and trade-related issues for ED and promotion.

Facilities and Incentives Rendered to Priority Sectors (i.e. Electronic Goods, leather & leather goods, Halal Foods etc.)

- Access to project-credit on priority basis.
- Income tax rebate.
- Subsidies on utility services like, electricity, water, gas as per concerned WTO agreements.
- Export credit on easy terms and deducted interest rate.
- Institutional and technical assistance to control and improve product standard.
- Air transport facilities on priority basis.
- Duty free import for setting up compliant industry.
- Assistance for production and marketing.
- To extend assistance to explore market abroad.

Financial Incentives for Export Development & Diversification

- Concessional rate of interest for export credit for all products at 7% within the extended repayment period up to 120 days.
- Merchandise exporters can retain up to a maximum of 50 percent of their export earning in foreign exchange and that of the limit for the service exporters is 5 percent.
- Cash assistance up to a maximum of 15% on FOB value instead of duty draw back and bonded ware house facility.

- Set up in 1989, the Export Development Fund (EDF) is engaged to facilitate import of raw materials, spare parts and packing materials for production of non-traditional exports.
- Exports of locally produced tea, bi-cycle and its parts, MS steel products will get 4 percent cash incentives.
- Eligible exports from specialized zones (BEZA, BEPZA, Hi-Tech Park Authority) will get 1 percent cash incentive of their all export goods.
- Special credit facilities are being extended to the exporter in newer horizons across the world including the CIS states.
- The Export Credit Guarantee Scheme since 1978 has been providing various types of insurance against risks faced by Bangladesh's exporters.

Fiscal Incentives for Export Development & Diversification

- Import facilities of raw materials for export oriented leather industries.
- Income tax rebate on export earnings.
- Tax at source on all export earnings will be deducted at the rate of 1 percent.
- Payment of duty drawback through commercial banks.
- Bonded warehouse facility being provided to all industries recognized as 100 percent export-oriented industries.
- Duty-free Import of capital machinery by export-oriented industries.
- A 20 years tax holiday for the automobile manufacturing firm with an investment of Tk.100 crore and a 10 years tax holiday for home and kitchen appliances and manufacturing industries.
- Exporters of manufacturing produces are able to drawback their amount of duties and taxes already paid at the time of importing raw materials just after the export is being effected.

- **Policy Intervention:** In worldwide context negative list of the export items of Bangladesh is considerably brought down under Bangladesh's current export policy (2021-24).

Recommendations

Effective ED through Creating Newer Products & Markets for Sustainable Growth. Developing viable backward linkages in RMG sector, developing newer export products & pro-export policy formulation & its efficient and effective implementation.

Evenly Improvement of the incentive system to stimulate BD's Export Industries. Removing QRs, abolishing tariff immunities and discriminatory import surcharges, terminating the impartial-protection named supplementary duty and VAT for protection, reducing tariffs further and easing the processes to clear export and import from ports to evade WTO's anti-dumping rules.

Effective Integration with GVC and RVC to be facilitated through Consistent Trade Policy. Our current successful integration with GVC is only through RMG. So ED is inevitable. Export subsidies- an easy but fruitless mechanism. Problems are linked with policy and supply-side constraints. Trade policy should be synchronized with other policies and programs.

Attracting Investment in Export Sector through Capacity Building. Congenial atmosphere is necessary. Govt. should ensure effective and appropriate steps to remove infrastructural bottlenecks, labour problems and deteriorating law and order situations etc.

Properly Addressing the Investors Problems with due Assistancess & Solutions by BIDA. BIDA's 'one stop services' is not effective due to ambiguity. It should be a proactive facilitator for investment through proper surveillance and monitoring by ensuring its transparency and accountability.

Institutional Role in ED. WTO Cell, Bangladesh Trade & Tariff Commission, Bangladesh Foreign Trade Institute, Export Promotion

Bureau, Diplomatic Missions & Commercial Wings abroad, Private Trade Organizations and after all Ministry of Commerce should play appropriate role from their respective part.

More EPZs should be established to reinvigorate the processed based multinational as well as national exporters to establish more industries to harness the available comparative advantage including cheap labour cost.

Exploring New Markets of Commonwealth of Independent States (CIS), African & Latin American Countries. Untapped potentials should be explored from the US, the UK, China, Germany and Japan's market.

Set up Export Related Vital Database with Importers via ICT to face the Challenges of 4IR. To generate sustainable export revenue. Establishing the linkage of existing and newer firms through a network of portals in Bangladesh to provide access to export and related databases globally through Internet. Computer Council can become the possible implementer.

Outsourcing of Foreign IT Companies for Compilation of Tailor-made Data for Easy Access of BD's Export Products and Producers. Adequate data can be propagated to the industry, Government agency, research & development centers & economic press abroad.

Especial Customs Services can be put in place as a semi-autonomous service exempted from law of civilian services for discharging the discretionary authority to the concerned services.

Conclusion

No Optimal Result from Bangladesh's Export Policy during the Last Two Decades. Steps and targets for export promotion and diversification may be determined on unrealistic and arbitrary change of export demand analysis. Proper structural investigation of the export supply function and its interlinked financial and socio-political factors are not rightly addressed which is evidenced from the prevailed gap between the real export earnings and the targeted one for few years. Targets based on some flawed

methodologies and techniques that led to design the incentive packages that impacted ineffectively on export diversification what should be looked into cautiously.

Mitigating Internal and External Challenges. These challenges are predominantly emerged from policy restraint, pandemic COVID'19 and Ukraine war. Bureaucratic system handling with national policy and strategy functions well with the highest commitment and proactive mindset. Though the external shocks might be very apprehensive. To achieve ends through all the available financial, socio-psychological and trade diplomatic means, GOB and the private export bodies are required to work with much cohesion and collaboration particularly in future trade negotiation.

International Trade and Prosperity Centric Development. A blended policy coined with flexible exchange rate and liberalized multilateral trading system can bring a desired structural transformation by expanding the industrial base & sustainable growth of export. But desired successes are yet not gained. Effectiveness and efficiencies of such policy shifts need to be scanned meticulously. Country's export earnings are mainly determined by changes in importers' income rather than by changes in their product's price. So, Bangladesh needs to put her concerted efforts for capacity building of potential areas of export diversification rather than simple policy shifting.

Export Diversification (ED) being the Highest Priority by all Incumbent Governments since the Independence. Development by dint of export diversification can be made through poverty alleviation, employment generation & reducing the adverse impact on Balance of Payment. Growth of more sustainable and advanced technology based commercial agriculture & industrial sectors can be ensured through ED to attain the desired sustainable economic growth trajectory. Modernization of management system intertwined with 4IR and product & market diversification can also pave the way of sustainable pathways for economic growth and development.

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Author

Joint Secretary Md. Fazlul Haque joined Bangladesh Civil Service in 1995. He held various appointments in different ministries and divisions including Ministry of Commerce, Ministry of Health and Family Welfare, Ministry of Social Welfare, Ministry of Local Government, Rural development and Cooperative, Finance Division of Ministry of Finance and Ministry of Planning. He has served as Deputy Economic Adviser in Finance Division. He has also served as Director General of Broadcasting and Information Technology (B&IT) Wing, Joint Secretary (Admin II) and Deputy Secretary (Financial Oversight Committee) of Bangladesh Parliament Secretariat. He did the 95th Senior Staff Course and 102nd ACAD Course at BPATC in Dhaka. He has attended a number of professional courses at home and abroad including 10th WTO Trade Policy Course held in Geneva, Switzerland regarding multilateral trading system and WTO rules and regulations. He did the Post Graduate Diploma in Macro Economic Management from BRAC University. He obtained his Honor's and Masters in Economics from Jahangir Nagar University, Savar, Dhaka. He has also obtained an MSc degree in Project Management from University of Bedfordshire, UK. He is happily married and blessed with two children. Mr. Haque is an avid reader and fond of photography of nature.

DEVELOPING STRATEGIC COMMUNICATION ARCHITECTURE AGAINST EMERGING INFORMATION THREATS AS PART OF NATIONAL SECURITY STRATEGY

**Brigadier Mahipal Singh Rathore,
SM, VSM, ndc**

Introduction

Both the research and the writing of this dissertation required a thorough exploration of new information. Recent changes in social media (SM) groups, where the vast majority of people participate, have shown that an increasing number of people who are perceived as rational and intelligent are expressing ideas and viewpoints that are commonly accepted to be untrue. This occurs occasionally in face-to-face interactions, but it occurs far more frequently in conversations that take place online, particularly on SM. There is an emphasis on exploiting the internet and SM platforms to shape people's views, attitudes, and actions, various components of propaganda, psychological operations, misinformation, and disinformation are being employed as a part of digital influence warfare (DIW). Major disinformation efforts have been launched against the populations of both Russia and Ukraine, as well as those of its close neighbours and the rest of the globe during the ongoing conflict. Relevant concepts in the information domain, like exploiting a person's "fear of missing out" (FOMO), extremist ideology, dehumanization, indoctrination, provocation, propaganda, and political narrative, are extensively used to manipulate the minds of the people. Digital influence aims to foster online groups whose members subscribe to extremist disinformation and conspiracy theories, as well as different online recruitment strategies used by global jihadists and other terrorist networks. The spread of conspiracy theories and radical disinformation is another objective of digital influence, as humans tend

to be attracted to negative news more than positive news. This research will specifically focus on SM-based information and will not dwell upon cyberspace or other elements of the information space.

In both the times of peace and war, strategic communications (SC) are a continuous process that takes place across the entire spectrum. The entire country, including its people, allies, competitors, and other parties, strategically communicate with one another. The government works to strategically communicate with both the general public and with other governments and groups. Every nation intends to communicate strategically throughout the times of war, competition, and collaboration. SC also includes efforts to engage domestic audiences through public relations channels while adhering to legal restrictions in order to debunk the myths that have been spread by adversarial parties or opponents. In order to lessen the risk that common people will become targets of DIW, stakeholders and governments must collaborate to employ the digitally connected means at their disposal. This is made possible by the use of positive influence, which includes a variety of actions such as fundamentally informing, teaching, persuading, inspiring, and coercing through words and deeds to stop people from being badly impacted. One technique that can be used in the process of influencing someone is communication. As more and more digital communication networks link various regions of the world together, it will only get harder in the years to come to be able to communicate the right message to each other. In the information age of today, “knowing” is more valuable than “having.” As the digital era develops, society will be put in danger in new and diverse ways. With the growth of networking and information sharing, the ability to protect information has not kept up. By 2025, voice traffic will no longer be the most prevalent type of traffic due to the annual growth in the volume of data traffic.

Literature Review

Majority governments are reluctant to acknowledge or publicly state that they have implemented particular methods to cope with digital influence

by thwarting information threats emanating from a range of SM platforms as they are swiftly becoming weaponized, SC literature is hard to come by. Emerging SM-based information threats come in many different forms and include components of information warfare, cyberwarfare, DIW, political manipulation, and influence operations. These dangers affect national security in developing democracies in dynamic and ever-evolving ways, especially in populous countries like Bangladesh and India.

SM-based Information Threats. The term “DIW,” which emphasizes SM-based information as a tool, is created by combining the words “digital,” “influence,” and “warfare.” Author James Forest (2022) uses “Digital Influence Warfare” to describe the environment of online psychological operations, information operations, and political warfare in his book “Digital Influence Warfare in the Age of Social Media”. This is the environment in which a malicious actor (state or non-state) pursues its objectives by influencing the attitudes and behaviour of others. According to Michael Erbschloe’s (2017) book, “Social Media Warfare: Equal Weapons for All,” cyberwarfare is separated from what he refers to as “social media warfare” (SMW) by the fact that it “needs a substantially greater level of technical knowledge and competence.” According to the authors of a research released by the Rand Corporation in 2019, the new reality that “involves informational techniques of coercion and manipulation” should be described as “virtual social warfare.” Other contemporary works in the field, like “War in 140 Characters: How Social Media is Reshaping Conflict in the Twenty-first Century” (2017), “DIW,” “SMW,” and “Like War: The Weaponization of Social Media,” (2018) also use the language of war. In their book *Like War*, Singer and Brooking refer to the Internet as “a battlefield and a platform for achieving the goals of whichever actor manipulates it most successfully.” Every region of the world is a possible front in the ongoing fight, and the information it produces is extremely contagious. For what matters the most online is our attention and our engagement resulting in competition amongst the greatest and worst qualities of human nature.

SC and its Importance to National Security. According to a report released in 2004 by the Defence Science Board, SC necessitates the use of a sophisticated approach that charts perceptions and influence networks, determines policy priorities, formulates objectives, focuses on “doable tasks,” develops themes and messages, utilizes suitable channels, and makes use of new strategic and tactical dynamics while monitoring success. Richard Stengel, a former senior official in the US Department of State, claimed that “we are all actors in a global information war that is pervasive, challenging to grasp, and moving at the speed of light” in an essay that appeared in Time magazine in September 2019. The urban myths endanger democracy and the freedom of the people to decide for themselves based on the truth. Given this, it is logical to presume that the US Government (USG) has created some SC procedures as part of its National Security System (NSS) in order to protect the country from information threats. The “Commanders Handbook for Strategic Communications and Communication Strategy,” Version 3.0, published in June 2010, defines SC as “Focused USG efforts to understand and engage key audiences in order to create, strengthen, or preserve conditions favourable for the advancement of USG interests, policies, and objectives through the use of coordinated programs, plans, themes, messages, and products synchronized with the actions of all instruments of national power.”

The India-Bangladesh Context. In the context of India and Bangladesh, articles on the issue of data protection laws, cyber security and digital security act/ rules have been analysed to understand the existing national level architectures. However, there is no literature on SC in both the nations except one article by Gen Ata Hasnain (2022).

Research Methodology

Approaches and Methodology. A cross-sectional descriptive design was used in the quantitative technique of the study’s mixed methodology, which included quantitative and qualitative methodologies. The study

made of using a mixed design. The approach that was used was to test the hypothesis based on data analysis, with objectivity as the ontological position and positivism as the epistemology, in order to achieve the goal of developing a national security architecture for SC and countering SM-based information threats in democratic developing countries with large populations, especially for India and Bangladesh.

Sample Size. Interviews with experts in the field of national security and college students who spend the bulk of their time on SM were used to gather primary data for a study. Two separate sets of questionnaires, each with its unique set of questions, were used for this purpose. Details are given at Table 1.

| Data Collection | Study Area | Types of Respondents | Number of Respondents | Sampling Method |
|--|---------------|--|-----------------------|------------------------------------|
| Structured Questionnaire Survey (Two types) | India | National Security expert & students | 60+38 | Non-probability (Purposive) |
| | Bangladesh | National Security expert & students | 25 | |
| | Other Nations | National Security experts | 13 | |
| Key Informant Interview (KIIs) | India | Security Advisor to Ministry of Defence, Government of India Security expert in Media & founder Web based news portal Communication strategy & National Security expert Print Media journalist & Defence expert News Anchor, TV Journalist & Political Analyst Journalist & Defence expert | 06 | |
| | Bangladesh | Media expert & academician in Dhaka University Dean Film & TV Department, Dhaka University Security expert on Strategic Communications & Tech Security expert on Artificial Intelligence & Head of Mil Tech Policy maker & VC of University Journalism & media expert academician TV Journalist & senior news editor in news Channel | 07 | |
| Discussion | - | Focussed Group Discussion (FGD) – three security experts dealing with information, one social media & two tech experts | 06 | |

Results and Findings

Quantitative Analysis

The analysis of the primary data was undertaken using statistical tools. Based on the responses received from the security experts, a second modified survey was carried out.

Figure 1: Online Google Questionnaire

Questions for Strategic Communication Experts

Greetings,

I am attending NDC 2022 at Mirpur, Dhaka. As part of the course curriculum I am conducting Research project on the topic "Developing Strategic Communications Architecture for Countering Information Threats as part of National Security Strategy".

The strategic communications space seeks to influence our thoughts and actions for or against a particular set of objectives to counter the ever evolving information threats or narratives spread by adversaries. These days we are all actors in a global information war that is difficult to comprehend and is taking place at the speed of light with no boundaries or limits. Therefore, it has become imperative for democratic nations with large populations to identify these threats and develop strategic communications mechanisms as part of national security apparatus to control the continuous and ongoing influence and information operations.

I solicit your expert opinion as a response to this Questionnaire below. It will be an honor to interact with you personally through a virtual meet to follow up on your responses. Please feel free to express yourself as

Target audience of security experts, government policy makers & college students

3. How do you respond to social media messages on WhatsApp, Instagram, Facebook or twitter ?

More times with likes

More times with a comment

More times without like or comment

4. Do you think that the kind of information you access on social media platforms is accurate ?

Absolutely True (91-100%)

Mostly True (71-90%)

Sometimes True (51-70%)

Mostly False (31-50%)

Completely False (less than 30%)

5. How much content on the social media platforms is fake or disinformation or misinformation ?

Hardly any (less than 10%)

Research Project Questionnaire on Strategic Communication for Security Experts

Greetings,

I am attending NDC 2022 at Mirpur, Dhaka. As part of the course curriculum I am conducting Research project on the topic "Developing Strategic Communications Architecture for Countering Information Threats as part of National Security Strategy".

The strategic communications battlespace seeks to influence our thoughts and actions for or against a particular set of objectives with an aim to influence them. These days we are all actors in a global information war that is difficult to comprehend and is taking place at the speed of light with no boundaries or limits. Therefore, it has become imperative for democratic nations with large populations to identify these threats and develop strategic communications mechanisms as part of national security apparatus to control the continuous and ongoing influence and information operations.

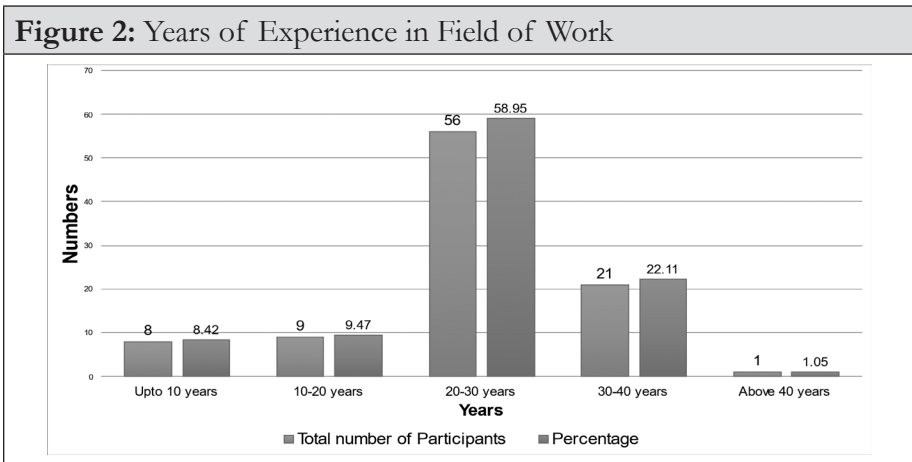
I solicit your response/ feedback, opinion expert views in the Questionnaire below. Please feel free to express yourself as

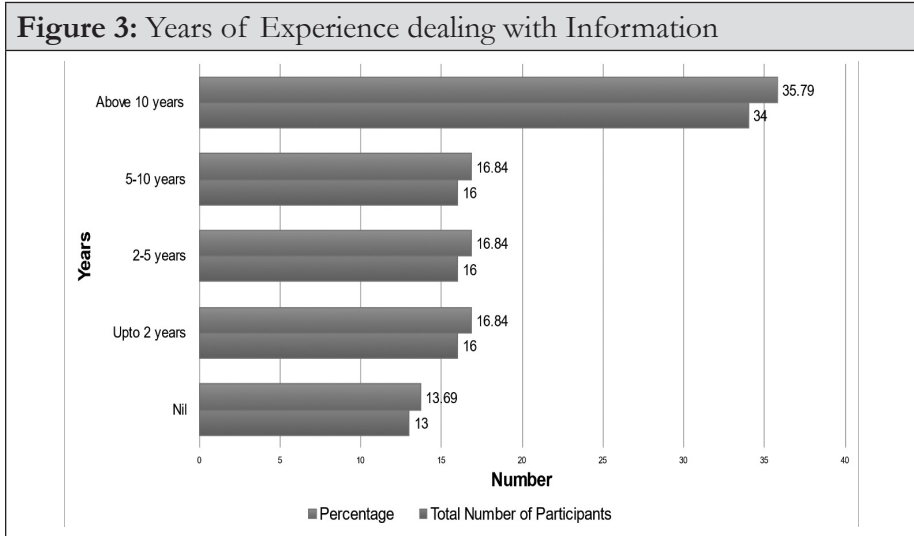
Security, Media & SC Expert Interviews

Distribution of Survey Population. Occupation of the population survey shows that, about 71% of the respondents were security experts and deal with national security affairs, 20% of the respondent were businessman, 6.67% were students and 2.22% were civil service holders.

Years of Experience in Dealing with Information related Issues. About 36% of the respondents have spent above 10 years in dealing with information related issues. Details are given in Figures 2 and 3.

Figure 2: Years of Experience in Field of Work





Time Spent Browsing through Electronic Devices. About 57% of the respondents spent between two to eight hours browsing on their gadgets and out of these 90% were college students.

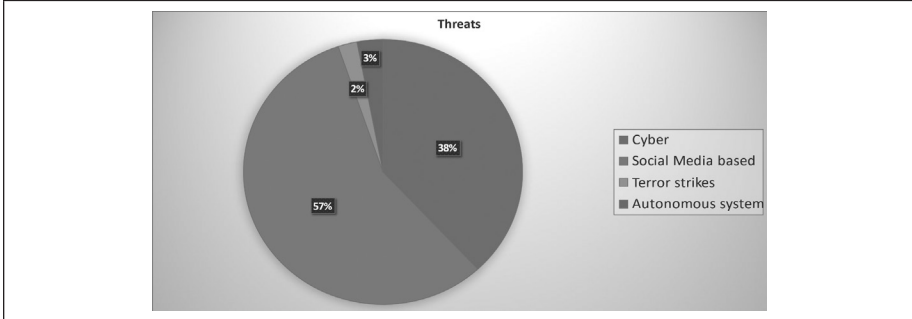
Responses on SM. Only 14.07% of the respondents comment on SM platform, 20% give on like and 65.93% give on like or comment.

Accuracy of Information Accessed on SM. Only 13% of the respondents felt that more than 70% inputs on SM were mostly true. Majority people (78%) believe that more than 50% of inputs on SM are false and fabricated.

Spread of Fake/Misinformation/Disinformation on SM. About 71% of the respondents felt that SM is being used extensively to spread fake news/ disinformation/ misinformation.

Low Cost Options for waging war with Adversary Nation. About 57% of the respondents felt that SM-based information threats are most likely to be exercised by adversaries. This indicates 95% respondents feel information threats are imminent and are given in Figure 4.

Figure 4: Low Cost Options for Waging against Adversaries



SC Architecture. 73% felt a whole-of-government approach is required as compared to 20% wanting only Police & Paramilitary officials, 5% are military and 2% are bureaucrats.

Descriptive Responses

About 11% respondents felt that the effect of SC is high on National Security to counter SM-based information threats. 77% felt that the effect of SC on national security was moderate as there are more aspects to be considered. 12% felt that the effect was low on national security.

Hypothesis Testing

Figure 5: Hypothesis Testing (Pearson Correlation)

| Coefficient | Relationship | Interpretation | Result |
|-------------|--|---|--------------|
| 0.45 | Strategic Communications & National Security | Strong positive relation between the two | H0 rejected |
| -0.19 | Strategic Communications & Information threats | Weak negative relation between the two (some other counter measures needed) | H2 rejected |
| 0.03 | National Security & Information threats | Weak Positive relation between the two (other threats are more important) | H03 rejected |

| | | | |
|--|--|--|--|
| Alternate Hypothesis (H1). Strategic communications are important to National Security. | | | |
| Null Hypothesis 1 (H0). Strategic communications cannot add any value to National Security. | | | |
| Alternate Hypothesis (H2). Strategic Communications are important for countering social media based information threats. | | | |
| Null Hypothesis 2 (H02). Strategic Communications are not relevant for countering social media based information threats. | | | |
| Alternate Hypothesis (H3). Social media-based information threats are a concern for National Security. | | | |
| Null Hypothesis 3 (H03). Social media-based information threats are not a concern for National Security. | | | |

The findings from hypothesis testing were achieved using the Pearson Correlation analysis. Based on the analysis, 0.45 coefficient value indicated a strong relationship between SC and National Security. However, coefficient minus 0.19 indicated that SC and SM-based information threats have a weak negative correlation. National Security and SM-based information threats have a weak positive (0.03 coefficient) correlation. Based on analysis, there exists sufficient statistical evidence to reject Null Hypothesis 1 (H0), Alternate Hypothesis 2 (H2) and Null Hypothesis 3 (H03). To conclude based on Hypothesis testing using Pearson correlation, it can be deduced that - SC are important to National Security; SC are not only relevant for countering SM-based information threats but are important for National Security; while, SM-based information threats remain a concern for national security if left unchecked/ unregulated. In addition, the ANOVA test concluded that increase in National Security is achieved when there is increased reliance on SC and whenever, there is increase in SM-based information threats, there is increased need for SC. The p-value of 0.42 means that SC has significant impact on national security.

Key Informant Interviews (KIIs)

Thirteen subject matter experts were interviewed during the research; these included experts on Policy Making, Security, Information, SM News portal, Journalism, Print and Audio-Video from both Bangladesh and India. Table 2 and 3 highlight the SM-based threats.

Table 2: KIIs Inputs (Security Experts) on Social Media based Threats

| Issue | Expert Opinion |
|--|---|
| Mechanisms to overcome spread of fake news/ misinformation/ disinformation/ false narratives on social media platforms | <ul style="list-style-type: none"> • Awareness is low as there is no formal education on this • Since social media is fast & transparent, any fake news needs to be immediately countered • Only alert users respond based on his/ her exposure as governments lag behind • Tech solutions are coming from corporate firms, so responsibility to ban account should be ensured, if Government takes stance on agenda driven narrative |
| Exploitation of social media platforms with 4IR technologies to manipulate data & information & create violence amongst innocent people will increase manifold | <ul style="list-style-type: none"> • Military strategies of Non contact warfare & "three warfare strategy" highlight the aspect of winning without fighting by using narrative and content creation. • Russia-Ukraine war has seen global opinion being dominated by West, thus creating a Western Influence colony. • Reality is that Deep states influence people both in Democracy or Autocracy due to business interests. In authoritative regimes it is simple to monitor for own survival |
| Freedom of expression is more important than selective regulation of social media platforms for a developing democracy with large population | <ul style="list-style-type: none"> • Freedom of expression & transparency are essential in democracies • Balanced approach for freedom of expression relating to development & security is required • Freedom of expression important for national growth projects, development, SDGs & Governance • Transparency in security sector will compromise the nation • Freedom of expression important for development issues & cautious approach in security sector |
| Counter measures are essential & unavoidable to prevent adversarial narrative spread amongst own citizens | <ul style="list-style-type: none"> • Nation that owns internet can proliferate any narrative, its a Global common but driven by West • Free flowing information based platforms cannot be left unchecked in todays times • Russia & China have kept their population insulated • Democracies like Singapore & Israel (existential threat) have managed to control the narrative • Nations like India & Bangladesh need to do better, they need to evolve and design a system of Internet of Things (IoT) which meets the requirement of democratic values and security |

Table 3: KIIs Inputs (Media Experts on Social Media Based Threats)

| Issue | Expert Opinion |
|--|---|
| Mechanisms to overcome spread of fake news/ misinformation/ disinformation/ false narratives on social media platforms | <ul style="list-style-type: none"> • Social media is true democratization of news & like all revolutions, it comes with its chaos • Social media is still in its infancy & is already taking steps to control fake news & false narratives • From AI tools that weed out bots to suspension of handles, it is slowly coming together • We must accept that social media is here to stay and their is only one way to fully control it, and that is to do what China does but that goes against ethos of democracy, so its a Catch 22 situation |
| Exploitation of social media platforms with 4IR technologies to manipulate data & information & create violence amongst innocent people will increase manifold | <ul style="list-style-type: none"> • Social media is being used for manipulating information & this leads to violence and chaos • It is being used to fuel protests in India & as we speak, thousands of fake profiles have come up overnight, whipping up mass sentiments against Government decisions • Vested interests create fake narratives & social media becomes the carrier • Misinformation & exploitation of social media will have a strong potential to create conflicts within a state & among communities |
| Freedom of expression is more important than selective regulation of social media platforms for a developing democracy with large population | <ul style="list-style-type: none"> • India faces an array of national security challenges, both internal & external. While freedom of expression is most important, it must be tempered with real-time security concerns • Social media apps are used to instigate, propagate, & fuel violence and terrorism • There has to be a selective regulation since social media has been effectively weaponized • Freedom of expression is indeed important, but one cannot rule out the necessity of regulation in the context to prevent social chaos |
| Counter measures are essential & unavoidable to prevent adversarial narrative spread amongst own citizens | <ul style="list-style-type: none"> • News should not be government controlled, however, effective measures must be put in place so that fake news is not perpetrated. These counter measures are unavoidable . S • Social media today is not simply a medium of communication & entertainment, it has become a weapon which has ability to demoralize an entire population & turn it against its own population • Counter-measure to prevent fake & violent narratives are crucial & social stakeholders must also participate in the exercise of formulation of a counter policy to make it a more durable solution |

Relevant issues highlighted by security and media experts on SC and its importance to National Security are given in Table 4 and 5 below.

Table 4: KIIs Inputs (Security Experts) on Strategic Communications

| Issue | Expert Opinion |
|---|--|
| Strategic Communication (SC) is an important tool for National Security, especially for Democratic nations with large populations like India and Bangladesh | <ul style="list-style-type: none"> • SC is important for every nation, as it's a connect between the Government & its citizens • Its important to decide how the nation wants to position itself & maintain cohesion • Whether the SC is honest or a lie depends on the Government. Nation with a mature Strategic culture results in SC being based on truth & reality with a focus on the entire population • South Korea, Israel, Japan & Singapore are good examples of Democracies adopting SC correctly |
| Suggest ways to have SC as part of National Security Strategy to counter ever evolving social media based information threats | <ul style="list-style-type: none"> • SC does not come at a click of a button, nations need to develop a strategic culture • Nations which lack strategic culture expose their vulnerabilities to information based threats • Its challenging to implement SC in newer Democracies as compared to settled democracies • South Asian new democracies like India & Bangladesh will take time. But digital warfare threat is manifesting now, therefore Governments in South Asia also need to adopt SC for National Security |
| Measures to protect Data protection & privacy in democratic nations with large populations for adopting as part of SC | <ul style="list-style-type: none"> • Data sovereignty is essential to ensure information security is protected and has become more important than physical & territorial sovereignty as threats are so serious • Enhancing technological thresholds and making robust legal frameworks • External mechanisms should be formulated, wherein, any data breach is considered as act of war and intrusion of Data sovereignty. • Awareness in the environment should be enhanced as its like an issue for survival of mankind, • Malpractices in hardware & software also has no restrictions till now. UN needs to formulate global level institutions to monitor & regulate to ensure this space is not weaponized or militarized |
| Suggest ways to reduce time in government response to fake news on social media as it loses relevance by the time it is disseminated | <ul style="list-style-type: none"> • Government agencies are evolving & response is limited to selective monitoring & dissemination • Democracies need immediate response by trusted person who has backing of people in authority • In Bigger populated democracies fake news act as a trigger & a tipping point, hence the strategic culture, patriotism and resilience of the population comes into play |

Table 5: KIIs Inputs (Media Expert) on Strategic Communications

| Issue | Expert Opinion |
|---|--|
| Strategic Communication (SC) is an important tool for National Security, especially for Democratic nations with large populations like India and Bangladesh | <ul style="list-style-type: none"> • People create narratives & communication systems are carriers of those narratives. People everywhere have opinions & specially in democracies like India & Bangladesh • Government policies & initiatives need to be communicated to the people through all means • With the onset of social media, attention spans have reduced drastically. Strategic Communication must operate in a limited space. If you make it too serious, people will lose interest • Strategic Communication encompasses not just knowledge & information but also deception for the adversary. While mainstream & social media are means/ weapons, SC is ways/ methodology |
| Suggest ways to have SC as part of National Security Strategy to counter ever evolving social media based information threats | <ul style="list-style-type: none"> • In India in recent times, massive protests break out against any initiative that the government takes, forces inimical to India's national security hijack these protests using social media, mainstream media, & internet-based apps • Communication strategy will help target audience better understand the policies & quash rumours • SC & IW strategy is need of hour, with variety of experts to communicate using various platforms |
| Measures to protect Data protection & privacy in democratic nations with large populations for adopting as part of SC | <ul style="list-style-type: none"> • Educating both government, private & citizens about data security and enacting laws. Partnering with private organizations & ethical hackers to test data protection systems • Understanding that private partnership is the only way this will work, since most such skill sets are available in private domain. Also developing a national consensus through awareness campaigns • State should have the logistical capacity to uphold data protection & privacy. Capacity development of media personnel who would deal with such issues • Inter-country cooperation is a necessity to determine national capacities & its implementation |
| Suggest ways to reduce time in government response to fake news on social media as it loses relevance by the time it is disseminated | <ul style="list-style-type: none"> • Government's response can come later, but an initial informal response is critical • Government needs to have social media influencers & other abilities to issue unofficial rebuttals at a rapid pace. These rebuttals will go a long way in mitigating the damage • In the meantime, Government can formulate a formal response & kill the fake news |

Focused Group Discussion (FGD)

A FGD was conducted online with six subject matter experts with varied expertise. Three were experts in security issues related to information

security, two were cyber & telecom technology experts and one was a media expert. The issues that came to the fore are given in Table 6 below.

| Table 6: FGD on Social Media Based Information Threats & SC | |
|--|--|
| Social Media Based Information Threats | Strategic Communications (SC) & National Security |
| <p>As number of social media users are increasing in India, there is no awareness on how to audit news. Earlier, in the case of main stream media, anything sensational shown by one channel or newspaper, its rival channel or newspaper would rubbish it or provide a counter view. Also, any fake news on the print media used to be corrected within 24 hours. This further reduced to few minutes on audio-visual media. Since social media process is so fast & transparent, any fake news if not countered immediately will achieve its desired aim. Alert users respond based on his/ her exposure & responds as an aware citizen to question the fake news. But the numbers are very less. Agenda driven people want to spread fake news, misinformation and others knowingly or unknowingly have pleasure in proliferating it.</p> | <p>SC is important for every nation, as it's a connect between the leader (Government) and the led (citizens). Whether the SC is honest or a lie depends on the Government. Sri Lanka and Pakistan at a particular time exploited SC to spread a lie(s) & today their debt reality is out in the open. SC can be verbal or non-verbal also. Non-verbal SC examples are - North Korea firing missiles & Russia's actions in Georgia in 2008 (SC to other smaller erstwhile USSR nations to behave). SC can be delivered in various forms, like the one in Bangalore to target the North Eastern students. SC by an adversary can mold thoughts of the target nation by highlighting that there are no roads to borders, no development of island territories & the government is not interested in developing them. It would retard the nations security.</p> |
| <p>Adversarial nations in the region exploit it as a tool to leverage and divide the target nation by using the IoT. Look at the Russia-Ukraine war, global opinion has been dominated by the West, thus creating a Western influence colony. Deep states influence the people whether in Democratic or Autocratic states due to business interests. Openness of media is theoretical. When someone like Snowden exposed the state secrets then even democratic nations were less tolerant. In authoritative regimes it is unimaginable for survival of any 'Snowden', hence its just not a possibility. India has yet to fully comprehend information related threats from social media. Largely, social media remains a grey zone.</p> | <p>Few measures are to develop a Policy framework under which threats will be addressed, while different agencies will address this threat in their own ways, there must be an integrated approach in which this threat must be addressed. Effective Information Warfare platforms must be created under the policy framework so that threats can be addressed. Public-Private partnership is the way forward. The government is not equipped to do everything, even if it thinks it is. Sensitizing the citizens and various departments by means of workshops, about emerging threats and counter measures is also essential.</p> |

Discussion

Understanding DIW & its Manifestation

Instead of attempting to compromise the functional integrity of a computer system, DIW and its campaign use IoT as a “divide and conquer” strategy. Instead of uniting against a threat that only some perceive, a divided society continues to fight over multiple issues.

Identifying the Target. Internet users are encouraged to provide previously unheard-of amounts of personal information about themselves and their lives. Users upload images, reveal personal information, indicate their location, and introduce their friends and family. This amount of data collection required weeks before the Internet came into being. Millions of people post unfiltered information about themselves on the internet today. This is made worse by the fact that more young people, which is 68% of the working population use the internet daily in nations with large populations.

Manifestation of DIW. An influence plan takes SM platforms’ similarities and differences into account. Even while not all tools and strategies work in the same manner, there are similarities in the ability to collect and analyse data while employing algorithms to create predictions. Facebook, Twitter, Instagram, Twitch, TikTok, YouTube, WeChat (the biggest platform in China), VKontakte (VK, the biggest platform in Russia), and other platforms all offer covert ways of tracking user data, activity patterns, and other information that can be used to influence targets. The survey highlighted that 66% of respondents didn’t ‘comment’ or ‘like’ the material they saw, increasing their propensity to share false information on SM.

Tactics adopted by DIW Campaigners

There are three types of digital influence efforts and their outcomes. First is deception and requires work as the target is being misled by the influencer. Table 7 displays various DIW tactics. These three type of approaches are not mutually exclusive. A mixture of these might be used in an effort to influence people online.

| | |
|---|---|
| Astrourfing (fake grassroots support) | Playing both sides |
| False amplification of critiques of opponents | Scare stories |
| False amplification of marginal voices | Shocking or graphic content |
| False amplification of news | Communications disruption |
| Impersonation of public figures | Hashtag poisoning |
| Impersonation of political allies | Spam |
| Defamation | Algorithm exploitation and manipulations |
| Doxing | Deepfakes |
| Hacking and leaking documents | Dissemination of doctored images, videos, and documents |
| Interference with political processes | Dissemination of false, misleading, or misattributed content |
| Intimidation and harassment | Impersonation of websites |
| Dark advertising | Restriction of availability of information to the public |
| Exploitation of content moderation systems | Dissemination of conspiracy theories |
| <small>Source: Adapted from Alex Krasodonski-Jones, "Warring Songs: Information Operations in the Digital Age," European Policy Institute (May 2019), p 8, online at: https://demos.co.uk/wp-content/uploads/2019/05/Warring-Songs-final-1.pdf</small> | |

Tactics to Deceive. DIW uses fake news websites and various other mechanisms to be successful. The Tow Centre for Digital Journalism at Columbia Journalism School identified 450 websites in 2019 that each delivered thousands of articles created using algorithms and fewer items that were reported. Then, these websites are used to “stage” events, draw attention to issues like election fraud and energy pricing, give controversial themes the appearance of impartiality, or gather user data for political targeting. In the survey, 78% responders are aware that more than 50% SM-based information is false.

Tactics of Identity Deception. Using email, direct messages, SM, or other accounts as a front, identity deception tactics pretend to be the real account owner by acting or saying things that the target needs to believe they are doing. Identity fraud tremendously helps DIW. To coordinate influence actions against a target, one person can create hundreds or thousands of SM profiles. As per the survey, over 50% of SM content and accounts, according to 71%, are fake.

Tactics of Engagement Deception. Popular engagement fraud techniques include manipulating social validation and hashtags. Creating the appearance of widespread support, outrage, or any other desired response. Flooding a trending hashtag with unpleasant postings and perhaps false material is known as hashtag flooding.

Tactics to Provoke Engagement. Digital influence tactics should promote communication. It overlaps deception in several aspects and involves attempting to elicit a reaction from targets. The target is motivated to react to what it sees via a reaction. It might express approval, contempt, rage, or anger. Hardening commitments cause divisiveness in politics and society.

Tactics of Directly Attacking the Target. Direct targeting is one of the DIW strategies. Some attacks use readily available cyber tools to conduct “distributed denial-of-service” (DDOS) and “denial-of-service” (DOS) attacks. These are relevant to cyberwarfare but are not being deliberated in this research.

Strategies Adopted for Influencing a Targets Behaviour

If the narrative isn't connected to a pertinent issue, influence warfare strategies won't have much of an impact on the audience. Here are some strategies for swaying a target's behaviour:

- Contextual relevance.
- Framing.
- Provoking emotions.
- Manipulating uncertainty.
- Confirmation bias.
- Exploiting human reliance on group identity and social proof.

Exploiting the Digital Information Silos

| | Strongly disagree (SD) | Disagree (D) | Neutral (N) | Agree (A) | Strongly Agree (SA) |
|--|------------------------|--------------|-------------|-----------|---------------------|
| Questions | Responses | | | | |
| Have social media platforms created a divide in the society? | 3.7% | 13.3% | 13.3% | 56.4% | 13.3% |
| Is manipulation of data & spread of misinformation only applicable during war? | 11.9% | 43.7% | 5.2% | 4.4% | 34.8% |
| Freedom of speech is more important than regulation of selective social media platforms? | 9.6% | 30.4% | 17.8% | 37% | 5.2% |
| Should nations have mechanisms for countering information warfare by adversaries as part of war effort only? | 14.8% | 34.8% | 8.9% | 23.7% | 17.8% |
| Should nations stop spread of unregulated information by following the Chinese model of banning of global platforms? | 12.8% | 49.6% | 20% | 14.8% | 2.2% |
| Are information and psychological operations applicable in the civil domain also to prevent spread of fake narrative during peacetime? | 7.4% | 2.2% | 5.9% | 60.7% | 23.8% |

Humans are driven to the influence silo because they need social validation. To further their influence objectives, the influencer validates their beliefs. Online tools like SM and SEO might enable “algorithmic filtration” to narrow the scope of the information that is provided. Survey results in Table 8 shows that 70% of respondents agreed that SM platforms divide society in addition

to many other interesting facts. Influence silos are also influenced by group identity, social proof, the urge to avoid cognitive dissonance, and conformity. When doubters leave the target community, only the “true believers” remain, and the echo chamber becomes a potent barrier that repels opposing viewpoints, the influence silo’s full strength is developed over time.

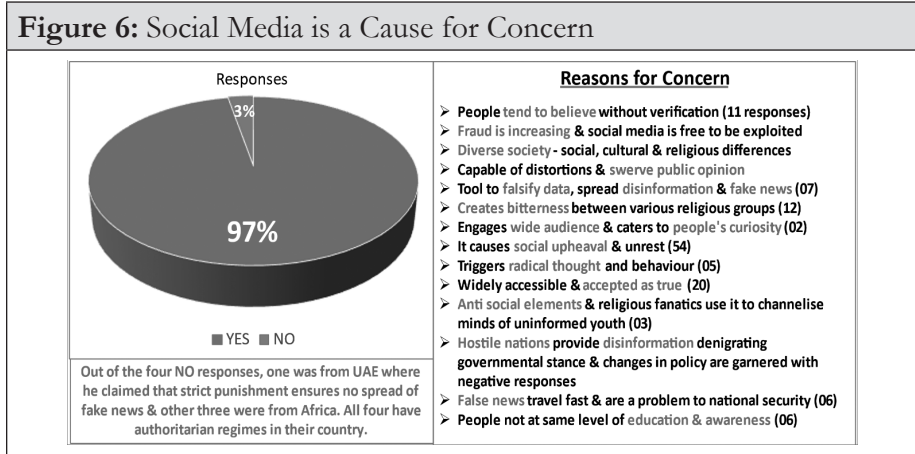
Influence Silos in Democracies. Democracies tend to have more influence silos than autocracies. Media coverage or storylines that challenge or criticize top government officials have been outlawed by authoritarian regimes with success. A different strategy is needed for information supremacy in the newer liberal democracies like Bangladesh and India. According to 83% of survey respondents, instead of adopting China’s dictatorial model, SM platforms should be regulated to increase accountability.

The Polarizing Effect of SM. Influence warfare is made easier, more effective, and more efficient in a digital context. Aggressors have more chances to split people, foment unrest, and sow confusion in polarized civilizations. People that are polarized are more susceptible to being misinformed, which further divides them. As internet and SM usage increase in India and Bangladesh, rival/ hostile regimes are taking the advantage.

The Future of DIW

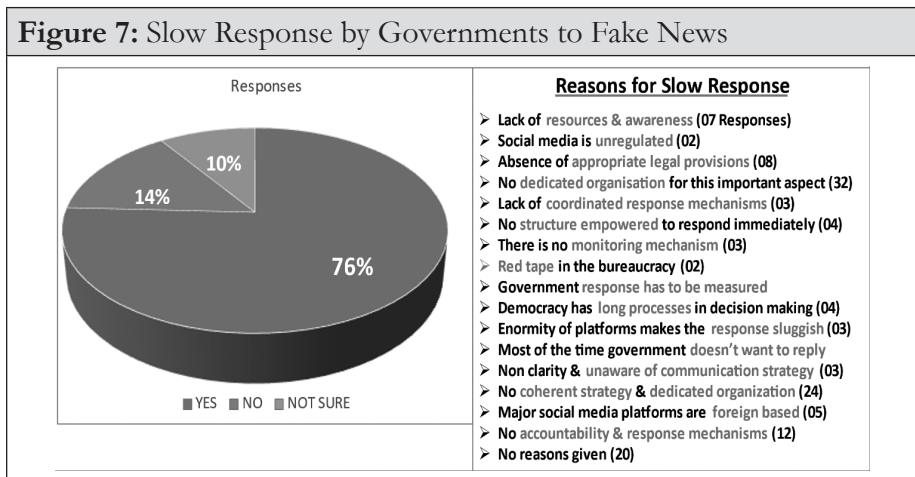
Cyber attacks in the future will be more difficult. According to Rand Corporation (2019), a hostile social manipulation attack can target databases, algorithms, networked devices, and artificial intelligence (AI) applications. The truth will not be able to break through the darker influence silos that the future will bring, which will lead to widespread false beliefs, mistrust, increased hostility, and extremism and violence. Figure 6 shows that 97% of people are worried about the risks associated with SM-wide information. Future digital influence technologies, like AI, augmented reality, and virtual reality, will complicate an already chaotic environment, creating new

opportunities for misinformation and perception manipulation.



Need for SC in Democracies

Effective communication is a prerequisite for good governance. In a democracy, effective interactions between the executive branch, legislature, judicial branch, and electorate depend on clear and transparent communication. Democracies at times suffer from insincere, insufficient, or incomplete communication. Refer Figure 7 for slow response by Governments to fake news.



Importance of SC to National Security. According to Chatham House, SC are essential to developing and putting into practice NSS and must be the main emphasis of all government pillars. Presently, in free societies, the debate regarding SCs role in national security is “military-minded.” Although many democratic governments are aware of the significance of SC, they have limited comprehension, which makes strategy implementation challenging. SC are not just about words, describing intentions or acts, but also about attaining the objectives of the national strategy, particularly by utilizing the communication potential of national power resources. SC increases influence and consensus. Due to its significance, a SC framework must be incorporated into NSS strategic planning, policy development, and implementation. Table 9 presents survey information on SC and its importance to the national security.

Table 9: Strategic Communications Importance to National Security

| | Strongly disagree (SD) | Disagree (D) | Neutral (N) | Agree (A) | Strongly Agree (SA) |
|---|------------------------|--------------|-------------|-----------|---------------------|
| | | | | | |
| Questions | Responses | | | | |
| Strategic communication is an important tool for national security, especially for nations with large populations? | 14.6% | 3.1% | 3% | 47.4% | 31.9% |
| Is data protection and privacy important part of National Security these days? | 15.6% | 4.4% | 3.7% | 39.3% | 37% |
| With 4IR, do you think data thief's, internet violators and misinformation spreaders need separate legal provisions and laws? | 1.5% | 3% | 0.7% | 56.3% | 38.5% |
| Should Strategic communication include spread of positive government/ national narrative? | 2.2% | 1.5% | 10.4% | 56.3% | 29.6% |
| During conflicts, it is important to continue with communication strategy to prevent false narratives spreading to own populace? | 3% | 1.5% | - | 41.5% | 54% |
| Effort should be made by Security experts to reach out to remotest part of the country with its Strategic Communication strategy? | 3.7% | 3% | 7.4% | 51.9% | 34% |

Reforming the way SC is Managed. SC takes audience’s goals, passions, and opinions into account. A greater connection and conscious effort to connect words and acts are required for strategic and operational stability operations. India and Bangladesh have adopted variety of measures to counter threats from information based on SM, but neither has adopted SC. They also have vulnerable populations as shown in Table 10 (Observations with data are shown).

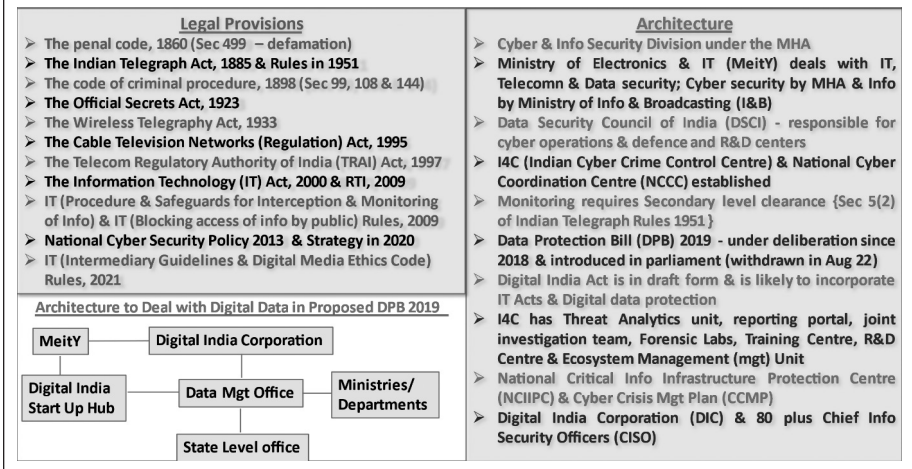
Table 10: India & Bangladesh Relevant Data

| Comparative Analysis of Mobiles, Internet & Social Media Usage vs the Total Population | | | | |
|--|--|--|---|--|
| Aspect | Global | India | Bangladesh | Observation |
| Population (Mobile connections %) | 7.91 bn (104.6%) 96% smartphones | 1.14 bn (81.3%) 69% smartphones | 167.1 mn (106%) 41% smartphones | Mobile connectivity in South Asia is at 87% - Rapidly increasing on a year-on-year basis |
| Annual increase in Mobiles | 1.8% (95 mn) | 3.1% (34 mn) | 6% (10.8 mn) | India accounts 1/3 rd of global annual increase |
| Internet users (% of population) | 4.95 bn (62.5%) | 658 mn (47%) | 52.6 mn (31.5%) | Internet absorption in South Asia is at 46% which is amongst the lowest globally |
| Annual increase | 4% (192 mn) | 5-6% (34-40 mn) | 12% (5.5 mn) | India accounts 20% of global annual increase |
| Social Media Users | 4.7 bn (59%) | 467 mn (33.4%) | 49.6 mn (30%) | SM users in South Asia is at 34% which is the 2 nd lowest globally |
| Annual increase | 10% (424 mn) | 4.2% (19 mn) | 10% (4.6 mn) | |
| Daily Internet usage Time Daily Social Media Time | 6 H 58 mins 2 H 27 mins | 7 H 19 mins 2 H 36 mins | NA | Indian internet and SM daily usage time is higher than the global average BD data is NA |
| Social Media Usage# (Top 4 platforms) | Facebook - 2.9 bn Youtube - 2.5 bn Whatsapp - 2 bn Instagram - 1.4 bn | Facebook - 59% Instagram - 27% Youtube - 10% Twitter - 3% | Facebook - 95% Youtube - 3.5% LinkedIn - 1% Twitter - 1% | Facebook and Youtube users (98.5%) in Bangladesh. India has Facebook & Youtube users (69%). Both Facebook and Youtube are known to be most susceptible to SM disinformation & fake account users |

SC and its Importance to India and Bangladesh. SC establishes a link between the leaders (government) and the led (citizens). IoT is used by adversarial governments in the area to divide their targets. A country with a developed strategic culture has a SC that is based on reality, truth, and the needs of the entire populace. A nation's vulnerability to SM-based strikes depends on its strategic culture. SC deployment is more difficult in newer democracies than in more mature ones. It would take time for South Asian countries like India and Bangladesh to change social norms and create an accepting community.

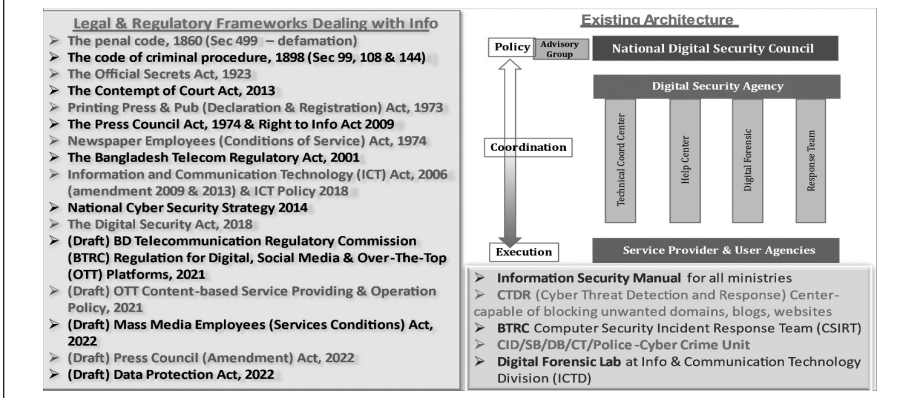
Legal Provisions & Architecture in India. Consumer perceptions of data privacy violations have changed as a result of several tech company data misuse claims. Many countries revised their legislation to include stricter rules. Similar efforts are made in India. The legal structures and provisions in India are shown in Figure 8. India intends to take advantage of its size and number of online users to advance the global data economy. Given the intricacy of the problems, consensus-building and fine-tuning of important clauses are challenging. A step in the right direction is the proposal of the Digital India Act, which would update the 20-year-old IT Act and thoroughly handle data privacy.

Figure 8: Legal Provisions & Architecture in India



Legal Provisions & Architecture in Bangladesh. The majority of the issues raised for India also apply to Bangladesh and are not discussed here. Information and media law and regulations are shown in Figure 9.

Figure 9: Legal Provisions & Architecture in Bangladesh



Few Suggestions for SC Implementation

- Work together to develop a common vocabulary for SC.
- Create stories that are both emotionally uplifting and democratically supportive.

- Make greater effort to communicate with people in all parts of own country, also in unfriendly or belligerent environments.
- Strengthen the nation's ability to assess and combat SM-based information warfare.
- Restore trust and credibility in organizations in charge of handling issues involving information, data privacy, and the internet.
- Be a champion for debunking and fact-checking.
- Assure openness in the ownership of the media.
- Increase the role technology companies play in the battle against false information.
- Establish a network of individuals striving to combat deception.

Conclusions for Counter Measures to be Adopted

Data Sovereignty. To ensure the preservation of information security, data sovereignty is extremely essential. In today's world, the sovereignty of one's data has overtaken even that of one's territory in terms of importance. There is a pressing need to raise the current technological standards in order to create effective legal frameworks.

International Institutional Control. The never-ending flow of false news reports presents a picture of an unregulated online environment that is getting riskier by the hour. Therefore, the diplomatic community must work together to build the capacities of developing states, strengthen institutional safeguards at the global level, and build coalitions of democratic governments to resist the spread of fake news, misinformation, and disinformation via social media platforms.

International Cooperation. Information control accords are extremely difficult to negotiate since they cannot be confirmed. In order to improve state coordination, common expectations that are spelled out in law, customs, and principles are helpful.

Deterrence. Deterrence in the information domain must involve not just the potential for retaliation but also denial through resistance and entanglement in order to be effective. So that those who would perpetrate these crimes won't even bother to try; it is vital to build systems that are robust and challenging to break.

Few Suggestions for Countering Threats

- Consult all relevant stakeholders, including consumers and media intermediaries, to develop rules, standards, and suggestions relating to data, datasets, metadata, and SM.
- Thorough and constantly changing set of guidelines should be created and made accessible through a Digital Security Council.
- Standardization of processes to produce data and information for the government.
- Establishing an ethics commission to ensure ethical and responsible handling of information and data.
- Creation of redressal mechanism that enables citizens to receive datasets and information which is necessary to enhance openness and accountability within the ecosystem.
- SM intermediaries must suggest a Chief Compliance officer, who must be a national of the host country or a permanent resident. OTT platforms, online news sources, and digital media enterprises shall abide by the set code of ethics.
- Encourage public and commercial investments in security, including holding companies accountable for failing to take preventative steps against false information.

The research into Information Warfare 2.0 and the DIW makes it very clear that the border separating peace and violence is vanishing, posing a serious threat to the citizens of all countries. Access to content that has been altered

is simple in the networked society, but its members lack the knowledge to evaluate the veracity of the data, which causes strife and disagreement in the community. While there is a focus on cyber defence, as shown by the development of safeguards and barriers that improve information systems passive defence capabilities, users are not being raised or protected with the same intensity against manipulation on IoT and SM. As a result, rather than information and communication technology systems, people are increasingly the weakest link in the security chain. The more advanced democracies of the United States and Europe have recognized this security risk, and SC is starting to place the proper emphasis on it through law, regulatory frameworks, and technology support. The biggest challenges in this regard are faced by nations with large populations, such as Bangladesh and India. The architecture and procedures for national security demand that these efforts be made and strategies for implementing SC be put into effect. This needs to be done as soon as possible in order to combat the developing dangers that both countries face.

Conclusion

Table 11 lists the suggestions that were made in answer to the objective questions, as well as by the KIIs and the FGD.

| Table 11: Recommendations | |
|---|---|
| <p>Strategic Communications Aspects</p> <ul style="list-style-type: none"> ➤ Security awareness among population ➤ Indigenous development of communication systems ➤ Conduct Info Campaign with strategic communications ➤ Prevent rumour & propaganda on social media ➤ Selective monitoring of disruptive narratives ➤ Providing positive factual twist to fake news ➤ Legal action on social media against inimical elements ➤ Selective censure of strategic views expressed ➤ Secure access to the authorised few ➤ Selective leaks on need to know basis ➤ Adopt Strategic communications as part of NSS ➤ Adopting social media use policy ➤ Media houses declare boldly Conflict of Interest Info ➤ No spread of info without authentication ➤ Social media monitoring & countering false narratives ➤ Spread of information to uphold national interest ➤ Education on danger of spreading false information ➤ Media Campaign about danger of spreading rumors' & false information | <p>Counter Measures</p> <ul style="list-style-type: none"> ➤ Establishing Information Warfare Cell at National Level ➤ Monitor the Social Networks for security breach ➤ Ban Social Media accounts that temper national interest ➤ Laws/Regulations for Data Protection & privacy ➤ Enhancing Network Traffic Analysis Capabilities ➤ Adopt Intrusion control techniques ➤ Ensure user protection & improve digital trust ➤ Increase internet access & promote eGovernance ➤ Independent constitutional regulatory authority to counter misinformation ➤ Joint media control team for violations & media leaks ➤ Strictly regulating the IT Cell culture by political parties ➤ Indigenization of data storage & servers ➤ Develop own social platforms like whatsapp, etc ➤ Prioritise National security over freedom of expression ➤ Create a dedicated organisation to deal with data protection, data theft, countering enemy propaganda, spreading awareness and prosecution ➤ Data Protection Act required at the earliest |

Proposed Architecture

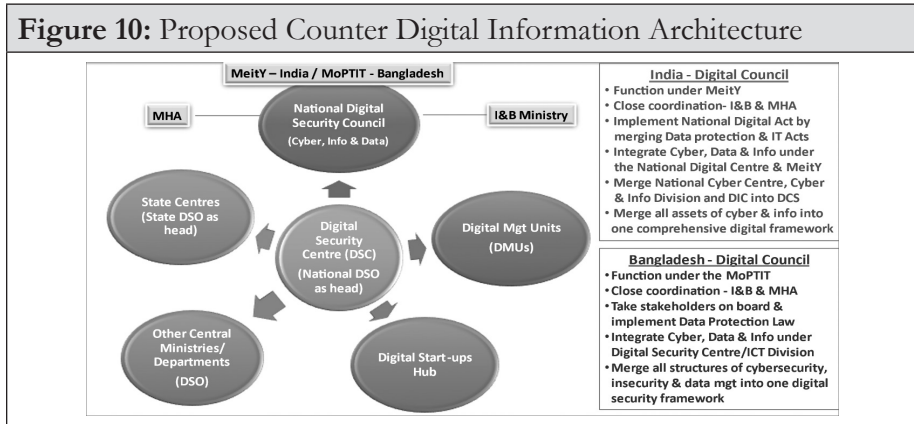


Figure 10 gives out the proposed counter digital information architecture and specific recommendations for India and Bangladesh. Here are some ideas to take into account:

- Enhance government's ability to appreciate public opinion globally, offer guidance on strategic policymaking, and effectively interact with global audiences.
- Coordinate all facets of SC, such as police dispatch, public affairs, international broadcasting, and SM-based information operations.
- Lay the foundation for novel legislation governing the organization, management, execution, and financing of SC operations.
- Establish a long-term structure for the SC inside the NSCS, engage with the Parliamentary Committee (PC) on Security to develop legislation, and allot funds.

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Author

Brigadier Mahipal Singh Rathore, SM, VSM, ndc is a serving officer from the Indian Army. He is from the Infantry and has commanded an Infantry Battalion and a Rashtriya Rifles Sector in active operations in Jammu & Kashmir. He has served in varied terrain like Glacier, High Altitude, Desert, Plains, and active operational environment like Counter Terrorist operations. He is highly decorated with gallantry award of Army Commander's appreciation and distinguished awards of Sena Medal, Vishisht Seva Medal and Chief's commendation card. He has tenanted important staff appointments as General Staff Officer in Infantry Brigade, Colonel Strategic Concept and Force Application in Army Headquarters and Brigadier Administration in Command Headquarters. He has served as Instructor/ Directing Staff at premier Indian training institutes like, Indian Military Academy, National Defence Academy and Army War College. The officer has many educational qualifications to include, Bachelor of Science from Ajmer University, Master of Science from Madras University, Master of Management Studies from Osmania University and Master of Social Sciences in Security and Development Studies from Bangladesh University of Professionals. In addition, the officer is a Diploma and certificate holder from Indian Institute of Managements Ahmedabad and Indore. He is also the recipient of the prestigious General Thimayya Medal for Best All Rounder Officer during the Staff Course, a Scholar Warrior medal recipient from Army Training Command and 2nd Best Research Project award at National Defence College Bangladesh. He has authored large number of papers on geostrategy and national security. He has represented his university in Tennis, Service in Cricket and State in Softball. He is happily married to Mrs Meenakshi and has two college going children.

COUNTER INSURGENCY AND NATIONAL SECURITY IN NIGERIA: AN ASSESSMENT OF GEOSPATIAL INTELLIGENCE

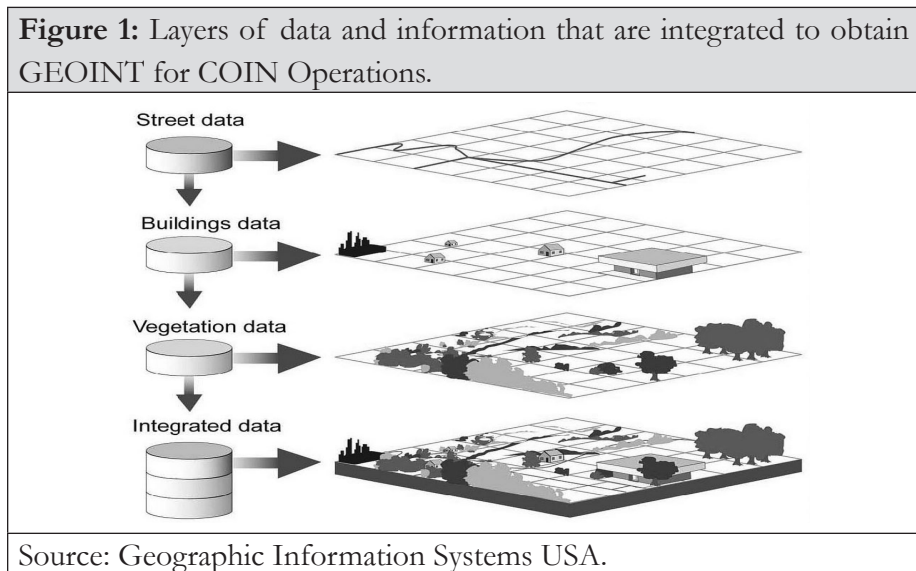
Group Captain Abang Kenneth Oyong, ndc

Introduction

Geospatial Intelligence (GEOINT) has become an increasingly critical component of Counter Insurgency (COIN) Operations in recent years. The Geospatial Information System (GIS) is a type of processed information about human activities on earth that is obtained through the study and use of imagery and geospatial data. These data sets comprise descriptions, evaluations and visual representation of the world's geographically referenced physical features and activities. Imageries, Imagery Intelligence (IMINT) and Human Intelligence (HUMINT) are all components of the Basic Doctrine of National System of GEOINT. During COIN Operations, GEOINT is used to detect movement and actions of insurgents operating in difficult terrain or in hard to reach places. The obtained GEOINT is then used in COIN activities against the insurgents and compel them to surrender, thereby ending hostilities and improving national security. Since the cold war ended, nations have faced difficulty which posed a threat to their survival. Typically, such threats prompt a national response aimed at ensuring their survival. This could be accomplished through political, economic and military means. Over the years, these threats have evolved to include unconventional forms such as terrorism. To mitigate the impact of terrorism on their populations, countries around the world including Nigeria, conduct Counter Insurgency (COIN) Operations. These COIN Operations are broad civil and military activities designed to counter the insurgency by protecting the citizens and enhance national security.

The ancient European history gives an unblemished view of the importance of intelligence in COIN Operations for enhanced national security. Spartacus the Gladiator who had previously served in the Roman Army,

staged a revolt against Rome between 73 and 71 BC. This was the world's first documented case of insurgency (Fileds, 2009). He conquered 9 Roman Land Forces before his revolt was eventually crushed in 71 BC (Fileds, 2009). The Roman Forces were successful in crushing the insurrection through obtaining intelligence provided by captured Spartacus followers. It could be said that intelligence may have contributed in the COIN operations that eventually resulted to the defeat of Spartacus. Counter Insurgency Operations are a series of political, economic, social and security efforts aimed at ending violence and avoiding resurgence (Kaplan, 2013). Furthermore, it establishes and sustains solid economic, social and political institutions to resolve the main issues fueling the insurgency, while emplacing measures essential for long time stability. Consequently, integrating GEOINT into COIN Operations helps to strengthen national security. Figure 1 shows the various layers of data and information that are integrated in order to obtain GEOINT for COIN Operations.



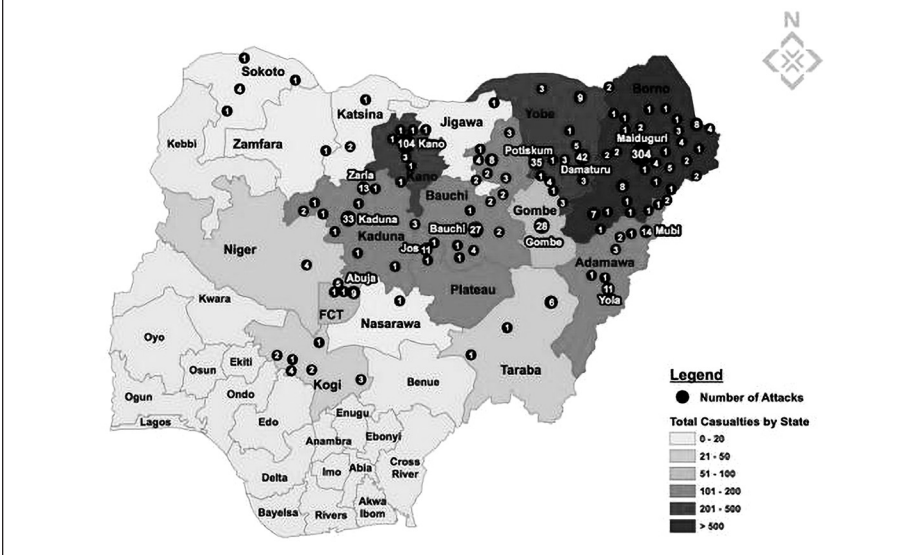
In the USA, The National Information Management Agency (NIMA) gathers photographs, maps, charts and environmental data which are subsequently integrated to generate GEOINT. The NIMA can build animated reconstructions of images and geographic data using cutting

edge hardware and software technology that allows users to examine inaccessible regions and difficult terrains (Bagozzi, 2007). The Space Shuttle Endeavour, completed the Shuttle Radar Topography Mission (SRTM) in February 2000, providing the most detailed elevation measurements of the earth surface ever acquired (Gentile, 2013). This information subsequently proved to be extremely useful in GEOINT activities of the National Geospatial Agency. Geospatial Intelligence was included into COIN operations due to insurgent's migration to inaccessible regions in Afghanistan, Pakistan and Sudan among other countries. This aided the allied forces in the Global War on Terrorism (GWOT) (Schmidle, 2014). The use of GEOINT was instrumental in the hunt and subsequent assassination of several suspected terrorist including Osama bin Laden (Etukudo, 2014). The USA and allied forces were able to degrade insurgents in aforementioned countries as a result of the usage of GEOINT in their COIN operations.

Since 2009, the extremist Islamic sect known as Boko Haram declared war against the Nigerian State. The group has been pursuing insurgency since it was founded in 2009. The sect's ultimate objective is to Islamize Nigeria and enforce strict Sharia Law across the country (Etukudo, 2014). The sect has mastered the art of utilizing the Northeast Nigeria's rugged terrain to its advantage while travelling in large numbers without being detected (Adebayo, 2019). As such, the insurgents are able to target citizens, villages and institutions while committing atrocities and jeopardizing national security. The Nigerian Government has launched an all-out battle against the Boko Haram Terrorists. Due to the rugged and remote areas of the north-east region where the COIN operations are taking place, intelligence operations, particularly GEOINT is very crucial to the war effort. Furthermore, Nigeria possesses a diverse array of assets that could be leveraged upon to obtain GEOINT in support of its COIN operations. These comprise the Nigerian Satellites, the Nigerian Army Low Altitude Platform (NALAPS) and CH-3A UAV. Furthermore, the availability of primary datasets and imageries derived from these assets can be used for the production GEOINT of volatile areas would be extremely beneficial

to Nigeria’s COIN efforts. The map of Nigeria, depicting areas in the North Eastern Region where Boko Haram attributed attacks are prevalent is shown in figure 2.

Figure 2: Map of Nigeria depicting areas where Boko Haram attributed attacks are prevalent.



Source: Global Counter Insurgency Symposium.

The availability of the aforementioned assets made it a necessity to establish the National Geospatial Data Infrastructure (NGDI) which is coordinated by National Space Research and Development Agency (NASRDA). However, this infrastructure is presently not serviceable, thereby jeopardizing the country’s efforts towards the integration of GEOINT in COIN operations (Adebayo, 2019). The effective use of GEOINT in COIN Operations require proper synergy between the producers and users of GEOINT which invariably benefits national security. The purpose of this study is to evaluate how GEOINT can be integrated in COIN operations for enhanced national security in Nigeria. This research is motivated by the yearning to investigate more effective and trustworthy methods of acquiring and utilizing GEOINT in COIN operations in order to improve Nigeria’s National Security.

Research Methodology

Since GEOINT is an emerging concept, the descriptive and qualitative research methods were adopted in the study. The study employed primary and secondary sources to obtain data required for subsequent analysis. Secondary data was sourced through literature review, published and unpublished books, journals, magazines, articles, seminars, conference papers, reports, newspapers (print/electronic) and the internet. In-depth interviews of key military and civilian experts as well as focused group discussions at tactical, operational and strategic levels constitute the core of primary data.

Study Population

Specifically, people interviewed comprise serving/retired military personnel, commanders and staff officers from civil and defense establishments. Personnel in these organizations were selected due to their experience and involvement in COIN and/or national security concerns in Nigeria. Validated data was sourced from government and non-government parastatals through official reports and publications. Obtained data were analyzed, relevant deductions were made and represented in clear and concise terms.

Method/Tools

In-depth interviews of key stakeholders formed the core of primary data. A total of ten interviews were used in the study. It was observed that responses from the 10 selected interviewees afforded significant basis for generalization as they represented a cross-section of stakeholders in the field of GEOINT with appreciable knowledge of the subject matter. To avoid falling short of the required number, a total of 19 persons were interviewed. Thereafter, the best 10 interviews were selected for analysis based on content, experience, and level of understanding of subject matter as reflected in their responses.

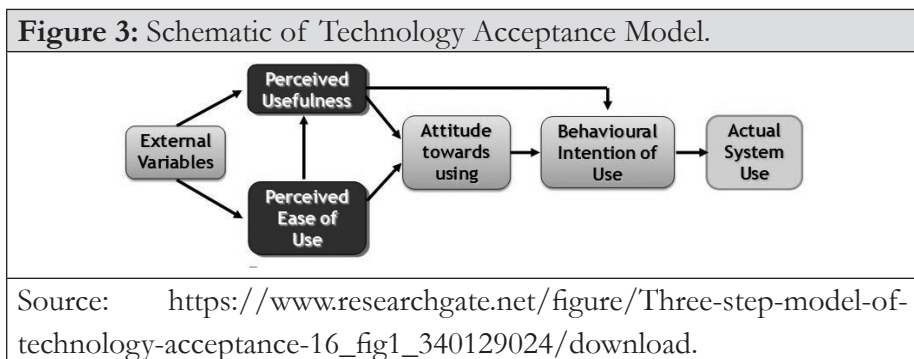
Analytical Framework

This study employed the Technology Acceptance Model (TAM) theory as framework for analyzing the linkages of GEOINT in COIN operations and national security. Propounded by Venkatesh and Davis, it is an information systems theory which emphasizes the use of modern technology models to show how people come to accept and use a technology. The theory submits that when a new technology is presented to people, certain factors determine its acceptance or rejection.

Technology Acceptance Model

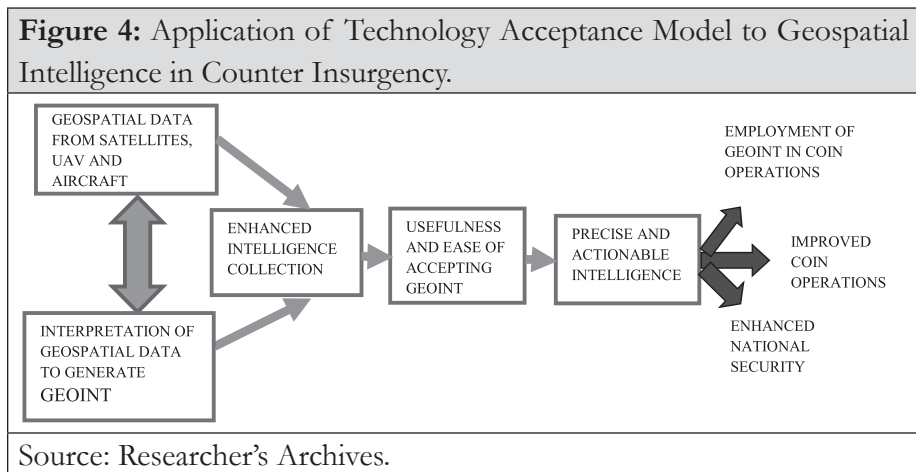
When a user is introduced to a new technology, the model indicates that various factors impact their decision whether to use it (Davies, 1989). These elements are:

- **Perceived Usefulness.** The term “Perceived Usefulness” (PU) refers to the extent to which an individual accepts that utilizing a certain system will improve his or her performance on the job.
- **Perceived Ease of Use.** The Term “Perceived Ease of Use” (PEOU) refers to the extent which an individual accepts that utilizing a certain system will be effortless. The figure below illustrates the components of TAM.



The TAM suggests that continuous use of GEOINT would result to increased trust in technology, thus leading to more accurate and timely

intelligence in COIN efforts. Consequently, TAM is critical to our research as demonstrated previously. This is because the platforms for generating GEOINT have advanced in recent years, making the products far more accessible and simple to use. Furthermore, since the quality of data has improved substantially, GEOINT has become extremely beneficial in COIN operations. As a result, agencies that employ GEOINT have the opportunity to enhance national security, by leveraging on the expanded use of Information and Communication Technology (ICT) in COIN operations. The above theoretical framework underscores the need of considering real-world examples of how GEOINT is utilized in COIN operations to enhance national security. Figure 4 depicts the application of Technology Acceptance Model to Geospatial Intelligence in Counter Insurgency.



Method of Data Presentation and Analysis

Narratives were widely used to present data collected in this study. According to Buthe, narratives are useful in presenting information about relationships incrementally in the causal process and contextualizing for clarity (Buthe, 1983). Through narratives in the study, the correlation of various events was established. Due to the variety of available data on the research topic, sorting and simplifying of material was required to achieve

focus (Mugenda & Mugenda, 2013). Specifically, primary, and secondary data which were collected were paraphrased, summarized, and subsumed under broad themes or narratives. The data was then analyzed to determine the influence of GEOINT in COIN on Nigeria's national security. The study was conducted with strict conformity to tenets of research ethics.

Scope of the Study

The scope of the study would be defined in terms of time, space and content boundaries. In terms of time, the study covers the period from 2012 to date, representing the era of escalating insurgency in Nigeria and a corresponding intensification in COIN operations to enhance national security. In terms of space, the study focused on the employment of GEOINT in COIN Operations in northern Nigeria, being the area which is most hit by insurgency resulting in a corresponding intensity in COIN activities. Furthermore, the study would be limited to GEOINT produced in Nigeria.

Limitations of the Study

Nigeria's GEOINT infrastructure is a critical national asset which is largely classified. Consequently, government agencies and individuals were unwilling to divulge information about it. However, this was mitigated by providing statistics and narratives which buttress its efficacy and permit a reasonable stretch of the reader's imagination. Another limitation was a poor understanding and trust in GEOINT among users. All these correspond to the TAM theory adopted in the research. However, the internet afforded credible alternative source of literature and general information. Also, considering that the environment under study was far-flung, telephony and teleconferencing means were leveraged upon for conducting interviews. Evidences presented in this study were mostly qualitative, largely from literature reviews, interviews, and document analyses.

Results

The research identified that the lack of a central geospatial coordination center, inadequate capacity in GEOINT and non-availability of a central intelligence fusion center are the main impediments to employment of GEOINT in COIN operations in Nigeria. Others are the lack of capabilities of GEOINT platforms and lack of capability to produce GEOINT at a tactical level.

Non-availability of Geospatial Coordination Center

Poor coordination hinders the ability of institutions to produce and ensure timely dissemination of GEOINT, which could assist security agencies to act swiftly and defeat the insurgents. Samuel stated that the problem with the development and dissemination of GEOINT products for COIN operations is mostly the lack of coordination, which results in low productivity (Samuel, 2019). He cited an instance, during which the various agencies were observed to be duplicating each other's efforts due to lack of a central geospatial coordination center. Also, Shafa stated that there was unhealthy rivalry among some of these institutions. (BM Shafa, 2022). Consequently, cooperation in terms of pulling resources together and synergizing towards a common goal is hampered. Therefore, creating a central geospatial coordination center could eliminate duplication of efforts and ensure coordination among security agencies thereby improving national security.

Lack of Central Intelligence Fusion Centre

The escalation of insurgency in Nigeria has led to the development of fusion centers by various security agencies. However, a purpose-built central intelligence hub for coordination of agencies for intelligence gathering, processing, and sharing is lacking (A Ibrahim, 2022). The various fusion centers mainly serve their respective agency interests which affects centralized intelligence. Due to non-availability of a central fusion center,

modern surveillance technologies such as UAVs, radars, and satellite-based systems which ought to feed data into it for timely processing and generation of GEOINT are not optimally utilized. At the Office of the National Security Adviser, there is a Joint Terrorism Analysis Bureau (JTAB), a Crisis Centre (CC), and the Presidential Command Control and Communication Centre (PC4). All three of these operate in their own right as fusion centers. This condition hampers the creation and use of GEOINT in COIN for increased national security in Nigeria. Thus, the absence of a central intelligence fusion center is a hurdle against the production of GEOINT for use in COIN for increased national security in Nigeria.

Inadequate Capacity in Geospatial Intelligence

Also, lack of GEOINT capacity among personnel is another barrier that prevents the production and use of GEOINT for COIN. For GEOINT to be produced and interpreted, personnel ought to be trained in remote sensing, GIS, interpretation of aerial photographs, and data processing. These capabilities are presently in short supply in Nigeria. During interview, Lassa stated that the last time the Armed Forces of Nigeria trained personnel in these fields was 1989 (IG Lassa, 2022). Also, Idoko added that though the Nigerian Air Force has some structures for the production of GEOINT, it however, lacks personnel trained in satellite imagery analysis. (E Idoko, 2022). Consequently, insufficient capacity is a challenge that is militating against the production of GEOINT for use in COIN in Nigeria for enhanced national security.

Limited Capability in production of Geospatial Intelligence Platforms

Limited capabilities of GEOINT production platforms is an obstacle that militates against the employment of GEOINT for COIN operations in Nigeria. Presently, the production of GEOINT can take place on a limited number of platforms. While these provide the potential for the production of GEOINT, the quality that is generated is low. For instance, the cameras installed on some of the satellites and unmanned aerial vehicles (UAVs)

do not have the standard resolution required for GEOINT. Imagery from these UAVs and NigeriaSat -2 are unable to detect and identify objects measuring less than 2.5m (US Mohammed, 2022). In addition to this, the satellite lacks all weather capacity and cannot see through clouds, smoke, rain and darkness. Consequently, the low capabilities of geospatial intelligence production platforms is a hindrance to the development and dissemination of GEOINT for use in COIN for increased national security in Nigeria.

Absence of Tactical Level Geospatial Intelligence Production Capability

The absence of tactical level GEOINT production capabilities is a challenge militating against the creation and use of GEOINT in COIN operations for increased national. As the first line of defense in COIN operations, the tactical level maintains close contact with insurgents (Famadewa, 2022). As a result of this, there is the requirement for quick and precise intelligence which GEOINT delivers. Most importantly, it enhances transparency and awareness on the battlefield, which means that it is possible to know how the actions of one's own forces compared to those of the adversary. This has truncated the production of GEOINT at this level thereby making COIN operations difficult, at the detriment of Nigeria's national security. Therefore, the non-availability of GEOINT production equipment at the tactical level is an obstacle to the generation and the use of GEOINT in COIN for enhanced national security in Nigeria.

Discussion

There are several benefits to the induction of GEOINT in COIN operations to enhance national security. These include the local fabrication of platforms, the extension of cooperation with foreign partners, the anticipated launch of Nigeria Synthetic Aperture Radar (SAR) satellites and the formation of the Geospatial Intelligence Group (GIG). The subsequent paragraphs will elaborate on these opportunities.

The local production of platforms in Nigeria could enhance the production of GEOINT for COIN, thereby improving national security. The Nigerian Air Force is currently producing its own UAV through the Optimizing Local Engineering (OLE) Project. The successful deployment of this UAV will enhance the production of GEOINT, which may be utilized against the insurgents. This capability would facilitate the employment of technology in COIN as well as stimulate local R&D. Consequently, local platform fabrication presents a promising opportunity in Nigeria for the creation and dissemination of GEOINT for COIN towards enhancing national security. A pictorial depiction of the Gulma UAV is at figure 5.

Figure 5: Pictorial depiction of locally produced unmanned aerial vehicle by the Nigerian Air Force Optimising Local Engineering.



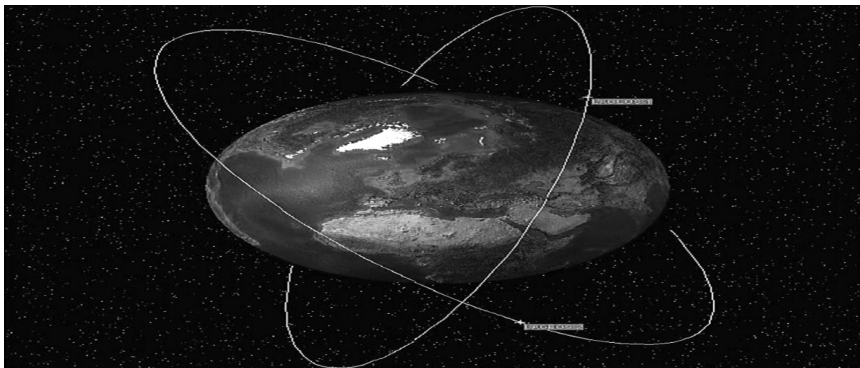
Source: Nigerian Airforce Optimising Local Engineering, 2022.

Furthermore, the extension of collaboration with foreign partners could enhance the generation of GEOINT in COIN operations to bolster Nigeria's national security. This partnership includes the United States of America, Great Britain, and France. They have joined forces to supply Nigeria with assistance which include GEOINT against Boko Haram insurgents (BM Shafa, 2022). It is anticipated that an increase in the level of coordination and exchange of intelligence obtained from platforms of these countries will boost the GEOINT available for use in COIN, hence enhancing Nigeria's national security. Furthermore, Australia and China have committed to joining the partnership, bringing the total membership to five (BM Shafa, 2022). Maintaining and expanding the partnership is

therefore a boost to producing and disseminating GEOINT for COIN in Nigeria, which would enhance the country's national security.

Also, the anticipated launch of Nigeria's SAR satellites, which is currently in the planning stages, presents an opportunity for the development of GEOINT for COIN in order to enhance Nigeria's national security. Appropriate SAR cameras will be fitted on these satellites, enabling them to see through cloud cover and capture daytime and nighttime images (O Okafor, 2022). Additionally, the launch of these satellites would bring to 3 the number of satellites available for production of GEOINT. According to Okafor, placing the 3 satellites in an appropriate constellation in fixed orbit would enable National Space Research and Development Agency obtain the images continuously and enhance the production of real time GEOINT (O Okafor, 2022). Therefore, the planned launch of Nigeria SAR satellite is a good prospect for production and dissemination of GEOINT in COIN for enhanced national security in Nigeria. This is illustrated in figure 6.

Figure 6: Diagram of 3 satellites in an appropriate constellation in fixed orbit.



Source: <<https://directory.eoportal.org/web/eoportal>>, 2022.

Additionally, the creation of Geospatial Intelligence Group (GIG) is a prospect for the production and use of GEOINT for COIN to enhance national security in Nigeria. In addition to its other responsibilities, GIG

would be responsible for the generation of GEOINT for Nigerian Armed Forces, as well as surveillance and information collecting (LW Wiwa, 2022). Importantly, it would enhance the Armed Forces capability to provide tactical GEOINT for use in COIN, resulting in increased operational effectiveness. The development of GIG provides Nigeria with a good opportunity to increase its use of GEOINT in COIN operations, assuming that such an increase can be accomplished effectively.

Conclusion

The research examined how GEOINT influences military operations and by extension, national security. The unique similarities of TAM Model to the workings of GEOINT contributed substantially to achieving the trinity of objectives of the study. The various concerns at play in GEOINT were discussed and analyzed to gain insights. Evidence show that GEOINT has the potential to enhance COIN efforts, and provide security agencies with timely and actionable intelligence that would assist them to contain the insurgency and enhance Nigeria's national security. However, the resulting spate of security threats along the northern fringes of the nation suggests that HUMINT and OSINT methods employed by law enforcement are inadequate to address these challenges. The research articulated observed inadequacies in Nigeria's GEOINT initiative as mainly gathered from primary data. It was established that there is lack of coordination between the security agencies, which in most times resulted to duplication of efforts and colossal waste of resources. Some ways of enhancing Nigeria's GEOINT efforts were also discussed.

The significant findings of the research were derived from the issues that were investigated using the TAM theory during the research. It was discovered that the effective utilization of GEOINT in COIN would have significant benefits on Nigeria's national security if it were implemented. On the other hand, it was observed that institutional framework for the employment of GEOINT in COIN is not well defined. Furthermore, insufficient human capacity in the production of GEOINT was mentioned,

in addition to the fact that available GEOINT platforms lacked the capacity to produce quality GEOINT for use in COIN operation. Prospects of using GEOINT in Nigeria which are very promising were outlined. Overall, there is need for a deliberate and holistic governance efforts in employment of GEOINT into the nation's security space. This would convey government's strategic vision for GEOINT in COIN and how it connects into enhancing Nigeria's national security.

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Author

Group Captain Abang Kenneth Oyong, ndc was born in Calabar, on 10 September 1977 and hails from Boki in Cross River State, Nigeria. He was commissioned as a pilot officer into the Nigerian Air Force on 22 September 2001 and holds among other academic qualifications, a Bachelor of Science degree in physics and Master's Degree in Conflict, Security and Development both from the Nigerian Defense Academy Kaduna. He also holds a Diploma in Aviation Communication from Air Force Engineering University, Xian in China and a Master's Degree in Military Science from the Bangladesh University of Professionals, Dhaka. He is an Associate Member of the National Air Traffic Controllers Association, Nigeria and a member of the Order of Good Times in Halifax Canada, which is the oldest elite club in North-America. Group Captain Oyong has attended several courses both home and abroad. He is a graduate of Defense Services Command and Staff College, Mirpur Bangladesh and Air Force War College at Makurdi, Nigeria. He is a seasoned aviator and has attended a broad range of air traffic control courses within his 17-year career. He is also an air traffic control instructor. Group Captain Oyong has served in various capacities in several Nigerian Air Force Units and Tri- Service Institutions. Group Captain Oyong has participated in several operations and exercises in the course of his career. He has amongst other awards, the Forces Service Star, Meritorious Service Star, Passed Staff Course and Fellow Air Force War College. He also holds both military and civil licenses in Air Traffic Control from the Nigerian Air Force and Nigerian Civil Aviation Authority respectively. He enjoys playing lawn tennis, listening to music and watching football.

EVALUATION OF THE ACADEMIC CURRICULUM FOR THE OFFICERS OF BANGLADESH ARMY: A QUEST FOR EXCELLENCE

**Lieutenant Colonel Md Emdadul Islam,
afwc, psc, G, Artillery**

Introduction

The officers are considered to be the main driving force for the Bangladesh Army and as such the training and education of officers must be given due importance. For such education and training, parallel to military curriculum, the academic curriculum or non-military education curriculum conducted by various training institutions and accredited by universities are equally important. The academic curriculum should be able to complement the military curriculum and should be able to impart the necessary knowledge that an officer of the 21st century must possess. In Bangladesh Army the academic curriculum of the officers begins at Bangladesh Military Academy (BMA). Presently, the curriculum is of 4 years (Defence Ministry, 2014) under Bangladesh University of Professionals (BUP)/ Military Institute of Science and Technology (MIST). After commissioning, officers undergo various mandatory and non-mandatory courses to acquire graduated knowledge and pursue academic curriculum to obtain higher degrees. For the main stream officers, courses in Defence Services Command and Staff College (DSCSC) and National Defence College (NDC) i.e., Staff Course, Armed Forces War Course (AFWC) and National Defence Course (NDC) include academic curricula and are accredited by civil universities. However, Officers of technical arms like Engineers, Signals and Electromechanical Engineers and non-technical arms such as Artillery and Ordnance have got separate academic packages concerning their corps which have been kept out of the purview of this research.

Instead of having a customized academic curriculum for the military, the BMA follows the national curriculum (Ministry of Education, 2010) system of four years Honours programme on subjects like: Business Administration, Economics, Physics, Engineering etc. (Adjutant General's Branch, 2013). As such few of the core knowledge a 21st-century military leader and citizen must possess such as Cyber Security, Political Economy, International Relations, Science, Technology, Mathematics etc. (Pradhan, 2017) are missing in the curriculum of individuals. Instead of getting a whole-sum package, the would-be officers get only partial knowledge as per their preferred Honors curriculum. Besides, the vertical alignment of knowledge between BMA, DSCSC, and NDC is not properly maintained, thus making the curriculum less effective. As such, a well-designed academic curriculum, addressing the knowledge need of time should be pursued by the Bangladesh Army for the officers. Against this backdrop, the objective of this research is to evaluate the academic curriculum for the officers of the Bangladesh Army to make it compatible with the 21st century.

Research Methodology

Research Type. It was an 'Exploratory Research' and followed a 'Mixed Method Approach' featuring both 'Theory and Data Triangulation'.

Data Collection Method and Tools. The research encompassed the analysis of both qualitative and quantitative data. Sources of data are appended below:

Primary Data. Primary data were collected through perception surveys, interviews, and focus group discussions (FGD).

Surveys. A perception survey with a prepared closed-ended questionnaire was carried out where only Lieutenant Colonels with command experience formed the survey population.

Interviews. To acquire a higher perspective of the context, Key Informant (KI) Interviews (high officials in the education field and decision-makers

of the Bangladesh Army) were conducted with a structured open-ended questionnaire.

FGD. Two FGDs were conducted with the mid-level officers of the Bangladesh Army (Lieutenant Colonel and Colonel), who have the experience of both SC and AFWC (ongoing or completed).

Secondary Data. The secondary data were collected from previous research on the subject and various related documents that originated within the service. Besides, various books, journals, periodicals, newspaper articles, and information available in open sources were also used as required.

Data Analysis. The Quantitative data were analyzed with the help of Statistical Packages for Social Sciences (SPSS). Qualitative data were analyzed by Analytic Induction, Logical Analysis and Summary.

Knowledge Need in the 21 Century

Dynamics of the 21st Century and Inferences for the Bangladesh Army. Globalization, advancement in science and technology and interconnectivity within the society of the 21st century have significantly changed the operating environment of the militaries. Thus, traditional military knowledge is no more sufficient for the officers of the Bangladesh Army. Besides, the United Nations' employment, combined exercises, employment outside the militaries in deputation, and last but not the least the role in the societies of the 21st Century, demand the officers of the Bangladesh Army to perform as global military leaders and global citizens (Chowdhury, 2022). Thus, there is a need to customize the training and education of the officers of the Bangladesh Army. The academic curriculum is an important part of training and education for the officers. As such, the academic curriculum must be customized as well. In this regard, a survey question was served to know the perception of samples, where 91% of the samples agreed that in the 21st Century the officers of the Bangladesh Army must be prepared to perform as global military leaders and global citizens.

Academic Fields Need to be Explored. Knowledge has no boundaries. However, considering the wider role to be performed by the officers of BD Army, certain academic fields need special mention. First, the 21st century is considered to be a science and technology driven century. Thus officers must possess the knowledge of Science, Technologies and Mathematics for grasping scientific development and its application in the military. Second, the officers must also have good knowledge in various subjects of social science to understand the dynamics of the society and international politics. As such, officers must possess the knowledge of subjects such as: International Relations, Economics, Political Science, History, Geography, Philosophy, Psychology, Archeology and Anthropology (Kabir, 2022) (Liddy, 2002). Third, officers also need the knowledge of Laws of Armed Conflicts, National laws, Media Handling, Emotional Intelligence, United Nations (Cline, 1943). Fourth, Language and Computer skills are two very important aspects of the 21st Century. Each officer must have proficiency in computer use and must be able to communicate in one of the Major international languages except English and Bengali (Uddin, 2022).

Present Academic Curriculum

BMA. The would-be officers' training and education starts at BMA. The training period of BMA is presently 3 years. During this time the would-be officers are also enrolled in Honours Programme for 4 years in line with the mainstream education, where the last year is being completed after commission. In present practice, the fields for such Honours Programmes are: Bachelor of Business Administration (BBA), International Relations (IR), Economics, Physics, Civil Engineering (CE), Mechanical Engineering (ME), Electrical, Electronics and Communication Engineering (EECE) and Computer Science and Engineering (CSE). For the Honours subjects, the minimum credit is 120 and the maximum credit is 132. However, for engineering subjects, the minimum credit is 158.5 and the maximum credit is 162. The academic curriculum is completely separated from military training and curriculum. The Honours programmes are run under the

supervision of BUP and the Engineering programmes are run under the supervision of MIST (Adjutant General's Branch, 2013).

DSCSC. DSCSC runs Staff Course for selective mid-level officers. It is a course of 45 weeks and with successful completion of the course, officers are awarded with a Master's Degree on Defence Studies (MDS) from BUP. However, the courses do not entail any separate academic studies and do not have any structured academic curriculum. The curriculum of the military course is converted into academic courses for the purpose of accreditation. The MDS degree has two parts. The entrance exam is considered as part 1 of the MDS. As per the book of Syllabus of SC (DSCSC, Mirpur, 2021), part 2, undertaken during the course, has 19 courses with a total credit point 60.

AFWC and NDC. AFWC and NDC courses are being run by NDC for selected officers. The durations of the courses are around 45 weeks. Upon successful completion of these courses, officers are entitled with a Master's Degree in Social Science (MSS) in Security and Development (SD) from BUP. The MSS programme is of 60 Credit Hours (1500 marks), distributed into two parts. Part I has a total of 600 marks, which is completed through attaining various courses prior to the course. Part II of the programme needs to be undertaken during the course which are different for NDC and AFWC. However, there is no separate study for these courses. The grading obtained in the military course is converted into academic grading and is submitted to BUP for necessary accreditation (NDC, Mirpur, 2022).

Define Gap in the Present Academic Curriculum

BMA. The academic curriculum of BMA follows the national curriculum. Thus the would-be officers only receive segmented knowledge instead of a whole-sum package. For example, the would-be officers who undergo graduation in science subjects, or in engineering subjects are not exposed to the humanities subjects like economics, political science or international relations and vice-versa (Shaidullah, 2022). Such segmented knowledge

system is good for the national education curriculum, but not for the would-be officers, who have to perform as global military leaders and global citizens. A survey question was served to know the perception of samples, where 83% of the samples agreed that the present academic curriculum is falling short of the requirement.

Other Institutions. As discussed previously, for the main-stream officers, DSCSC and NDC run academic curricula. However, there are no separate academic curricula in these courses with exception of a few guest speakers' lectures. The grade obtained in the military course curricula are converted into academic grades and Master's degrees are conferred on the basis of such grading. Furthermore, the academic knowledge imparted in BMA and the Honours degree conferred to the would-be officers also does not have any vertical linkage of knowledge with the Master's degree conferred in DSCSC and NDC (Hossain, 2022). In this regard, a survey question was served to know the perception of samples, where 89% of the samples agreed that there is no vertical linkage between the Honours programme of BMA and the Master's programme of DSCSC and NDC.

Measure of Effectiveness. The present academic curriculum can be judged against four indicators to understand its effectiveness (Shaidullah, 2022). The indicators and present effectiveness level are as follows (Chowdhury, 2022):

| Table. 1: Measure of Effectiveness of the Present Academic Curriculum | |
|--|----------------------|
| Indicators | Effectiveness |
| Attaining Civil Equivalency (Civil Degree) | Very effective. |
| Complementing Military Curriculum | Partially effective. |
| Preparing the Officers as Global Military Leaders | Partially effective. |
| Preparing Officers to Perform Social Responsibilities | Partially effective. |
| Source: (Shaidullah, 2022) | |

Academic Curriculum of Other Countries

Case Study: Academic Curriculum of the West Point. The West Point is considered as the best military academy due to its well-thought-of military and academic curriculum (WorldAtlas, n.d.). There are two key structural elements in the curriculum of the West Point Academy. The first is a core of mandatory twenty-four courses that the Academy believes are crucial in providing all the graduates with the wide base of knowledge they need, as well as a core engineering sequence of three courses for cadets who don't want to major in engineering. This basic curriculum, along with physical education and military science, makes up the "professional major" at the Military Academy. Besides, to develop the ability to specialize and thoroughly research a subject each cadet must also complete the "academic major" in any of the subjects from an exhaustive list. Thus, would-be officers undergo academic major in any field of their own choice and still undergo 27 mandatory courses. These 27 mandatory courses offer all the required knowledge an officer of the 21st century should possess (United States Military Academy, n.d.).

Academic Curriculum for Higher Courses in Different Countries. The curriculum of the Staff Colleges of different countries vary widely. Countries like USA, UK, Brunei, Nepal, Sri Lanka etc. include separate academic curriculum for attaining Master's degree parallel to the military curriculum for the Staff Course. On the contrary, countries like India, Pakistan etc. do not have any separate academic curriculum in the Staff Course (FGD, 2022). Content wise War Course and NDC or equivalent courses of different countries mostly follow system similar to Bangladesh (Khan, 2022). However, in general, any academic degree involves a separate academic curriculum (James, 2022).

Proposed Changes in the Academic Curriculum

The Academic Curriculum of BMA. The expected purpose of the academic curriculum has not been taken into full consideration, while designing

the present academic curriculum of BMA (Islam, 2022), (Uddin, 2022). A survey question was served to know the perception of samples, where 90% of the samples agreed that instead of following the national curriculum, the officers' academic curriculum should be customized. The present academic curriculum of the BMA can continue with some modification. The academic curriculum should include four mandatory courses with necessary credit allocation. These mandatory courses will be included with all the Honours Programmes to impart necessary interdisciplinary and additional knowledge. In this regard, a survey question was served to know the perception of samples, where 81% of the samples agreed that the curriculum must have provision of imparting selective interdisciplinary knowledge. The proposed courses are discussed in succeeding paragraphs:

Science, Technology, Engineering and Mathematics (STEM) 1 Course. This course should be based on subjects of Science, Technology, Engineering and Mathematics or in short STEM. These subjects should include lessons useful for the officers to operate in the technology-driven environment of the 21st Century. The Science part may include important lessons from Physics, Chemistry and Biology. The Technology part may include significant technologies of the 21st century focusing on military technologies, or technologies which may have military applications. The Engineering part may include scanty lessons from modern engineering subjects including Robotics, Genetics, Artificial Intelligence, Cyber Security etc. And lastly, Mathematics part may include basic Trigonometry, Algebra and other related Mathematics required to solve the basic scientific problems (United States Military Academy, n.d.) (Banerjee, 2012) (FGD, 2022).

Humanities, Arts and Social Sciences (HASS) 1 Course. This course should be based on subjects of Humanities, Arts and Social Sciences. The knowledge on these subjects will enhance the officers' intrigue and understanding of the political, historical, economic, cultural and societal factors across the world. The course may include relevant lessons from Political Science, Economics, History, Geography, Anthropology, Philosophy, Archeology International Relations etc. (Cline, 1943) (United States Military Academy, n.d.) (FGD, 2022).

Miscellaneous 1 Course. The third course can be termed as Miscellaneous course, which will include few important subjects. The knowledge of these subjects will be beneficial to perform as global military leaders and global citizens. The courses may include subjects like: Media Handling, United Nations' Organs and Systems, Laws of Armed Conflicts, Emotional Intelligence and pertinent aspects of Civil Law (Cline, 1943) (United States Military Academy, n.d.) (FGD, 2022).

Language Course. The fourth course should be a language course. Apart from Bengali and English, the would-be officers must be able to effectively communicate in another international language. Considering the dynamics of the present world, language courses can include language choices like: French, Spanish, Chinese, Arabic, Japanese, German, Russian etc. The would-be officers can choose one of these languages based on their background and interest. Such communication skill in a third language will be very useful to perform in the international forum (Uddin, 2022) (United States Military Academy, n.d.) (FGD, 2022) (Liddy, 2002). A survey question was served to know the perception of samples, where 92% of the samples agreed that the officers must learn a 3rd language.

Duration. Present system of 4 years Honours Curriculum should be retained. However, to match with the 3 years' military training duration of BMA, the last year of academic curriculum can be completed through present system of one academic year after the commissioning or through distant learning process or can be connected with the other mandatory courses such as: Basic Course, Officers' Weapon Course and Junior Command and Staff Course (Shaidullah, 2022).

The Academic Curriculum of DSCSC. The curriculum of the DSCSC should have a vertical linkage with the proposed mandatory academic courses of BMA. Thus, DSCSC needs to accommodate the advanced level of proposed mandatory courses in the curriculum except the language course. Henceforth, the courses DSCSC needs to include are discussed in the succeeding paragraphs (FGD, 2022):

STEM 2 Course. The STEM 2 course will cover subjects of advanced level Science, Technology, Engineering and Mathematics having military applications. In the present system, the Staff Course is preceded by a distant Military Science course. The advanced STEM course or STEM 2 course can replace the military science course.

HASS 2 Course. The advanced HASS courses or HASS 2 course can cover selective advanced level lessons of Political Science, Economics, History, Geography, Anthropology, Philosophy, Archeology, International Relations etc.

Miscellaneous 2 Course. The advance miscellaneous course or Miscellaneous 2 course can cover advance knowledge on Media Handling, United Nations' Organs and Systems, Laws of Armed Conflicts, Emotional Intelligence and pertinent aspects of Civil Law.

The Academic Curriculum of AFWC. Considering the requirements of the 21st Century, the AFWC course should also include academic curriculum with two mandatory courses, which will establish necessary vertical linkage with BMA and DSCSC. The courses and their scopes are as follows (FGD, 2022):

HASS 3 Course. The academic curriculum of the AFWC should include advance HASS or HASS 3 course. The HASS 3 course should include subjects like International Relations, Economic Theories, History, lessons from Political Science to understand the trends and dynamics of the 21st Century.

Miscellaneous 3 Course. The academic curriculum of the AFWC should also include advance miscellaneous or Miscellaneous 3 course. The Miscellaneous 3 course should cover advance level lessons on Media Handling, functioning of relevant Government organizations within the country, Human Psychology, and relevant National and International laws.

The Academic Curriculum of NDC. The course contents of NDC are generally academic in nature, but those are not vertically linked with the academic curriculum of the previous courses. To ensure focused study and

vertical linkage with BMA, DSCSC and AFWC, the academic curriculum of the course may be conducted under the umbrella of an advance HASS 4 course. This course can cover advance level lessons from International Relations, Economics, Political Science, History and National Security.

Management of the Academic Curriculum. The military curriculum of DSCSC, AFWC and NDC may not be disturbed. However, there are several guest speaker classes and panel discussion conducted in these courses. Many of the subjects of these classes are moderately close to the intended lessons of proposed academic courses. Thus, customization of lessons covered in the guest speaker classes and panel discussion sessions can address the period need of proposed academic courses (FGD, 2022).

Accreditation by the University. Inclusion of mandatory courses in the Honours and Masters curriculum of BMA, DSCSC and NDC may create issues related to accreditation. However, many developed countries practice customized academic curricula for militaries, accredited by their national education authorities. Thus, if these institutions agree to customize the curriculum by including some mandatory courses, it is very well permissible (Shaidullah, 2022). A survey question was served to know the perception of the samples, where 95% of the samples agreed that necessary procedures must be done to ensure accreditation for the proposed customization of the curriculum.

Scope and Sequence of Academic Curriculum for the Officers. The present academic curriculum of the officers does not have a vertical linkage. However, with the proposed model there will be a vertical linkage of academic curriculum from BMA till NDC. Thus the officer will always remain current and relevant. Such linkage will also fulfill the ultimate aim of academic curriculum of complementing military curriculum and prepare the officers as global military leaders and global citizens beside helping them to earn necessary academic degree. The graduate profile of the graduates of BMA and subsequently that of DSCSC, AFWC and NDC needs to be modified in line with the proposed curriculum (Shaidullah, 2022) (Ali, 2022). The Scope and Sequence of the proposed academic curriculum is shown in table 3:

| Table. 3: Scope and Sequence of Academic Curriculum for the Officers | | | | |
|---|----------------------|--------------|------------------|--|
| Serial | Course | Service Year | Academic Courses | Broad Subjects |
| 1. | BMA | 0-2 Years | STEM 1 | STEM Course: Basic Science and Technology, Computer, Robotics, basic Algebra and Trigonometry etc. HASS Course: Political Science, Economics, History, Geography, Anthropology, Philosophy, Archeology, International Relations etc. Miscellaneous Course: Media Handling, United Nations' Organs and Systems, Laws of Armed Conflicts, Pertinent Aspects of Civil law, Emotional Intelligence, Human Psychology etc. Language Course: French, Spanish, Chinese, Arabic, Japanese, Russian, German etc. |
| | | | HASS 1 | |
| | | | Miscellaneous 1 | |
| | | | Language | |
| 2. | Staff Course (DSCSC) | 10-14 Years | STEM 2 | |
| | | | HASS 2 | |
| | | | Miscellaneous 2 | |
| 3. | AFWC (NDC) | 18-22 Years | HASS 3 | |
| | | | Miscellaneous 3 | |
| 4. | NDC (NDC) | 25-28 Years | HASS 4 | |

Source: Self-construct

Recommendations

Considering the major findings in this research, this paper puts forward the following recommendations:

- The academic curriculum of BMA should be customized, by incorporating 4 mandatory courses namely STEM 1, HASS 1, Miscellaneous 1 and Language course with all the Honours curriculum.
- DSCSC should incorporate a structured academic curriculum incorporating 3 mandatory courses namely STEM 2, HASS 2, Miscellaneous 2 course.
- AFWC should incorporate a structured academic curriculum incorporating 2 mandatory courses namely HASS 3 and Miscellaneous 3 course.
- NDC should structure their academic curriculum under the umbrella of HASS 4 course.
- Necessary arrangement should be made with the BUP to get accreditation for such customized academic curriculum of BMA, DSCSC and NDC.
- Further research may be conducted to identify the subjects and lessons that can be covered under proposed mandatory courses.

Conclusion

Globalization, advancement in science and technology and inter-connectivity within the society of the 21st century has significantly changed the operating environment of the militaries. Thus, traditional military training and education seem inadequate for the militaries around the globe, and Bangladesh Army is no exception. The academic curriculum is an important part of training and education for the officers. As such, while redesigning the contents of training and education, the

academic curriculum must be customized as well. The present academic curriculum of BMA follows the national curriculum, and is not effective in complementing the military curriculum. It also falls short to address the knowledge needed for the 21st Century. On the contrary, DSCSC and NDC offer Master's degrees to the trainees, but in reality, do not run any structured academic curriculum. These institutions convert the grading of the military curriculum into the grading of the academic curriculum for the purpose of the Master's Degree. Thus, the present academic curriculum for the officers of the Bangladesh Army falls short of the requirement.

The present academic curriculum run by BMA, DSCSC and NDC needs modification to attain the true purpose of the academic curriculum. Instead of following the national curriculum, BMA should introduce a customized Honours curriculum. Besides, the DSCSC and NDC should include a structured academic curriculum parallel to military curriculum. In all the Honours Programmes of BMA, 4 mandatory courses namely: STEM 1, HASS 1, Miscellaneous 1 and Language course should be included. In DSCSC, during the Staff Course, a structured academic curriculum should be introduced consisting of courses namely: STEM 2, HASS 2 and Miscellaneous 2. AFWC course curriculum should include HASS 3 and Miscellaneous 3 courses. In the same note, the NDC should conduct their curriculum under the umbrella of HASS 4 course. These courses should be vertical linked with the previous tiers. The graduate profile of the graduates of BMA and subsequently that of DSCSC, AFWC and NDC needs to be modified in line with the proposed curriculum. Necessary arrangement should also be made with BUP to get accreditation for such customized academic curriculum.

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Author

Lieutenant Colonel Md Emdadul Islam, afwc, psc, G, Artillery was commissioned in the Corps of Artillery on 02 December 1999 with the 41st BMA Long Course. In his 23 years of military career, he has served in five Artillery Regiments, including commanding 11 Self Propelled Regiment. His other mentionable service experience includes General Staff Officer, Grade 3 at Guimara Region Headquarters, Instructor Gunnery in the Artillery Centre and School, General Staff Officer Grade 1 in Headquarters, ARTDOC, Directing Staff in DSCSC, etc. Under blue helmet, he took part in the peacekeeping operations in Ivory Coast (UNOCI) and South Sudan (UNMISS). Apart from mandatory courses the researcher has attended Gunnery Staff Course in Pakistan and Staff Course in Brunei. Lieutenant Colonel Emdad is also a graduate of Defence Services Command and Staff College, and National Defence College, Mirpur. Presently, the officer is serving in the Armed Forces Division as General Staff Officer, Grade 1.

BUILDING PROFESSIONAL RESILIENCE AMONGST THE MID-LEVEL OFFICERS OF BANGLADESH (BD) ARMY: A COMPREHENSIVE APPROACH

**Lieutenant Colonel Mohammad Kamrul Hasan,
SUP, afwc, psc, Infantry**

Introduction

Resilience is one of the most important factors of human dimension which impacts personal as well as family's well-being and paves the ways for leading a healthy life. This embodies personal qualities that assist to thrive whenever an individual confronts adverse situation (Connor and Davidson, 2003). This in turn promotes healthy environment at the workplace. Being resilient, one can deliver service with enhanced efficiency. Military life is full of adversities. Be it professional field in peace time or fighting in the battlefield during war time, the profession by itself poses numerous challenges which need to be handled aptly. Unless equipped with requisite resiliency skills, the members of the armed forces will not be able to perform effectively as they are the prime force forming the human dimension concept (TRADOC Pam 525-3-7, 2014).

Mid-level officers form the backbone of officers' corps since they work at important appointments at different headquarters and institutions. Senior leaders mostly rely on them for transmitting their concepts/ thoughts to be implemented at the lower level. At the same time, they are also influenced by their family members and the society they live in. Until and unless the mid-level officers are equipped with optimum professional resilience, external influences are likely to inhibit their performance. BD Army needs to take a comprehensive approach to influence different factors which builds officers from a wholesome perspective. Building professional resilience amongst officers is a requirement for the organization. Because

resilience training pertaining to professional aspects prepares the officers to meet the psychological demands of military life as well as enable them to perform with enhanced efficiency (Adler, 2017). It will also allow leaders of BD Army possess the tools to build professional resilience amongst the mid-level officers who can perform with enhanced efficiency. To do that, this paper focuses on building professional resilience amongst mid-level officers of BD Army with a view to enhancing their efficiency.

Research Methodology

Through a cross sectional study, the research drew a causal relationship between the independent variable (professional resilience) with the dependent variable (efficiency). The research gathered both qualitative and quantitative data and followed a mixed-method approach for collecting data and analysed the data through SPSS version 24. The sample size for the research was 454. Besides, Focused Group Discussions as well as key informant interviews were also conducted.

Current State of Professional Resilience of The Mid-Level Officers of BD Army

General. The core idea of resilience can be conceptualized through the form of adaptation in the face of adversity; however, the term can be contextualized following different approaches (Affinity Health at Work (AHAW), 2011). Hence, taking the fundamental idea, many militaries of different countries applied the same in their respective contexts. Building professional resilience and methods merit particular interest because of their embedded association with displayed performance and mental wellbeing of service members (Van Wijk and Martin, 2019). While there are numerous ways to measure required resilience of the members of the Armed Forces, there are no set parameters applicable to all kinds of environment. An endeavor is taken here to examine the present state of professional resilience of the mid-level officers of BD Army. This will be done by developing an appropriate template which is applicable in BD Army's context.

Methods of Measuring Professional Resilience. There are different templates which are being followed in different Armed Forces of the world. US Air Force, in its comprehensive airmen fitness pamphlet 90-506, highlights four key areas to assess resilience of their airmen. The concept coined by the US Air Force is known as “Comprehensive Airmen Fitness (CAF)”. The process is a holistic approach to develop fitness and resiliency in military, civilians, and family members who belong to air force. In so doing, US Air Force assess the level of fitness of their members in four domains: mental, physical, social and spiritual. US Army TRADOC pamphlet 525-3-7 delineates three key areas of assessing resilience amongst its members. These are: cognitive, physical, and social domains. Assessing its members through the three lenses, US Army formulates human dimension integrated framework which facilitates human development to meet future challenges. South African Navy applies Brief Sailor Resiliency Scale (BSRS) to measure the level of resiliency of its members. The BSRS method is a customized form from the CAF method being followed in the US Air Force. The BSRS is a 12-item assessment of the four fitness components (namely mental, physical, social and spiritual), which can be measured to acquire a comprehensive fitness score. Canadian Army follows a 9-item assessment tool developed by Lee et al. (2011) to measure the resilience of its armed forces’ members. The level of resilience is determined by deriving statistics using 5-point Likert Scale. (Bowen and Martin, 2011) the scale determines the resiliency model of role performance which is the root of support and resiliency inventory. In identifying their model, they address five dimensions of individual assets which make up the comprehensive fitness for an individual. ‘Connor and Davidson Resilience Scale’ also provides a good framework to assess resilience level of any group or organization.

Applicable Format for BD Army. Studying all the models mentioned above, a model is developed by the author which can be applicable in the BD context. As such, for assessing the professional resilience of mid-level officers of BD Army, a total of 15 factors were considered which were validated through survey. These are appended in the following table.

Table 1: Factors of Resilience Applicable for BD Army

- Physical performance in outdoor activities
- Endurance
- Self-awareness
- Able to adapt to change
- Decision making
- Flexibility in thinking
- Perseverance
- Working hard to attain goals
- Able to face new challenges
- Ability to accept things spontaneously
- Bearing a positive outlook
- Can handle unpleasant things
- Tend to bounce back after hardship
- Connectedness with family and friends
- Teamwork

Source: Connor and Davidson Resilience Model (Connor and Davidson, 2003)

Present State of Professional Resilience of the Mid-Level Officers.

Considering the factors identified, an effort was taken to measure the present state of resilience of the mid-level officers of BD Army. As resilience is an individual asset, each set of officers were circulated with the above mentioned factors to grade them in a 5-point Likert scale. In the scale, 5 was considered to be the extremely positive end whereas 1 was considered as extremely negative end. All the data were converted to form a descriptive understanding. Outcome of the survey is appended in the following paragraphs.

Professional Resilience of Lieutenant Colonels. A survey questionnaire which contained all the 15 components of the professional resilience scale was served to a total number of 35 Lieutenant Colonels. After the survey data were received from them, all data were analyzed through Statistical Package for Social Science (SPSS) version 24. The descriptive statistics of the survey data analysis is given in table 2.

Table 2: Professional Resilience of Lieutenant Colonels

| Descriptive Statistics | | | | | | | | | |
|--|-----------|-----------|-----------|-----------|----------------|-----------|------------|-----------|------------|
| | N | Minimum | Maximum | Mean | Std. Deviation | Skewness | | Kurtosis | |
| | Statistic | Statistic | Statistic | Statistic | Statistic | Statistic | Std. Error | Statistic | Std. Error |
| Factor 15: Teamwork | 35 | 3.00 | 5.00 | 4.3429 | .72529 | -.638 | .398 | -.797 | .778 |
| Factor 8: Working Hard to Attain Goals | 35 | 3.00 | 5.00 | 4.2000 | .75926 | -.359 | .398 | -1.143 | .778 |
| Factor 4: Able to Adapt to Change | 35 | 3.00 | 5.00 | 4.1143 | .79600 | -.213 | .398 | -1.372 | .778 |
| Factor 3: Self Awareness | 35 | 3.00 | 5.00 | 4.1143 | .63113 | -.086 | .398 | -.353 | .778 |
| Factor 5: Decision Making | 35 | 2.00 | 5.00 | 4.0571 | .72529 | -.578 | .398 | .681 | .778 |
| Factor 2: Endurance | 35 | 3.00 | 5.00 | 4.0571 | .68354 | -.071 | .398 | -.735 | .778 |
| Factor 9: Able to Face New Challenge | 35 | 2.00 | 5.00 | 3.8857 | .75815 | -.232 | .398 | -.206 | .778 |
| Factor 10: Ability to Accept Things Spontaneously | 35 | 2.00 | 5.00 | 3.8571 | .80961 | -.079 | .398 | -.712 | .778 |
| Factor 11: Bearing a Positive Outlook | 35 | 2.00 | 5.00 | 3.8286 | .92309 | -.354 | .398 | -.638 | .778 |
| Factor 7: Perseverance | 35 | 3.00 | 5.00 | 3.8000 | .63246 | .178 | .398 | -.470 | .778 |
| Factor 13: Tend to Bounce Back After Hardship | 35 | 1.00 | 5.00 | 3.6286 | .94202 | -.731 | .398 | .649 | .778 |
| Factor 1: Physical Performance in Different Outdoor Activities | 35 | 2.00 | 5.00 | 3.5429 | .65722 | .163 | .398 | -.129 | .778 |
| Factor 12: Can Handle Unpleasant Feelings | 35 | 1.00 | 4.00 | 2.4571 | .91853 | -.108 | .398 | -.749 | .778 |
| Factor 14: Connectedness with Family and Friends | 35 | 1.00 | 3.00 | 2.4571 | .65722 | -.822 | .398 | -.323 | .778 |
| Factor 6: Flexibility in Thinking | 35 | 1.00 | 4.00 | 2.1714 | .89066 | .175 | .398 | -.802 | .778 |
| Valid N (listwise) | 35 | | | | | | | | |

Source: Survey Data Analysis

Professional Resilience of Majors. For measuring the resilience level of Majors, a total of 130 officers were selected through a purposive sampling method. All the data were analysed through SPSS version 24, and the data for all 130 was found to be valid. Except factor 13, all the factors received standard deviation less than 1 which reflects that the responses were evenly distributed along the 5-point Likert scale. While analyzing the data to measure the resilience level of majors, maximum of the factors

received more than the mean average value. The distribution statistics is given below.

| Table 3: Professional Resilience Level of Majors | | | | | |
|--|-----|---------|---------|--------|----------------|
| Descriptive Statistics | | | | | |
| | N | Minimum | Maximum | Mean | Std. Deviation |
| Factor 5: Decision Making | 130 | 2.00 | 5.00 | 4.4462 | .55770 |
| Factor 15: Teamwork | 130 | 3.00 | 5.00 | 4.3769 | .58754 |
| Factor 3: Self Awareness | 130 | 2.00 | 5.00 | 4.3154 | .55733 |
| Factor 10: Ability to Accept Things Spontaneously | 130 | 3.00 | 5.00 | 4.2538 | .60118 |
| Factor 14: Connectedness with Family and Friends | 130 | 2.00 | 5.00 | 4.2308 | .64144 |
| Factor 6: Flexibility in Thinking | 130 | 2.00 | 5.00 | 4.2000 | .68653 |
| Factor 12: Can Handle Unpleasant Feelings | 130 | 3.00 | 5.00 | 4.1154 | .59239 |
| Factor 2: Endurance | 130 | 3.00 | 5.00 | 3.8538 | .45087 |
| Factor 4: Able to Adapt to Change | 130 | 2.00 | 5.00 | 3.6000 | .74293 |
| Factor 13: Tend to Bounce Back After Hardship | 130 | 1.00 | 5.00 | 3.1846 | 1.13973 |
| Factor 11: Bearing a Positive Outlook | 130 | 1.00 | 5.00 | 2.7154 | .88251 |
| Factor 1: Physical Performance in Different Outdoor Activities | 130 | 1.00 | 4.00 | 2.5769 | .71382 |
| Factor 9: Able to Face New Challenge | 130 | 1.00 | 4.00 | 2.4462 | .67124 |
| Factor 7: Perseverance | 130 | 1.00 | 4.00 | 2.3385 | .77313 |
| Factor 8: Working Hard to Attain Goals | 130 | 1.00 | 4.00 | 2.2846 | .70694 |
| Valid N (listwise) | 130 | | | | |

Source: Survey Data Analysis

Professional Resilience of Captains. A survey questionnaire containing all the 15 factors to measure the level of professional resilience was circulated to a total number of 129 Captains. The samples were selected through a purposive sampling method from four divisions of BD Army. The data were analyzed through SPSS version 24. Data from all 129 was

found to be valid. Descriptive statistics of the data analysis is given in the following table.

| Table 4: Resilience Level of Captains | | | |
|--|-----|--------|----------------|
| Descriptive Statistics | | | |
| | N | Mean | Std. Deviation |
| Factor 1: Physical Performance in Different Outdoor Activities | 129 | 4.1395 | .86371 |
| Factor 2: Endurance | 129 | 4.1008 | .77907 |
| Factor 5: Decision Making | 129 | 4.0000 | 1.01550 |
| Factor 9: Able to Face New Challenge | 129 | 3.9845 | .96812 |
| Factor 3: Self Awareness | 129 | 3.9147 | .81039 |
| Factor 14: Connectedness with Family and Friends | 129 | 3.8062 | 1.00061 |
| Factor 11: Bearing a Positive Outlook | 129 | 3.4651 | .99252 |
| Factor 8: Working Hard to Attain Goals | 129 | 3.2248 | .97820 |
| Factor 15: Team Work | 129 | 3.0620 | 1.24218 |
| Factor 4: Able to Adapt to Change | 129 | 2.9070 | 1.13497 |
| Factor 6: Flexibility in Thinking | 129 | 2.8062 | 1.18636 |
| Factor 13: Tend to Bounce Back After Hardship | 129 | 2.6977 | .80627 |
| Factor 7: Perseverance | 129 | 2.6822 | 1.26852 |
| Factor 10: Ability to Accept Things Spontaneously | 129 | 2.3876 | 1.07027 |
| Factor 12: Can Handle Unpleasant Feelings | 129 | 2.3411 | 1.16924 |
| Valid N (listwise) | 129 | | |

Source: Survey Data Analysis

Of the 15 factors, 9 factors received more than the average mean value; as such, these were considered to be of good standard. Six factors received less than the mean average value or close to that; hence, these 6 factors were considered which required attention. Almost 69.8% officers had perseverance of average standard or lower than that. Besides, 87.6% officers struggled to accept things spontaneously. 84.5% officers were moderately effective or poorly equipped to handle unpleasant feelings.

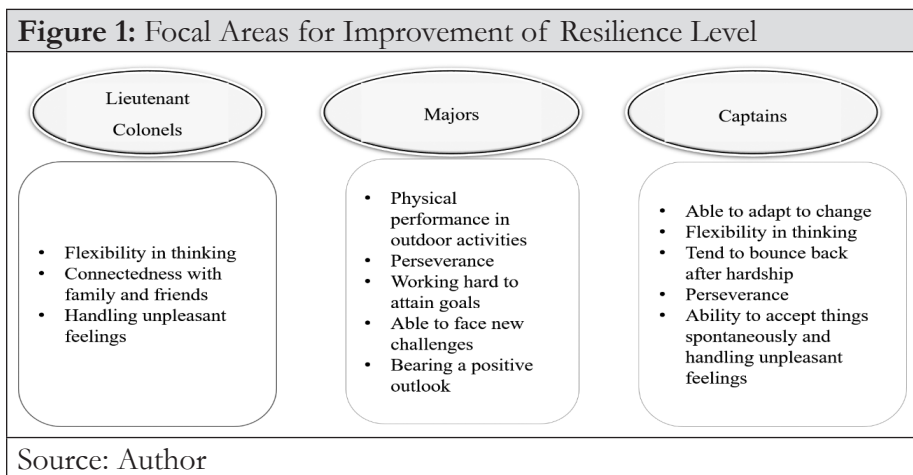
43.4% captains were hardly capable of bouncing back after hardship; whereas only 41.45% officers were of average standard in bouncing back after some debacles. Apart from these, the captains also faced challenges in being able to adapt to change as well as flexibility in thinking. Almost 69.8% officers were of average standard of being able to adapt to changes in the workplace environment. 41.1% suffered from their inflexibility in thinking while accomplishing any task.

Comparative Analysis of Professional Resilience of Mid-Level Officers

Lieutenant Colonels need to be more resilient than other groups of officers due to the nature of their jobs and the demands of the workplace. That further bolsters the inferences made from the survey. Only three of the 15 criteria received less than the mean average. The group also agreed that the three areas where Lieutenant Colonels are unable to demonstrate their resilience are cognitive flexibility, a sense of belonging to family and friends, and facing negative emotions. The majority of these officers work in specific areas with environmental restrictions. They gradually acquire a certain rigidity in their thinking. It is essentially difficult to eradicate it until this crisis is resolved by some sort of training system. Additionally, the majority of Lieutenant Colonels are compelled to lead a life apart from their loved ones. Most of them are unable to interact frequently with anybody other than their spouses and children due to their work schedules. This is even much harder in some instances if they are stationed abroad. Last but not the least, managing negative emotions is a challenge for everyone. One cannot learn to handle such emotional failures via mere maturity or the passing of time. Therefore, in order to deal with such psychological aspect, a person must go through some sort of systematic module. It was found that the degree of resilience of Majors was inevitably lower than that of Lieutenant Colonels while examining the current resilience of the Majors. The three areas where Majors typically failed to demonstrate appropriate amount of resiliency were ‘working hard to achieve goals’, ‘being able to confront new challenges’, and

'having an optimistic attitude'. The study found several explanations for these. Nearly all of the Majors begin their family life, and some are fortunate enough to have children. They find it difficult to manage the requirements of their family, let alone take on new difficulties or strive to accomplish new objectives. The survey data analysis shows the same thing as well. Many Majors lack the ability to persevere. Additionally, they are reluctant to demonstrate their athletic prowess during outside activities. It is common knowledge that their spouses place heavy demands on them that they find difficult to meet. Additionally, the spouses naturally ask additional questions. They create additional demands on the Majors since they are not adjusted to the needs of the job. Majors and Lieutenant Colonels have far more experience than Captains do. As a result, Captains have certain challenges when it comes to managing unpleasant emotions, having the flexibility to take things as they come, persistence, coming back from adversity, and adapting to changes. Because of their lack of experience in the service, Captains lack the attentiveness that the demands of the profession force on them. Instead, they are propelled by emotional delight.

Focal Areas of Improvement. After the analysis, the study found out few focal areas for each set of officers which need to be addressed in order to improve their level of professional resilience. The focal areas are appended in figure 1.



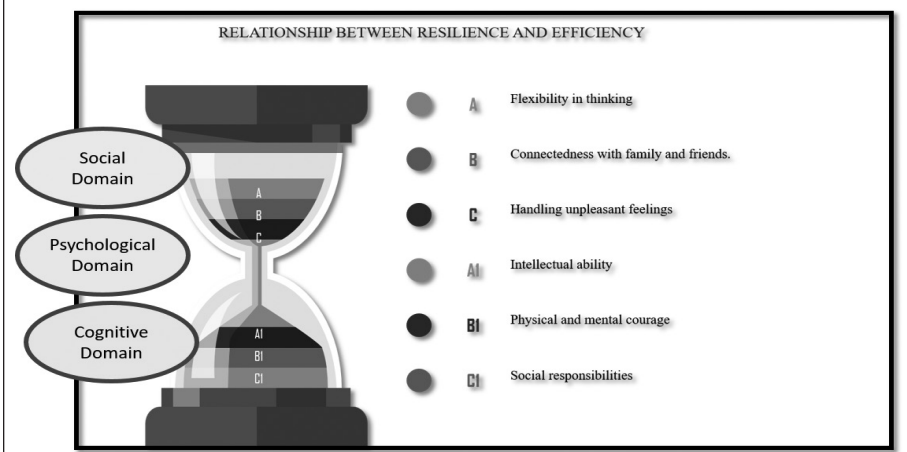
Relevance of Professional Resilience to the Efficiency of Mid-Level Officers of BD Army

Indicators of Measuring the Efficiency of Mid-Level Officers. Having identified the level of professional resilience of the mid-level officers, the study focused on determining the level of efficiency identifying the indicators of professionalism. Later, it drew a relationship between professional resilience and efficiency of the mid-level officers. Huntington, in his famous book “The Soldier and the State”, identifies three core components of professionalism of officers: responsibility, expertise, and corporateness (Huntington, 1957). Janowitz, in his book “The Professional Soldier”, also discusses the cardinal points of professionalism and make an in-depth analysis of military profession. (Kibria, 2019) identifies 21 components of professionalism from the BD Army context. Besides, (Kamrul, 2021) identifies different activities which reflect professionalism of the members of the military. Officers’ performance report (OPR) also contains several factors to assess the professionalism of the officers. Considering all, a total of 27 attributes were identified which were further validated through survey and interviews as well as focused group discussions. Finally, 16 indicators were selected for measuring the professionalism of the mid-level officers of BD Army. The indicators are appended in the following table.

| Table 5: Indicators of Professionalism for BD Army |
|--|
| <ul style="list-style-type: none">• Intellectual ability and Managerial/organising capability• Leadership quality and Human quality• Commitment to service/ Service before self• Soldierly attributes (physical fitness, turn out and bearing)• Efficiency (low input, high output)• Application of professional education and Skill in performing tasks/ jobs• Effective Communication• Physical and mental courage (during operation and training)• Loyalty, Honesty, Integrity and Social responsibility• Abiding by the customs and etiquettes of the organization• Discipline |
| Source: Attributes of Professionalism (Kibria, 2019) |

Impact of Professional Resilience on the Efficiency of the Mid-Level Officers. From the study, it was found that there lies a close relationship between professional resilience and efficiency at the workplace environment. Officers with higher resilience are likely to perform better. Besides, a particular inadequacy in the resilience scale impacts the performance in that particular domain. In case of Lieutenant Colonels three deficiencies were identified while measuring their level of professional resilience. These were: flexibility in thinking, connectedness with family and friends and handling unpleasant feelings. Of these three, one falls in social domain, the other in cognitive domain while the third falls in the emotional/ psychological domain. Their lackings in professional efficiency too fall in three domains: social, cognitive and psychological domains.

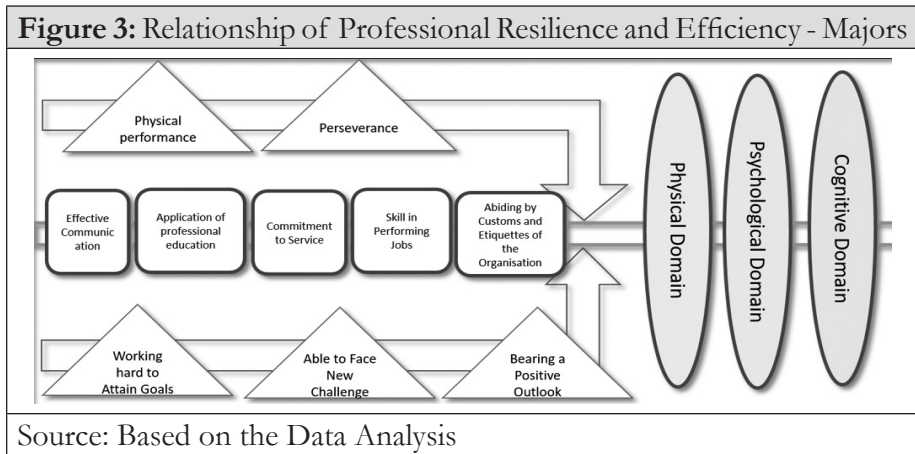
Figure 2: Relationship Between Resilience and Efficiency- Lieutenant Colonels



Source: Based on the Data Analysis

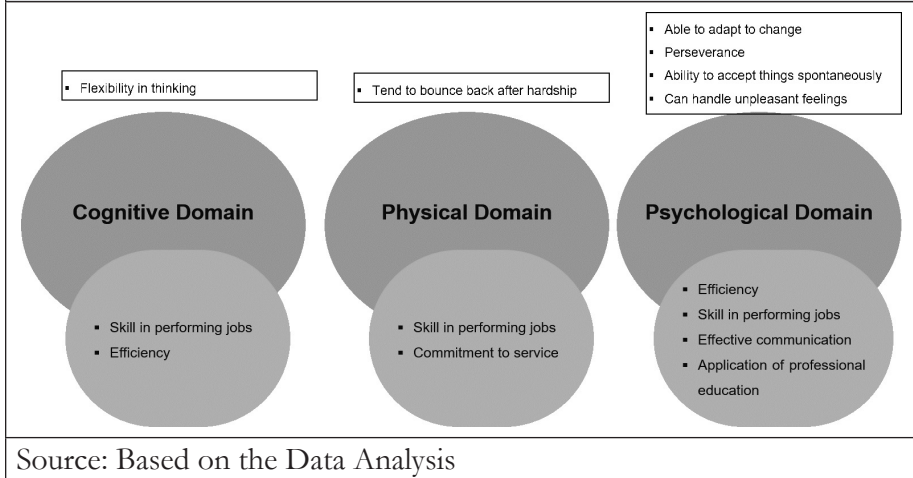
While analyzing the professional resilience of Majors, it was found that they lack resiliency in five three broad areas. These are: physical performance in outdoor activities, perseverance, working hard to attain goals, able to face new challenge, and bearing a positive outlook. With reduced resiliency level in these areas, once survey was conducted to gather their level of efficiency at the workplace environment, it was found that they fell short

in some areas because of their inadequate resiliency in broad fields. The areas with reduced efficiency are: effective communication, application of professional education, efficiency, commitment to service, abiding by customs and etiquettes of the organization, and skill in performing jobs. It was found that the deficient professional resilience factors influenced the efficiency of the Majors in three main domains: physical, psychological, and cognitive. A summary of these is appended in figure 3.



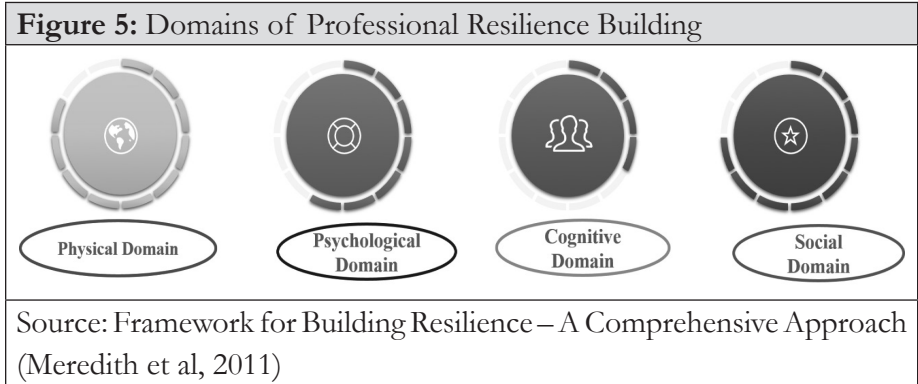
While analyzing the efficiency level of the Captains, it was revealed that they were lacking in few areas: effective communication, skill in performing jobs, application of professional education, commitment to service, and efficiency. While relating to the inadequacies of their resiliency, it was found that they lacked in six areas of professional resilience. All these six areas were related to three major domains: Cognitive, physical and psychological. Development in these focal areas would definitely enhance their resiliency, and in turn, would allow better efficiency in their workplace environment.

Figure 4: Relationship of Professional Resilience and Efficiency-Captains

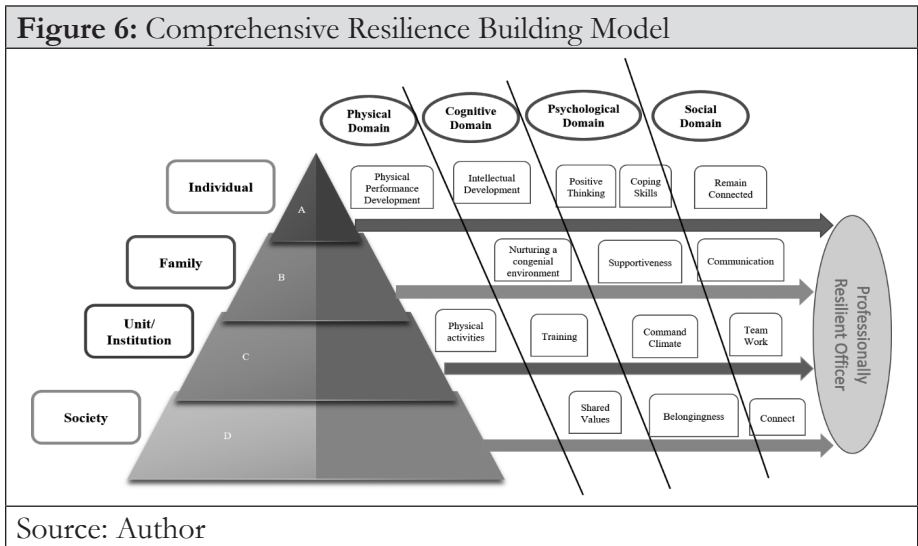


Ways to Build Professional Resilience Amongst Mid-Level Officers of BD Army

Ways to Build Professional Resilience. For building professional resilience, it is necessary to identify the major domains which can be manipulated by different stakeholders. While drawing a relationship of the indicators of efficiency and professional resilience of the Lieutenant Colonels, three domains were identified. These are: social domain, psychological domain and cognitive domain. As regards to the professional efficiency of Majors and their resiliency, three domains were. Among them, two were common; however, one new domain was added here: physical domain. While analyzing the resiliency and efficiency of the Captains, the three domains like Majors remained present. Besides, considering the factors influencing the building of professional resilience, four major domains can be identified for building resilience of the mid-level officers of BD Army. The domains which needs to be manipulated for building resilience are given in the next page.



Comprehensive Model of Building Professional Resilience. As the domains are identified, it is necessary to determine relevant stakeholders who will be responsible for developing each domain. Rand corporation – US model can be taken into cognizance while determining different stakeholders. For making a comprehensive approach to build professional resilience, all the stakeholders need to act in a concerted manner. The stakeholders are: individual officer, family, unit/ institution, and community/ society. Unless they work in a cohesive manner, the goal of resilience building will not be achieved. A comprehensive model delineating the responsibilities of different stakeholders is given below.



Roles of Different Stakeholders

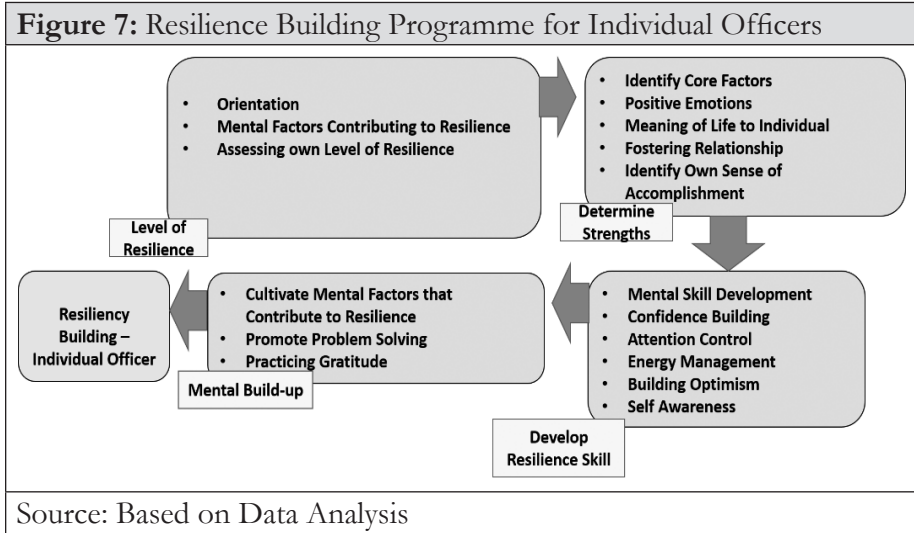
Role of Individual. An individual, being the most important factor in the resilience building method, needs to play the pivotal role to build and accept the multitude of assistance and training being imparted to him/her. Besides being aware of the resiliency building method, an individual needs to train himself/ herself at all the time. To face the adversities of operational environment or workplace environment, he/she needs to be physically fit. Besides, intellectual development needs to be pursued in consonance with the institutional approach. Apart from these, developing good behavioral practices and doing these repeatedly will eradicate the bottlenecks of getting along with the peers. Coping skills are also needed to be developed to adapt to changes in the environment as well as developing ability to accept things spontaneously. Remaining connected with the friends and families will assist one individual to get along the critical events in the workplace environment. Thinking positively will remain the cornerstone of one's resilience building approach.

Role of Family. Family needs to play an important role in building resilience amongst the officers. Since the officers spend most of their time with their families, a congenial environment will assist them in a greater way. Families can help in bouncing back after any kind of hardship, or even failures. A supportive family can provide tremendous assistance in handling unpleasant feelings which officers might encounter in the workplace environment. Families can also support by keeping an open communication with the officers. It also helps officers to connect with other members in the society. While conducting a survey, it was found that almost 77% spouses of Army officers opined that their support could be useful in eradicating the difficult situations their husbands faced. Unfortunately, 84% spouses did not have any formal training to learn the skills of resiliency building. Among them, 12.9% developed some skills by confronting difficult situations in their lives. Hence, there is a requirement of imparting some institutional training to the army spouses.

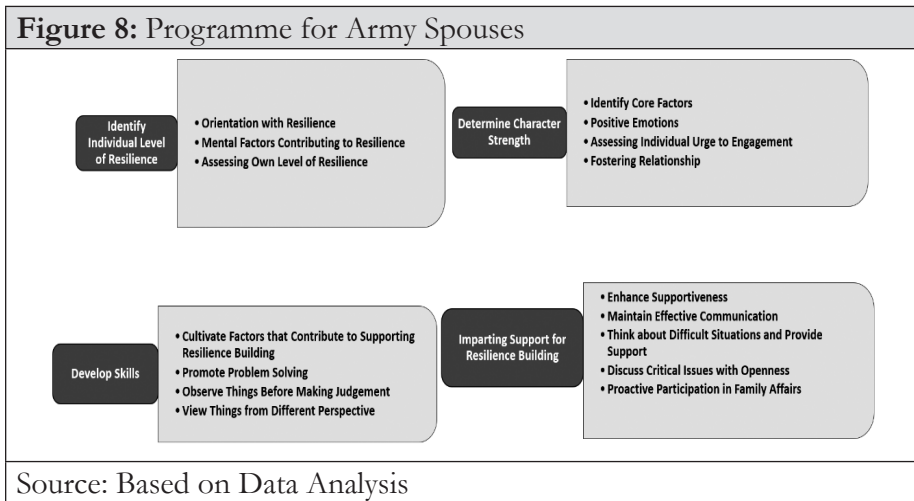
Role of Unit/ Institution. Institution/ unit's role is most pronounced in the resilience building method. First and foremost, Army as an institution needs to be aware that professional resilience building method is a requirement to get the optimum output from the mid-level officers of BD Army. If Army does not recognize this process/ approach, no organized framework can be developed. Second, Army needs to formulate some kind of training to build resilience amongst the mid-level officers. Without formal training, resilience building method takes a long time; by that, Army gets deprived of the useful service of the officers. Third, nurturing a conducive command climate is important for building resilience. Good command climate helps in fostering psychological robustness, promote cognitive development, and paves ways for the members to toil hard for accomplishing any task. It also preaches the unwavering commitment to the service and patriotism. Fostering an environment where team work gets precedence and nurturing role models for the under commands assist officers to develop optimum resilience. Lastly, unit/ institution can help officers developing flexibility in thinking and making them able to adapt to changes quickly.

Role of Society. The society, where officers live, can also play an important role in building resilience amongst the officers. Society needs to nurture a kind of belongingness amongst the officers. Fostering shared values, keeping an open communication amongst the members at all times allow officers to face adverse situations. A connected community allows better support to its members in the wake of failures.

Resiliency Development Programme. Considering the requirement of the professional resiliency development, a set of subjects are included to formulate training programme for the mid-level officers of BD Army. The important subjects are given in figure 7.



For developing the skills of the Officers’ spouses so that they can support resiliency building amongst the mid-level officers, few subjects are included which can form the nucleus of training programme.



Conclusion

Although several organizations, military, and corporate organizations had previously used the term ‘professional resilience,’ BD Army still finds

it to be a bit misleading. It is assumed that the members will acquire professional resilience through routine tasks and traditional training. Such skill development, like professional resilience, is not taught in any one training course. As such, all stakeholders need to work concertedly to develop professional resilience amongst the mid-level officers of BD Army. By considering the variables and investigating the resilience-building techniques utilized in other countries, four main categories are identified. These are: social, cognitive, psychological, and physical components. It is determined that in order to build professional resilience, all four of these domains need to be controlled by a variety of stakeholders. In the context of the BD Army, four stakeholders are: individual officers, family, unit/institution, and society.

Individual officers' contributions to resilience building are most apparent while establishing the overall resilience development model. Each officer has to be knowledgeable about the strategy for boosting resilience. He or she should always keep up a healthy physical state. But constant knowledge persuasion is essential for cognitive development. Coping mechanisms and positive thinking are two examples of the personal tactics that must be used. Family members could have a significant role in fostering resilience. It was thought that if family members weren't prepared to help, it would be impossible to do so. Additionally, they must be made aware of the resilience-building program. Therefore, in the context of BD, it is vital to offer suitable awareness training and to guide their help through a regulated spectrum.

The role that institutions and units play in promoting resilience is the most important. Institutions are able to ensure that every member receives the required training since it is a fundamental requirement. In any collaborative endeavors, units may create strong teams in addition to creating a supportive command environment. The BD Army must develop a special training curriculum for promoting professional resilience. To be more successful, all mid-level officers should be exposed to the resilience building method in some capacity. Cohesive communities provide officers

a sense of belonging that helps them to get the support they require in trying situations. The officers can withstand more strain at work since they are strong because they understand and share the same beliefs.

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Author

Lieutenant Colonel Mohammad Kamrul Hasan, SUP, afwc, psc, Infantry was commissioned in the Corps of Infantry on 26 November 2000 and joined 5 BIR (Support Battalion). He commanded 5 BIR (Support Battalion) and 56 East Bengal Regiment. As instructor, he served at Bangladesh Military Academy (BMA) as Platoon Commander, School of Infantry and Tactics (SI&T) as Instructor Class B, and Directing Staff at Defence Services Command and Staff College, Mirpur. He also served under the blue helmet as contingent member in United Nations Mission in DR Congo and, as observer, in South Sudan. Besides military courses at home, he has undergone Manoeuvre Captains' Career Course at Fort Benning, USA. He has also completed Combative Trainer Course (Level I) from Fort Benning, Georgia. He has undergone Military Observers' Course at CUNPK, New Delhi, India. He is a graduate of Defence Services' Command and Staff College, Mirpur. He is also an alumnus of Command and General Staff College (CGSC), Fort Leavenworth, Kansas, USA. He received his Master's degree from Bangladesh University of Professionals. He completed his Master on Military Arts and Science (MMAS) from CGSC, Fort Leavenworth, USA. He received the most coveted 'Sword of Honour' for his best all-round performance at BMA. He is also a recipient of Gold Medals for securing 3rd and 5th position in combined merit list in Secondary and Higher Secondary School Certificate exams respectively. He received 'Force Commander's Commendation' during his UN Mission in South Sudan. Recently, he has undergone Armed Forces War Course - 2022 at National Defence College, Bangladesh.

BANGLADESH - INDIA BILATERAL DEFENCE COOPERATION: CHALLENGES AND WAYS FORWARD FOR FOSTERING BETTER TIES

**Lieutenant Colonel Sheikh Ramiz Uddin Md Waseem,
SPP, afwc, psc, AC**

Introduction

Bangladesh is a South Asian developing country having plethora of potentials of being a significant and responsible global player. Bangladesh figures a commendable position in the strategic calculation of not only the South Asian and Asian countries but also of America, Europe and many other major global powers. Bangladesh and India's friendship were first marked at the Liberation War of Bangladesh. Bangladesh and India are in a kind of relationship which may be termed as a 'Symbiotic Relationship' or 'Symbiosis' (Rahman, 2018). From security to economy and cultural affairs, Dhaka has immense interactions and collaborations with New Delhi. In the same way, India, as well, has to depend much on her tiny yet strategically significant neighbour - Bangladesh. There are quite a few contentious issues too that affect the bilateral ties. Despite all those, the bilateral relation between Bangladesh and India is surely multi-faceted. A few prominent fields of cooperation to mention are: trade and economics, defence, security, energy, agriculture, connectivity, space, climate change, etc.

Military to military cooperation between India and Bangladesh goes back to 1972, when officers from the newly independent nation started attending courses in India (Bammi, 2010, p 64). Among the fields of bilateral cooperation, defence is one of those fields which saw a boom in the recent years. Although it is generally perceived that Bangladesh and India are enjoying a defence cooperation which is currently at a state

of all-time best, a deeper insight would reveal that there are some issues which are inhibiting in reaping due benefit out of the huge potential of cooperation between the countries. The bilateral defence cooperation has certain challenges which are absolutely within the defence domain involving the training, exercise, visit, procurement and other exchanges between the two countries. Whereas, there are a set of other challenges which are primarily not falling within the core defence domain but have spill over effects on the same. A few to mention are different military diplomatic aspirations, Rohingya issue, transborder terrorism, border killing, National Register of Citizens (NRC), Citizenship Amendment Act (CAA), Bangladesh's relation with other countries, etc. It is also alleged that the existing cooperation is asymmetric in manifold, the outcome of which favours India mostly, failing to meet a win-win formula. The author worked as a military diplomat (Assistant Defence Adviser, Bangladesh High Commission, New Delhi, India) in India from 2017 to 2021. He was closely involved in implementing the defence cooperation measures between the two countries, from conceptualization to execution. He could also see for himself the warmth and facets of defence cooperation that India maintains with countries ranging from recognized major global powers like US of America, Russia, etc to smaller countries like Myanmar, Israel, Tajikistan, Maldives, Seychelles, etc. At this backdrop, it is surely prudent to deduce that Bangladesh and India are not reaping maximum out of their enormous mutual potential of cooperation in the defence sector. These potentials need to be explored.

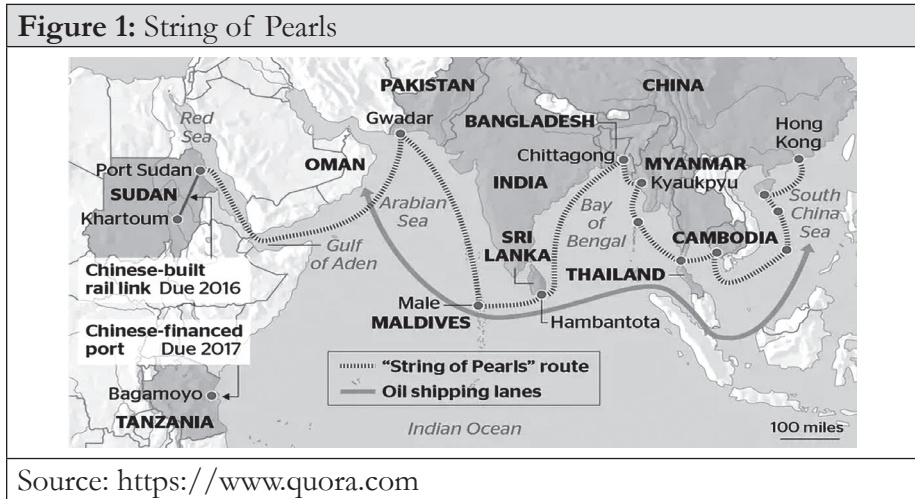
Global and Regional Actors Affecting the Relation

These days, the relation between two given countries are not purely bilateral, rather, it's bilateral plus; here comes the multilateral relations impacting a particular bilateral relation (Choudhury, 2022).

Dynamics of Global Polarization. The international system of the Post-Cold War era reflects a mixture of both unipolar and multipolar system. The current global trend suggests that China is likely to be a potential

power to challenge the US. As such, the US foreign policy lookout may wish to balance the China factor in the region.

Growing Importance of Asia and Indian Ocean Region (IOR). The focus of the US and the West is likely to be on Asia (Kahhar, 2017). The IOR is critical for the world's economy as it is the world's largest market and a source of cheap labour. That's why IOR is getting so much attention and Indo-Pacific Strategy of the US is a vivid testimony to that. To counter balance the China factor, the US has formed Quad, a strategic security dialogue between Australia, India, Japan and the US. China has an interest of strategically encircling India. To implement that, China has adopted strategies like String of Pearl (Figure 1 below), Belt and Road Initiative (BRI), etc. China is one of the prime development partners of Bangladesh.



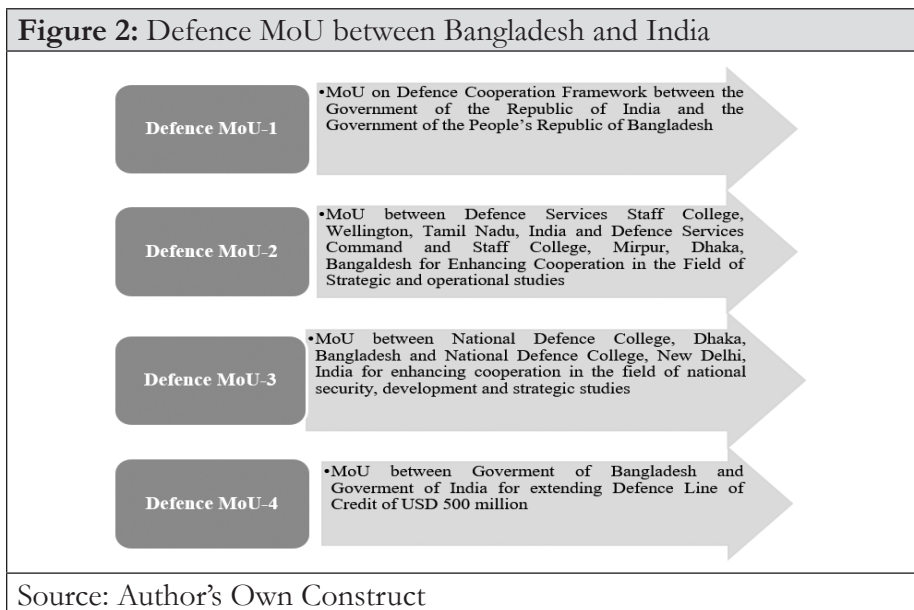
Significance of Bangladesh-India Relationship. Indo-Bangladesh relationship evolved in a complex context in which both the countries have been trying to achieve their foreign policy objectives (Choudhury, 2022). Bangladesh is surrounded by India from almost every side (considering land and sea areas), as such, Bangladesh always appreciates the importance of India in achieving the foreign policy objectives. India has similar realizations as well for multiple reasons.

Importance of Bangladesh to India. Bangladesh has truly turned out to be an inevitable neighbour for India. India's External Affairs Minister S Jaishankar correctly underscored that Bangladesh features as the most important country in the Indian Foreign Policy objectives of 'Neighbourhood First Policy' (The Daily Star, 2022). India can no way disregard the effective role of Bangladesh in her security, economy and strategic calculations.

Existing Bilateral Defence Cooperation

General Defence Cooperation. The relation has grown both vertically and horizontally (Imran, 2022). High Commissions to each other's countries both have a bona fide Defence Wing. India wants to have a further robust and stronger defence cooperation with Bangladesh (Choudhury, 2022).

Defence Memorandum of Understanding (MoU). The four MoUs that were in the defence domain (appended in Figure 2 below) looked into varied areas of defence cooperation like experience and knowledge sharing, training, joint exercises, etc.



Defence Dialogues and Staff Talks. Bangladesh and India currently have three layers of defence dialogues/staff talks (Waker-Uz-Zaman, 2022). Besides traditional service to service staff talks, Annual Defence Dialogue (ADD) and Tri-service Staff Talk (TSST) have been introduced in 2018 and 2020 respectively. ADD is conducted at the ministerial level followed by the TSST attended by nominated members of the all three services.

Training Exchanges. Training exchanges between the Armed Forces of the two countries is one of the strongest tools of defence cooperation. A summary of training exchange so far is given at Table 1.

| Table 1: Summary of Training Exchange | | |
|---------------------------------------|--|--|
| Service/Category | Bangladeshi Participants Attended Courses in India | Indian Participants Attended Courses in Bangladesh |
| Army | 1995 | 63 |
| Navy | 1164 | 37 |
| Air Force | 784 | 83 |
| Miscellaneous | | 30 |
| Total | 3943 | 76 |

Source: Training Directorate, Armed Forces Division of Bangladesh

Combined Exercises. Armed forces of both the countries conduct certain combined training exercises being participated by their counterparts. Of which, Exercise SAMPRITI is the most notable one between the two armies. Alongside Coordinated Patrolling (CORPAT), the navies have started holding Bilateral Exercise (BILAT) for last couple of years. Different adventure training events like joint mountain expeditions, joint cycling expedition, etc. are also conducted.

Visits including Senior Officials. Exchange of visits between the two Armed Forces is an effective tool to share ideas, build confidence and enhance defence cooperation. A state of total number of visits by armed forces delegations to each other's countries in last three years is given at Table 2.

Table 2: State of Visits Exchange 2019-2022

| Service | Bangladesh Delegations to India | | | Indian Delegations to Bangladesh | | |
|--------------------|---------------------------------|----------|-----------|----------------------------------|----------|----------|
| | 2019-20 | 2020-21 | 2021-22 | 2019-20 | 2020-21 | 2021-22 |
| Army | 4 | 2 | 3 | 1 | 2 | 2 |
| Navy | 5 | 1 | 4 | 1 | - | 1 |
| Air Force | 1 | - | 1 | - | 1 | - |
| Tri-Service | 6 | 1 | 4 | 2 | - | 1 |
| Total | 16 | 4 | 12 | 4 | 3 | 4 |
| Grand Total | 32 | | | 11 | | |

Source: Defence Wing, Bangladesh High Commission, New Delhi, India

Medical Cooperation. Under the existing medical cooperation between the two armed forces, armed forces personnel and their family members from Bangladesh have been receiving medical treatments in various Indian military hospitals for the last few years. A summary of patients is given below at Table 3.

Table 3: State of Medical cooperation 2018-2021

| BDAF Patients/ Attendants Received Treatment in Indian Army Hospitals | Treatment Year | | | |
|---|----------------|-----------|---|-----------|
| | 2018 | 2019 | 2020 | 2021 |
| Patients | 97 | 31 | Nil, due to outbreak of COVID-19 and international travel ban | 10 |
| Attendants | 29 | 19 | | - |
| Total | 126 | 50 | | 10 |

Source: Defence Wing, Bangladesh High Commission, New Delhi, India

Social Dimension. The defence cooperation between the two countries is no more confined at the forces level. Social aspects also got attached in it. Exchange of goodwill visits of war veterans and mid-level couples of the armed forces, and treatment of Bangladeshi veteran freedom fighters in India are just a few testimonies to that (Imran, 2022).

Intelligence Sharing. Intelligence sharing between the two countries is another great tool of defence cooperation. This complements in achieving the common military-diplomatic objective of combating terrorism. Both the countries are being benefitted a lot from it (Ziaur Rahman, 2022).

Challenges in Fostering Better Bilateral Defence Cooperation

There have been a few discords and irritants in the bilateral relation between Bangladesh and India (Ahsan, 2022). The challenges can be grouped under two broad categories; core defence and associated challenges.

Core Defence Challenges. There are certain inhibitors which are very much in the domain of defence itself. Such core impediments are discoursed in the succeeding paragraphs.

Asymmetric Training Exchange. BDAF accept and avail most of the vacancies offered by India. However, INAF subscribe very less no. of courses offered by Bangladesh (Ziaur Rahman, 2022). This is vividly evident from the statistics of training exchange (Table 1). A state of training exchange of last three years is given below at Table 4.

| Service/ Category | Bangladeshi Participants Attended Courses in India | | | Indian Participants Attended Courses in Bangladesh | | |
|-----------------------------|--|------------|------------|--|----------|----------|
| | 2019 | 2020 | 2021 | 2019 | 2020 | 2021 |
| Army | 153 | 302 | 103 | 1 | - | - |
| Navy | 81 | 49 | 138 | 2 | - | - |
| Air Force | 82 | 08 | 20 | 11 | - | - |
| Joint/ Inter Service | 11 | 15 | 13 | 6 | 6 | 5 |
| Total | 327 | 374 | 274 | 20 | 6 | 5 |

Source: Training Directorate, Armed Forces Division of Bangladesh

Language barrier is also observed especially in case of training of men (below officer ranks) of the INAF in Bangladesh. Bangladesh sends cadets to the Indian Academies for pre-commission training, however, India doesn't (Ziaur Rahman, 2022).

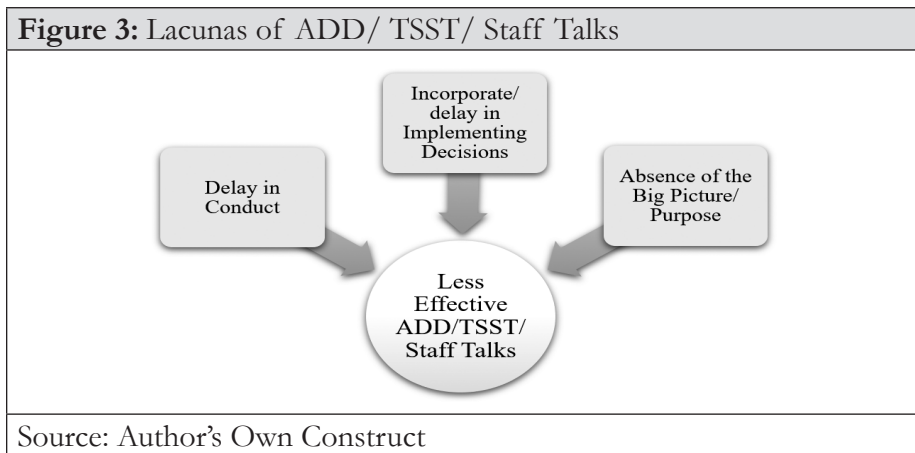
Lack of Combined Exercises. The Armed Forces of Bangladesh and India conduct quite a less number of combined exercises. Armies and navies have just one each. Air Forces have no such regular exercise.

Visits Lacking Due Focus. There is a remarkable asymmetry in case of exchange of visits too, which is clearly evident from the statistics presented previously (Table 2).

Partial Operationalization of the Defence MoU. The MoU signed between the governments of Bangladesh and India in the defence domain are not being implemented according to the intended spirit due to various reasons.

Delay in Defence Line of Credit (LoC). India itself/himself is still one of the top importers of military hardware globally. Although India has initiated ‘Make in India’ campaign for most of the sectors in India, the country is yet to produce state of the art military hardware.

Lacunas in Staff Talks. The lacunas concerning the conduct of various staff talks held between the two countries are basically of three folds as appended graphically in the Figure 3 below.



Red Tapism. Generally, the stakeholders of the Indian Ministry of Defence has a tendency of following a typical bureaucratic procedure, which is less dynamic and time consuming. Another issue is that the concerned Indian stakeholders generally tend to keep things at a lower level. For example, unlike Bangladesh, India do not welcome even the senior foreign diplomats to meet with their higher ranking officers. (Azad, 2022).

Weakness of Medical Cooperation. The medical cooperation although started with a big promise, but is failing to deliver as expected. There is no obligation of maintaining the standard as it is an one sided cooperation means (Ziaur Rahman, 2022). This is aptly proved from the statistics of patients presented previously (Table 3).

Associated Challenges

There are certain inhibitors which are originated in other domains but have significant spill over effects on the defence domain. Such associated challenges are discussed below:

Different Military Diplomatic Goals. Bangladesh and India have different military diplomatic objectives. India has traditional rivalry with some of its neighbours, whereas, Bangladesh pursues the foreign policy of ‘friendship to all and malice to none’ and desire to have mutually beneficial defence diplomacy with all the possible countries and avoid getting involved in any specific military alliance which might antagonise others (Choudhury, 2022).

Border Killing. The Border Security Force (BSF) of India has been shooting the civilian people of Bangladesh with the alleged claim of those people violating the territorial sanctity of India. What significantly antagonized the public sentiment in Bangladesh is the inhumane treatment to the ‘allegedly’ trespassing Bangladeshis.

Trans-border Terrorism. Terrorism has been a big concern for both the countries. India considers the rise of Islamic terrorist organizations in Bangladesh and their alleged connections with Pakistani and international outfits as a major security concern for her. Bangladesh has vowed concern over these issues frequently. Bangladesh-India border is porous one and terrorists and smugglers may trespass through it (Ahsan, 2022).

National Register of Citizens (NRC). There is a claim by the Indian government that a handsome number of Bangladeshis go to India illegally and stay there. This has embarrassed Bangladesh notably. There were a few

sporadic incidents of forcing some of the alleged illegal migrants to return to Bangladesh.

Citizenship Amendment Act (CAA). CAA is another issue for which the Government of India has been widely criticised both domestically and internationally. The all controversial act was passed in the Parliament of India on 11 December 2019. CAA is a clear demonstration of discrimination on the basis of religion, particularly against Muslims.

Bangladesh's Diplomatic Relation with other Countries. India's aspiration of immersing as a regional power makes it/her wary about foreign policy and foreign relations of other countries in her neighbourhood, specially smaller countries like Bangladesh. India has two arch rivals in the region, China and Pakistan. India always wants to keep Bangladesh out of the Chinese sphere of influence (Choudhury, 2022). On the other hand, Bangladesh is heavily dependent on China for its development, trade and defence procurement.

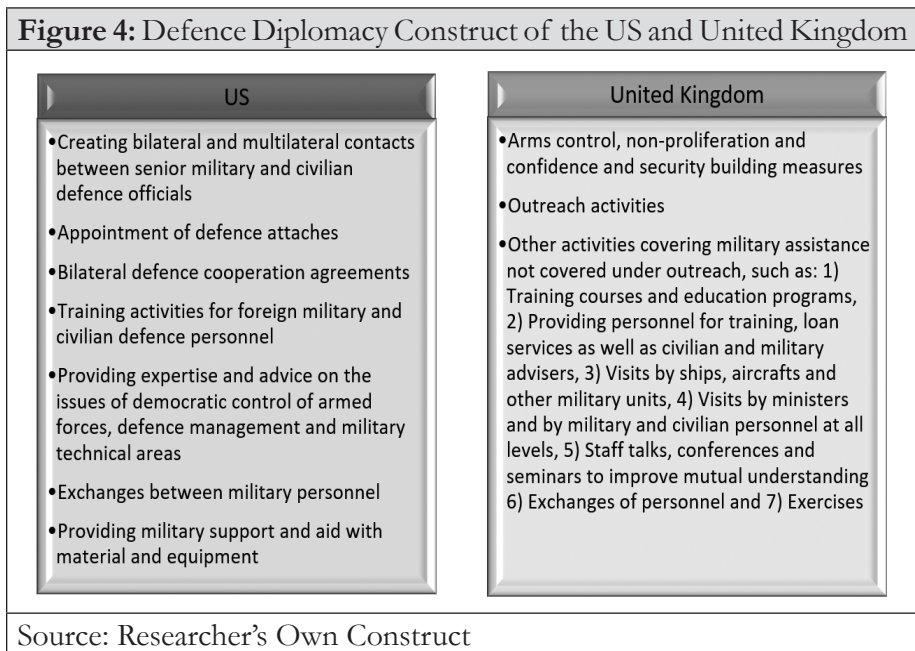
Rohingya Issues. Rohingya refugee crisis is the top security concern for Bangladesh in the recent years. Bangladesh counted seriously on her mighty neighbour India in this regard; but, India's stand on Rohingya issue so far has been criticised as timid and was a big shock to Bangladesh. India abstained herself from voting each time a resolution was tabled in the United Nations' assembly against Myanmar on Rohingya issue. Adding to Bangladesh's disappointment, India also deported Rohingyas to Bangladesh as thousands of Rohingya Muslims have crossed over from India to Bangladesh being compelled (Voice of America News, 2022). In the Survey conducted by the researcher, 90% responders agreed that Rohingya issue is acting as an associated challenge in fostering better bilateral defence cooperation between the two countries.

Ways Forward

Bangladesh and India have a unique geopolitical setting which offers enormous potential for a great bilateral relation. The existing defence

cooperation between the two countries can surely be further enhanced meaningfully.

Defence cooperation between two given countries is primarily the outcome of positive defence diplomacy between them. A close look at how defence diplomacy is used by a couple of forerunner countries in the field would offer a clear understanding about its desired features. Defence diplomacy construct of the US and United Kingdom is presented below in Figure 4 (Swistek, 2012, p. 79-86).



The ways forward available to enhance the bilateral defence cooperation between Bangladesh and India may be grouped by three major categories; Enhancement of the Existing Cooperation Construct, Possible New Areas of Cooperation and Addressing Associated Issues.

Enhancement of the Existing cooperation Construct. Measures to modify and improve the existing bilateral defence cooperation construct between Bangladesh and India are unfolded in the succeeding paragraphs.

Appropriate Conduct of Staff Talks. ADD, TSST and Staff Talks of all services if conducted properly can give a lot of dividend in fostering better defence cooperation (Waker-Uz-Zaman, 2022). All these must be held in time to steer the total cooperation mechanism in the correct direction.

Implementation of the Decisions. Timely and complete implementation of the decisions taken at the ADD, TSST and Staff Talks is of critical importance. Any mid-course hindrances must be resolved with bilateral consent through the Defence Wings of the respective embassies.

Balanced Training Exchange. The exchange of training needs to be balanced through removing the asymmetry in it. India should avail the vacancies offered by Bangladesh (Waker-Uz-Zaman, 2022). As part of training exchange, both instructor and trainee (including cadets of pre-commission training) exchange may take place (Ziaur Rahman, 2022). BDAF may introduce 'English' as the medium of instruction for a few selected courses of other ranks.

Increasing Combined Exercise for Army and Navy. In addition to the only regular combined Exercise SAMPRITI, participated by the two armies and BILAT, participated by the two navies, more new exercises may be introduced in the land and maritime domain.

Objective Oriented Visits. The visits may be made more effective by making those strictly purpose oriented (Waker-Uz-Zaman, 2022). Pre-visit briefing and elaborate post-visit debriefing must be conducted to set the goals and get the desired feedback respectively.

Implementation of the Defence MoU. Despite the contentious issues prevailing between the two countries, it would be a responsibility of the concerned stakeholders to yield the desired benefit from the MoUs signed between the two countries.

Positively Modifying Medical Cooperation. Medical cooperation may be turned effective if it is made through exchange of experts/doctors of various fields/specializations (Ziaur Rahman, 2022). Apart from that,

as far as the existing modality of the medical cooperation is concerned, BDAF should try to reap maximum out of the initiative.

Possible New Areas of Cooperation

Apart from modifying and improving the current bilateral defence cooperation construct, a set of new areas of cooperation are elaborated in the succeeding paragraphs.

Combined Exercise in Air Force and Joint Domain. Regular combined exercises involving the Air Forces of both the countries should be introduced. Besides, several combined exercises between the two Armed Forces may be conducted regularly in the joint domain like Joint Search and Rescue, Peace Keeping, Humanitarian Assistance and Disaster Relief (HADR), etc (Ziaur Rahman, 2022).

Transfer of Technology (ToT). Through ToT, Bangladesh may make a gradual progress towards self-reliance in defence production (Waker-Uz-Zaman, 2022). However, selection of the items would be critically important which must be done carefully calculating the long term utility.

Defence Research and Consultation. India has numerous think tanks in the defence domain that study and analyse issues of defence and strategic value. A solid cooperation with India in the field of defence research and consultation can benefit Bangladesh immensely.

Humanitarian Assistance and Disaster Relief (HADR). BDAF has always been one of the leading organizations in the HADR operations of BD, and it has achieved a good reputation internationally. As such, BDAF may take the lead in this regard and share the expertise with their Indian counterparts.

Addressing Associated Issues

It has been identified from the aforementioned discussions that there are certain associated bilateral and multilateral issues which have definite

spill over effects over the defence cooperation. A few such key issues are addressed in the succeeding paragraphs.

Minimizing the Irritants and Building Confidence. Minimizing, if not eliminating, the effects of contentious bilateral issues like Border Killings, Transborder Terrorism, Rohingya crisis, NRC, CAA etc. would contribute in improving the existing defence cooperation between Bangladesh and India to a great extent.

Non-Biasness to a Single Partner. Bangladesh needs to project the fact that she is more keen on the economic cooperation with any potential partner country and will continue to keep her away from any military/lethal alliance against any country (Choudhury, 2022).

Balancing China Factor. Bangladesh needs to play her cards smartly in maintaining her unique foreign relations with both India and China. Bangladesh's relation with China needs to be projected to India as predominantly an economic relation, which is otherwise so. Dhaka should be able to make it aptly clear to New Delhi that Bangladesh has limited ambition in the defence aspect and Bangladesh will never endanger the security interest of India (Choudhury, 2022).

Focus on Own Interest. It is imperative for Bangladesh to give out a clear message through her actions that she wants to be such a partner in healthy foreign relations who others have to care about, take into account her interests. Both India and Bangladesh will be benefited from avoiding a coldness in their relations which will not bring good to anyone for sure (Choudhury, 2022). The Armed Forces of both the countries may undertake measures to promote mutual trust and minimize the adverse effects of the irritants, which will ensure the motto 'together we grow'.

Conclusion

Bangladesh has graduated herself as a developing country and has all the potentials to become a middle income country in due course of time. Due

to the unique geopolitical realities, Bangladesh is considered in the strategic calculation of not only the regional powers but also the global powers. Bangladesh and India have a strong historical bonding. This was exhibited strongly during the War of Liberation of Bangladesh as hundreds of personnel of the INAF laid their lives for the cause of Bangladesh. Both the countries have a plenty of reasons to have friendly relations with each other. Bangladesh and India are in a kind of relationship which may be termed as a 'Symbiotic Relationship' or 'Symbiosis'. From security to economy and cultural affairs, Dhaka has immense interactions and collaborations with New Delhi. In the same way, India, as well, has to depend much on her tiny yet strategically significant neighbour Bangladesh for her security and economy. A few prominent fields of cooperation to mention are: trade and economics, defence, security, energy, agriculture, connectivity, space, climate change, etc. Bangladesh and India are enjoying a defence cooperation which is currently at a state of all-time best. However, It is often alleged that the existing cooperation is asymmetric in manifold, the outcome of which favours India mostly, failing to meet a win-win formula. All in all, given the unique geopolitical realities and immense potential, this can be further enhanced significantly for good of both the neighbouring countries. As such, still Bangladesh and India are not reaping maximum out of their enormous mutual potential of cooperation in the defence sector.

Bangladesh and India have a unique and consequential relation. Both the countries are significant to each other for different reasons. Both the countries have quite professional Armed Forces. Like many other sectors, bilateral cooperation in the defence sector between Bangladesh and India is a very promising one. There is still a lot of scopes for improving the defence cooperation between the two countries and benefit mutually. In the current era of globalization, Bangladesh and India cannot pursue a purely bilateral relation in isolation. Instead, other major regional and global actors will have their role according to their own interests; this aspect must be kept in the backdrop. The existing defence cooperation between Bangladesh and India is quite an elaborate and multifaceted one. However, there are

quite a few internal and external impediments/ challenges inhibiting from reaping maximum out of the enormous defence cooperation potential between the two countries. Certain measures can contribute effectively in mitigating those challenges. The measures include some modifications in the existing defence cooperation construct, introducing a few new cooperation modalities and finally taking due care of the associated issues with a view to ensuring a conducive environment and promoting mutual trust. An enhanced defence cooperation will effectively contribute to an overall better bilateral relation and fetch growth for both the countries. Thus, 'security and growth together for both the countries' can be ensured.

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Author

Lieutenant Colonel Sheikh Ramiz Uddin Md Waseem, SPP, afwc, psc, AC was commissioned on 26 November 2000 in the Armoured Corps of Bangladesh Army. He served in different command, staff and instructional capacities. He commanded an armoured regiment. The officer was a distinguished instructor in the Tactics Wing of School of Infantry and Tactics. He served as a Staff Officer at the Armed Forces Division and Army Training and Doctrine Command. Under the United Nations umbrella, he served as the Aid-de-Camp to the Chief Military Observer in the United Nations Observer Mission in Georgia. As a military diplomat, he served as the Assistant Defence Adviser in the Bangladesh High Commission in New Delhi, India. Lieutenant Colonel Waseem is a graduate of the Defence Services Command and Staff College of Bangladesh and Sri Lanka. He has also completed Armed Forces War Course from the prestigious National Defence College, Bangladesh. He holds three Master of Science degrees; two from Bangladesh University of Professionals on 'Defence Studies' and 'Security and Development' and one from Sir John Kotelawala Defence University, Sri Lanka on 'Defence and Strategic Studies'. Besides attending number of professional courses at home and abroad, the officer participated in number of international workshops, seminars and carried out several individual and group research works. He has visited number of countries in Asia, Europe, Oceania and Africa. Currently, the officer is serving as the General Staff Officer Grade-1 at a division headquarters. He is married and is blessed with a son.

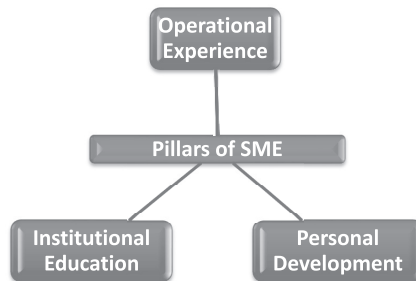
SUBJECT MATTER EXPERT: A FEASIBILITY STUDY FOR THE OFFICERS OF BANGLADESH ARMY

**Lieutenant Colonel Md Reazul Islam,
SUP, afwc, psc, Artillery**

Introduction

A Subject Matter Expert (SME) has a level of understanding regarding his/her subject that is not common knowledge, making the person quite valuable to an organization (Isixsigma, 2022). The subject can be anything, such as a function, process, equipment, software, material, history, and so on. In this modern era, infusion of wisdom and critical expertise has become a very important factor for any institution/organization in dealing with increasingly complex situations. SMEs offer critical competencies to overcome those evolving challenges. Businesses/corporations around the globe have embraced the idea of integrating SMEs into their structures. Though dynamics of business and military worlds are distinctly different, some of the defence services (e.g. the USA, the UK, China, Singapore, etc.) have also started culturing recognized military SMEs by either direct recruiting, nurturing integral service members, or by harnessing expert civilian resources (Zafor, 2018).

Figure 1: Pillars of SMEs



Source: Zafor, 2018

As per the report of PwC (December 2017), Bangladesh (BD) has been predicted to be the 23rd largest economy (3 trillion dollars) of the world by 2050 (Dhaka Tribune, 14 October 2018). In congruity with this economic march-ahead, BD Army is on a journey to graduate as a technologically advanced and deterrent force. Blue print of this modernization, commonly known as the “Forces’ Goal-2030,” resulted in substantial proliferation of outfits and induction of sophisticated armament and equipment since the last decade. However, it also aggravated with shortage of officers and necessitated enhanced specialized knowledge and skills. It otherwise implies that BD Army needs to do more with less, and be more efficient than ever before (BD Army Headquarters Project Study by 17 Infantry Division, 2021).

In the 21st century, armies around the globe are confronted with new generations of warfare, emerging concepts and technologies, and multi-dimensional engagements. Countries that can exploit these emerging technologies and synergize with innovative organizational adaptation could achieve far higher levels of relative military effectiveness. That’s why, incorporation of SMEs are becoming common in some modern armies. Singapore Armed Forces (SAF) is a glaring example in this regard. To compensate for lack of geographical depth and battle worthy manpower, it heavily relies on technology as a force multiplier. To aid technological advancement, SAF has formal and progressive SME programs with various levels starting from Level-I (skill based technical role) to Level-VIII (senior managerial and leadership role) under Military Domain Experts Scheme (MDES) since 2010 (www.mindef.gov.sg). Off late, BD Army started the process of recognizing the importance of SMEs and a draft policy for limited outsourcing in training institutions has been promulgated by Headquarters (HQ) Army Training and Doctrine Command (2022). However, to embed the concept of SMEs in a more formalized manner, a feasibility study is time worthy.

Methodology

For writing this article, a descriptive mixed-method research was conducted following inductive reasoning. Officers of BD Army (less

AMC, ADC, RVFC and AFNS) were considered as the cases. Total 307 officers comprising of all arms/services were surveyed, who were selected following non-purposive random sampling technique. However, minimum service length of 6 years has been considered for selection of respondents. Total 17 interviews were taken that included 14 officers of the rank of Lieutenant General to Lieutenant Colonel of BD Army, 2 officers of the rank of Major of China and Singapore Army/Armed Forces, and one retired Lieutenant Colonel from British Army. Interviewees were selected through non-probability purposive sampling. A Focus Group Discussion in participation of 8 selected officers having military service length of more than 20 years and reasonable military qualifications (at least staff course qualified) was also conducted. Secondary data was collected from previous related researches, open sources, various books, journals and publications. For qualitative data, thematic analyses had been followed. For quantitative data analysis, descriptive statistical calculation was done using both Microsoft Excel and default software of Google Form.

Relevance of Military SME for BD Army

SME is a buzz-word which is loosely used in different contexts in BD Army. In contrast, some armies/armed forces have formalized the concept of military SME and recognized SMEs have separate method of induction and career management. Some of the cases are enumerated here:

Singapore Armed Forces (SAF). Military Experts (ME) are service members that serve in specific military domains under the 'Military Domain Experts Scheme (MDES)', which is a separate rank scheme that was introduced in April 2010. The rank structure runs in parallel with the conventional ranks of enlistees, specialists, warrant officers, and commissioned officers, and allows for continual advancement from entry-level ME1 to higher ranks all the way to ME8 based upon expertise and performance levels. ME3 rank is considered equivalent to warrant officers; while ME4 or higher (collectively referred to as senior MEs) are considered equivalent to commissioned officers and given the same legal authority. Cardinal aspects of the scheme are (www.mindef.gov.sg):

- Career progression of ME is based on expertise and responsibility levels, rather than through the assessments based on command and staff potential.
- MDES personnel should expect a more deliberate pace of career management and personal development in order to allow for deep specialisation in specific military domain.
- To facilitate deep expertise, MEs spend more time in each post (not frequent postings after 2-3 years to ground units and HQ).
- The salary scales are designed to recognise and reward higher expertise levels within the same responsibility band, as well as higher responsibility appointments for those with the demonstrated potential.
- MEs who display good performance and potential are groomed to take on pinnacle, senior leadership positions and progress at a faster pace. Based on SAF's requirements, considerations of deploy-ability and fitness, MEs can enjoy a career up to age of 60.

MEs are important partners in complementing Defence Technology Community (DTC) with their deep expertise across various vocations. The DTC and SAF (MEs) together adopted a holistic approach to defence capability development, where new operational and technological concepts are formulated “hand-in-glove”.

People's Liberation Army (PLA-China). Peoples' Republic of China is practicing the culture of preparing SME in various sectors of PLA Army, Navy, Air Force and Rocket Force for a long time. PLA is preparing SME in the following steps which is shown in table 1 (Yang, 2022):

| Table 1: Military SME Development Process in PLA (China) | | |
|--|--|---|
| Entry Level | Intermediate Level | Senior Level |
| <p>Creating a national defence scholarship program (also known as National Defence Student Program) to fund promising students in return for a period of military service. There are more than 110+ participating universities (including top universities) of China to which these students are sent for education.</p> | <p>There are several command colleges to train intermediate level officers. These command colleges are specific to different arms/services, and provide greater scope to prepare SMEs. Apart from educational activities, these colleges are also responsible for “scientific research” on major policy, doctrinal, operational, organizational, and technological issues concerning the PLA. These colleges also create SMEs in collaboration with civil universities and other military research institutions. Retired senior military leaders, party and government officials, diplomats, scientists, and scholars, as well as active service unit commanders are hired as guest or adjunct professors.</p> | <p>National Defence University (NDU) provides education to PLA’s most senior officers. The main objective is to prepare senior officers for higher command and staff positions that require knowledge beyond strictly military affairs. When change is required in the military-strategic guidelines and operational regulations of the armed forces, the Central Military Commission employs NDU to formulate appropriate strategies and concepts.</p> |

The UK Armed Forces. The UK Armed Forces has contractual arrangements for managing needs of SME (Wordsworth, 2022). The outsourcing of military support has gained momentum due to the emerging

belief in the superiority of market solutions and the neoliberal commitment to reduce the size and functions of the public sector (Cusumano, 2015). In an effort to hire more cyber professionals, the UK Armed Forces have loosened hiring regulations to permit candidates from the commercial sector to go directly into high military jobs. The new 'National Cyber Force' benefits from additional cyber professionals being recruited as reservists and military regulars, according to Strategic Command's new cyber career policy. A new lateral entry rule, which enables cyber professionals to quit industry and move directly into high military ranks without having to move up the hierarchy, is one of the most significant reforms (Warrell, 2021).

Justifications for Incorporation of SMEs in BD Army. In essence, BD Army already recognized the need of SMEs. Induction of PhD officers as instructors in technical faculties of army-run educational institutions, provision of direct entry for FCPS doctors (as officers), creation of Army Cyber Group in combination of both civilian and military cyber specialists, formulation of SME policy to induct retired military personnel as instructors in training institutions, etc. are some of the examples. More possibilities are out there where military SMEs could be incorporated:

- During 2014-2018, India was the world's second largest defence importer. India formulated a new defence procurement, acquisition and manufacturing policy under the scheme 'make in India' to reduce imports and enhance domestic manufacturing. This military industrial revamp was possible through transfer of technology, allowing access to private sectors and home-grown SMEs (The Hindu, 2019). Under Military-Civil Fusion, China is systematically reorganizing the Chinese science and technology enterprise to ensure that new innovations simultaneously advance economic and military development. China specifically seeks to exploit the inherent 'dual-use' nature of many of the technologies, which have both military and civilian applications (US States Department, 2021). In Singapore, a reorganisation led to the establishment of the Defence Science and Technology Agency (DSTA) which replaced the previous Defence Technology Group

(Karniol, 2006). Now DSTA is a top-notch technology organisation that drives innovation and delivers state-of-the-art capabilities to make the SAF a formidable fighting force. Core of DSTA is made of engineers and SMEs, both from civilian sector and military (DSTA Official Website, 2022).

- BD Army is in the process of modernization. Already a good number of new outfits have been raised and associated armament and equipment have been procured. It already possesses UAV, Multi-launch Rocket System, Surface to Air Missile, Light Armoured Vehicle and Electronic Warfare equipment. In future, Artificial Intelligence and robotics based military appliances, satellite and space related technologies, direct energy weapons etc. is expected to be inducted. It is envisaged that for handling of sophisticated technologies, formulation/adjustment of doctrine, organization and procedures, training of under commands, and repair and maintenance, BD Army will require SMEs. Moreover, with the passage of time, field training areas will be extremely limited and simulation based training will get primacy. Establishment of Army War Game Centre (AWGC) is a glaring example to that end. It also showcased the necessities of SMEs for technological management.
- Future security environment is going to be extremely volatile and complex. Now virtual space is equally important like physical space. With increasing dependencies on sensor and software based appliances, and unmanned systems, armies around the world are going to be more vulnerable to invisible enemies. To match with the challenges of the evolving future, BD Army would be required to make smart decisions. SMEs could be useful in aiding such decision-making. Their incorporation would also help to keep up with the best practices of developed armed forces in a globalized world. As reflected in the NATO and US publications, SMEs are already consulted frequently for adopting 'Operational Approach' and 'Red Teaming' in the western militaries.

- Present trend of career development for officers in BD Army adopts a holistic approach. It allows training for progressive capacity building for assumption of appointments based on incremental rank and service length. However, systematic, long-term based and progressive specialization is still wanting. To develop SMEs, an officer's career needs to be guided through a carefully crafted path. Coining the idea of SME can change the picture. It can bring more control and focus of knowledge and expertise management for officers, which in turn will benefit the organization. This approach can also bring more focus on individual and group researches carried out in course of career of an officer.

Challenges to Incorporate the Concept of Military SME for BD Army

Though SMEs are desirable, their induction and management could be quite challenging for BD Army. A massive cultural shift will be necessary to implement the concept. As seen from the case studies, SMEs can be sourced directly from the civilian sector (the UK model); recruited through separate stream (SAF model); or nurtured through progressive training (PLA model). An analysis of existing regime shows that a generalized approach is followed towards career management of officers in BD Army, which is not fully conducive for development as SME. Following shortcomings of existing career management regime are identified to promote creation of SME officers:

- In BD Army, systematic specialization is not yet promoted as policy and development of SME through regulated actions is largely lacking. Military Secretary's (MS) Branch, with all its limitations, is dedicated to do its best for managing and developing careers of the officers for serving interest of BD Army. However, sometimes long-term career development, particularly preparing officers with specialized training, is hampered by interference. It forces to adopt ad-hoc and balancing steps by MS Branch. Contrary to practices of some other

armies like China and Singapore, MS Branch tries to develop balanced army officers with wholesome experiences of command, staff and instructional exposures. To develop domain deep-specialization, it would be necessary to allow an officer substantial time in a particular appointment/establishment. With current shortage of officers, that is very challenging and might be feasible for a very small percentage only.

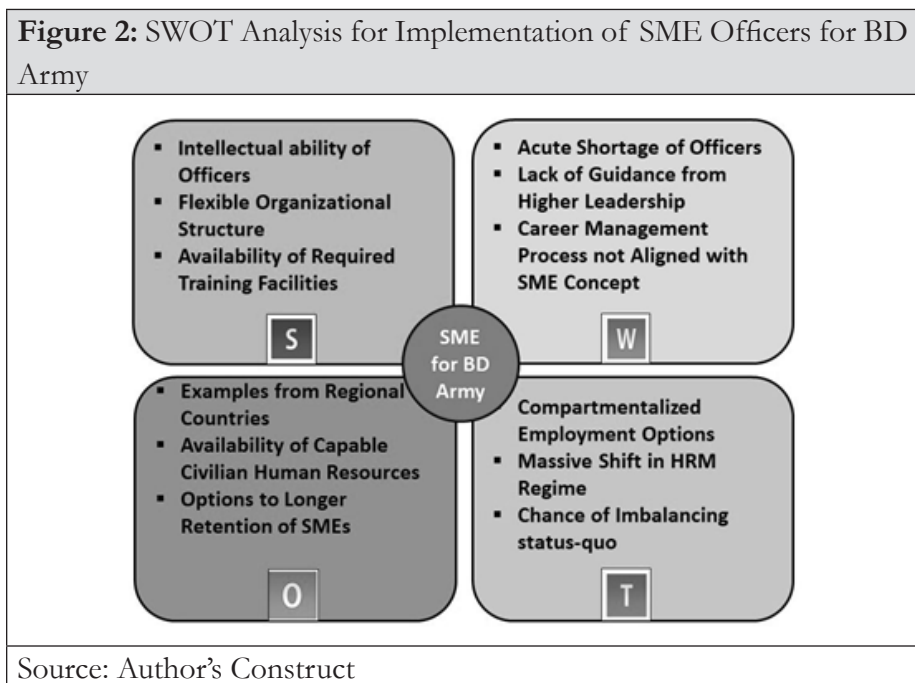
- As envisaged, preparations of officers as SMEs by additional training and posting to specific facilities are going to be hard to accommodate by the MS Branch. The MS Branch will be required to re-orient career planning of the officers, which is really challenging. Also, it will exacerbate the shortage of officers in the unit and impede work-life balance for non-SME officers. Moreover, identification of required types of SME (with relative priority) and formulation of selection criteria for SME officers will require detailed study. Provision of more number of specialized training will also put additional burden on defence budget.
- Officers are selected for various professional assignments during their career, e.g. foreign training and exercises, Pre-Shipment Inspections, conferences, seminars, staff-talks, etc. The selection process is still welfare-oriented and seniority-based. However, these opportunities could be made contributory to overall SME development plan. Basing on type of assignment if officers were selected focusing on their specialization needs, it could yield better results.
- There is a conceptual dilemma- should the officers be ‘jack of all trade and master of none’ or ‘only master on some.’ SME officers are likely to have compartmentalized post-specialization career opportunities. Previously, MS Branch experienced difficulties with career management of aviator officers as customized placement and promotion criteria for them were not devised. Thus, it is likely to grow aversions in the minds of officers and policy makers alike about the concept of military SME.
- Overall management of higher education and R&D in BD Army is not systematic. Many researches are carried out by officers as a part of the

course curriculum or service requirement. However, owing to lack of coordinated efforts, individual gain towards enhancement of expertise is diluted. There are also huge numbers of duplicated and wasted efforts in this regard. A better organizational guidance and control on higher education and research efforts could reap better benefits and assist officers to grow as SMEs.

- Each arms/services has its own design of specialization for its officers. It is difficult to say out-rightly what type of complications would appear for each arms/services related to SME scheme. Therefore, arms/service specific feasibility study will be of paramount importance before going ahead with the concept.

A Suggested Solution to Harness SME for BD Army

SWOT Analysis to Seek a Feasible Plan. Following SWOT analysis outlines suitable strategy of harnessing military SMEs for BD Army:



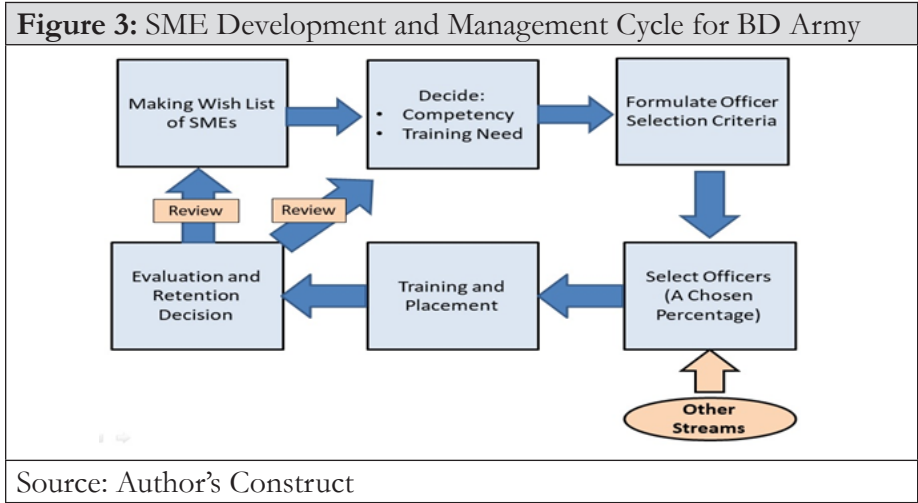
| Table 2: Contemplating a Plan for Incorporation of SME in BD Army | |
|--|--|
| S-O Strategies | W-O Strategies |
| <ul style="list-style-type: none"> • Adoption after necessary customization • Policy for retention of SMEs (even after retirement from svc) • Integration plan for harnessing civilian talents • Formulation of SME selection, qualification and training plan | <ul style="list-style-type: none"> • Identification of areas where SMEs can reduce pressure of shortage of officers • Cost-Risk-Benefit analysis of models from regional countries to formulate leadership guidance • Realigning officers' career management to accommodate military SMEs |
| S-T Strategies | W-T Strategies |
| <ul style="list-style-type: none"> • Identification of fields and employment plan of SMEs • Redesigning HRM regime to accommodate SMEs | <ul style="list-style-type: none"> • Deciding on correct proportion of SME and non-SME officers • Implementation after necessary study and piloting |

A Proposed Plan. A suggestive plan for integrating SMEs in BD Army could be:

- **Making Wish List of SMEs.** At first an appropriate institution should identify type and quantity of SMEs required for BD Army. The total list may be implemented based on priority and in phases. The list should consider wide range of aspects, like- technical, intelligence, planning, instructional, training, content development, military diplomacy, negotiation, procurement, UN assignment related, etc.
- **Deciding on Competency and Training Requirement for Development.** Next thing will be to list down desired competencies of the SMEs. It could be stacked as 'must have', 'should have' and 'good to have'. Then training requirement for developing those competencies should be ascertained. It is to be remembered that

existing training facilities/provisions to be integrated as far as possible to reduce separate training needs. Foreign training should also be kept in mind and possible destinations should be earmarked. Future research requirements are to be also forecasted at this level.

- **Formulation of Selection Criteria and Earmarking Officers.** Having decided on the competency, officer selection criteria has to be formulated. It should be unbiased and appropriate. SME's likely career trajectory should also be decided at this stage. Keeping competencies in view, officers with matching potentials and personalities are to be earmarked. Results of courses, feedback from CO/OCs, performance in the unit/formation and interviews etc. are to be taken into considerations in this regard. Also, certificate of willingness and necessary clearance are to be obtained.
- **Training the Officers and Placement at Right Places.** This is the beginning of the execution of all ground work done so far. SME officers will receive training and have practical exposure to exercise their expertise at relevant place of postings. Periodic evaluation and counseling should be arranged too.
- **Integrating Other Streams.** As discussed before, SMEs from other stream, e.g. direct-entry military officers and civilian SMEs (inducted into army) can also be integrated with the previously mentioned selected officers. This will result in much needed fusion to harness wide-ranging talents. This will also reduce some of the elementary training needs.
- **Running the Whole Loop as a System.** The whole procedure could be run as a system. Initially, a small scale piloting might be done. The system is to be evaluated and reviewed frequently. Figure below graphically shows the whole procedure:



Cost-Risk-Benefit Analysis and Mitigation Plan for the Proposed Model. A cost-risk-benefit analysis and likely mitigation plan of the proposed model could be:

Table 3: Cost-Risk-Benefit Analysis and Risk Mitigation Plan of Proposed Model

| Cost | Risk | Benefit | Risk Mitigation |
|--|---|---|---|
| <ul style="list-style-type: none"> • Aggravation of Officer Shortage in the units • Necessity of detailed study to ascertain need, selection criteria and training requirement • Additional effort to manage and evaluate the whole process | <ul style="list-style-type: none"> • SMEs might face initial resistance from the non-SME officers • Chances of nepotism/ monopoly in selection • Likely to constrain budget • Chances of premature abandonment of the project | <ul style="list-style-type: none"> • Only a small percentage is engaged • Induction of other stream will bring diversity and strength • Systematic evaluation will improve the process over time | <ul style="list-style-type: none"> • Fair selection criteria and implementation • Awareness programs and running pilot project will reduce initial resistance • Implementation through perspective planning and rigid adherence up to completion of the loop |

Conclusion

With the advancement of human civilization, SMEs are gaining more importance in every field day by day. Military Domain Experts have already been inducted to few modern armies. BD is inherently disadvantaged to fight being outnumbered and outgunned against numerically and technologically superior adversaries. However, like Singapore or Israel it should use its human capital, so that it is not out-witted. As war is waged in technologically complex and volatile situations, countries like the USA, UK or China are relying on military SMEs more than ever before. However, the concept is relatively new and very few researches have been carried out from BD Army's Perspective.

There could be multiple arenas where BD Army might find SMEs to be essential. As it is continuing its journey towards modernization, necessities of recognized military SMEs are getting more pronounced. Some of the important use of military SMEs could be- understanding and analysing emerging security scenarios for prudent decision making, to facilitate military-civil fusion for induction of sophisticated technologies, for enhancement of defence industrial capability, to develop modern training facilities, to improve upon career management of officers and overall research efforts, to aid military diplomacy, to keep up with the practices of modern armies, etc. BD Army is also in the process of modernization which demands SMEs for designing training under changed scenarios; adjustment of Technique, Tactics and Procedures; better handling, repair and maintenance of acquired armament and equipment; and so on.

Though SMEs are highly sought-after, their sourcing and management for BD Army could be quite challenging. Analysis of existing career design and training modules of officers showed that present system provides little to humble opportunities for development and management of military SMEs. Some of the prominent shortcomings are- not adopting the concept of recognized SME as a matter of policy, ad-hoc-ism and interference in career management, inconsistent career track of the officers, un-

orchestrated research efforts, lack of SME oriented focus in selection for assignments, etc. There are other challenges that are adversely affecting development and nourishment of SMEs, e.g. challenges in formulation of selection criteria for SME officers, maintaining balance and spacing between mandatory training and specialization needs, current shortage of officers and career management challenges, compartmentalized post-specialization career opportunities, huge training and monetary involvement, massive cultural shift, complications specific to arms/services, etc.

To eradicate the existing challenges, a proposed option has been floated in this article. It is concluded that every military officer does not necessarily need to be an SME. A selected group of officers may be targeted for such conversion. It needs a focused and long-term approach. The stream of intake can also be diversified by induction of direct-entry uniformed SMEs or outsourcing of civilian SMEs. Introduction after necessary piloting and phased execution under well-formulated perspective plans are also suggested. To have centralized control on management of SME officers, gathering them under centralized cell through permanent transfer can also be envisioned. Finally, few suggestive steps for BD Army in regards to induction of SMEs could be:

- BD Army may formulate “SME Development and Management Perspective Plan” to formalize the concept, sensitize appropriate offices and start preparatory works. For the purpose of running a pilot project, a small pool of officers may be attached under a central SME cell and be given necessary training and hands-on exposure to various projects for judging further feasibility of the concept.
- Arms/Service specific studies may be carried out to outline assessment of SME requirements, induction/development options and challenges for implementations.
- To attract civilian SMEs to military sector, BD Army may restructure civilian employment practices and gradually develop a culture of military-civil fusion through attractive packages.

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Author

Lieutenant Colonel Md Reazul Islam, SUP, afwc, psc, Artillery was commissioned in Bangladesh Army with multiple distinctions on 24th December 2003. He is an alumnus of the Defense Services Command and Staff College, and National Defence College, Mirpur. He obtained Master's in Defence Studies and Master's of Social Science in Security and Development, both from the Bangladesh University of Professionals. He also holds an MBA in Logistics Management from Sir John Kotelawala Defence University, Sri Lanka. He is a recipient of the 'Sena Utkorsho Padak' for his remarkable contribution in formulation of the 'Chief of Army Staff's Planning Directive- 2018.' The officer has experience of serving in various command, staff and instructional capacities; and attended several professional courses at home and abroad. Under blue helmet, he completed one tour of duty as peacekeeper in Cote D'Ivoire and presently serving as Chief of Operations in a Sector Headquarters in MINUSCA in the Central African Republic. Beside military profession, his research interest includes human resource and career development, disaster management and humanitarian logistics, security, and international relationship. He has authored few publications in national journals.

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