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FOREWORD

It is with great pleasure and delight that I present the third issue of the *Defence and Security Journal,* which the Defence Services Command and Staff College (DSCSC) launched in 2016. The journal covers a plethora of areas, under the broad theme of defence and security. The journal was launched with a view to provide a window for new scholarship to analyse and present key issues confronting defence and security studies with special emphasis on Sri Lanka's national security.

As we move into another issue, I am glad to observe that the journal has gained repute among security professionals, academics and researchers as a platform to present well-positioned solutions through an analytical and interpretive lens which enables a better understanding of policy on defence and security in a dynamic world. Despite growing interest and impressive advancements in the field of security worldwide, gaps continue to remain at the national level in understanding and applying vital aspects of security from a variety of perspectives.

Thus, the third issue of the journal is composed of two types of papers: the first category provides an overall perspective of the contemporary security environment, whilst the second type looks into core components of national security by analysing the most recent dynamics influencing Sri Lanka's scope of national security. In doing so, the current issue of the journal features an array of papers ranging from regional security, nuclear deterrence, the changing nature of religion in the contemporary world, economic benefits of peacekeeping, maritime cooperation in the Indian Ocean, Post-Traumatic Stress Disorder (PTSD) among military personnel, and avenues for collaborative research for Sri Lanka Navy. As the DSCSC is celebrating its 20th anniversary in the year 2018, a feature article tracing the history of the College is also included to provide a glimpse of the steady and successful journey the College has taken over the years.

While welcoming the third issue of the journal, my appreciation is due to the editorial board headed by Professor Emeritus Amal Jayawardane for their expertise and efforts rendered in bringing out this publication.

I sincerely hope that this issue of the Defence and Security Journal would be beneficial to all readers. I also welcome insightful and refreshing content for our future issues.

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UNPACKING SOUTH ASIAN REGIONAL SECURITY IN THE 21ST CENTURY

Gamini Keerawella

ABSTRACT

South Asia is one of the least integrated regions in the world. In order to unpack South Asian regional security, it is necessary to trace the polysemy of the term 'South Asia' and its multi-layered construction. Regionalism is a process as well as an outcome of the process. Regionalism cannot be imposed; it should be evolved. As far as South Asian regional security is concerned, three references can be identified: the South Asian Region as a whole; the states in the region and more importantly; people in the region. Lack of trust among states in South Asia cannot be attributed wholly to the Indo-Pakistan conflict. The trust-deficit in the region is also an outcome of some architectural realities of South Asian states. The paradoxical impact of the rise of India to a status of global power on regional bonding should also be noted. In the new millennia, there is a growing tendency towards regional economic integration in the world, but South Asia remains outside the tendency. South Asia is a region where the highest interstate barriers exist to trade and it suffers from prohibitive tariffs. Gains of deeper economic integration in South Asia are not unknown. But, the region still falters in making a breakthrough due to trust deficit, insufficient policy-relevant analytical work on gains of regional integration to make informed policy decisions, limited logistics and regulatory impediments and cross-broader conflicts. These impediments come to the forefront when regionalism is projected from the state-centered formula. We need an alternative approach, focusing on the people-to-people interaction based on common belonging and shared interests.

Keywords: Regionalism; Regional Security; South Asia

INTRODUCTION

South Asia, home to a fifth of humanity, is one of the least integrated regions in the world. The intra-regional trade in South Asia accounts for only 5 percent of its total trade, manifesting a low degree of economic bonding in the region. Two main states in South Asia were born into an environment marred by mutual antagonism and it continues to remain so as they got locked into a multiple-level conflict as to the dispute over territory, balance of power, threat perceptions, mutual accusation of interference in each other's domestic affairs and rival foreign policy approaches. The relationship between India and its other neighbours constantly fluctuates in an environment of mutual fear and suspicion. The faltering SAARC process appears to be in limbo since 2016 after India's boycott of the Islamabad Summit, in retaliation to the Uri attack in Kashmir. Against these ground realities, what is really meant by

'regional security' and 'regionalism' in South Asia? Firstly, to unpack these issues, it is important to raise some fundamental questions pertaining to the construction of the term, 'South Asian region', and of the concept, 'regional security of South Asia'. The polysemy of the term 'South Asia' and processes of its multi-layered construction will be traced. What exactly is the reference point of regional security? It must be made clear that 'regional security' and the 'regional security complex' are not the same; the first is a reference point and the latter is an analytical tool. Regionalism is a process propelled by multi-faceted regional bonding. Later, the issues and processes of South Asian regional security and insecurity in the 21st century will be unpacked with the help of these analytical insights.

SOME CONCEPTUAL ISSUES

The term South Asia bags different notions, depending on the context of its use and the underlying stake of its construction. The term has been presented as a civilisational entity, a geographical description and also as a political idea. The shared cultural heritage in South Asia is a historical fact but culture is a constantly evolving phenomenon. The existence of different religions and paths of civilisations in South Asia also contests the idea that South Asia forms a single cultural region. Many states in South Asia are post-colonial entities and they possess a similar colonial experience; unification and division. However, the geographical description of South Asia does not correspond with any sense of political belonging. Against this backdrop, what is meant by the South Asian region? To answer this question, it is necessary to trace the genealogy of the concept of 'region' in international studies and the evolution of regional security studies.

The concept of region entered into the academic realm of international studies as a unit of analysis only after the Second World War; but its ideological roots can be traced in the geo-political writings in the late 19th and early 20th centuries. In the early Cold War years, an analytical category of region, located in between the individual state and the global system, was recognised in line with global strategic projections of the superpowers.

The concept of 'region' as a heuristic construct to study international relations gained currency with the proliferation of Area Studies in US centers of higher learning and research after the Second World War. At the same time, certain scholars in international politics conceptualised geographically distinct group of states as subsystems or subordinate systems. Leonard Binder, then Director of the Near East Center at the University of California, Los Angeles, can be considered the pioneer to use the subsystem approach to study regions (Binder, 1958). He was soon followed by a group of scholars such as Michael Brecher of McGill University, William Zartman of SAIS and Larry W. Bowman of Connecticut University who employed the systems theory to bring regions to international politics. There are four necessary conditions defining regional subsystems: (1) the actors' patterns of

relations exhibit a particular degree of regularity and intensity to the extent that a change at one point in the subsystem affect other points, (2) the actors are generally proximate, (3) internal and external observers and actors recognise the subsystem as a distinctive 'theatre of operation', and (4) the subsystem logically consists of at least two or, quite probable, more actors.

In the Cold War context, regions were identified mainly in terms of the importance given to the region in global strategic calculations of the Superpowers. South Asia as a region was not considered vital to their central strategic balance. However, India and Pakistan as individual states figured to some extent in the containment and de-containment strategies of superpowers. The commonly used term in academic parlance at that time was the Indian Sub-continent, and it's attention was mainly on the Indo-Pakistan rivalry.

It should also be noted that in the deliberations of the Asian Relations Conference in 1947 or Colombo Powers Meeting in 1954, the term South Asia was not used at all. It was in the late 1950s, that the US State Department and the World Bank used the term South Asia. In 1959, the US State Department published a briefing document entitled 'Subcontinent of South Asia'. It was believed that the term South Asian region is politically neutral, compared to the term Indian Sub-continent (Arif, 2014).

It is with the establishment of SAARC in 1985 that the term South Asia received a new currency. Since then, various agreements were signed and initiatives were launched with South Asian regional focus. The achievements of SAARC in promoting regional cooperation, especially in some functional areas should not be discounted. However, progress in achieving goals and objectives of regional cooperation in key political and economic domains is far from satisfactory.

SOUTH ASIAN REGIONAL SECURITY

In this situation, what is meant by South Asian regional security? If security is defined as the pursuit of freedom from threat and fear, i.e., a process then, whose security are we talking of when it comes to South Asia? In this regard, three references need to be taken into consideration: the South Asian Region as a whole, the states in the region and more importantly, people in the region. South Asia's position in the global system and region-wide security issues that demands regional approach and action constitute the first level. The reduction of adversarial environments linked with fear and suspicion in relations among South Asian states and promotion of trust and confidence through economic interaction and political dialogue would be the concerns under the second level of reference. Security concerns of the individual citizen in the region can be included in regional security as many of them are more or less common irrespective of state boundaries. Threats to human security can be cited as a case in point. The discourse on Peoples' SAARC represents this tendency.

In addition, the term regional security can be used to explain the present state of security conditions, i.e., an analysis. A rich body of literature is available in South Asian regional security and in particular the contributions of the Copenhagen School must be noted. Barry Buzan and Ole Waever, in their highly influential work published in 2003, *Regions and Power: Structure of International Security, developed the Regional Security Complex Theory (RSCT)*. They argue that security is clustered in geographically shaped regions because threats travel more easily over short distances than over long ones. Furthermore, threats are most likely to be in the region and security of each actor in a region interacts with the security of other actors in the region. They observe "a set of units whose major processes of securitisation, de-securitisation, or both are so interlinked that their security problems cannot reasonably be analysed or resolved apart from one another" (Buzan, 2002, p.2). In analysing the Regional Security of South Asia from the perspective of RSCT, they observed two points. First, the South Asian regional security complex was slowly moving towards an internal transformation from bipolarity to unipolarity as India got stronger and Pakistan weaker. Second, the rise of China was creating a center of gravity that was slowly drawing South Asia into closer security interaction with the East Asian regional security complex. In his article on the South Asian Security Complex published in 2011, Barry Buzan argued that despite many events in South Asia, there is "little in the way of structural change from the analysis in Power and Region" (Buzan, 2011, p.11).

Thus, it is useful to bring to focus the difference between two contexts in which the term regional security is employed: process and description. According to Earnest B. Hass, "the phenomenon of regionalism is sometimes equated with the study of regional integration. Regionalism can be a political slogan; if so, it is ideological data that the student of integration must use. Regionalism can also be an analytical devise suggesting what the world's 'natural' regions are (or ought to be)" (Hass, 1971, p.8). Regionalism is a process as well as an outcome of the process. Regionalism cannot be imposed; it should be evolved. The primary condition of regionalism would be a common regional identity that is determined by a number of factors. Having common socio-cultural traits and values does not necessarily generate regionalism. The perception of having a common regional attribute must set in motion a process of regional bonding. Political and economic dynamics in operation at different levels are critical factors that promote or hinder regional bonding despite the fact that the region claims common regional attributers.

In the new millennia, there is a growing tendency towards regional economic integration. As the East Asia Forum noted, as of February 2016, 625 notifications of regional trade agreements had been received by the WTO and 419 were in force (Economic Watch, 2016). South Asia remains out of this tendency. After the establishment of SAARC, a number of initiatives were taken in the direction of regional economic integration such as signing of the South Asian Free Trade Area (SAFTA) agreement in 2004. But in real terms SAFTA proceeds very slowly due

to trust deficit, insufficient policy-relevant analytical work on gains of regional integration to make informed policy decisions, limited logistics and regulatory impediments and cross-broader conflicts. Economically South Asia is one of the least integrated regions in the world at present. Intra-regional investment in South Asia is smaller than one percent. Its intra-regional trade accounts only for 5 percent of its total trade whereas intraregional trade in Southeast Asia makes up 25 percent of ASEAN's total trade. South Asia is a region where the highest interstate barriers exist to trade and it suffers from prohibitive tariffs. If these barriers are removed, intra-regional trade in South Asia could increase from the current $23 billion to $50 billion. According to a survey, at present it is 20 percent cheaper for India to trade with Brazil than with its neighbor, Pakistan (World Bank, 2016). Economic gains of deeper economic integration in South Asia are not unknown. But, the region still falters in making a breakthrough. It could be explained in terms of political logic unique to South Asia.

It should be pointed out that fundamental to the conflict between India and Pakistan is the contradictory ideologies upon which the two states are based. The ideological rationale of the state of Pakistan has been the homeland for Muslims in the Indian sub-continent while founders of the Indian state asserted multi-ethnic, multi-religious and multi-linguistic character of the state based on a federal constitution to maintain the unity of India's diverse social patchwork of collective identities. The idea that Hinduism and Islam formed two separate civilisations, a view that is shared by Hindu nationalists in India as well, sets roadblocks to the growth of regionalism with regional bonding.

The chronic rivalry between India and Pakistan is just one dimension of the pervasive trust deficit in South Asia. Incidents reported from time to time on both sides of the boarder keep the pot boiling at all times. It has now become a socially constructed phenomenon. Lack of trust among states in South Asia cannot be attributed wholly to the Indo-Pakistan conflict. The trust-deficit in the region is also an outcome of some architectural realities of South Asian states. The unchangeable and undeniable regional reality in South Asia, the term used by late Mr. Lakshman Kadirgamar (1996), is the central and asymmetrical presence of India in various domains. India's preponderance over all others in South Asia is based on its size, power, resources and development. Further, India's centrality in South Asia is geo-political. None of the South Asian countries interact with another without touching or crossing Indian land, sea or air space. In addition, India has special ties with each of its neighbours with regards to language, religion, ethnicity, kinship, economic nerves or common historical experience. The states around India fear that India could use some of these ties and cross-border linkages to interfere in the internal affairs of its neighbours. Sir Ivor Jennings vividly captured this love-hate relationship between India and its neighbors in 1951 when he wrote, "India thus appears as a friendly but potentially dangerous neighbor to whom one must be polite but a little distance. It is not because that India and Indians are unpopular, but that the Ceylonese [Sri

Lankans], while admiring much that is Indian, and feeling themselves racially akin to Indian have a sensation of living under a mountain which might send down destructive avalanches" (Jennings, 1951, p.113). This is more relevant today.

The paradoxical impact of the rise of India to a status of global power on regional bonding should also be paid attention. In the last decade India consistently maintained one of the highest GDP growth rates in the world. India was able to take impressive strides in the area of knowledge industry and research and development. India is now ranked fourth in the Global Fire Power (GFP) ranking. Today, India's military is the third largest and its air force the fourth largest with 2,185 aircrafts (Fighter Aircraft, Attack Aircraft, Transport Aircraft, Trainer Aircraft and Attack Helicopters). Its navy is the fifth largest in the world (Global Fire Power, 2018). These developments have compelled India, as an aspirant global power, to extend its strategic perspective beyond South Asia. At the same time, it exacerbates the fear of Indian 'bogey' among its small neighbors as they feel they are becoming more and more Lilliputian before the Indian Gulliver.

This is only one aspect of the changing scenarios. It must not be forgotten that South Asia became the fastest growing region in the world in 2016 and solidified its lead in 2017 due to solid economic performance by India. Still the South Asian region is home to 40 percent of the world poor. The challenge before India's neighbors in South Asia is how to leverage their special links with India to become an integral part of South Asian growth engine. Nevertheless, stunned and threatened by economic and scientific advances achieved by the Indian industrial and commercial establishment, some sections of weak and backward industrial and commercial middle class of South Asian neighbours seek state protection to remain within their own comfortable cocoon. In contrast, general public in these countries experience cross border dividends generated by the growth of Indian economy and by other advances in scientific and medical research. The economies of other countries also benefit from the renewed Indian economic dynamism. For example, the Colombo Port has emerged as a major international transshipment hub for Indian goods. In 1915, 42 percent of India's transshipment was handled by Sri Lanka.

In order to go forward as a global power, India needs a stable and friendly South Asian environment. It is a fact that insecure and discontented neighbours around her in South Asia would not augur well for India, having millstones around her neck. In the changed constellation of power in South Asia, what needs today is a 'new Gujral Doctrine' on the part of India to allay the perceived fears of its neighbours. In the long run, it will enhance its soft power in global politics. At the same time, it would give a kick-start to the stalled SAARC process. The small states of South Asia also need to recognise evolving geo-political realities in the region.

CONCLUSION

All the issues and impediments come to the forefront when regionalism is projected from the state-centered formula. The trust deficit exists mainly among states and not among people in South Asia. It must be noted that there can be two approaches to regionalism. The first is the top-down approach, which aims to foster collaboration between the states in the region. The issues of regional power politics come forward to hamper the process of regionalism when it is pursued through the top-down approach. The second is the bottom-up approach, focusing on the people-to-people interaction based on common belongings and shared interests. In the bottom up approach, the reference point of regional security, hence the driving force of regionalism is the people in the region that counts on their community of interests cutting across state boundaries. Therefore, the possible way out of the present imbroglio of SAARC is to redefine and re-chart regionalism from bottom-up approach. In such an endeavor, the human security in South Asia becomes a priority in regional security. The two approaches are not alternatives to each other. In an ideal situation, both could proceed simultaneously. Hence, South Asian regionalism must be a multilayered process and a political discourse. Who sets the agenda of the discourse is the critical issue here. It is too serious an issue to leave in the hands of demagogues, a common breed in South Asia

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COMBAT RELATED POST TRAUMATIC STRESS DISORDER (PTSD): A THREAT TO THE NATIONAL SECURITY OF SRI LANKA

Captain Thushantha Jayawardane

ABSTRACT

Post-Traumatic Stress Disorder (PTSD) is a leading morbidity among combat military personnel globally. It affects their well-being and leads to hindering the overall military capability, the combat effectiveness of armed forces and the national security of a country. Prevalence of PTSD had been reported as high as 17.1 percent among post-conflict settings. Depression, substance abuse, suicidal ideation and personality disorders are known to be associated with combat-related PTSD. The primary aim of this study was to determine the prevalence of PTSD among combat military personnel currently serving in the Sri Lanka Army. It also sought to identify psychological, occupational and social issues faced by them as well as to determine their impacts on PTSD in a post-conflict setting. A cross-sectional descriptive study was conducted in the year 2017, to determine the prevalence of combat-related PTSD among 871 combat soldiers who are presently serving in the Sri Lanka Army using a structured questionnaire with PTSD Check List-Military Version (PCL-M). In addition, in-depth interviews were conducted by using a semi-structured questionnaire, among soldiers who were reporting 'sick' to the psychiatric clinic at Army Hospital in Narahenpita.

The prevalence of PTSD among combat soldiers in the Sri Lanka Army was 8.7 percent. The length of service at Sri Lanka Army being less than 20 years, the presence of a family member with psychological illness, consumption of alcohol and cannabis were having a statistically significant high level of PTSD among the combat military personnel with P-values <0.05. The prevalence of PTSD and addiction to alcohol, smoking and cannabis were high among the combat military personnel in the Sri Lankan Army. A large-scale screening programme for PTSD among the Sri Lanka Armed Forces should be conducted to identify individuals with PTSD and appropriate treatment should be provided while maintaining a robust system of enhancing the physical and mental standards of soldiers in the Sri Lanka Army.

Keywords: psychological disorders, PTSD, Sri Lanka Army

INTRODUCTION

The Ceylon Army was inaugurated on 10 October 1949, under the Army Act No.17 of 1949. It was renamed as Sri Lanka Army, after the country became an independent republic on 22 May 1972. Since then, the Sri Lanka Army has greatly

contributed to protecting the territorial integrity and the sovereignty of the country. It comprises of a regular force, regular reserve, volunteer force and the volunteer reserve. Later, it was expanded in terms of manpower, equipment, logistics and training in order to meet the challenging requirements of varying circumstances. It is virtually impossible to set an exact date for the origin of the Tamil militancy in Sri Lanka. However, Sri Lanka Army had a pivotal role to play in the 30 years of prolonged armed conflict with the LTTE which was militarily defeated in May 2009. Thus, combat military personnel of the Sri Lanka Army were exposed to the protracted war, and experienced various stressful events being away from their loved ones for a long period of time. Therefore, the prevalence of PTSD among combat military personnel of the Sri Lanka Army is expected to be higher than the general population.

According to the National Institute of Mental Health – USA (2016), PTSD is "a disorder that develops in some people who have experienced a shocking, scary, or dangerous event". Further, it says that humans by nature feel afraid during and after a traumatic situation. Fear triggers in seconds and makes changes in the body to help defend against the threat. Most probably, everyone experiences a range of reactions after a trauma, yet the majority of the people recover from the initial symptoms naturally while some do not. Hence, those people who continuously experience problems may be diagnosed with PTSD. A person who has PTSD may feel stressed or frightened when s/he is awake and even sleeping.

As specified in the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM–IV; American Psychiatric Association, 1994), PTSD is an anxiety disorder that can occur when a person is exposed to an event that is life threatening to self or others and feels intense fear, helplessness, or horror. The classical signs of PTSD are re-experiencing of the stressful event, avoidance of reminders, hyper arousal and cognition or mood symptoms. If a person is to be diagnosed with PTSD, s/he has to report one or more re-experiencing symptoms, three or more avoidance/ numbing symptoms, and two or more arousal symptoms. The symptoms have to be present for more than one month and cause significant distress or impairment in important areas of functioning.

Depression, substance abuse, suicidal ideation and personality disorders are known to be associated with military-related PTSD (Skodol et al, 1996). Further, several researchers have argued that stress and post-stress adaptation responses are related to long-term health outcomes (Klaric *et al.*, 2008). Studies of survivors of disaster, veterans and prisoners of war, and others exposed to severe trauma suggest higher rates of physical morbidity and mortality and increased health care utilisation related to lifetime prevalence of trauma. There is accumulating evidence that chronic PTSD may mediate the link between trauma and secondary negative health outcomes such as cardiovascular, metabolic and autoimmune conditions (Pia *et al.*, 2009).

COMBAT RELATED PTSD

PTSD and the military are closely linked. The first instance that PTSD was recognised and systematically diagnosed was among Vietnam veterans (Hapke *et al.*, 2006). Acute responses reported by soldiers who fought in the First and Second World Wars included re-experiencing symptoms and dissociative responses such as numbing, amnesia and depersonalisation. A variety of labels have been used to describe these reactions including 'fright neurosis', 'combat/war neurosis', 'shell shock', and 'survivor syndrome' (Ehlers and Harvey, 2000).

Whether the traumatic event can be considered a major cause of these psychological symptoms has been the subject of considerable debate. There were attempts to attribute them to pre-existing psychological dysfunctions. It was the recognition of the long-standing psychological problems of many war veterans, especially Vietnam veterans, that changed this view and convinced clinicians and researchers that even people with sound personalities can develop clinically significant psychological symptoms if they are exposed to horrific stressors (Ehlers and Harvey, 2000). This prompted the introduction of PTSD as a diagnostic category in the Diagnostic and Statistical Manual of Mental Disorders, Third Edition (DSM- III) developed by the American Psychiatric Association in 1980. It was thus recognised that traumatic events such as combat, rape, man-made or natural disasters give rise to a characteristic pattern of psychological symptoms.

The prevalence rate in the military is significantly higher than the general population due to their high risk in experiencing unusually stressful traumatic events. During the past few years, a number of studies have reported prevalence rates between 15.6 percent and 17.1 percent for PTSD among those who have returned from the Persian Gulf War and the Iraq War respectively (Hans and Stephanie, 2007). Prevalence of PTSD among a randomly selected community sample of New Zealand veterans was 10 percent (Long *et al.*, 1996). Most of the studies have been conducted among veterans whereas this study focused on currently serving combat soldiers.

Many studies have established that the children of combat veterans with PTSD have more frequent and more serious developmental, behavioural, and emotional problems than the children of combat veterans without PTSD. Further, some of them also have specific psychiatric problems (Klaric *et al.*, 2008). Therefore, combat-related PTSD can affect the soldiers individually as well as at their family level and society as a whole, endangering military preparedness. Hence, PTSD can considerably hamper the military preparedness of defence forces posing a threat to national security. Therefore, accurate research evidence and effective mental health services are imperative to mitigate this military specific health burden in order to maintain the optimum military preparedness in any defence force.

The military needs to maintain robust physical and mental fitness of both officers and soldiers in order to face any security challenge to the country. Military commitment in warfare can have dramatic consequences for the mental health and well-being of military personnel hindering the overall military capability and combat effectiveness of the armed forces of a country. PTSD contributes to a major share in mental health morbidity among military personnel. It does not stop at the military level, but propagates into society as well, because the combat military personnel are not an isolated entity, but they also have interpersonal relationships within a given society (Hans and Stephanie, 2007).

SRI LANKA ARMY'S EXPERIENCE IN PTSD

The Ceylon Army was a relatively small entity, less professional and regarded as a ceremonial army from its inauguration in 1948 until 1971. The Sri Lanka Armed Forces were mobilised for combat operations for the first time during the JVP insurrection in 1971. Subsequently, the Sri Lanka Army expanded to a great extent; in terms of manpower, equipment and logistics as the situation demanded to defeat the most ruthless terrorist group. Towards the latter stage of the battle, the Sri Lankan Armed Forces had to deploy its total bayonet strength to face the LTTE strategies ranging from guerrilla tactics to conventional and multifaceted threats.

According to Fernando and Jayatunga (2013), the 30-year prolonged war has produced a new generation of veterans at risk for chronic mental health issues. Further, over 100,000 members of the Sri Lanka Army had been directly or indirectly exposed to the war where many soldiers underwent traumatic battle events which were beyond the usual human experiences. They had been exposed to traumatic battle events such as witnessing fellow soldiers being killed or wounded and the sight of unburied decomposing bodies, and hearing screams for help from the wounded, etcetera. Following the combat trauma, a significant number of combatants of the Sri Lanka Army were clinically diagnosed with PTSD. Moreover, they also revealed that when the battle developed to a high intensity level, the psychological trauma experienced by the soldiers became colossal and there had been suicidal attempts and self-inflicted casualties. It was apparent that the prevalence of PTSD as high as 6.7 percent among the soldiers and officers of the Sri Lanka Army from August 2002 to March 2006 according to their epidemiologic study.

Panduwawala and Jayatunga (2016) in a similar study show a low PTSD prevalence rate (6.5 percent) among the Sri Lankan combatants when compared to Vietnam, Iraq and Afghanistan veterans. According to them, there could be several reasons including cultural and religious factors that may have acted as buffers in protecting the soldiers developing PTSD. Although the situation was such, Jayatunga (2006) suggested that many military leaders did not have a clear idea about psychological traumatic reactions or sometimes they were disregarded as acts of cowardice and some even argued that there was no condition as PTSD or combat trauma.

Unfortunately, the psychological aftermath of the war in Sri Lanka is not well addressed so far and only a few studies have been conducted in this regard; thus, undetected and undiagnosed number of victims could be higher than the present estimates.

FACTORS AFFECTING PTSD

PTSD was initially recognised as a direct consequence of exposure to traumatic events, hence individual vulnerability factors were not considered much. Thus, it was evident that all trauma survivors have not developed PTSD. On the other hand, researchers have found that PTSD is not only psychological effects of trauma. Moreover, a higher rate of depression, panic and substance abuse are probably observed in traumatised people (Shalev *et al.*, 1998). In a similar study, Yehuda (1999) emphasised that occupational, socio-demographic and personal psychiatric history has a direct association with PTSD. Therefore, all these approaches are equally important in directing the researches in the field of PTSD.

THE PREVALENCE OF PTSD AMONG COMBAT MILITARY PERSONNEL IN SRI LANKA ARMY

According to Lukascheck *et al.,* (2013), approximately 41 percent of the general population experience at least one traumatic event in their lifetime. Then there is a probability of about 5.6 percent of the general population from the aforementioned proportion to develop PTSD (Frans *et al.*, 2005). However, it was certain that war veterans may experience more frequent and severe trauma than the civilian population with a higher prevalence of PTSD. For example, Richardson et al (2010) estimated that up to 17 percent of combat veterans tend to develop PTSD in their lifetime. Unfortunately, after fighting fierce battles for nearly three decades there is very limited literature on the psychological background of the Sri Lankan war veterans and very few epidemiological researches have been conducted in this respect.

However, when considering the Sri Lankan scenario, according to Jayatunga, PTSD had been reported (among on service officers/soldiers) even after years of exposure to a stressful situation (2014). A similar finding was unearthed during the present study. More than 25 percent out of the 871 participants in this study recorded repeated, disturbing memories, thoughts, or images of a stressful military experience at a moderate level during their service period. A commonly used post-traumatic symptom assessment tool (PTSD Checklist-Military Version) was used to estimate the prevalence of probable PTSD among combat military personnel currently serving in the army. PCL-M is a 17 item brief self-reporting questionnaire that measures "to what degree" the person was bothered by the symptoms in the last month, with choices of "not at all", "a little bit", "moderately", "quite a bit",

or "extremely" rated from 1 (for "not at all") to 5 (for "extremely") according to Diagnostic and Statistical Manual of Mental Health Disorders, Fourth Edition (DSM – IV, American Psychiatric Association, 1994).

Almost 150 out of 871 had reported a sudden act or feeling as if a stressful military experience was happening again and in a similar proportion, felt as if their future will somehow be cut short. According to the findings, 9.6 percent moderately felt very upset when they were reminded of a stressful military experience. Another 4.7 percent people were being 'super alert' or watchful and on guard. The majority of them (13 percent) in the moderate category had lost interest in things they used to enjoy. An interviewee mentioned that they are not actively involved in any work activities. The main reason was lack of energy to engage in challenging tasks and also due to the medication taken for the treatment of PTSD. Unfortunately, most of the soldiers who are being diagnosed with PTSD had problems in their sexual functions too, which had created another psychological burden on them. This could have a major implication on the family and the caregivers. Therefore, prevention of such PTSD is vital in this scenario.

The level of probable PTSD was high (8.7 percent) in the study population. This finding is comparable to the studies conducted among the Vietnamese. Another study in New Zealand showed that PTSD is as high as 10 percent among the community exposed to war (Long et al. 1996). Furthermore, a study conducted by Wolfe (1999) had demonstrated that PTSD had increased over a period of time. On the other hand, a hospital-based study in Sri Lanka by Fernando and Jayathunge (2004) had recorded the prevalence of PTSD at 6.7 percent. Therefore, the findings from the present study indicate an increase in PTSD when compared to the previous studies. The real magnitude of PTSD among the military personnel in the country could be even higher. Lack of attention to PTSD conditions and limitation of resources and skills to handle it might have led to a higher number of undetected PTSD individual among the armed forces.

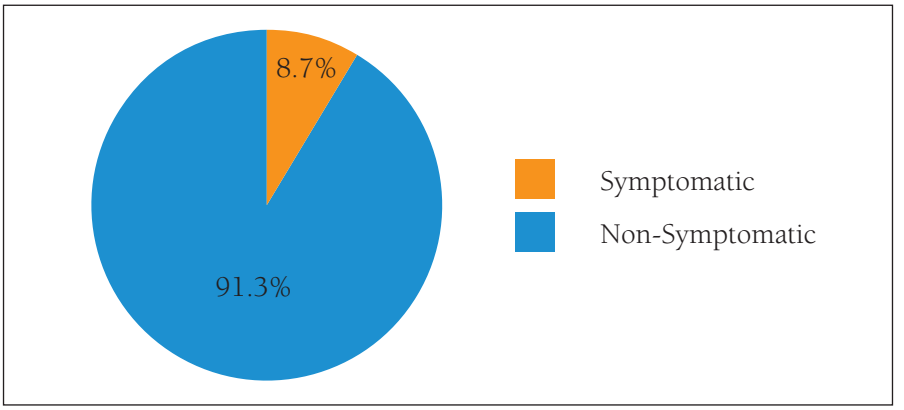

Figure 1: Level of PTSD among the Combat Military Personnel in the Army
(Source: Author)

OCCUPATIONAL FACTORS

The service duration of the combat military personnel was high and majority of the population under study have been serving for more than ten years. This reflects the stability of the job they hold. Most of them had performed field duties whilst in service. The level of job satisfaction was very high among the combat military personnel. These findings reflect on the stability of their job and good facilities provided by Sri Lanka Army.

The military/vocational training offered to the combat military personnel was found to be highly useful to perform their duties effectively and found less PTSD when compared with the less trained. However, there was a small group of people who mentioned that the training was inadequate to perform their duties effectively. The training programmes should be conducted systematically, realistically with relevance to their duties. Further, feedback mechanisms should be used to improve the practicality of these training opportunities.

The frequent interviews conducted by their supervising officers (officers-in-charge, platoon commanders and company commanders) with the study population were high, yet only a small number of officers have interviewed their subordinates monthly. These meetings provide opportunities to discuss and share the challenges and personal grievances faced by the military personnel during their service period. It is apparent that frequent interviews are important to keep a soldier in a good mental state.

PSYCHOLOGICAL AND SOCIAL FACTORS

Sexual harassment among the combat military personnel was moderate and the occurrence of physical assault was also not high. However, preventive strategies should be developed to reduce these unpleasant incidences in a working environment.

The number of combat military personnel who had experienced imprisonment during their service period was not very high, yet efforts should be taken to educate the combat military personnel to abide by the law. Experience of domestic violence at least once a month was high among the study population. Combat military personnel should be considered as candidates who need to change combat domestic violence, nationally. Addiction to alcohol, smoking and consumption of cannabis were high among the study population. Among these, smoking was the highest.

The level of education and marital status of the combat military personnel, were influenced by the prevalence of PTSD among the study population. However, those

differences observed were not statistically significant as the p-value was more than 0.05. The study participants who had good job satisfaction, having less PTSD symptoms when compared to the population with a low level of job satisfaction. The duration of the service at Sri Lanka Army showed a statistically significant impact on the level of PTSD among the study population. The influence of aging and other comorbid factors need to be assessed to conclude the influence of service duration and its association with PTSD.

Combat military personnel who were interviewed by their supervising officers/ SNCOs at least once a month had lower PTSD when compared to personnel without frequent supervision. The support provided by the senior officers and being referred to medical care may have influenced the low levels of PTSD among the group who was supervised once a month. Study population with a history of mental illness among a family member was having a higher level of PTSD when compared with family members with no mental illness. Therefore, the vulnerable group of military personnel should be identified using this criterion and should be regularly screened for PTSD. Consumption of alcohol and cannabis among the study population was considerably high and these behaviours had shown a statistically significant association with the level of PTSD. Law enforcement in controlling the use of cannabis and alcohol should be strengthened to prevent these risk behaviours.

CONCLUSION AND RECOMMENDATIONS

The prevalence of PTSD was high among the combat military personnel in Sri Lanka Army. The level had reduced a little over the past years. This indicates a need for assessing the combat military personnel with PTSD. The psychological, occupational and social issues among military personnel in Sri Lanka were high; high levels of divorce, a high proportion of physical and sexual abuse, imprisonment rate and substance abuses were present. The length of service at Sri Lanka Army being less than 20 years, the presence of a family member with mental illness, consumption of alcohol and cannabis were having an impact on the high level of PTSD among the combat military personnel. The education level, marital status, job satisfaction, participation in training activities, history of physical, sexual and mental abuse was not having a statistically significant association with PTSD.

The suffering and impact of traumatic events in the life of combat military personnel is complex and the consequences are seen even after many years of traumatic events. The psychosocial support provided to the combat military personnel was weak and most of them had to rely on their personal resources, support from family and friends to overcome the challenges. However, those who are diagnosed with PTSD and undergoing treatment at the Army Hospital in Narahenpita, were happy about the treatment and the facilities. Most of them had work-related issues and social issues at the family front at the beginning of those with PTSD symptoms.

Undoubtedly, this situation could adversely affect the national security of the country. An army's ability to fight should not be measured only in terms of manpower, equipment and the logistic support, as the psychological well-being of the men are as equally important. Therefore, it should be carefully examined, analysed and reviewed not only during or post-conflict situations, but also as an on-going process to harness the military preparedness of the country and its national security.

Further, it is apparent that the psychological and occupational issues faced by the soldiers of Sri Lanka Army had direct impact on developing PTSD in post-conflict and those issues should be clearly identified in order to formulate long-term policies and strategies to mitigate problems in the future. Finally, there should be a proper healthcare system to contain the prevalence of PTSD with medical treatment.

Since PTSD is high among the combat military personnel studied in this study, a large-scale screening programme for PTSD among the armed forces should be conducted to identify the victims with PTSD and appropriate treatment should be provided. This will help minimise the consequence of PTSD among the combat military personnel and lead to better preparedness of the army. It will thus enable to maintain the required combat power while maintaining a robust national security. High levels of addiction to substances were seen among this study population. Therefore, a detailed risk assessment of these risky behaviours should be done among the military personnel at the national level. The prevalence of PTSD should be assessed in terms of officers of the Sri Lanka Army as well, because officers played a vital role in leading the men in the battlefront during the war.

The occurrence of sexual harassment, physical violence and imprisonment were high among the study population. Therefore, psychological, occupational and social issues should be studied in detail at national level and measures to address them with specific interventions should be implemented. When recruiting new personnel, those with a family history of mental illness and use of alcohol and cannabis should be regularly screened to identify for early detection of PTSD among combat military personnel.

Most importantly, building cohesion and esprit de corps is of paramount importance in order to maintain a robust mental state of soldiers which is not an easy task. Therefore, long-term strategies need to be implemented, especially in the field of collective training i.e. Infantry Company Training and Advance Infantry Platoon Training should be given more emphasis while effectively conducting the existing Infantry Battalion Training. This will help in rebuilding the cohesion and mutual understanding between soldiers and officers and soldiers while maintaining robust physical and mental standards of combat military personnel at every level.

At the same time, soldiers should be committed in collective activities in order to make their mind-set to match with the current scenario. Officers and men who were

exposed to direct battle should be regarded with due respect; giving them more opportunities and welfare facilities to bring back their aggressive minds to peaceful conditions. Moreover, after conducting a proper screening, army personnel with PTSD or adjustment disorders should be treated accordingly and proper awareness programmes to be launched at national level. Moreover, due respect should be paid to those who are diagnosed with PTSD to mitigate this problem in the future. They should also be included in compensation programmes implemented by Sri Lanka Army, several governmental and non-governmental institutions/organisations.

In addition, while understanding the other factors influencing the level of PTSD among the combat military personnel, a proper yardstick or mechanism should be included in the planning process of military operations to lower the soldiers' threshold for tolerance of mental casualties.

It is high time for the Government of Sri Lanka, together with its armed forces, to establish a National Centre for PTSD. At the same time, the number of qualified military counsellors and psychiatrists should be increased; and they have to provide their service in a decentralised system where everyone gets an equal opportunity. Finally, a comprehensive cohort analysis with adequate samples size should be conducted to identify the actual association and impact of these risk factors with PTSD among combat military personnel at the national level.

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NUCLEAR DETERRENCE: A CONTESTED CONCEPT IN THE 21st CENTURY

Sanath De Silva

ABSTRACT

Deterrence is an evolving concept which has many facets. Out of all the concepts on deterrence, nuclear deterrence is the most significant because it was able to transform the objective of warfare from winning to prevention of all-out conflict. The main purpose of nuclear deterrence is not to fight but to achieve peace and stability through coercion. Nuclear deterrence was useful to prevent wars among major powers during the Cold War period. After the end of the Cold War, the politics among nations took a different shape. Due to the complexities in the international system, scholars have argued that the contemporary deterrence relations among states are producing uncertainty and are more prone to produce conflict. The objective of this paper is to shed light on the 21st century deterrence behaviors of nuclear powers that are playing a key role in shaping the security atmosphere of different geographical regions. This paper attempts to trace the salient features that contribute to uncertain deterrence relations among nuclear nations.

Keywords: Deterrence, Instability, War

INTRODUCTION

Deterrence is the cornerstone of global political stability in the modern international system. In classical terms, it is defined as the fear of punishment that prevents taking an adversarial action against a rival. Functioning of deterrence would have started the very day a human being acquired a primitive weapon such as a club or a stone to stop an adversary from attacking. Since that day, weapons have been invented, modified, and later, transformed to defend territories and its inhabitants via a military. Eventually, the development of violent resources in order to achieve security became one of the prime practices of human race. The ultimate result was the discovery of a single weapon that has the capacity to kill masses.

Warfare is as old as human history. However, this paper is not about investigating the history of warfare. Instead, the author wants to scrutinise the concept of deterrence and its utility in preventing warfare. If the sheer destructive capacity of the conventional weapons possessed by states were proven an effective deterrent during the first half of the 20th century, the two world wars would not have taken

place. The invention of nuclear weapons transformed the objective of warfare from winning to prevention of all-out war. After the nuclear attacks in Hiroshima and Nagasaki, states realised that it is difficult to fight with a nuclear power and win without incurring considerable damage to the aggressor. The destruction caused, led to the pause of warfare among great powers after the end of the Second World War. This understanding can be illustrated as the psychological foundation of modern day nuclear deterrence. Deterrence further modified the behaviour of the militarily strong states against each other. During the Cold War period super powers fought proxy wars but avoided direct confrontation. The stability or absence of direct war between super powers due to deterrence was later conceptualised as 'negative peace' by IR scholars (Galtung, 1996).

UNDERSTANDING DETERRENCE IN THE 21ST CENTURY

Deterrence was a state-to-state equation during the Cold War period (1945-1991) and non-state actors hardly figured in this equation. The collapse of the Soviet bloc and the end of the Cold War marked the beginning of a new era in the international system. The political atmosphere of the 21st century is volatile, uncertain, complex and ambiguous (VUCA). In this backdrop, the credibility of rational deterrence between states is no longer stable. The interest shown by non-state actors to acquire nuclear weapons has made the situation even worse. International Relations analysts raise the question as to whether the concept of deterrence has the desired credibility of stabilising power rivalries and preventing war within the contemporary international system.

Deterrence has its roots in the Realist School of political thought. The Realist School of scholars promote Balance of Power (BoP) as the key requirement for peace. Deterrence by virtue of nuclear weapons grabbed more attention of IR scholars during the Cold War period. "Deterrence was first explicitly formulated as a strategic concept during the Cold War because defense against nuclear weapons appeared futile" (Gartzke & Lindsay, 2014, p.1). The core logic of functional deterrence during the 20th century evolved around Mutually Assured Destruction (MAD), the First Strike Capability and the maintenance of Minimum Credible Deterrence (Kapur, 2007). As technology advanced, the second strike capability supported by the idea of massive retaliation emerged as a vital component of a nuclear strategy. No rational leader would think of using a nuclear weapon if there is a possibility of the adversary using another nuclear weapon in retaliation. The 1962 Cuban Missile Crisis was a classic example of Cold War deterrence functionality. Even though the nuclear threshold was not crossed during the Cuban Missile Crisis, many argued that it was the narrowest margin of a nuclear war. The uncertainty and the able diplomacy signified the credibility of the deterrence matrix of that era. The Cold War ended thirty years after the Cuban Missile Crisis, but nuclear proliferation did not recede as many had expected. Instead the second nuclear age emerged as a persistent reality.

Rational or classical deterrence is a concept that was designed based on two principles. First is the principle of rational choice and second is the art of achieving control through the fear of retaliation. The latter is a dependent variable of the first principle. Deterrence is a psychological element that greatly depends on the unpredictability of one's physical destructive capability. Early advocates of deterrence used to believe that people adhere to deterrence because they were aware of the consequences of the actions of their enemy. Modern day dynamics prove that it is not the only case. If a state is absolutely certain about the capabilities and behavior of an enemy, deterrence will more or less be redundant as a functional concept. If such an ideal context of certainty prevails, the security competition and the arms race between two states should reach a stable equilibrium and peace should be established forever. However, the ground situation reveals that it is the 'uncertainty' of the consequences of any one actor's action that makes deterrence credible..

This uncertainty is the psychological element that persuades world leaders to spend an average of US$ 1500 billion per year on developing destructive weapons including the WMD (SIPRI, 2017). If this wealth could be spent on realising UN's noble objectives, it could easily achieve all the Sustainable Development Goals[1] (SGDs). The UN fifth committee approved US$ 5.4 billion for UN's regular biennial budget for 2016 and 2017. The amount spent on annual armament is enough to fund the UN regular budget[2] for 555 years. The Office for Disarmament Affairs, the UN organisation which is responsible for progressing towards a nuclear-weapon-free world, is only having an annual budget of $10 million whereas the global spending on nuclear weapons per hour is more than that amount (ICAN, 2017).

The 21st Century has presented us the most complicated deterrence relations. Cross-domain deterrence is such a concept. The inventions of new military technology and Revolution in Military Affairs (RMA) such as cyber warfare or anti-satellite and space-based weapons have made drastic changes in the traditional domains of deterrence (Manzo, 2012). These domains could apply across deterrence since they are overlapping with each other and connected with civilian infrastructure. Therefore, deterrence is not a 'fit-for-all-framework'. In deterrence analysis, every region and actor should be regarded as a special entity which possesses its own strategic characteristics. The United States Nuclear Posture Review (USNPR, 2018), identifies this new development under the concept of 'tailored deterrence'.

1 As per UNDP definition the Sustainable Development Goals (SDGs), are a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity.

2 As per the UN definition the UN regular budget provides funding for the General Assembly, the Secretariat, the Security Council, the Economic and Social Council, and the International Court of Justice. Additionally, the regular budget provides partial funding for certain UN agencies, such as the United Nations High Commissioner for Refugees and the UN Environment Programme.

Therefore, our subject matter, the nature and uncertainty of nuclear deterrence in the 21st century, is different from region to region and actor to actor. The following map on world nuclear forces clearly depicts that, except Russia and the United States, others possess comparatively small nuclear weapon stockpiles. The concept of balance of power postulates that the nuclear power is equally distributed among rivals so that no one state is strong enough to dominate all others. The existence of two states with an enormous stockpile of weapons and many others with a few, shows an imbalance rather than a balance of power.

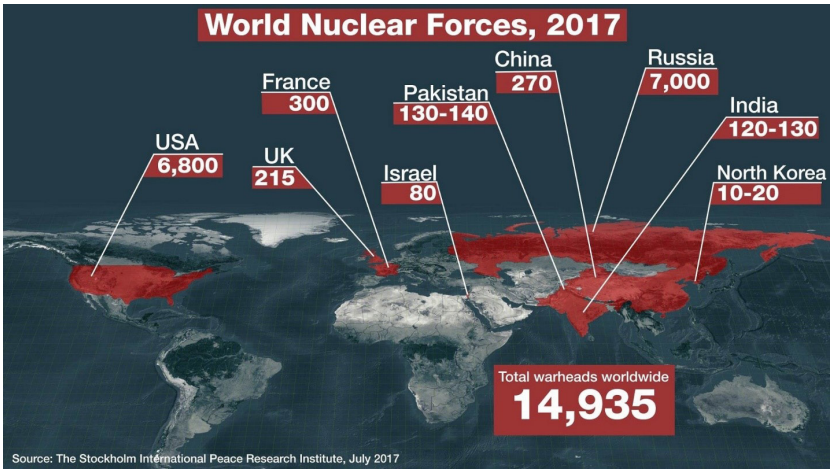

Figure 1: Nuclear Weapon Stockpile of the world
Source: Stockholm International Peace Research Institute (SIPRI), 2017

Nuclear states established power balance by developing different alliances. Strategic cultures – that are the behavioral inferences of a state on formulation of the grand strategy – have a considerable bearing on their respective alliances and nuclear deterrence outlook. Regions and powers have different deterrent behaviours which are worth examining.

USA-NATO VS. RUSSIA

USA is the strongest member of the North Atlantic Treaty Organization (NATO). NATO also has two other nuclear powers – the United Kingdom and France – as prominent members. USA and NATO always operated hand-in-hand in achieving their common security goals. Both parties are capable of practicing the concept of 'extended deterrence' which is the capability of NATO nuclear forces to deter attack on their allies and thereby reassure them with security (Bush *et al.*, 2010).

Senior and experienced diplomats of the USA and USSR were instrumental in developing a mature diplomatic culture in the realm of nuclear weapons during the Cold War. After the collapse of the Soviet Union, the Americans helped the Russians to dismantle a portion of their nuclear weapons stockpile. That was a good example of the responsible behaviour of two powers in order to ensure nuclear security during the winds of change (US Department of State Archive, 2001-2009).

However, the power rivalry between the USA and Russia did not disappear with the end of the Cold War. After a few years of rapprochement particularly under Yeltsin, Russia began to reassert itself and the old rivalry resurfaced. The resurgence of new Russia under Vladimir Putin was able to hold the fort against USA-led NATO. In this new context, Russians considered NATO's extended role in the European Union as a factor that threatens Russia's sphere of influence in the Eastern Europe (Colby, 2016). USA has the global military superiority of conventional forces. Russia is the only nuclear power that can have an equal status-quo against the nuclear strength of the USA. The USA backed 1999 expansion of the NATO forces in Eastern Europe was seen as a grave threat against the security of the Russia. Since the Russian deterrence thinking is guided by its defensive mentality, this move by NATO made Russia believe it is surrounded by enemies. The establishment of nuclear defence systems close to the Russian border by NATO forces created a further anxiety in the minds of Russian strategic elites.

The present Russian nuclear doctrine is based on 'escalate to deescalate' strategy (USNPR, 2018). This strategy justifies the allocation of large quota of their national resources into maintaining and modifying nuclear weapons. The objective behind this strategy is to continue the great power status enjoyed by Russia during the Cold War (Schneider, 2017). The 2018 United States Nuclear Posture Review (USNPR) reveals that Russia "mistakenly assesses that the threat of nuclear escalation or actual first use of nuclear weapons would serve to 'de-escalate' a conflict on terms favorable to them. These mistaken perceptions increase the prospect for dangerous miscalculation and escalation" (USNPR, 2018, p.8).

Ukraine's role is very crucial in shaping the behavior of the Russian nuclear deterrence. Since Ukraine is geographically located as a buffer state between Russia and Eastern Europe, Russians were very eager to have a pro-Russian regime in Ukraine. When Ukraine started aligning more towards NATO, Russia became nervous. The forceful annexation of Ukrainian territory, "Crimea", by Russia in 2014, escalated the tension within the strategic circles of Europe and the USA.

The USA established an Anti-Ballistic Missile (ABM) system 'Aegis Ashore' in 2016 in Eastern Europe. As per USA's strategic justification, it was placed to protect the European allies against new nuclear perpetrators such as Iran. However, it is obvious that this new ABM system is located too close to Moscow. It has the

capability of operating as a land-based launch pad in Romania, from the 'Deveselu' air base. This launch pad possesses identical capability to 'Aegis warships' that is used to launch Tomahawk[3] cruise missiles (Kramer, 2016).

Figure 2: Missile Defence NATO capabilities
Source: BBC

Another disturbing factor for Russia is that the NATO nuclear defence site will be commanded by an American military officer. It was seen as a humiliating threat against Russia's national interest. It is also observed that the Russian political leadership uses this NATO threat to boost nationalism within Russia. Further, the existing situation was used to justify the recent increase of Russia's defence allocation to modernise its nuclear forces.

Both USA and Russia are presently engaged in a nuclear weapons modernisation programme which is aimed at increasing the delivery capacity of the nuclear weapons. (USNPR, 2018). Along with NATO's expansion in the European Union, both USA and Russia have shown an interest in deploying more tactical weapons to deter each other that makes a nuclear war more plausible. If the situation escalates to the level of triggering the conflict at the conventional level, they might not hesitate to use the tactical nukes against each other's strategic targets as super artillery. The US Ambassador to NATO, Kay Bailey Hutchison, warned Russia about violating the Intermediate-Range Nuclear Forces (INF) agreement of 1987. She further

3 A long-range, all-weather, guided missile, which uses low speed aerodynamics and aims terrestrial targets that remains in the atmosphere.

stated, "we would be looking at the capability to take out a (Russian) missile that could hit any of our countries," (Marcus, 2018, para 07). Rhetoric of this nature could pass the nuclear threshold between the two countries. Only a carefully and professionally maintained credible deterrence strategy will be able to prevent such a global catastrophe.

DETERRENCE IN THE SOUTH CHINA SEA

China is a nuclear power that is rapidly developing its nuclear capabilities. Chinese President Xi Jinping has stated that China will complete the modernisation of its armed forces by 2035 under the People's Liberation Army Navy (PLAN) initiative. He further stated that the Chinese military will be a first tier military force by the year 2050 (Peng, 2017). The new road-mobile strategic Intercontinental Ballistic Missile (ICBM) and the new multi-warhead version of its DF5 silo-based ICBM are modern inventions of Chinese missile capability. China has also developed a state-of-the-art ballistic missile with submarine-launched ballistic capability (SLBM) and the air launch capability with new strategic bombers. This has established China's three-pronged military force structure of land-sea and air launched 'triad' capability (Copp, 2017).

Contemporary China has not got involved in a straightforward strategic competition with any other nuclear state. China says that her deterrence policy is designed based on the idea of 'peace through strength'. This strategy is portrayed to the outside world as a completely defensive strategy. However, the ground situation reveals that it is not as peaceful as China portrays in its nuclear doctrine. China's claim for some islands in the South China Sea has made competition between China and the USA in the Pacific Ocean more fervent. This problem signals the possible dangers of a nuclear confrontation between the two nuclear powers if things unpredictably flares-up. It is clear that China will try its best to develop strategic forces to keep its military strength on par with the US in the Pacific theatre. It is also important for both states to maintain status quo at least in matters pertaining to the South China Sea. By enhancing the strengths of the JIN class SSBN fleet China has successfully established the 'first strike uncertainty' against the USA. This notion is challenging the USA's capability of neutralising China's nuclear weapons by a surprise attack.

If China would be able to increase its control over the disputed Paracel and Spratly islands in the future, it would also enable her to increase her capacity to counter-attack US submarines. China wishes to develop a bastion of its nuclear-armed submarines in the South China Sea. China has also announced the intention of an 'Underwater Great Wall'[4] project. The China State Shipbuilding Corp (CSSC),

4 This is the advanced version of the Sound Surveillance System that USA used against the Soviet submarines during the cold war.

which is the establishment responsible for designing and building PLAN warships, is working hard to lay a network of ship and subsurface sensors in order to support this idea (Bana, 2016).

Figure 3: Type 94- Jin Class SSBN
Source: Chinatopix, 2018

China is also on the verge of unleashing its modern state-of-the-art 'Hong-20' nuclear bomber with the capacity of carrying over 20 tons of nuclear weapons and also capable of flying more than five thousand miles without refueling. This Aircraft has the ability to penetrate the US anti-aircraft defence systems. The launching of this aircraft will give a new strategic dimension for China's nuclear triad (Akbar, 2018).

The Chinese nuclear programme has always been responsive to nuclear developments of the USA. It has also shown an interest in accelerating the nuclear weapons programme in the recent past. The new Chinese technological developments in the maritime and air domains will pose a significant threat to US nuclear power in the Pacific Ocean.

NORTH KOREA

According to Rational Realists, the primary purpose of punishment is deterrence rather than vengeance. In the backdrop of the basic principles of rational deterrence, North Korea's nuclear behaviour which rhetorically provokes Washington may seem odd and irrational. How rational deterrence prevents war between a small insignificant state and a super power has not been discussed until North Korea achieved ballistic nuclear weapons capability against the USA. As the pressure mounted, the two leaders of the USA and North Korea agreed to negotiate on denuclearizing the Korean peninsula.

Even before the dust settled after the negotiations in June 2018, US spy agencies have revealed that Pyongyang is displaying clear signs of resuming its nuclear weapons programme. (Telegraph, 2018, para 1). The question arises whether North Korea is negotiating with the United States to genuinely give up its nuclear weapons or to achieve recognition from the USA as a nuclear power. According to the recently published US Nuclear Posture Review, it is clear that the US deterrence strategy on North Korea is to react with maximum clout if North Korea happens to be the first user of nuclear power against the USA or its allies and partners. According to the strategic community of the US, such aggression from North Korea will be unthinkable and would result in the end of the North Korean regime (USNPR, 2018). There exists ambiguities among strategic analysts as to whether the USA could effectively deter the North Korean regime at the negotiation table.

The provocative rhetoric exchanged between Donald Trump and Kim Jong-un escalated to such an extent that both leaders indicated that they would not hesitate to use their nuclear capabilities against each other, regardless of the consequences. If USA's nuclear deterrence is not effective enough to meet the new nuclear threats that are more complex and demanding (Kühn, 2018), what constitutes the ineffective deterrence relations between North Korea and USA? It is evident that North Korea's behaviour does not fit into the framework of rational deterrence and therefore, it will seriously affect North Korea's nuclear relations with other states. The odds are created due to different strategic cultures and multitudes of other factors. One of them is the long prevailing internal military structure of North Korea which is called 'Songun' or military first doctrine. It has become North Korea's central strategic doctrine under the autocratic regime. Under this notion, instability in the minds of the citizen is a necessary condition of the state's military strength. Military is the organisation that will rescue the state from any crisis. Therefore, the military needs everything that a society could offer in order to protect North Korea from external threats. Civilians' sacrifices are necessary to preserve the state that protects them. In this backdrop it does not make any sense for the military to espouse the idea of denuclearisation by abandoning the 'Songun' doctrine. On the other hand, the USA does not want to recognise the nuclear weapons capability of a dictatorial regime as 'acceptable' (USNPR, 2018). Such an acceptance would have adversely affected the super power status of the USA. Therefore, deterring the unacceptable was out of the picture until North Korea tested an intercontinental ballistic missile that had the capacity of reaching Washington DC. Some scholars argue that the possibility of using cross-deterrence domains of nonmilitary tools which has a bearing on rational deterrence by the USA is a credible option against North Korean tenacious nuclear behavior. The nuclear rhetoric exchanged between the two countries in the recent past has tested the 'strategic patience' of the superpower. However, the decision of the two countries to resort to diplomacy, and come to the negotiation table was helpful in reducing the tensions of the Korean peninsula.

INDIA AND PAKISTAN

The nuclear deterrence in South Asia in the 21st century between India and Pakistan is known to be the most volatile and vulnerable of all the situations. Both India and Pakistan have rejected the Nuclear Non-Proliferation regime based on the favoritism bestowed upon great states who already possessed the nuclear weapons by the time of the launch of the treaty. Both countries are of the opinion that the present nuclear non-proliferation regime is "morally bankrupt and strategically unsound" (Kapur, 2007, p. 4).

James Woolsey, Director of the CIA from 1993 to 95, has predicted that the arms race between India and Pakistan poses perhaps the most probable prospect for the future use of weapons of mass destruction including nuclear weapons (Bhaskar, 2015). The close proximity and the border dispute over Kashmir between the two states have made their relations more complex and volatile. According to a quantitative study carried out by Paul Kapur, it is revealed that the advent of nuclear weapons have significantly destabilised the subcontinent. His research findings further reveal that "military disputes were nearly four times common after India's and Pakistan's achievement of nuclear capability than they were when South Asia was non-nuclear, and progressing proliferation was positively co-related with increasing levels of conflict through 1972-2002" (Kapur, 2007, p. 33).

India and Pakistan havetepped in to conflict in 1947, 1965, 1971 and 1999. However, the two countries were able to avoid war under the nuclear shadow of the 21st century. It can be observed that the evolving strategic cultures and nuclear command philosophies of the two states are showing hostile characteristics against each other. The 'No First Use policy' (NFU) that has been the basis of deterrence relationship between the two states has been put under a litmus test in the recent past. The evolving nature of nuclear command structure is one such threat to NFU. Due to the dominance of the military in politics, the Pakistani nuclear command has shown more militarily influence than India. Despite the commitment towards the NFU, the Indian command structure has also shown signs of favoring more military involvement. M.V. Ramana (2013) argues that since the first nuclear test, code named 'Smiling Buddha,' Indian military has acquired a gradual control over the nuclear programme. This may be to ensure rapid response to an enemy attack. Even though both countries keep their weapons stockpiles not deployed,[5] rapid response is a must to ensure credible deterrence. Therefore, the military involvement is needed in order to increase the operational value of the weapons if the need for a retaliation arises. In case of such a situation, only the military knows how to effectively place nuclear weapons in war plans in order to take accurate targets. As the tension develops, militaries might prefer to adapt 'Launch on Warning' (LOW) doctrine as their retaliation principle in the absence of a second strike capability.

5 The warhead separated from vehicle.

The LOW doctrine enables a state to launch a preemptive nuclear attack just after receiving a definite warning of an enemy nuclear attack. In such a scenario the retaliation launch will be executed, while the enemy missiles are in the air, before it detonates on the target. If the information of the first strike is not reliable or if the decision makers had to act on unreliable rumors, South Asia could end up in an unnecessary nuclear catastrophe. According to Ramana (2003) it is revealed by the late Indian president Abdul Kalam that during operation 'Poorna Vijay' the armed forces were training to use nuclear weapons. He further stated that Raj Chengappa, a senior journalist at India Today has written that during the Kargill War, a partial control of the nuclear weapons were handed over to the military (Ramana, 2003)

The Indian 'Cold Start' strategy has also put NFU in danger and it has made Pakistan seek tactical nuclear weapons to counter such a threat. The idea of the 'Cold Start' doctrine was launched by operation Parakram, after the terrorist attack on Indian Parliament on December 2001. 'Cold Start' is a strategy that enables the Indian Army to develop a credible retaliatory option along the Indo-Pakistani border by using the conventional military capability. Cold Start operations will deploy a division-sized formation that is capable of short-noticed operations against the terrorist targets in the Pakistani territory (Ladwig III, 2017). Pakistan, by adopting the 'full spectrum deterrence policy' has shown very clearly that it will choose to adopt the first use of the nuclear option against India in escalation of such a conventional military environment. Pakistan has already developed a tactical nuclear weapon called Haft IX or Nsar. As the pressure mounts between the two camps, some Indian security elites have questioned the credibility of the use of NFU as a stabiliser. The former Indian Defence Minister Manohar Parrikar, expressing his personal view has stated that the NFU is not useful to deter Pakistan anymore (Singh, 2016).

Figure 4: The Huft IX or Nsar: Tactical Nuke of Pakistan
Source: Independent News, 2018

Kapur (2007) argues that, in a way, Pakistan wants to maintain the uncertainty of nuclear attacks against India in order to make the nuclear deterrence more credible since it prevents India from launching a full scale conventional attack against Pakistan. It is not a very encouraging sign for the rest of the region to see the nuclear powers signaling of their preparedness to cross the nuclear threshold.

India is going to purchase S-400 long-range, surface-to-air missile systems from Russia by 2020. The deal is confirmed by the two countries and they are going to be deployed at the Pakistani and Chinese border to deter the enemy at the borders. The producer of the missiles, the Russian company Almaz-Antey is in the USA sanctions list but it could not stop India's decision (Pubby, 2018). Most probably Pakistan and China would collaborate to counter the Indian S-400 threat in the near future.

ISRAEL AND THE MIDDLE EAST

The Jewish state has not officially declared the possession of nuclear weapons. However, it is a well-known fact that Israel is in possession of nuclear weapons. Therefore, the deterrence policy of Israel is called 'ambiguous retaliation'. Israel is heavily threatened by the surrounding Arab states. If the state has to face a significant conventional attack from the neighbours, it is likely that the nuclear card will be played by Israel.

Iran is also seeking nuclear weapons since it sees Israel as a threat to its national interest. The US-Iran nuclear deal which was initiated by Barrack Obama was a commendable initiative to curb the nuclear proliferation in the Middle East. However, the incumbent US President, Donald Trump has withdrawn from the nuclear deal. He believes that unsanctioned Iran would strengthen the status of anti-American actors such as Hamas and Hezbollah. However, with the US withdrawal from the treaty, the restrictions on the nuclear non-proliferation commitment and taboo on weapon grade enrichment of nuclear substance have been removed. In the new circumstances Iranian President Hassan Rouhani has ordered the Iran's atomic energy authority to be prepared to start their industrial enrichment without limitations (CNN, 2018). There is a danger of Iran re-starting the nuclear weapons program. In such a scenario, other states such as Egypt and Saudi Arabia will also seek for the absolute weapon, to safeguard their national interest, which will further result in the proliferation of nuclear weapons in the Middle East.

The latest Russian establishment of S-400 Surface to Air Missile (SAM) system in Syria has also created tension in the Middle East. Especially the USA and Israeli camps are expected to counter this missile threat sooner or later. This system has the launching power of 400kms and proved to be one of the most efficient long-range anti-aircraft SAMs in present times. These unfolding events show that Middle East is more prone to nuclear proliferation in the future than any other geographic region.

TERRORIST THREAT

Terrorists have not been able to deter states by using a nuclear option so far. However, the grave danger of terrorist organisation acquiring a nuclear weapon cannot be totally ruled out. Religious fundamentalism of terrorist groups defies the rational thinking behind terrorism. Some fundamental terrorist organisations want to portray that acquiring and using weapons of mass destruction against capitalists as an Islamic religious duty. "Al Qaeda's leaders yearn to acquire and use the WMD against the United States. If they acquired a nuclear bomb, they would not hesitate to use it. Indeed, such an attack would be meant to serve as a sort of sequel to the 9/11 plot" (Larssen, 2010, para 2).

The terrorist threat looms large especially in the context of South Asian nuclear weapons. The "Trump administration is worried that nuclear weapons and material in Pakistan could end up into the hands of terror group and the concerns are aggravated by the development of tactical weapon" (***Economic Times***, 2017, Para 01). Neither India nor Pakistan are parties to the IAEA-NPT safeguards. There are many cases of nuclear theft reported in both India and Pakistan. Pakistani media points out that "according to international media reports there are 25 cases of 'missing' or 'stolen' radio-active material reported in India. Fifty-two per cent of the cases were attributed to theft and rest is a mystery" (***Dawn***, 2018 July 16, Para, 02). If these stolen material have gone into the hands of terrorists it will increase the danger of a terrorist inventing a nuclear weapon. The non-state actors obtaining the nuclear capability will change the dynamics of deterrence and further increase uncertainty. If a terrorist organization acquires nuclear capability, how they would apply the rational thinking to the deterrence matrix is still an unsolved puzzle.

CONCLUSION

The nuclear environment of the 21st century is characteristic of instability than stability. The 'doomsday clock' is a symbol developed by the Bulletin of Atomic Scientists. It presents the likelihood of occurring a global catastrophe. The hypothetical situation which describes the possibility of a nuclear catastrophe is termed as 'midnight' and the most recent clock recorded two minutes, the closest time ever, to 'midnight'. The nuclear instability could create significant changes in state behavior. It also influences the behaviors of economies and markets. Therefore, no state or individual can neglect the matters pertaining to nuclear dangers and the time has come to act effectively to minimize the threats of a manmade disaster.

Even though nuclear weapons helped prevent major wars among great powers for decades after the Second World War, the context of contemporary deterrence seems uncertain. The present context has become more complex with the increasing danger of nuclear proliferation among developing states and unpredictability of the

behaviors of state leaders of existing nuclear states. In addition, non-state parties inspired by religious fundamentalism are becoming more crucial in shaping the behaviour of the international system than ever before. Due to the above-mentioned reasons there exists an anxiety among contemporary strategic communities that deterrence will fail in the international arena (Kühn, 2018). In such a backdrop, who can guarantee that an absolute disaster such as a nuclear war will not trigger? Therefore, it is pertinent for the nuclear community to re-assess the relevance and the effectiveness of nuclear deterrence if they desire to move forward.

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SUSTAINABLE FINANCIAL PRODUCTIVITY OF SRI LANKA AIR FORCE IN UN PEACEKEEPING MISSIONS

Squadron Leader Nuwan Premarathne

ABSTRACT

Continuous improvement in the quality of the peacekeeping missions is one of the main aims of United Nations (UN) as well as the Troop Contributing Country (TCC) where developing countries like Sri Lanka has extra concern about the financial aspect of taking part in peacekeeping missions. Hence, this paper examines whether Sri Lanka Air Force Aviation Contingents deployed in the United Nations peacekeeping missions have utilised the resources committed for these missions in the most productive way in the process of achieving the interests of three parties involved in this endeavor i.e. for UN, Host Country and the TCC or if not, to figure out the reasons and make recommendations for the way forward.

Keywords: Financial Productivity, UN Mission in South Sudan (UNMISS), UN Mission in Republic of Central Africa (MINUSCA)

INTRODUCTION

Since 1948, United Nations Peacekeeping Operations (UNPKO) have evolved significantly from its primary role of establishing peace and security to many facets like facilitating the political process, protecting civilians, assisting in the disarmament, demobilisation and reintegration of former combatants, supporting organisations for elections, protecting and promoting human rights and assisting in restoring the rule of law (United Nations, 2017). Highly volatile, uncertain, complex and asymmetric nature of the present day conflicts demand UN peacekeeping missions to be dynamic and capable of performing multidimensional tasks in different environments. Therefore, the capabilities required for successful peacekeeping missions demand greater flexibility and interoperability. In achieving those objectives and facing the challenges in contemporary peacekeeping, military components often play a pivotal role in maintaining safety, security and stability.

Under these circumstances, the deployment of military aviation assets can contribute decisively towards successful achievement of the Mission's mandate. Apparently, to fulfil the above requirements, UN has no standing military or police force of its own. Member states are asked to contribute military and police personnel and equipment

required for each operation (UN Peacekeeping Missions Military Aviation Manual, 2015). This service provision takes place on two documents called 'Memorandum of Understanding' (MOU) and 'Letter of Assist' (LOA) that includes terms and conditions which the UN and Troop Contributing Country (TCC) shall agree upon.

Sri Lanka being a member of the UN has been playing a pivotal role in contributing troops for UN peacekeeping missions since 1960. With the conclusion of three-decade long conflict, there has been a significant increase of commitment towards UN peacekeeping by Sri Lankan Armed Forces. Sri Lanka deployed troops for UN peacekeeping mission in Haiti (MINUSTAH) in 2004, and gradually expanded its support to UN Mission in the Republic of South Sudan (UNMISS) in 2005, UN Interim Force in Lebanon (UNIFIL) in 2010, UN Interim Security Force for Abyei (UNISFA) in 2012, UN Multidimensional Integrated Stabilization Mission in the Central African Republic (MINUSCA) in 2014 and UN Multidimensional Integrated Stabilization Mission in Mali (MINUSMA) in 2017. Sri Lanka Air Force (SLAF) first deployed personnel to serve the UN peacekeeping missions with MINUSTAH in year 2005 and presently operates its aviation contingent in MINUSCA since September 2014 and UNMISS since June 2015. The SLAF contingents in South Sudan and Central Africa consist of 35 Officers and 179 other ranks which provide long term helicopter services to the UN peacekeeping activities.

UN peacekeeping missions are becoming one of the major sources of foreign income generators, especially to developing countries in the South Asian region. During the period from 2004 to 2012, it was estimated that the earnings of UN peacekeeping missions of Sri Lanka exceeds 161 million USD (Sri Lanka Army, 2018). The Government of Sri Lanka is keen on expanding its contribution more towards UN peacekeeping missions as it is a considerable contribution to the foreign income (President's Office, 2015).

Focusing on the SLAF, the approximate income generated through UN peacekeeping missions during the period from September 2014 to June 2018 exceeds 44.94 million USD (SLAF UN Missions Cell, 2018). However, it is worthwhile to investigate whether SLAF has reached the maximum extent in terms of financial yield by engaging with UN peacekeeping operations and identify the impediments and potentials we have in shaping up our future UN peacekeeping deployments much more productively.

WHY SRI LANKA NEEDS PROACTIVE ENGAGEMENT IN UN PEACEKEEPING MISSIONS?

Sri Lanka, being an active member of the UN, contributes its troops to the UN peacekeeping missions with the broad objective of using this as a platform to keep the image of the country high in international arena as the consequences of the three-decade long conflict Sri Lanka had experienced still raises a number of

questions on the credibility and accountability of our Armed Forces (Providing for Peacekeeping, 2017). Therefore, this is an opportunity for Sri Lanka to convince the world that its Armed Forces possess a wealth of experience in war fighting and they are professional and credible in conflict management.

Sri Lanka, like many other Troop Contributing Countries, consider UN Peacekeeping Missions a win-win situation for the UN, TCC and the Host Country since careful management of resources would enhance economic benefits to the TCC while assisting the UN to demonstrate its mandate. Since this is one of the major sources of foreign exchange, the Government of Sri Lanka expects more contributions in the future for UN peacekeeping missions (President's Office, 2015).

On the other hand, being engaged in UN peacekeeping missions provide a number of benefits to the individual soldiers as well as the armed forces as a whole. While soldiers earn a lump sum as individuals, the experience they gain in operating in different terrains with different rules of engagement, following a different code of ethics and the exposure gained in operating in multinational environment offer an added advantage to a TCC for its progressive development in this field.

Moreover, these benefits are felt in the short-term, the mid-term and the long-term. For example, the financial gains to individual soldiers or the TCC as a whole are short-term benefits, while the reputation earned through praiseworthy engagement and demand generated through such background for more deployments is a mid-term benefit. Besides, working with the UN entails exposure to an environment where maintenance of globally accepted standards is expected. By engaging in UN peacekeeping missions on a regular basis, troops would be exposed to an environment where they value and instil those standards (Best Practices) in their personal and professional lives, which intern would create long-term advantages in uplifting Sri Lanka's domestic conditions to globally accepted levels. Therefore, it is an opportunity Sri Lanka has to repeatedly capitalise on.

However, when the TCC is deploying its contingents far away outside its territory, they have to face numerous challenges which impede achieving the expected objectives. As the contingent is operating in an unknown hostile terrain, which is located more than 5,000 kilometres away from the TCC, maintenance of effective lines of communication has become a difficult task. Hence, these difficulties have affected the productivity of those missions in a negative way that could in turn create a deficiency in financial gains for the Government of Sri Lanka. Besides, countries like Sri Lanka cannot negate the financial aspect of engaging in UN missions, as it is the most decisive factor in determining the country's long-term sustainability in these missions. Hence, it is worthwhile to investigate how best such resources could be utilised to maximise financial gains from UN peacekeeping missions. Therefore, Sri Lanka Air Force being a prominent actor in this effort, has the responsibility of conducting a proper evaluation and identifying pros and cons of the prevailing system in order to ensure the sustainability of these missions.

Therefore, this research facilitates the initiation of an expenditure cost/benefit analysis for future adjustments of Letter of Assist (LOA) or MOU and identify areas where productivity in terms of finance can be improved. Therefore, a careful analysis into the ways and means of improving the productivity of SLAF UN missions is very important to the national economy.

COMPARISON OF SRI LANKA AND REGIONAL COUNTERPARTS

UN peacekeeping missions have become one of the most lucrative foreign currency earning platforms for most South Asian countries such as Bangladesh, India and Pakistan. As per the official website of UN Peacekeeping, presently Bangladesh remains within the top most contributors (fourth) of troops and police (6,772) for UN peacekeeping missions and its annual earnings for 2012-13 is 72 million USD (Providing for Peacekeeping, 2017). According to the 2014 report by the Asian Centre for Human Rights, at the UN standard rate, Bangladesh Army personnel earned upwards of USD 2,200 for an officer and USD 1,100 for a soldier per month in addition to other allowances and perks in the year 2013. During the period 2001 to 2010, Bangladesh received USD 1.28 billion as compensation for its peacekeeping operations (Providing for Peacekeeping, 2017). Furthermore, the income over expenditure of Bangladesh UN Peacekeeping missions during the last five years depicted a balance of USD 755.10 million according to the Bangladesh Armed Forces Division.

Sri Lanka remained as the 39th contributor to UN missions and the total number of peacekeepers inclusive of staff officers, deployed as at December 2017 is 563. However, proper evaluation on the expenditure on UN missions and income generated through the same has not been published by the government to date.

A comparison of active military strength of Bangladesh and Sri Lanka in terms of personnel is given below.

Table 1: Comparison of Active Strength and Contribution to UN Peacekeeping Missions

Armed Forces	Bangladesh			Sri Lanka		
	Active Strength	Contribution to UN	(%)	Active Strength	Contribution to UN	(%)
Army	157,050	7246	3.85	202,500	563	0.19
Navy	16,900			48,000		
Air Force	14,000			38,500		
Total	187,950			289,000		

Source: Providing for Peacekeeping - Peacekeeping Contributor Profile, 2017 and www.peacekeeping.org 2017

By contrast to the Bangladesh military, the strength of Sri Lankan armed forces are higher and it shows the potential Sri Lanka has in this field as a means of generating foreign income. Hence, optimum use of this opportunity will be a definite advantage in time to come since UN requires more troops for its peacekeeping missions due to on-going crises in various regions in the world. Optimum utilisation of opportunity would be feasible only if the resources are managed productively. Therefore, identifying parameters affecting financial productivity is of utmost importance to gain maximum output from the inputs/investments for future UN peacekeeping missions.

The reputation of defeating one of the world's most ruthless terrorist outfits and the experience of Sri Lankan armed forces in combating counter insurgency situations is a unique advantage that no other Troop Contributing Country can match in the present context. In addition, UN peacekeeping missions are an excellent platform for SLAF pilots, crew and the supporting troops to demonstrate their domestic experience with confidence at the international level.

At present, UN is maintaining 15 peacekeeping missions around the world and most of those missions have been in existence for more than one decade since their inception. According to Global Peace Operations Review 2016, the average age of a peacekeeping mission was given as 25.3 years with a median of 16 years. This is a clear indication that the peacekeeping missions where SLAF has deployed its resources would prevail for a longer period in the future as well.

Further to the above, the enthusiasm and the encouragement given by GOSL in contributing more peacekeepers to UN missions is also a plus point in the present context. Accordingly, at the time of writing, SLAF is in the process of deploying Aviation Contingents consisting of four Mi 17 aircraft with 162 troops in MINUSMA in 2018 and has the potential of committing more troops for these missions (SLAF UN Missions Cell, 2018). With special reference to participation of women soldiers for UN deployments, SLAF is yet to exploit the opportunities bridging the gap of equal participation of women in UN peacekeeping missions (UN Resolution 1325; United Nations).

A REVISIT TO SLAF CONTRIBUTION TO UN PEACEKEEPING MISSIONS

The contribution of troops for UN missions is being done through a unique system which was adopted as per the UN charter by the United Nations Department for Peacekeeping Operations (UNDPKO) with a mutual agreement between the TCC and the UN which is identified as the Memorandum of Understanding (MOU) or Letter of Assist (Shameem, 2007).

UN peacekeeping operations are performed by deploying contingents of troops in the mission areas. This process can be defined as a service rendered by troop contingents. The contract for the deployment of contingents with the integral weapons systems and equipment is the MOU.

The contract management process for acquiring specialised equipment or weapon systems is similar to the process followed for acquiring troop contingents. However, in this case, in addition to the MOU, a separate LOA is signed between the UNDPKO and the TCC (Shameem, 2007). Based on LOAs, SLAF provided aviation facilities with six Mi 17 helicopters in UNMISS and MINUSCA by maintaining Aviation Contingents in these mission areas. Accordingly, the compensation for the missions will be made as per the terms, conditions and amounts agreed over the above areas based on the number of flying hours conducted, number of personnel deployed with the contingent, Contingent Owned Equipment (COE) and their performance standards (MOU of MINUSCA, 2014; UNMISS, 2015).

The Contingent Owned Equipment (COE) system was adopted by the UN to simplify the means by which countries are reimbursed for providing equipment, personnel and self-sustainment support services to formed military or police contingents in peacekeeping missions. COE consists of Major Equipment (Vehicles, Power Generators, Rigid structures like tents for accommodation and engineering equipment) and Minor Equipment (consumables, catering, non-special communication and engineering and other missions related activities) which will be considered under the self-sustainment.

The logistical support concept for troop contingent/police unit in a peacekeeping mission whereby contributing state provides some specific or all logistics support to the contingent on a reimbursable basis is called self-sustainment. UN and the TCC agree upon certain performance standards of major equipment and self-sustainment conditions when signing the MOU and reimbursement will effect accordingly.

Lease of major equipment for UN has two categories namely; Dry Lease and Wet Lease (Shameem, 2007). Dry Lease means a contingent owned equipment reimbursement system where the troops/police contributor provides equipment to the mission and the UN assumes responsibility for maintaining the equipment. The troop/police contributor is reimbursed for the unavailability of its military resources for its national interest of deployed major and associated minor equipment.

Wet lease means a contingent owned equipment reimbursement system where the troops/police contributor provides equipment and assumes responsibility for maintaining the equipment, together with the associated minor equipment. The troops/police contributor is entitled for reimbursement for providing this support. This is the system adopted by the SLAF at the MINUSCA and UNMISS.

SLAF has earned 38.7 million USD through flying hours and 30.17 million USD as the reimbursement for major equipment while earning 30.41 million USD for maintaining self-sustainment equipment of its aviation contingents in UNMISS and MINUSCA from their inception to September 2018 (SLAF UN Missions Cell, 2018).

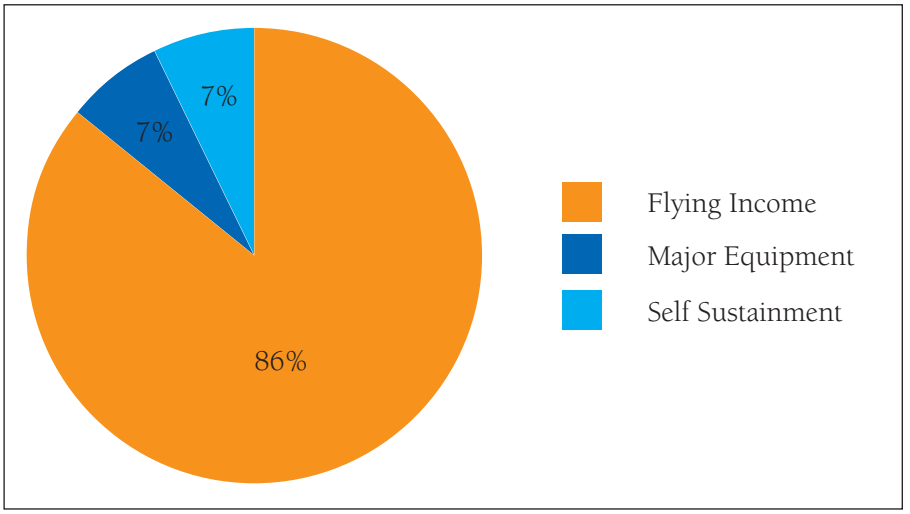

Figure 1: Composition of Income of SLAF Aviation Contingents
Source: SLAF UN Missions Cell

SLAF being one of the service providers of aviation contingents to the UN, has flown 4084.51 flying hours in UNMISS (from June 2015 to September 2018) generating an income of 17.40 million USD (see Figure 2 below) and 4994.83 flying hours in MINUSCA (from September 2014 to September 2018) generating an income of 21.28 million USD (see Figure 3 below) only by utilising six Mi 17 utility aircrafts. SLAF has contributed 454 troops to MINUSCA and 312 troops to UNMISS, generating an income of 11.22 million USD since the inception of these two missions.

In addition to the above, the income earned through COE and self-sustainability of these two Aviation Contingents amounts to 27.27million USD as at September 2018. In comparison to the income, the total expenditure incurred on SLAF contingents from their initial deployment (excluding cost of aircraft), COE equipment and troop rotation amounts to 29.10 million USD as at September 2018. Therefore, these statistics indicate that the SLAF is reaching the breakeven in terms of its financial inputs and outputs where careful analysis is required on the resources committed for these missions as well as the future of UN peacekeeping involvements.

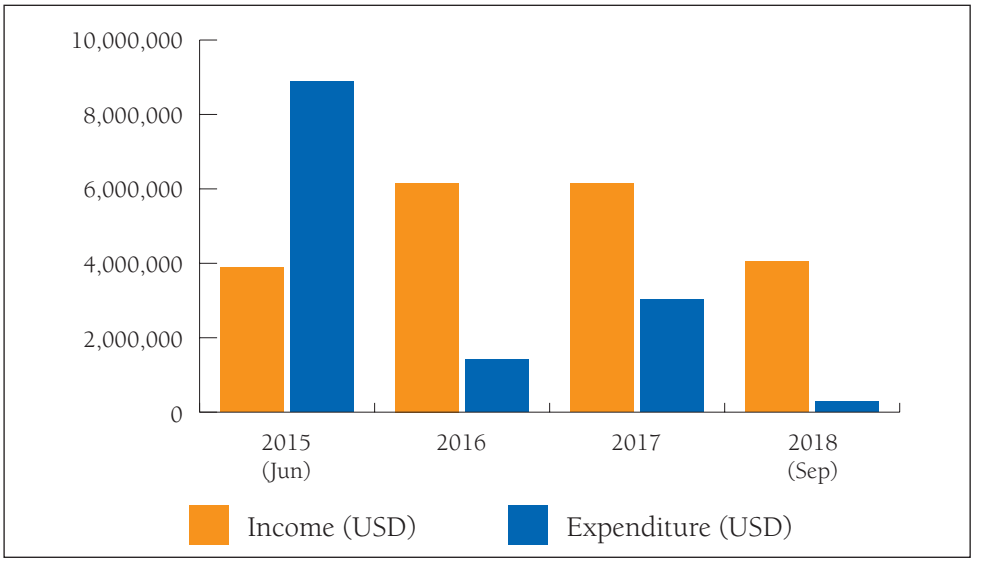

Figure 2: Income and Expenditure of UNMISS
Source: SLAF UN Missions Cell

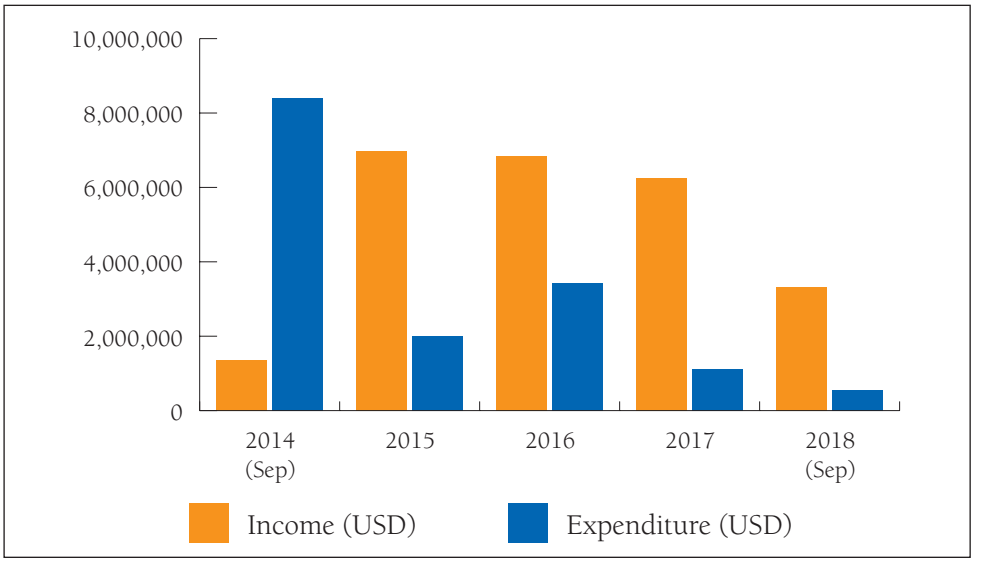

Figure 3: Income and Expenditure of MINUSCA
Source: SLAF UN Missions Cell

Expenditure of the year of deployment of UNMISS and MINUSCA shows a greater value when compared with the revenue earned during the particular year as it includes the cost of initial deployment. However, expenditure starts to decline in subsequent years where it includes the maintenance and rotation costs (see Figure 4).

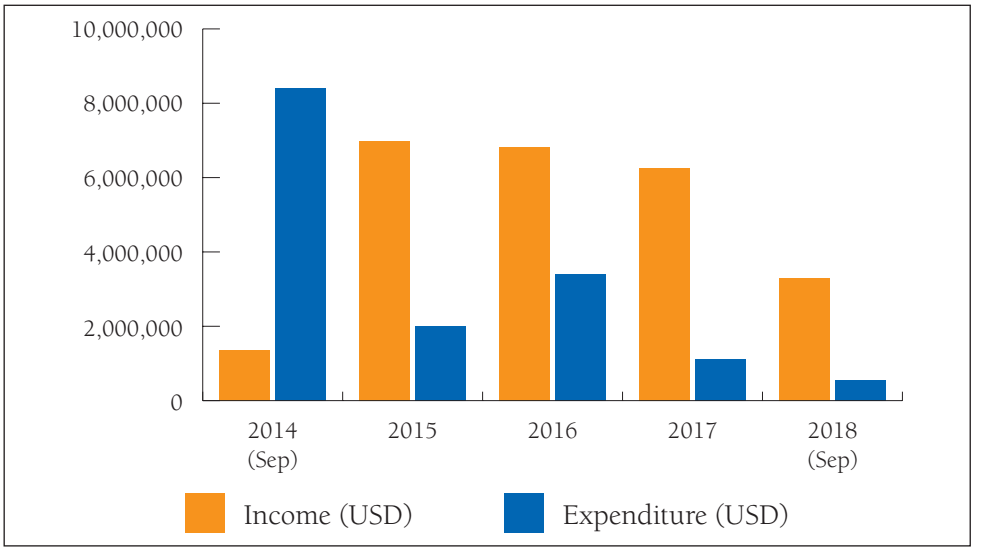

Figure 4: Aggregate of Income and Expenditure of SLAF Aviation Contingents
Source: SLAF UN Missions Cell

Besides, there are several factors that have negative impacts when taking advantage of the potential Sri Lanka has which in turn affect the SLAF as one of the major contributors from Sri Lanka towards UN Peacekeeping Missions.

FACTORS AFFECTING FINANCIAL PRODUCTIVITY IN SLAF UN MISSIONS

One of the objectives of achieving financial productivity is the minimisation of maintenance costs which needs to be investigated during the study. When discussing financial productivity, there are several impediments that need to be overcome in UN peacekeeping missions. According to Haque (2001), one of the major difficulties faced by UN missions is logistical support. According to Katharina and Colman (2017), logistical support of UN missions is defined as ensuring necessary movement and maintenance of a peace operation's personnel and equipment. Without the logistical backup, sustainability as well as the smooth functioning of the contingent is likely to fail. Timely, precise and continuous logistical arrangements will be the key for unhindered operation of aviation units. Delay in supply of spares for aircrafts, vehicles and other major equipment would result in snagging, breakdowns and unserviceabilities which in turn reduces the amount that could have been reimbursed by the UN.

Haque (2001), further points out that maintenance also plays a vital role in reaching the optimum level of productivity in UN missions. On the other hand, income earned through the conducting of flying missions is the main portion of income that

represents 86.06 percent of total revenue earned by the SLAF through UN missions. Terrain conditions, extensive flying etcetera are the main reasons which demands a higher level of maintenance standards in UN peacekeeping missions. Therefore, the achievement of flying hours depends on the serviceability of the helicopters where maintenance plays a key role in this aspect. However, unavailability of repair and overhaul facilities within the African Region has become a major setback in the efficient and effective maintenance of aircrafts.

Deployment facilities are the next decisive factor in achieving productivity of UN peacekeeping missions since it includes all the infrastructure facilities required to sustain the mission. Ports, highways, communication facilities, legal and administrative systems are integral components of maintaining effective lines of communication, required for the smooth functioning of the mission. Further to the above, restrictions imposed by neighbouring countries of a landlocked country mission areas during cross border movements too create considerable delays in logistical backup.

Administrative procedures and the application of local rules and regulations for SLAF UN deployments will also have a direct bearing on the smooth functioning of the mission. Procedures to be followed must be flexible and convenient to handle due to the length in the lines of communication and field conditions. Strict and lengthy procedures adopted in normal government procurement systems would create unnecessary delays that would result in more financial losses. Introducing novel systems suitable to the nature of these missions through the careful analysis of critical incidents will be highly effective in future deployments.

Another factor that affects the financial productivity is the strength of troops/COE in a mission area and the number of deployments within a region. Increasing personnel/COE in a mission area would affect mainly at the initial deployment. Hence, it can be considered as a fixed cost. However, the income generated through increased strength will continue to generate income for a longer period. Hence, input to output ratio will decline gradually as time passes. Similarly, if SLAF can increase the number of missions deployed within a particular region, that would result in reducing the maintenance cost significantly. For example, if SLAF uses its C 130 aircraft for replenishment purposes of SLAF UN missions in the African Region, when the number of deployments within the region increases, arrangements can be made to cater to the requirements of the number of deployments with one sortie rather than conducting a number of sorties, thereby reducing the cost per unit.

In addition to the above, the following issues have also been identified as major barriers in achieving financial productivity in SLAF UN peacekeeping missions;

Flexibility in resource allocation is highly important in attaining financial productivity of UN peacekeeping missions. For example, on 20 December 2017 one aircraft operating with the Aviation Contingent in MINUSCA was hard landed

with damages which can be rectified in the mission area. However, complexity and duration of the prevailing government procurement procedures have caused delays in repairing of this aircraft, thereby resulting considerable losses of revenue that could have been earned through flight hours. As per the report on Experts Visit to Bangladesh 2018 published by the SLAF UN Missions Cell, Bangladesh Air Force (BAF) has addressed this issue by establishing a separate Directorate of Overseas Air Operations that will coordinate and carry out all the functions relating to BAF UN peacekeeping missions.

The dearth of pilots and crew is another major issue which cannot be effectively solved within a short span of time. As a result, pilots and members of aircrew have to engage in UN peacekeeping missions on a regular basis, thereby generating unintended problems in their family lives and in their domestic frontier. This leads to a loss of motivation which in turn affects the output of individuals. This aspect was especially highlighted by experts and participants of SLAF UN peacekeeping missions during their interviews.

Proper coordination and integration of entities directly involved in undertaking UN peacekeeping missions is highly important in finding timely solutions for issues related to UN peacekeeping missions, in order to avoid unnecessary delays which may either cost a large amount of money or deprive the chances of earning revenue.

CONCLUSION AND RECOMMENDATIONS

Sri Lankan Armed Forces are now in a process of acquiring multi-dimensional experience in United Nations Peacekeeping Missions and have the potential of reaching greater extent in contributing to world peace. However, its own sustainability is important in this endeavour as it would relieve the government of major expenditures. Therefore, all parties involved in this worthy cause have the responsibility of studying the means of improving productivity of all the resources committed for these missions and make it a never ending process.

The paper evaluated key areas that needed to be addressed in maximising the financial productivity of SLAF UN missions with special emphasis on SLAF UN peacekeeping mission in South Sudan and Central African Republic. The topic was chosen to identify the factors affecting the financial productivity of SLAF UN peacekeeping missions and identifying avenues to maximise the financial return by minimising cost and maximising the income within the framework set by the MOU/LOA.

Establishment of bi-lateral cooperation with adjacent nations with the assistance of the UN in relation to border crossing, cargo transportation and tax concession would result in achieving a higher level of efficiency and effectiveness in the replenishment process.

It is necessary to introduce a new system or establish a coordinating centre to ensure a holistic approach by all institutions influencing SLAF UN peacekeeping missions including the Ministry of Defence, Ministry of Foreign Affairs and Ministry of Finance and Human Rights Commission as done in BAF for the purpose of finding timely solutions for issues relating to these missions.

It is also important to enter into agreements with nations in close proximity to the mission area or having aviation contingents capable of carrying out major repair and overhaul work which are operating within the same region in order to obtain repair and overhaul services for SLAF aviation contingents.

Enhancing domestic flying training facilities, increasing enlistment and training of new Pilots and crew members required for Aviation Contingents in view of ensuring future sustainability of SLAF UN peacekeeping missions.

Conducting schedule flight using aircraft such as C 130 in fixed periodical stages would reduce the cost of delivering items in an ad hoc manner. On the other hand, it would increase the promptness in logistical support to the mission area.

Giving due consideration to the make of items which are available in both the host country and Sri Lanka will enable speedy acquisition of spares and to get the repairs done and to reduce the cost incurred on transportation as well.

Making brand new quality items available for new deployments is important in determining the quality of a contingent. When analysing the UN peacekeeping missions, most of the missions continue for a long period. Therefore, deployment of worn out/obsolete vehicles and other major equipment would incur losses on reimbursement due to frequent unserviceabilities and non-conformity to agreed standards in MOU/LOA.

Increasing the number of helicopters deployed in the mission area was another recommendation that was unearthed. It would benefit in multiple ways as the operational cost of an aircraft will be reduced while it increases the income generated. However, it should be subjected to the availability of pilots, crew and other staff.

A proper needs assessment and a system to purchase required items such as spare parts of vehicles and other major equipment through local agents of the host country would reduce unnecessary delays in getting serviceable items and reducing the cost involved in transporting them from Sri Lanka.

Acquisition of new aircraft should be planned with specifications expected by the UN and which can cater to the requirements of future deployments such as MINUSMA.

More air women in UN peacekeeping missions should be prepared for deployment, since there is a significant gap to be filled in available peacekeeping operations as per the UN Resolution 1325 on 31 October 2000 on equal participation of women in UN peacekeeping missions.

The opportunity of bidding for UN charter flights need to be explored in order to carry out troop rotation and other transport requirements using SLAF aircraft. This has multiple benefits since it will become a new source of income as well as a better way of fulfilling our replenishment requirements with zero cost of transportation.

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RESURGENT RELIGION AND THE DE-SECULARISATION OF THE STATE

Ashan Wickramasinghe

ABSTRACT

The dawn of the new millennium, when the calendar changed from the year 1999 to 2000, the entire world celebrated with a rather substantial religious undertone. For much of the world with any semblance of Christian heritage, the New Year was a celebration of the birth of a 2000 year-old messiah. A cursory analysis of the last few decades will show groups of varying religions having similar outpourings of religious sentiments throughout the world. However, an investigation of literature from the 17th century to the early part of the 20th century would indicate concerted efforts on the part of the academic and political establishments to consign God, and any other notion of a higher power or supernatural reality, to the depths of human memory. Thus, modern day religious beliefs should have joined Zeus, Thor and Ra in the Cemetery for Dead Religions, with humanity entering a post-religious era of reason and enlightenment. Instead, religion is resurgent. Consequently, this paper studies the nature of this religious renaissance and the impact it is having in undoing centuries of international efforts to segregate faith from State affairs.

Keywords: Religion, Secularism, State

INTRODUCTION

In the late 1960s, sociologist Peter Berger (1968) predicted that 'religious believers are likely to be found only in small sects, huddled together to resist a worldwide secular culture'. Similarly, in 1966, the TIME magazine printed on its cover, 'Is God Dead?' echoing German philosopher Friedrich Nietzche's sentiment that 'God is dead. God remains dead, and we have killed Him' (Rothman, n.d.). Looking back, global trends seemed to support the above assertions that religion was, in fact, in decline. Every religion on every continent seemed to be rapidly losing its influence on politics, economics, and culture. In religion's place, ideologies and doctrines that sought to replace people's loyalties surged forward with apparently unstoppable momentum, with ideas of nationalism, socialism and modernism being preached by personalities such as Fidel Castro, David Ben-Gurion, Gamel Abdel Nasser and Mohammed Reza Pahlavi, with mullahs, monks and priests, with their dogmas, rites and hierarchies being seemingly relegated to an irrelevant history.

As Linda Woodhead and David Robertson (2012) points out, this perceived replacement of religion with non-religious ideals, was aptly named the "Secularisation Thesis" where science or empirical thought would expose the supernatural as superstition. It was believed that democracy, free thought, free will, and open expression would allow the ordinary citizen to contest the myths and doctrines of religious institutions and authorities (Finnis, 2011). But, most importantly, it was the belief of the secular, that by removing or challenging the influence of the religious over the political establishment, people would be able to break the favourite past-time of the powerful: war and violence (Toft, Philpott & Shah 2011).

Stemming from the Enlightenment in the 17th and 18th centuries, the 1950s and 60s saw the peak of the Secularisation Thesis with the universities, particularly in the West, being dominated by the anti-religious intellectual movement. Ideas, theories and teachings of personalities such as Thomas Jefferson (who edited his own version of the New Testament by removing any reference to the supernatural such as Heaven, Hell, Cross and Resurrection), and Jean-Jacques Rousseau (who sought to kill off the French monarchy and the Catholic Church to replace them with a system of secular thought and culture centred upon the nation) were used to propagate this mission. Added to this mix were the thoughts of Friedrich Nietzche, Charles Darwin, Karl Marx, Sigmund Freud, Max Weber and many others. Secular thinking dominated the elite sectors in the West and the Western educated elites in Asia, Africa and the Middle East.

DEFINING RELIGION

The primary focus of this paper is centred on 'religion'. Scholars and theologians have debated the issue of defining religion for centuries – and seemingly without reaching much consensus. 'Does religion mean the belief in God?' That would imply Buddhism, which does not incorporate such a belief, is not a religion. Similarly, there have been debates on whether religion is only limited to the "big five" global religions: Judaism, Christianity, Islam, Hinduism and Buddhism. This leaves the question about what status should be given to Confucianism or the Baha'i faith. This further adds to the confusion about modern and non-traditional religions such as Scientology and New Age Spirituality.

Though no characterisation is perfect, the definition put forward by philosopher William P. Alston seems to be the broadest, most encompassing definition. According to Alston (1972), religion involves the following elements:

1. A belief in a supernatural being (or beings).
2. Prayers or communication with that or those beings.
3. Transcendent realities such as heaven, paradise or enlightenment.

4. A distinction between the sacred and the profane, and between ritual acts and sacred objects.
5. A view that explains both the world as a whole and humanity's proper relation to it.
6. A code of conduct in line with that worldview.
7. A temporal community bound by its adherence to these elements.

Though not all religions would share all of the characteristics listed above, all religions include most of them, such that religion is understood as involving a combination of belief, behaviour and belonging (to a community).

However, it is equally important to note that in defining religion it is sometimes difficult to distinguish religion from other beliefs that also define communities across time, inspire ardent and sacrificial loyalty, and carry political agendas (Toft, Philpott & Shah, 2011). Nationalism is one such belief. Nationalism is an ideology that prescribes a common political destiny for a people that share a common culture, history, language, race, or place. It can take the form of healthy patriotism, such as the Polish people, whose national spirit has enabled them to survive centuries of partition and foreign occupation, or it could incite dangerous and ruthless consequences as it did in Nazi Germany. Sometimes, in combination with religion, it can form 'religious nationalism' such as Hindu Nationalism in India, or it can couple with both religion and ethnicity and form 'ethno-religious nationalism' such as that of Sinhala-Buddhist Nationalism in present day Sri Lanka.

The similarities notwithstanding, nationalism and religion are not the same. There are vast and significant differences ranging from helping people to reach their perceived transcendent realities to answering universal questions about the origins of existence or life after death. Thus, religion embodies an element that is uniquely distinct from other ideologies.

RESILIENT RELIGION

The World Network of Religious Futurists (2015), a think tank focusing on the future of religion, illustrates the world population adhering to Christianity, Islam and Hinduism increased from 46 percent at the beginning of the 20th century to 65 percent by the beginning of the 21st century. That too, a sharp rise since the 1970s. It is projected that these religious groups would further increase to 75 percent of the global population by 2050.

According to global statistics, the number of people believing in God, or a higher power, has continued to increase, in the midst of a sizeable portion of the global population agreeing that religion is private and should be kept separate from

governance. However, this demographic takes a hit when looking at individual countries in terms of the number of people in a country who agree on the separation of faith and government. For example, according to a survey conducted by the Pew Research Center in Egypt, after the Tahrir Square Revolution ousting President Mubarak, over 50 percent of respondents had commented that they want a significant role for Islam to be played in public matters and that religious parties can be a part of the political fabric (Wike, 2013).

Thus, over the past few decades, religion's influence on politics has reversed its decline and become more potent on every continent spanning every major religion. Breaking the confines to the home, the family, the village, and the place of worship, religion has come to exert its influence in legislatures, presidential palaces, political campaigns, military camps, protest rallies, and even jail cells. Once private, religion is now public. Once passive, religion is now assertive and engaged. Once local, it is now global.

RESURGENT RELIGION

Considering events in the recent past, religion has resurged, becoming publically expressive and accepted, shedding centuries of effort to dethrone or dispatch faith as a source of political authority: be it a resurgent Islam since the Iranian Revolution; or a Hindu nationalist revival trying to forge the identity of India as a Hindu nation; or ultra-orthodox Jews in Israel attempting to reshape the sense of what it means to be a Jew (and impacting the prospects of peace with Palestine); or the Catholic Church, using its influence throughout the world to redesign the debate on a woman's right to choose; or Buddhism, once a religion of inward spirituality, personal transcendence and political indifference, now on a domineering nationalist trend with the clergy becoming closely intertwined with the State and politics (Juergensmeyer, 1993).

A noteworthy condition about all the specimen scenarios described above is that all these major religions of the world have resurged in their political influence with the help, rather than the opposition, of the same forces that aimed to secularise them: democracy, open debate, rapid progress in communication and technology, and the flow of people, ideas and commerce around the world. For example, media outlets such as Al-Jazeera help spread doctrines of radical revivalism throughout the Arab Muslim world (Abdelmoula, 2012). The Internet, the most commonly used tool by almost every faction, enables religion-inspired ideas about politics to crisscross the world at lightning speed. Today's most influential religious groups combine aspects of modernity and religious orthodoxy to create a new and extremely effective blend.

Religion is, and will continue to be, a vital element in shaping war, peace, terrorism, democracy, theocracy, authoritarianism, national identities, economic growth and development, productivity, the rise and contraction of populations, and cultural

values regarding sexuality, marriage, family, the role of women, loyalty to nation and regime, and the character of education. Religion can be violent and repressive, the source of civil war, terrorism, and laws that oppress women and minorities. But the last few decades have shown that religion can also be a destroyer of dictatorships, an architect of democracy, a facilitator of peace negotiations and reconciliation initiatives, and a warrior against disease and a defender of human rights. These many faces of religious politics not only elude simple description, but reveal the broader reality that religion's political influence is extremely complex.

ASSERTIVE RELIGION

Flowing from the concepts and ideas discussed above, and looking across history, major religions and their associated actors have experienced two kinds of shifts that have brought them great political power (Toft, Philpott & Shah, 2011). The first is that religious actors have come to enjoy greater institutional independence from political authorities. In achieving this independence from the structure of the State, many religious actors have attained greater leverage over the State. The second shift is where many religious actors have exchanged their relatively passive political theologies for activist and engaged political theologies. Rather than simply acquiesce with the 'powers-that-be', religious actors have adopted postures that prescribe divine obligation or to mould politics, and, where necessary, challenge political authorities to do religiously validated work. Thus, religious actors have experienced a shift in their proximity to political power and a shift in their theology of political power.

Despite political secularism's apparent unstoppable advances since the Peace of Westphalia, the latter part of the twentieth century, particularly the 1960s, has brought about an almost total reversal. On the one hand, the 1960s saw the decline and demise of the last champions of secular politics. In India, Nehru died in 1964, opening up space in the world's largest democracy for religion-based politics to raise its head (Narivelil, 1968). In Indonesia, the world's most populace Muslim majority country, the ousting of Sukarno from power in 1965 culminated in the gradual rise of religious politics (*Arab News*, 2017). In Ghana, one of the main economic powerhouses in West Africa, the overthrowing of President Kwame Nkrumah ended the ideological hegemony of "Nkrumahism" and paved the way for Ghana's churches to assert political influence (Mensah, 2016; Dickson, 1995). In Egypt, Nasser's armies were defeated by Israel in 1967 in the Six Days War, marking the beginning of the end of secular Pan-Arabism and clearing the way for a Saudi-led transnational movement to be created and defined by religion, i.e. the Organization of the Islamic Conference, which held its inaugural meeting in 1969, to influence and dominate the political affairs of the broader Arab world (Baba, 1994).

On the other hand, the 1960s and 70s were also significant since many religious movements on the side-lines or discredited by political secularism began a political retaliation. The Roman Catholic Church was rejuvenated with social and political self-confidence through the Second Vatican Council between 1962-1965, which led the Church to affirm democracy and religious freedom for all, and to operate as a legitimate and autonomous actor in the international stage rather than through pacts with individual governments. Added to this was the charismatic, dynamic and politically engaged papacy of John Paul II, which amplified the new look of the Church to the world (Philpott, 2004). Hindu Nationalism, the object of constant contestation by the secular Congress Party, played a largely assertive and influential role in politics, winning a considerable portion of the national vote in the 1967 General Election, and helping the coalition in 1977 to defeat Indira Gandhi's Congress Party which held power in India since independence (Graham, 1990). The formation of an Islamic Republic in Iran in 1979, inspired Muslim movements around the world to believe that it was possible to Islamise politics and society (Geddis, 1990).

In every major religious tradition, leaders and key movements have abandoned an exclusive focus on spiritual or cultural activity and has taken up political activity as an integral component of their religious missions. The Muslim Brotherhood has dropped the a-politicism of its founder, Hassan al-Banna, in favour of direct political engagement (Toft, Philpott & Shah, 2011); Hindu nationalist elements in India are organising political parties and other political movements (Hanson, 1999); the Catholic Church is promoting robust clerical and lay activism in defence of Christian values and conservative Protestants in the United States have abandoned their long self-isolation and distaste for politics in favour of organised and sustained social and political activism (Carpenter 1997, Hofstadter 1962); and influential Buddhist priests in Sri Lanka have called for an end to inactivity on the part of monks and lay Buddhists and to have robust engagement with politics (Rahula, 1974).

CONCLUSION

The canvas of international politics that portrays the rise and decline of political secularism inevitably omits and distorts important events and trends of history as well as of those to come. The Peace of Westphalia, which brought about a long, purposeful and dramatic ascension of political secularism, has had to witness the unquestionable rise of Christian Democracy in the 20th century, particularly branching off from Western Europe as the dominant world order after World War II. In fact, since the end of World War II and the 1960s, the structural position of religious actors vis-à-vis political authorities has undergone a dramatic epochal shift. Religion-State arrangements have shifted away from integration towards various forms and degrees of institutional independence, where religious actors enjoy some de facto or de jure freedom to act independently of State authorities or ideologies.

Sometimes through conflict and struggle, and sometimes through consent and constitutional change, religious actors have secured considerable autonomy. This institutional shift has been propelled by the attitudinal and theological changes where religious actors across all major religious traditions have abandoned passive obedience in exchange for involvement, mobilisation, opposition and resistance.

The latter half of the 20th century was a general reversal of political secularism, albeit within some form of political secularism stubbornly holding on, such as French Laïcité or the Chinese Government's powerful and effective amalgamation of Communism, Capitalism and Nationalism. However, the basic international State system with political secularism, ideologies and regimes is on the defensive. A movement that seemed to be in the frontline of modern progress at the close of the 19th century, today looks more like a declining and ideologically exhausted empire.

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COLLABORATION BETWEEN SRI LANKA NAVY AND THE NATIONAL AQUATIC RESOURCES RESEARCH AND DEVELOPMENT AGENCY: CHALLENGES AND THE WAY AHEAD

Lieutenant Commander Saliya Hemachandra

ABSTRACT

Hydrographic survey is very important for a coastal nation as it ensures the safety of navigation, effective management, conservation and exploitation of maritime resources. Information provided from hydrographic surveys support legal obligations and economic development of a maritime nation. Sri Lanka needs an effective and efficient hydrographic service in order to fulfil the above because the country is located in a strategically and economically important location in the middle of the Indian Ocean. Hydrographic survey activities in the country were undertaken by the National Aquatic Resources Research and Development Agency (NARA) for more than three decades. In 2015, Sri Lanka Navy (SLN) and National Aquatic Resources Research and Development Agency collaborated in perusing national demands of the hydrography. This study focuses on the collaboration of Sri Lanka Navy and National Aquatic Resources Research and Development Agency, challenges and the way forward in hydrographic survey of the country. The objectives of this study include identifying national demands in hydrographic survey sector in Sri Lanka context, examining the collaboration process between SLN and NARA and studying the Hydrographic capabilities within SLN and NARA. The collaboration significantly influences the performance of organisations that are in collaboration. Interpersonal relationship, instrument of collaboration and independence of the organisation are considered as main influential elements of the collaboration process. Therefore, the collaboration between SLN and NARA was studied based on these elements. It is observed that collaboration of SLN and NARA has produced positive results. However, there are few areas, which have to be improved in order to achieve desired outcomes from a collaboration process and eventually help in achieving hydrographic demand in Sri Lanka.

Keywords: Hydrography, National Aquatic Resources Research and Development Agency, Sri Lanka Navy

BACKGROUND

Sri Lanka is located in a strategically and economically important location in the middle of the Indian Ocean. The Indian Ocean is a dynamic and economically booming region in the world. Because of this, attention of the world is focused on this region more than ever. Presently, there are around 36,000 ships passing

through the southern tip of Sri Lanka that includes 4,500 oil tankers. In other words, approximately 300 ships pass through the area in a day. Further, Sri Lanka has a vast sea area of 437,000 sq.km, which is 7.5 times to its land area (Ministry of Fisheries, 2002). The sea area around the country is believed to be endowed with natural oceanic and coastal resources (Ismail et al., 1982). For these reasons, the Government of Sri Lanka has identified the potential in developing the maritime sector. In order to develop the maritime sector in Sri Lanka, the country must have adequate information about its seas surrounding the island. In light of this, it is important for the country to possess a well-established hydrographic service that provides essential information pertaining to the safety of navigation and all other marine activities, including economic development, security and defence, scientific research and environmental protection.

The history of hydrography in Sri Lanka goes back to the colonial era (Sri Lanka Navy, 2016). It was the British Royal Navy who introduced hydrography to the country and conducted several hydrographic surveys in the seas around the island. Some of the data collected back then are still in use when preparing Nautical Charts by local and foreign hydrographic communities. After independence from the British, Sri Lanka Navy (SLN) undertook the responsibility of hydrographic survey duties in and around the country. However, with the onset of national insurgency in the country, SLN handed over hydrographic related duties and responsibilities vested upon it to National Aquatic Resources Research and Development Agency (NARA) in 1983. Under NARA, hydrographic activities in the country gradually progressed. NARA is considered the National Hydrographic Office (NHO), which is the apex body for hydrographic affairs in the country (NHO, 2016). In the meantime, SLN resumed its hydrography operations again in year 2012 (SLN, 2016). SLN and NARA conducted their hydrographic operations independently as two entities until 2016. However, on 21 June 2016 both organisations agreed to work in collaboration in the field of hydrography. Collaboration between these two organisations is very important to the county because the partnership between SLN-NARA can achieve national objectives in the field of hydrography.

IMPORTANCE OF A HYDROGRAPHY SERVICE

It has been identified that a great variety of benefits could be received from an effective functioning of a National Hydrographic Service. Hydrographic information is vital for the national transport infrastructure and national spatial data structure of a country. This adds more value to the ever-increasing volume of global maritime trade. It has been estimated that about 40 percent of the population in the world live within 100 km from the coast (Connon and Nairn, 2010). As the population-density is higher in the coastal zone, economic activities are also high within this region. Therefore, effective management and systematic development of the coastal zone is vital for the sustainable development of a nation. It is expected

that exploitation and sustainable development of maritime zones would become a major concern of governments and the industry in the future. Even though it is difficult to quantify the economic and commercial benefits derived from a national hydrographic service, several studies conducted in this field reveal the cost to benefit ratio to be at least 1:10 for nations with a significant dependence on maritime trade or interests (International Hydrography Organization, 2016). It is observed that Sri Lanka is in need of a well-established hydrographic service, in order to reap the following benefits from the hydrography sector to develop the country.

Piracy, human smuggling, drug trafficking, Illegal Unreported, Unregulated fishing (IUU fishing), gun running and proliferation of terrorism are major threats to the economy, security and defence of maritime nations in today's context. Therefore, a maritime nation will take every possible step to prevent these transnational criminal activities in order to protect its commerce, marine resources and the population. In light of this, the knowledge provided by a hydrographic service of a country cannot be underestimated in terms of its ability to enable 'Maritime Power'. The maritime power ensures good order at sea. It, in turn, permits the freedom of manoeuvre including the free flow of seaborne trade. The free flow of trade not only improves economic growth by opening the most efficient routes and thereby cutting transportation costs, but also minimising other economic losses like, additional security measures along shipping routes, high insurance fees and excess time taken for providing port facilities. Accurate charts provide increased freedom of manoeuvre for the law enforcement agencies of coastal states; a tactical advantage when dealing with the threats discussed above. In addition, hydrographic surveys can provide critical information for submarine warfare, amphibious warfare and mine warfare applications. High-resolution bathymetry and acoustic imagery that is gathered during hydrographic surveys tremendously supports in these operations (IHO, 2010).

EFFICIENT AND SAFE MARITIME TRANSPORT CONTROL

Most of the international trade in the world is conducted on the sea. More than 80 percent from the total volume and 70 percent of global trade by value are carried by sea (United Nations Conference on Trade and Development, 2015). Therefore, maritime commerce is believed to be a potential area that a nation can boost its economy. However, the International Hydrographic Organization (IHO) has found that many areas and ports of the world are not covered by accurate and adequate nautical charts. Ships require accurate and updated navigational charts for their safe navigations through the waters and when entering into ports and accessing other facilities provided by a country. Inadequate charts thus hinder or prevent efficient and safe maritime transportation. Poorly or inadequately charted areas cause navigators to seek longer routes or restrict optimum loading conditions of a ship, which in turn affects overall operational cost of maritime trade (IHO, 2016). IHO has observed that in the seas around Sri Lanka, and only 8.6 percent of the

area is adequately surveyed from the total area of waters shallower than 200m depth contour. When considering the total area of waters deeper than 200m, only 2 Percent is adequately surveyed [Figure 1]. This shows the necessity of a well-functioning hydrographic organization, which can fill the gap in the future.

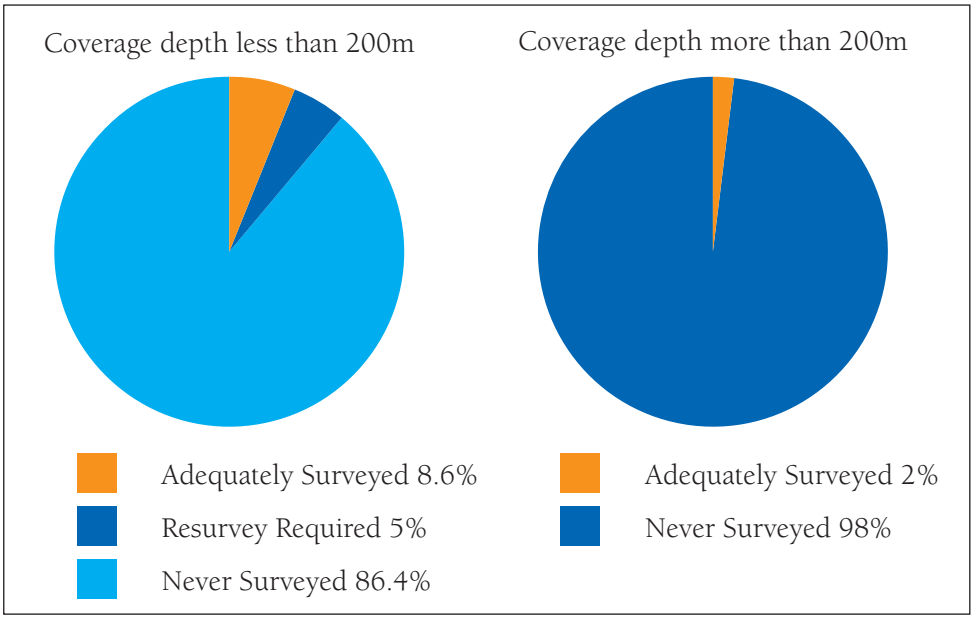

Figure 1: Surveyed Sea Area in the Sri Lankan waters
Source: IHO Publication C-55

COASTAL ZONE MANAGEMENT AND DEVELOPMENT

Hydrographic information supports effective management of the coastal zone of a country. This includes managing several coastal activities like assessing the feasibility study of new port constructions, maintaining and developing of existing ports and facilities, monitoring and improving channels connected with the sea. Further, it can underpin other stakeholders of the country by providing necessary information for following activities:

a. Monitoring and control of coastal erosion.
b. Land reclamation from the sea.
c. Establishment and monitoring of dumping grounds for industrial waste.
d. Extraction of near shore mineral deposits.
e. Developing aquaculture activities.
f. Transportation and public works projects including construction of near shore infrastructures.

The coastline and the adjacent sea area is often a dynamic environment due the very nature of sea wave actions with the shoreline. Frequent monitoring and surveying of the coastal area is required in order to analyse and assess swift changes taking place in this environment. Therefore, hydrographic information of the coastal zone, which are provided in the present day, extends beyond its traditional navigational purpose. It includes serving other parties like government agencies, coastal managers, engineers, scientists and various other public and private organizations to fulfil their specific requirements.

Sri Lanka has a 1,562 km long coastline that surrounds the island. The coast includes a wide range of geomorphological features like headlands, bays, lagoons, peninsulas, spits, bars, islets and vast variety of tropical ecosystems connected to them and the coastline of Sri Lanka is more than 2000 km if the length of the above features are also considered (Lawry and Wickremeratne, 1988). Therefore, it is important for the country to possess a database of hydrographic information of those features in order to manage and conserve the coastal belt effectively and efficiently. Further, a survey of the coastline will help to reap possible economic benefits from these areas.

The eastern coast of Sri Lanka especially from Nilaveli to Mulativu is rich in mineral sand deposits. In Pulmudai, the richest mineral sand deposit is found. Since 1957, Sri Lanka has been benefitting from these mineral sand deposits, which include valuable minerals like Ilmenite, Zircon, Rutile, Monosite and Garnet. So far, Lanka Mineral Sands Limited has produced only 3.5 million metric tons of mineral sands and exports to Japan, UK, India, and China etcetera. It has been estimated that 12.5 million metric tons of mineral deposits are yet to be exploited in the coastline of this area (Pieris, 2016). Apart from the eastern coast, the north western and some areas along the southern coasts are also rich in mineral sand deposits and are considered to be commercially viable concentrations (Ismail *et al.,* 1982). This indicates the presence of mineral deposits along the coastal belt of the island and in adjacent littoral waters as well. Therefore, the country needs to focus on quantifying these naturally occurring marine mineral deposits by conducting systematic hydrographic and geological surveys for the country's economic prosperity.

RIGHT TO EXPLORATION AND EXPLOITATION OF MARINE RESOURCES

In November 1994, United Nations Convention on the Law of the Sea (UNCLOS) came into force. Article 56 of this Convention discusses the sovereign rights of a country to explore, exploit, conserve and manage natural living and non-living resources in the Exclusive Economic Zone (EEZ). With this provision, Sri Lanka has inherited a sea area of 437,000 sq.km, which is 7.5 times the land area of the country (Ministry of Fisheries, 2002). Delineation of the EEZ is purely based on hydrographic surveys. Further, it is impracticable for a nation to explore, exploit,

conserve or manage natural resources in the EEZ without efficient and effective hydrographic service.

Article 76 of UNCLOS sets the right of a signatory nation to extend its continental shelf beyond 200 nautical miles and the right of natural resources on the seabed and subsoil therein (UN, 1997). In order to claim the continental shelf beyond 200 nautical miles, hydrographic and geologic properties of the sea floor is mandatory. Sri Lanka has already submitted its claim for the extension of the continental margin beyond 200 nautical miles based on UNCLOS III, annex II and Article 76 para 8 (See Figure: 2). In the event of acceptance of this submission by the competent authority, the total sea area Sri Lanka can claim for exploration and exploitation will be around 23 times that of the total land area of the country. This emphasises the importance of a well-equipped and potential hydrographic service within the country in order to gain the desired benefits from the vast sea area.

INTERNATIONAL CONVENTION ON THE SAFETY OF LIFE AT SEA

Sri Lanka is a member of the International Maritime Organization (IMO) and the country is a signatory to the International Convention on the Safety of Life at Sea (SOLAS). SOLAS prompts safety of life at seas by a common agreement of principles and rules among signatory states to the convention. According to revised Chapter V of SOLAS, which came into force in 2002, the contracting governments are obliged to provide certain hydrographic services and this provision is in effect under international treaty law. As per the treaty, contracting governments are obliged to make necessary arrangements to collect and compile hydrographic data and publications, disseminate, update necessary nautical information pertaining to waters belonging to the country in order to ensure safe navigation. This shows the requirement of an effective hydrographic organisation to realise the legal obligation of the country.

The shipping industry continuously upgrades into modern technology. Conventional paper charts have been replaced by Electronic Chart Display and Information System (ECDIS) and Electronic Navigation Charts (ENC). The ENC has added a new dimension to navigation with more convenient and improved safety features. At present, most ships use ENC in their ECDIS. Further, there were important amendments to the SOLAS adopted by the IMO resolution 282 (86) passed in 2011. According to this amendment, ships are required to carry ECDIS on board during the voyage as per the table indicated below. Therefore, a necessity has arisen to produce ENC that covers national waters of a particular country. This ensures ships passing those areas will have adequate information in the form of digital data. ENC thus produced by a country is not free-of-charge (IHO, 2002). It has an economical value that is beneficial to the country. In order to fulfil the above requirements, NHO of Sri Lanka, the competent authority of ENC for the country is to produce sufficient numbers of new ENC covering national waters.

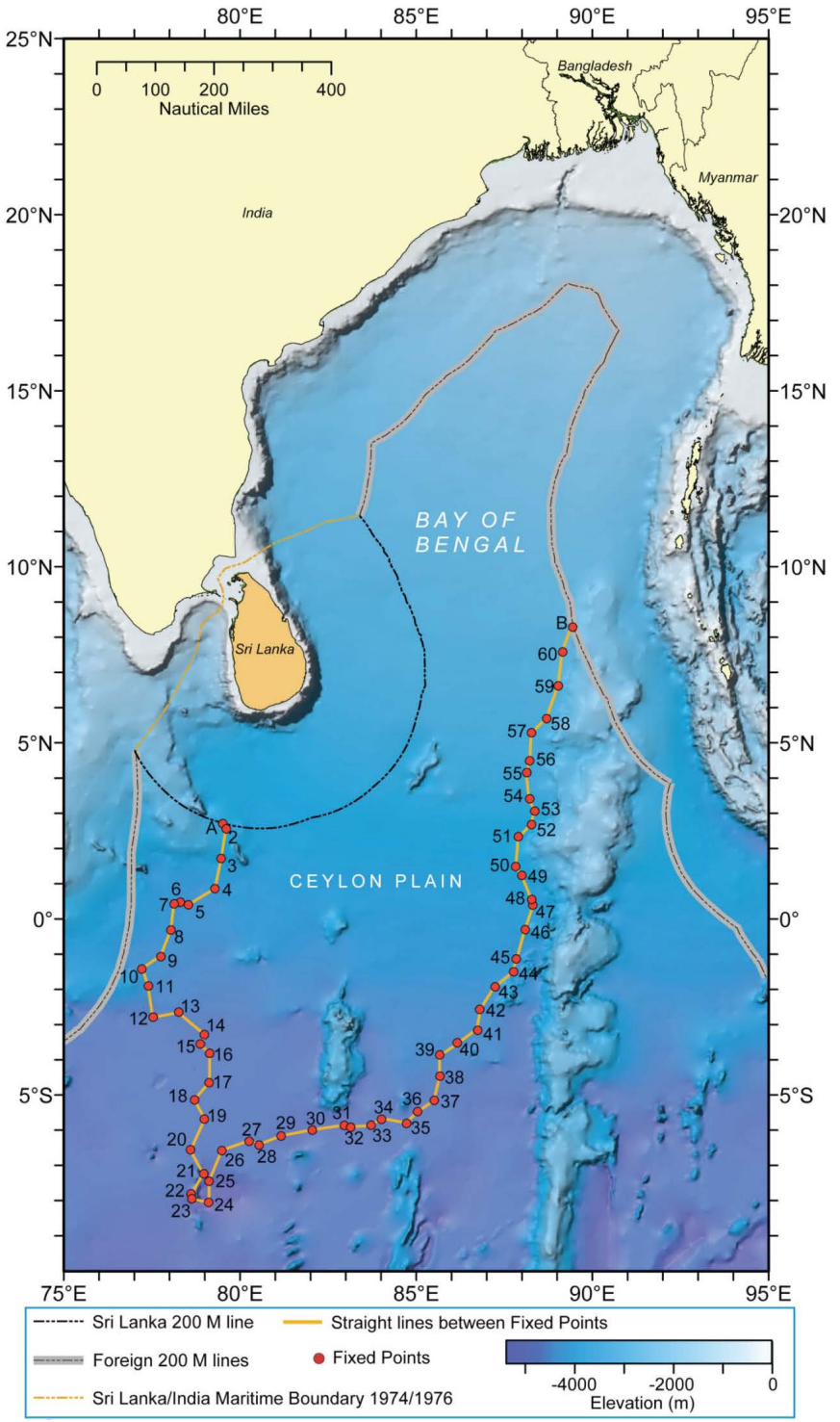

Figure 2: Sri Lanka's Submission for the Extension of the Continental Shelf

Source: Part I: Executive Summary of Continental Submission of Sri Lanka

Table 1: Expected implementation plan of SOLAS

Ship Type	Gross Tonnage	Implementing dates
Passenger	500 gt and upwards	01 July 2012 no later than the first survey 01 July 2014
Tanker	3000 gt and upwards	01 July 2012 no later than the first survey 01 July 2015
Cargo ships (Other than tankers)	50,000 gtand upwards	01 July 2013 no later than the first survey 01 July 2016
Cargo ships (Other than tankers)	20,000 gt and upwards but less than 50,000 gt	01 July 2013 no later than the first survey 01 July 2017
Cargo ships (Other than tankers)	10,000 and upwards but less than 20,000 gt	01 July 2012 no later than the first survey 01 July 2018

Source: Maritime Organization resolution 282 (86) passed in 2011

THE ROLE OF A NATIONAL HYDROGRAPHIC SERVICE

As clearly spelt by the IHO, the National Hydrographic Office is entrusted with the following:

a. Conduct of systematic surveys at sea and around the coast to collect geo-referenced data related to depths of the seas in the area of national interest (including all potential and hazard to navigation considering present and future ships draft and other marine activities), coastal features, including man-made infrastructures for maritime navigation, aids to navigation and port configuration. In addition, collection of data associated with tides, currents, physical properties of the water column and the nature of the sea floor.

b. To process the information collected in order to create organised databases capable of supporting the production of nautical charts, thematic maps and other types of documentation for the following most common uses:

(i) Maritime navigation [and traffic control]
(ii) Naval operations
(iii) Coastal management
(iv) Civil defence
(v) Marine environment preservation
(vi) Exploitation of marine resources and laying of submarine cables/ pipelines
(vii) Definition of maritime boundaries [Law of the Sea implementation]
(viii) Scientific studies related to the sea and near-shore zone

c. To update the databases through re-survey when and where needed, gathering supplementary information from other maritime authorities.

d. To ensure the production, distribution and updating of nautical charts and relevant maps.

e. To ensure the timely dissemination of Maritime Safety Information.

NATIONAL AUTHORITY FOR HYDROGRAPHY

The NHO is the national authority for hydrographic affairs in a country. The IHO (2016) has found that in some countries the NHO functions under the state's navy. In contrast, in other countries the NHO is found under the ministries of transport, fisheries, and port authority or as a part of the ministry responsible for infrastructure, land survey and/or environment. In any circumstance, logistics, other infrastructure requirements and long-term funding arrangements are important for the smooth and effective functioning of a Hydrographic Service. When thoroughly examining the potential and capabilities of SLN and NARA in the Sri Lankan context, it is observed that both organisations have similar characteristics that is common to other countries in the wold. NARA is a semi government organisation under the Ministry of Fisheries and SLN, a national defence force in the country, is under the Ministry of Defence. Therefore, it is necessary to identify the resources, capabilities and the potential of both organisations, which will be critical in achieving national hydrographic demands.

NEED FOR COLLABORATION

It is learnt that most of the international trade in the world is carried out by sea. When considering the geographical and strategic location of Sri Lanka in the Indian Ocean, maritime commerce has been identified as a potential area that the nation can boost its economy in the present world. In order to develop maritime commerce, the country needs to build new port facilities and other supporting infrastructure that attract shipping industries in the world. Further, Sri Lanka is to ensure the safe navigation of ships through its waters by providing accurate and adequate nautical charts.

When considering above requirements, it is observed that Sri Lanka needs adequate hydrographic information of its coastal area and the seas surrounding the island that support maritime commerce and legal obligations. However, IHO observed that only 8.6 percent of the waters which carries a depth of less than 200m have been surveyed whereas only 2 percent of the waters deeper than 200m have been adequately surveyed in the seas around Sri Lanka (NHO, 2016). This is a clear indication that NHO of Sri Lanka, which was under the NARA since 1984 has not

been able to address hydrographic demands in the country to the expected level. Therefore, the NHO, which is under NARA requires development to its capability and capacity to a level that will meet national demands.

SLN-NARA INTER-ORGANISATIONAL COLLABORATION

According to Keanery et al (2009), inter-organisational collaboration provides some important outcomes for the partnered organisations. This results in sharing critical resources and facilitates knowledge transfer. They argue that collaboration between organisations not only transfer current knowledge among them, but that it also paves the way for the creation of new stock of knowledge and produces synergistic solutions. Based on a study of Non-Governmental Organization (NGO) they emphasise that two dimensions of collaboration, embeddedness and involvement determine the potential of a collaboration to produce one or more of aforesaid effects.

When analysing the above theory with respect to the SLN-NARA collaboration, SLN possesses vast sea experiences and work force that is specialised in the field of hydrography. The NHO in NARA possesses practical experiences as the national authority for hydrographic survey activities in Sri Lanka. Therefore, collaboration of these two bodies would pave the way to share resources, transfer knowledge and produce the synergy that is required for the development of hydrographic field in the country. In achieving the desired outcome, both organisations need to be well embedded and actively involved in the process of collaboration by understanding duties and responsibilities vested upon their organisations clearly.

It is believed that without mutual trust and healthy inter-personal connections between people, collaboration or cooperation will not have a solid foundation to stand. According to Bailey and Koney (2000): "Although strategic alliance research focuses on organizations, the implementation of inter-organizational efforts has as much to do with individual relationships. For this reason, it is important to emphasize the human... element of the process." When considering the opinion of Bailey and Koney, positive personal relationship and emotional connection among partners of organisations should prevail in order to maintain successful collaboration between organisations. They emphasise the importance of trust development between partners in collaborated organisations with the passage of time whilst maintaining effective communication. In the case of collaboration between SLN and NARA, involvement of the human element is important. The human element includes individuals who conduct surveys in the field to top-level managers who make policy decisions. Therefore, it is important to closely monitor the inter-personal relationship of individuals of the two organisations in order to ascertain the progress of the collaboration of those two organisations.

Hydrography immensely contributes to the sustainable development of a country. However, most of the countries in the world have not identified the potential of the field hydrography (IHO, 2016). Further, like many other countries, Sri Lanka is bound under international treaty law for providing hydrographic information for safety of navigations (IMO, 2002). Hence, an effective mechanism to possess an operational hydrographic service is an important consideration. The SLN-NARA collaboration has the potential to provide an effective service. According to the literature, there are constraints and limitations for a collaboration to achieve desired outcomes. The collaboration of SLN and NARA took place recently. Hence, those two organisations need to understand the working environment of each other in order to maintain harmony as there would be some disparity in the initial stages of the process.

When studying the individual performance of the two organisations, it was observed that NARA conducts its activities based on a national plan that aims to survey shallow waters, within a depth of less than 200m around the country. It was further revealed that the plan does not contain a comprehensive time frame to fulfill the requirement. NARA has given priority to surveying areas that are more critical: harbours and harbour approaches, to ensure safety of navigation. NARA has also conducted a few bathymetric surveys in the coastal areas of the country and the organisation mainly depends on the United Kingdom Hydrographic Office (UKHO) to fulfill the Nautical charts requirement of the Sri Lankan waters. The UKHO pays a royalty to the NHO of Sri Lanka for sales of charts covering the Sri Lankan waters. This payment is found to be low as the charts produced by the UKHO is mainly based on the data, which were gathered during the colonial period. NARA has not conducted any surveys in any naval harbour or other areas, which is under the purview of the security and defence of the country. It was observed that, NARA does not have a proper mechanism to regulate or monitor hydrographic surveys conducted by foreign nations or the private sector within the Sri Lankan waters.

A main difficulty encountering the NARA is that it does not possess experienced crew to operate their only survey vessel SV Samudrika and they do not have their own capability to maintain the survey ship. Therefore, its main survey vessel, SV Samudrika cannot be utilised effectively and efficiently for hydrographic survey activities. Unavailability of berthing facilities for the ship/craft around the country has also created unnecessary delays to survey activities of NARA as it takes longer period for them to mobilise ship, craft, men and equipment to survey areas.

It was found that prior to the collaboration, SLN has engaged in survey activities that were related to the SLN and other organisations: the Sri Lanka Survey Department, University of Ruhuna, University of Uva Wellassa and few governmental organisations. SLN has not conducted any survey pertaining to the National Charts Scheme before the collaboration, as SLN was not vested the

responsibility of preparing national charts. After the collaboration, SLN is involving in hydrographic surveys related to the National Chart Scheme. However, SLN monitors every Hydrography and Oceanography surveys conducted by any foreign nation or private organisations in Sri Lankan waters because permission from the Ministry of Defence in consultation with the SLN is a prerequisite to conduct any survey within the Sri Lankan waters. This procedure is continued even after the collaboration.

SLN and Indian Navy have conducted joint hydrographic surveys in the south of Sri Lankan waters after the partnership. This survey has been requested by SLN to expedite the hydrography survey of National Charts Scheme beyond the 200m depth contour. Further, the Indian Navy has agreed to conduct a similar survey annually. SLN officials have been given more training opportunities by foreign nations for capacity building of SLN hydrographic officers after SLN – NARA collaboration because SLN has been identified as a partner of NHO by the hydrography community of those countries.

The SLN-NARA collaboration was analysed based on instrument of collaboration, interpersonal relationship and independence of the organisation. These parameters were developed from a research conducted by Thomson et al (2007). According to the study, it was found that the collaboration between SLN and NARA took place after a formal agreement between them. Activities related to the national charting scheme is progressing positively. Time taken to conduct hydrographic surveys in a particular area has been reduced than they were doing activities independently because both organisations share their resources to accomplish tasks. Partners have understood their responsibility clearly. However, there were few negative observations also. Mutual understanding and communication between members of the two organisations were found to be comparatively low. Members claim that the collaboration has affected the independence of the organisations.

CONCLUSION

Hydrography is important to Sri Lanka due to its geo-strategic location in the Indian Ocean. Maritime commerce is one of the potential areas the country can focus on to develop the economy. Improved maritime infrastructure and other peripheral facilities are prerequisites for this. The ocean around the country is believed to be rich in many resources and those resources can be utilised for the development of the country. The resources that are in abundance in the ocean are to be explored and exploited to reap the benefits from them. The initial task of this process is to conduct a systematic study of the seas around the island. Further, Sri Lanka is bound by international laws and regulations. Therefore, the country is obliged to provide information for safe navigation of ships. Well-functioning hydrography service of a country can assist the relevant authorities in fulfilling those demands by

disseminating required hydrographic information. Having understood the above, SLN and NARA have collaborated to ensure effective functioning of hydrography service in the country.

After studying the SLN-NARA collaboration and national hydrographic demands, it was found that the collaboration has brought mutual benefits to the two organisations in terms of knowledge and capacity. This includes sharing of hydrographic resources available within the country to cater to national demands. Sharing of resources has resulted in developing the capacity and expediting the stagnated hydrographic surveying activities, which may eventually fill the observed gap in the field of hydrography in the future. However, there are a few limitations in the collaboration between the two organizations that need to be addressed. Mutual understating and communication among members of the two organizations are to be improved in order to solidify the collaboration process.

RECOMMENDATIONS

Having studied the SLN-NARA collaboration and national hydrographic demands of Sri Lanka, the following recommendations are made to rectify the observed limitations:

a. A self-study needs to be conducted to examine how the two organisations have forged their partnership in order to fulfill national demands. It is important for both organisations to identify factors that may be beneficial to their performance. For this, forming a special committee is recommended. The committee can review the present progress of the two organisations. The composition of the committee may include representatives of both organisations and independent members in order to prevent any misunderstanding between the two organisations.

b. Adequate training sessions and interaction programmes other than subject related activities between the two organisations could be recommended to improve mutual understanding and to build team spirit among members of the organisations. The opportunity to interact with members of the two organisations may result in the improvement of communication between members and allow individuals to think out of the box.

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SHIFTING STRATEGIC COMPETITION INTO STRATEGIC COOPERATION IN THE INDIAN OCEAN: SRI LANKA AS A FACILITATING HUB

Senuri Samarasinghe

ABSTRACT

The Indian Ocean (IO) has become a 21st century power centre due to its geostrategic, geopolitical and geo-economic significance. This article emphasises the need for the Indian Ocean to be developed into a platform of strategic cooperation, rather than strategic competition, which ensures a win-win outcome over a zero-sum outcome for its maritime users. As sovereign states on their own are not capable of addressing the challenges posed by Non-Traditional Security (NTS) threats, major players should shift the prevailing strategic competition into more constructive strategic cooperation and collaboration in mitigating them. Therefore, the article explores Sri Lanka's potential to serve as a hub to facilitate collaborative action in addressing NTS threats to ensure effective rule-based maritime order and strategic cooperation in the Indian Ocean.

Keywords: Indian Ocean, Non-Traditional Security threats, Sri Lanka, Strategic Competition, Strategic Cooperation

INTRODUCTION

"*Whoever controls the Indian Ocean controls Asia. The ocean is the key to the seven seas.*" - Alfred Thayer Mahan

The Indian Ocean (IO) remains a tremendously significant geo-strategic entity throughout history. During the 18th and 19th centuries, it was considered a "British Lake" as the British enjoyed naval supremacy in the Indian Ocean. The second half of the 20th century further elevated the global emphasis of the importance of this region. Since the 1960s the United States and the Soviet Union competed with each other to establish a strong naval presence in the Indian Ocean. Nevertheless, presently, it is no longer the domain of super powers and great powers only, as it involves multiple state actors both regional and extra-regional powers who are engaged in strategic competition. However, the Non-Traditional Security (NTS) threats posed by non-state actors affecting the Indian Ocean security framework emphasise the need for the ocean to be developed into a platform of strategic cooperation, rather than strategic competition, which ensures win-win outcome for all its maritime users. This article first discusses the nature of strategic competition in the Indian Ocean in order to show the complexity of the IO strategic environment. Secondly,

the article discusses the proliferation of non-state actors and networks as well as climate change and threats from natural disasters in the Indian Ocean to argue that they further complicate the IO security architecture jeopardising the ocean-bound competitive national interests of all major players in the Indian Ocean. The objective of the article is to illustrate that the challenges posed by Non-Traditional Security threats in the region require cooperation above competition among major IO maritime users. Finally, the author explores Sri Lanka's potential as a facilitating hub for such cooperation to counter the new threats.

INDIAN OCEAN STRATEGIC ENVIRONMENT: COMPETITION, CONVERGENCE AND DILEMMA

The strategic importance of the Indian Ocean is derived from both intrinsic and extrinsic value perspectives. The intrinsic value of the Indian Ocean is derived from the vast spread of natural resources and industrial raw materials. Unlike the Arctic Ocean, the Indian Ocean's significance is not confined to its resource oriented value. The Ocean is also an important energy highway as it is home to strategic Sea Lanes of Communication (SLOCs) and the world's most trafficked energy transit choke points; Strait of Malacca, Strait of Hormuz and the Strait of Bab-el-Mandeb. Different nations understood the extrinsic value of this strategic body of water for centuries; from the time of the Seven Voyages by the Chinese, and through the 18th and 19th centuries when the British dominated the Indian Ocean. For the first time in history, the British made it a mare clause (a closed sea to others with hostile intent), as opposed to mare liberum (a sea that is open to all nations) (Varma, 1964). Its significance as a strategic high ground of the 21st century is increasing, and as Robert Kaplan (2010) explains, the Indian Ocean has become a 'truly global ocean' at present (as quoted by Attanayake & Samarasinghe, 2018).

According to the theory of sea power, expounded by the naval strategist Alfred Thayer Mahan, nations should gain sea power in order to gain benefits of sea-borne trade in an atmosphere of immense conflict and competition over the sea (Athwal, 2007). The circular logic behind the theory of sea power is that foreign commerce is sea based; therefore, overseas bases are necessary to support commerce, and a military battle fleet is necessary to defend those bases and thereby the flow of trade. Nations use the revenues gained from sea-borne trade to improve their militaries (Athwal, 2007). The expectation of conflict is central to the theory of sea power and conflict in the sea often results in a zero-sum outcome. As one of the world's most strategic water bodies, the Indian Ocean is not excluded from this zero-sum nature of the power rivalry.

The Indian Ocean's strategic environment can be characterised by three features: "strategic competition, strategic convergence and strategic dilemma" (Colombage, 2017). Strategic competition in the region is caused by the rivalry among major powers over strategic ports, Sea Lanes of communication (SLOCs) and sea space

jurisdiction to ensure safe energy transit across the Indian Ocean. The world has entered a geo-energy era, as such energy security has become a determinant of the geopolitically-oriented economic security for major powers. States promote resource nationalism in order to ensure energy security. Resource nationalism is a concept that reflects on how the government of a state takes responsibility in promoting the security of a country's resources. Human and physical resources, either within or outside the country, can be considered as a geopolitical factor influencing that country's behaviour. Crude oil, as an energy source, has become a national security interest to big players in the Indian Ocean. The Sea Lanes of Communication across the Indian Ocean facilitate the transportation of key maritime trade including petroleum and petroleum based products from the oil fields of the Persian Gulf and the Eastern Asian states (Nathaniel, 2018). China's Belt and the Road Initiative (BRI) is a mega strategy designed to realise its dream of becoming a fully modernised nation. China has established its presence and stakes in the key IO ports to ensure the smooth transportation of crude oil and other resources across the Indian Ocean.

Strategic competition in the region has taken the face of strategic convergence due to the warming of quadrilateral relations between the US, India, Japan and Australia to keep the China factor in check. These relations mark a new geopolitical reality which has the potential to transform Asia (Attanayake & Samarasinghe, 2018). India was the traditional hegemon in the Indian Ocean region surrounding the South Asian sub-continent and it now tries to reassert that dominance over the region. India's multi-million dollar project called "Security and Growth for All in the Region" (SAGAR) was launched as a counterweight to China's 21st Century Maritime Silk Route (MSR) project. Meanwhile, Japan views India as a close ally, a strong and reliable partner to maintain balance in the Indian Ocean. The US joining India and Japan marks the intensified involvement of a global super power to determine security parameters in the Indian Ocean. In addition, Australia, as an extra regional power, is seeking to establish a strong naval presence in the region to defend its economic interests in the Indo-Pacific region. Consequently, India, Japan, the US and Australia are engaged in a soft balancing strategy in the region against China. Soft balancing in International Relations is a concept defined as a major power or group of major powers coordinating its/their strategic policies with the aim of impending or frustrating the policies of another major power or super power (Zhang, 2010). Political realists argue that states engage in power balancing strategies with the aim of deterring rising powers and to prevent competing nations from becoming militarily stronger and pursuing their hegemonic interests (Stafford Encyclopedia of Philosophy, 2013).

The quadrilateral alignment between the US, Japan, India and Australia is a major factor that has rendered the Indian Ocean and the Western Pacific Ocean together to form an emerging geopolitical construct. The littoral nations in the Indo-Asia-Pacific regions are popularly referred to as the Indo-Pacific region (French, Michel &

Passarelli, 2014). In his first Presidential visit to Asia in November 2017, President Donald Trump used the term 'Indo-Pacific' to replace the more familiar term 'Asia-Pacific'. Japan's Prime Minister Shinzo Abe too has emphasised the idea of a 'free and open Indo-Pacific' (Mohan, 2017). In addition to the elevating strategic quadrilateral partnership, the rise of India, China's assertiveness and its expanding footprint in the Indian Ocean have increased the importance of the Indo-Pacific region as an emerging Maritime Highway and a crossroad in international relations (Mohan, 2017). The emergence of the Indo-Pacific geopolitical construct illustrates the fact that the concepts of geopolitical space are never static. Due to the increased rivalry and competition in the major power play in the region, the unipolar balance of power has almost been replaced by a multi-polar balance of power in the Indo-Pacific region.

As a result of the joint quadrilateral cooperation between these four states against China, the Indian Ocean security competition has taken the phase of a 'security dilemma'. Security dilemma is a situation in which states feel insecure in relation to another state or states and therefore each state initiates actions to make itself more secure militarily or diplomatically, and these actions are interpreted as a threat by other states (IR Theory Knowledge Base, 2014). Strategic dilemma in the context of the Indian Ocean is two-fold. On one hand, the major powers are faced with a security dilemma in their constant and ambitious efforts to maximise their maritime might against each other. On the other hand, small states which are considered as passive players in the region are increasingly getting entrapped in a security dilemma as they are forced to choose between major powers.

Competition is an ever-present geopolitical reality in international relations. It is natural that major powers compete for power and influence in the Indian Ocean. Therefore, competition cannot be avoided or eliminated. However, power competition between major powers should not lead to conflicts. Even though competition cannot be eliminated, cooperation can be promoted. Even though collaboration remains inevitably essential, it can never be fully achieved if great power politics prevail in the Indian Ocean causing sub-regional power struggles in the region. For example, the great power politics between the US and China can aggravate sub-regional struggles between India and Pakistan, further hindering the scope for collaboration in the region (Nathaniel, 2018). However, it is a timely necessity to promote cooperation and collaboration between state actors because of various threats posed by non-state actors. They are making the strategic environment of the Indian Ocean complex, unstable and volatile. It is mandatory for major state actors engaged in strategic competition to shift their competition to constructive cooperation in order to ensure a safe maritime environment in the Indian Ocean.

Aggressive nations with similar ocean bound national interests are considered the major rivals for each other in the competition among major IO players in their quest

for dominance of Sea Lanes of Communication, trading ports, natural resources and other IO maritime affairs. As a result, a security dilemma has been created due to the uncertain and tensed environment caused by intensified military activities of state actors in the Indian Ocean. However, the security dilemma in the Indian Ocean has taken a new face due to the security threats posed by asymmetric non-state actors, climate change and maritime environmental hazards. Therefore, more constructive convergences among state actors against aggressive non-state actors is equally essential to maintain balance in the IO security framework.

NON-TRADITIONAL SECURITY THREATS AS A COMMON SECURITY CONCERN IN THE INDIAN OCEAN

The end of the cold war marked a change in the security agenda of the international system with the shift of attention from traditional military security to non-traditional security. With rapid globalisation and communication revolution, Non-Traditional Security (NTS) threats spread across the world. These threats have a few common features; they are transnational in nature as they transcend beyond territorial boundaries, unpredictable and unprecedented, and they are frequently inter-woven with traditional security (Craig, 2007). A vast array of NTS threats posed by non-state actors in the Indian Ocean have the potential to destabilise the rule-based maritime order. These new threats impact national security as well as regional and global security at large, complicating the geo-strategic scenario of the Indian Ocean, urging the nation states to take counter measures.

Marine environmental issues have been caused by heavy reliance of regional and extra-regional powers in the utilisation of IO marine resources with diverse and unsustainable technological capabilities. In addition, growing population, increasing density in the coastal regions, expansion of cities and rising middle class, uncontrollable development in the region, pollution, climate change and its impacts are the main factors that aggravate pressure on the IO eco-system (Wickremasinghe, 2014). As consequences of those issues are felt by all its maritime users, effective regional collaboration in addressing those issues is mandatory to ensure the Indian Ocean is a common good for the mutual benefit of all stakeholders.

Though ecological damages due to maritime accidents and oil spills in the Indian Ocean are not often discussed, marine pollution caused by unsafe and unstandardised shipping has destructive impacts on the IO marine environment (Fernando, 2017). There is a steady decline in the oil leakage incidents worldwide, yet the possibility of maritime accidents in the IO shipping lanes remains unpredictable due to the high volume of maritime traffic. A recent example is the collusion of two vessels, the M.T. BW Maple and M.T. Dawn Kanchipuram outside Kamarajar harbour at Ennore, causing an oil spillage into the sea in January 2017 (Singh, 2017). These maritime accidents deteriorate the IO marine biodiversity and security of seafaring

in coastal waters, affecting the livelihoods of the fishing community in the Indian Ocean littoral (Singh, 2017).

Moreover, the Indian Ocean is prone to catastrophic maritime natural calamities such as flash floods, cyclones, landslides and earthquakes, which are caused by anthropogenic activities. The 2004 tsunami and the 2008 Nargis Cyclone are among the maritime disasters which had severe consequences for island nations and coastal cities of the Indian Ocean littoral also affecting even the extra regional maritime users in the Indian Ocean. The tsunami in 2004, caused by the earthquake in Aceh, killed approximately 240,000 people in Indonesia, Sri Lanka, India, Thailand, Maldives, Malaysia and Myanmar, and Cyclone Nargis in 2008 killed 85,000 people in Burma (Samaranayake, 2012). In addition, climate change-induced mass displacement is another major Non-Traditional Security threat in the region. Global warming and thermic expansion of the ocean leads to sea level rise around the low lying littoral cities in the IO region. An eight-inch rise in sea level could render 10 million people environmental refugees by the year 2030 (Kaplan, 2010, as cited in Samaranayake, 2012). The coastal cities of Bangladesh are highly affected and the low lying islands of the Maldives too can completely disappear if a major rise in sea levels takes place around the region. Therefore, regional collaboration is mandatory in effective management and governance in the oceanic environment. Natural hazards and climate change related calamities are an area in which regional players like India and China could take immediate relief action, and extra-regional players like the US could extend humanitarian aid.

Piracy and maritime terrorism are two other major security challenges posed by violent non-state actors. The Malacca Strait, Horn of Africa, Gulf of Aden, Arabian Sea, and the Western Indian Ocean are major areas with intensive operations by Somali pirates. Piracy involves multiple crimes, such as money laundering, murder, hijacking, kidnapping, extortion, illegal arms trafficking, which are considered criminal offences under international law and therefore is a crime of opportunity (Colombage, 2016). Maritime terrorism poses a similar threat to Indian Ocean security. Despite the financial repercussions, maritime terrorism has more complex political implications as maritime terrorists seek to influence governments through the use of threat of violence at sea. Maritime terrorists have the potential to carry Weapons of Mass Destruction (WMD) under their control in a commercial ship and explode it in a commercial port of a developed country (Colombage, 2016). There is a linkage between pirates and maritime terrorists because of their shared interests. Pirates can become agents of extremist terrorist organisations, gain access to maritime weapon delivery through terrorists, and tunnel their ransom in turn to terrorist networks (Bair, 2009).

Another salient threat in the Indian Ocean is organised crime at sea including human trafficking, drug smuggling and arms smuggling. Irregular migration is a global concern due to its linkage with organised criminal groups. Lack of political

unity and inter-state coordination to address the issue has been a major cause for the increased trafficking and smuggling in the region. Illegal arms trafficking is combined with narcotics trafficking as well as maritime piracy. For example, the LTTE maritime terrorists successfully carried out illegal arms and drugs smuggling for several decades in order to inflict damage to Sri Lanka in the fight against the government forces (Colombage, 2016). In addition, Illegal, Unreported and Unregulated (IUU) fishing is another NTS issue in the region. IUU fishing includes poaching, use of destructive fishing methods and banned fishing nets, not declaring the catch locations and details and even stealing the catch (Colombage, 2016). Fishing is the major livelihood of the coastal community of the IO littoral states so the threat posed by IUU fishing extends beyond traditional military security to human security.

NEW THREATS AS A TIPPING POINT FOR COOPERATION OVER COMPETITION

Non-Traditional Security threats in the Indian Ocean require a recalibrated outlook on collective maritime security and a range of collaborative and innovative policy initiatives to address them. Challenges are multidimensional and cross beyond sovereign territorial borders. The most stable nation states are the most threatened by violent non-state actors and networks at sea. Similarly, unlike the nascent threat associated with inter-state rivalries in the Indian Ocean, natural disasters and climate change pose a more immediate threat to the IO security environment (Samaranayake, 2012). Therefore, the highest international cooperation is required in addressing them. Major powers in the Indian Ocean have deployed their maritime activities in the region in order to combat these threats. People's Liberation Army and Navy entered the Indian Ocean for the first time in December 2008 for counter piracy operations in the Gulf of Aden after ships with Chinese crews were attacked by pirates in Somali water in 2008 (Henry, 2016). China has deployed more than twenty Escort Task Forces (ETF) for counter piracy measures. The US and Japan have established their logistics facilities in Djibouti to support their counter piracy operations (Colombage, 2016). However, there is no comprehensive multilateral agreement in the IO security framework to address and mitigate these threats with a more assertive and collaborative approach.

There is a clear inadequacy in institutional initiatives and dialogue to address new threats in the Indian Ocean in a more constructive manner with the representation of both the regional and extra regional states. The Indian Ocean Rim Association (IORA) is for economic cooperation and not for security cooperation (Daily Mirror, 2018). Indian Ocean Naval Symposium (IONS), comprising of 32 members, is a voluntary initiative launched with the objective of increasing maritime cooperation explicitly among navies in the IO littoral states (IONS, 2018). The Indian Ocean Conference (IOC) which commenced in 2016 and organised by the India Foundation is the only forum to address IO maritime issues at both ministerial

and academic level. Yet, the IOC too has limitations because the extra regional representation at the conference remains low (Daily Mirror, 2018).

Strategic cooperation achieved through coordination to address NTS threats is the way out for the main maritime users to effectively achieve a safe and stable Indian Ocean maritime order. Collective efforts by the international community to eradicate piracy in the Gulf of Aden is a testimony to the impact the IO stakeholders can have if they initiate constructive convergences to curb the menace of Non-Traditional Security threats in the region (as quoted in Nathaniel, 2018). However, a strategic platform is needed to facilitate innovative cooperation and to convene all the maritime users in one forum with the common objective of countering these threats. Within this context, Sri Lanka has the enormous potential to serve as a logistical hub to facilitate cooperation among major players in the Indian Ocean.

SRI LANKA AS A FACILITATING HUB

Though Sri Lanka is geographically a small state, it has been a proactive littoral state in the Indian Ocean. Even though Sri Lanka has no capability to exert hegemonic or aggressive influence in the region, it has become a key player in the Indian Ocean politics due to its strategic location. As a nation that follows a nonaligned foreign policy, Sri Lanka's vision is to see that the Indian Ocean be developed on a rule-based maritime order where trade, freedom of movement and development of all countries are facilitated (Attanayake & Samarasinghe, 2018).

Sri Lanka has set an historical example of a facilitator for maintaining maritime order in the Indian Ocean. Sri Lanka's proposal on Declaration of the Indian Ocean as a Zone of Peace was adopted at the 26th United Nations General Assembly in December 1971. It called upon all maritime users in the Indian Ocean to be obliged to maintain peace and stability in the maritime domain "in pursuit of the objective of establishing a system of universal collective security without military alliances" (as quoted in Kodikara, 1982, p.195).

However, the United Nations General Assembly Resolution 2832 (XXVI) on the Declaration of the Indian Ocean as a Zone of Peace had reference only to the naval forces of great powers (Jayawardane, 2009). It had no reference to the challenges posed by asymmetric non-state actors in the Indian Ocean as there was no considerable threats emanating from them at the time (Jayawardane, 2009). The UN Declaration emphasised that if the power rivalry of the great powers in the region is reduced, peace can be achieved in the Indian Ocean. However, in addition to the conventional threats to maritime security like inter-state rivalries and conflicts which still prevail in the Indian Ocean, threats posed by non-state actors have become a major source of insecurity in the Indian Ocean today (Jayawardane, 2009). Therefore, the involvement of great powers is essential in the IO security framework today in order to mitigate the threats posed by non-state actors and

other NTS threats like climate change and natural hazards. Nevertheless, the involvement of great powers should not be hostile, antagonistic and competitive, but cooperative and collaborative. Cooperation among major powers is therefore critical for Indian Ocean maritime security, yet it cannot be achieved without a facilitator. Sri Lanka has the immense potential to promote itself as a facilitator of cooperation among major powers to ensure maritime security in the Indian Ocean.

Sri Lanka has played a proactive role in international organisations promoting maritime security in the Indian Ocean. A decade after its proposal for the establishment of a Zone of Peace, Sri Lanka was instrumental in setting up the Indian Ocean Marine Affairs Cooperation (IOMAC) following the footsteps of the 1982 UN Convention on the Law of the Sea. Sri Lanka has been serving as an active member in the Indian Ocean Rim Association (IORA) as well as the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC). Currently, Sri Lanka is serving as the Chair for the BIMSTEC since 2018 August. Recently, former Prime Minister Ranil Wickramasinghe emphasised: "we remain convinced that a code of conduct that ensures the freedom of navigation in our Ocean will be an essential component of this vision", at the Indian Ocean Conference in 2017 (as quoted in Daily Mirror, 2018). Therefore, Sri Lanka can facilitate the vision of enhancing the Indian Ocean as a free and safe ocean with a code of conduct for a rules based maritime order.

If the major players in the Indian Ocean are to enhance their relations with each other, Sri Lanka would be the most important platform to initiate strategic cooperation. Sri Lanka maintains a relatively balanced diplomatic position with all the major players in the Indian Ocean and thus can facilitate multilateral initiatives between major players. Due to Sri Lanka's central positioning in the Indian Ocean, the country's international importance "belies its size" despite the geographical size and comparatively small population (Lerski, 1974). Therefore, "any power interested in control of, or at least influence in the Indian Ocean is bound to get involved in the affairs of this lush tropical nation" (Lerski, 1974). In this context, Sri Lanka has the potential to play the role of a facilitator to transform strategic competition in the Indian Ocean into strategic cooperation in a number of ways.

Firstly, apart from being a maritime transit centre, Sri Lanka's geographically central positioning in the Indian Ocean enables it to serve as a platform for dialogue and discussion to enhance multilateral initiatives on maritime security and maritime domain awareness. Sri Lanka has already served as a common venue for dialogue between the key global players in addressing common issues in the Indian Ocean and in searching common solutions. For example, the Galle Dialogue, an annual meeting of IO littoral states to discuss on IO maritime governance, shows Sri Lanka's potential to initiate dialogue on promoting regional collaboration on maritime governance. The Galle Dialogue predominantly focuses on NTS threats every year. The Galle Dialogue 2018 was exclusively held under the theme of 'Synergizing

for Collaborative Maritime Management' and it emphasised the fact that one of the approaches to avoid conflicts in the region is to make all stakeholders equal partners in the development process of the IO region (as quoted in Nathaniel, 2018). Further the Galle Dialogue 2018 highlighted the increasing trend of the proliferation of terrorist networks at sea due to the recovery of the ISIS controlled areas in the Middle East (as quoted in Nathaniel, 2019). As Sri Lanka is a nation that successfully eradicated separatist terrorism and ended three decades of brutal war, Sri Lanka has the potential to serve as an initiator to construct a maritime joint line of counter-terrorism with the other major powers in the Indian Ocean. Open forums and dialogue like the Galle Dialogue facilitate collaborative maritime engagement to address maritime issues including maritime terrorism. Thus, Sri Lanka proves that it can serve as a platform to facilitate open multilateral dialogue over closed-door dialogue among all state players in the Indian Ocean. In fact, transparency of discussion guaranteed by multilateral dialogue is enormously important to enhance relations among major IO maritime users providing them the scope to overcome trust deficiencies.

Secondly, Sri Lanka's largest natural port Trincomalee can be developed into a research hub dealing on matters pertaining to environmental protection, disaster management and climate change mitigation. Maintaining a centralised data source in the Indian Ocean by gathering and sharing data, technology transfer and capacity building are the key areas which can foster in the marine resources management in the Indian Ocean through regional collaboration. Maritime research, is in fact, a cooperative platform for the region as the issues in marine waters of the Indian Ocean affect the whole region (Mohan, Kumara & Jayarathna, 2018). It is necessary to engage in research beyond territorial borders to fully comprehend the complexity of oceanic environment, climate change, monsoon patterns and natural resources in the Indian Ocean (Mohan, Kumara & Jayarathna, 2018). In this regard, Sri Lanka can act as a facilitator by serving as a regional forum for respective stakeholders to initiate action and maintain collaboration. Trincomalee is an ideal location for a Regional Maritime Research Centre. In addition to Trincomalee's weather and climate, blooming tourism industry, boosting infrastructure and natural resources like mangroves in the area, it is vital for its geostrategic positioning in the Bay of Bengal. Being the largest bay in the Eastern Coast of Sri Lanka, Trincomalee's bay mouth offers the opportunity to study the oceanographic environment around the region covering India, Bangladesh and Myanmar. Trincomalee can further enhance sea and air connectivity among countries in the Indian Ocean (Fernando, 2017). Sri Lanka's strategic location in the Bay of Bengal as the epicenter of the Indian Ocean amidst the vital Sea Lanes of Communication (SLOCs) connects Trincomalee to the other countries that can contribute to boost coordination among the IO littoral states. Further, the recently opened Batticaloa Domestic Air Port will expand its service to boost tourism industry and Trincomalee's air connectivity with the region (Fernando, 2017).

Thirdly, Sri Lanka can serve as a platform to foster cooperation on disaster relief and humanitarian assistance. The Indian Ocean region is volatile to an array of natural hazards which are caused due to anthropogenic activities. Preparedness to face those can mitigate the catastrophic damage caused to the littoral states and oceanic environment, while ensuring safe maritime transport. Apart from environmental hazards and industrial accidents, mass displacement of population caused by conflict, human rights violations and generalised violence has become a complex, man-made hazard affecting the region. For example, the Rohingya refugee crisis has spill-over effects across the IO littoral as the displaced cross territorial borders to settle in other South Asian and South East Asian states. Humanitarian and disaster relief is a great area for cooperation and to improve inter-state relations.

Cooperation and collaboration on humanitarian aid and disaster relief promotes burden sharing among major players on some of the responsibilities for maintaining security in the Indian Ocean (Samaranayake, 2012). Furthermore, it fosters inter-state relations by providing the states scope to overcome their trust deficiencies. For example, traditional intractable domestic constituencies in India which are reluctant to engage with the US get the space to collaborate on common ground with each other in the humanitarian and disaster relief platform (Samaranayake, 2012). Within this context, Sri Lanka, being the epicenter of Indian Ocean, can be promoted as an ideal location for a humanitarian and disaster relief centre. In fact, Sri Lanka has set the example for a centre for coordination of disaster management and humanitarian assistance as it has a base of Disaster Management Centre (DMC) (Colombage, Joseph & Baruah, 2018). It can be improved to serve the future initiatives on mitigating disasters with the coordination of both local and foreign stakeholders. Due to Sri Lanka's deep water ports, navigable waters, eased up custom procedures for humanitarian relief items, high aviation and sea connectivity, it is feasible for the island nation to be promoted as an ideal hub for Humanitarian and Disaster Relief Operations (HADR) (Colombage, Joseph & Baruah, 2018).

Fourthly, Sri Lanka has adapted an input approach which uses its resources at present to meet goals in the future. Sri Lanka has become a platform for the major players in the Indian Ocean to make infrastructure investment within the country. These investments have two impacts on IO maritime governance. On one hand, it allows Sri Lanka to be promoted as a hub of activity involved with all major maritime users due to Sri Lanka's significant geo-strategic positioning in the Indian Ocean. It further broadens the scope for Sri Lanka to promote itself as a hub facilitating strategic cooperative initiatives like maritime domain awareness, maritime research, disaster relief, and open maritime dialogue. On the other hand, allowing major players to invest in the country's coastal cities opens Sri Lanka's coastal line for foreign maritime forces to monitor maritime governance in the continental shelf beyond Sri Lanka's waters.

CONCLUSION

The Indian Ocean is increasingly being subjected to a maritime cold war due to the strategic competition prevailing among powers. At the same time, the multifaceted NTS threats such as marine environmental hazards, maritime accidents, piracy, maritime terrorism, human smuggling, arms smuggling, illegal narcotics smuggling and IUU fishing have undermined the Indian Ocean maritime order. These threats present not only challenges but also an array of opportunities. It is beyond the capacity of individual states to address these issues on their own, and therefore, it is imperative to mobilise collective and collaborative efforts on the part of all the stakeholders in the Indian Ocean.

Small states are being increasingly entrapped into a situation of strategic dilemma and are being courted by major powers in pursuit of their own strategic interests in the Indian Ocean. This presents a difficult choice for a country like Sri Lanka. However, Sri Lanka, as a country which has been traditionally following a non-aligned foreign policy, can play a positive role in promoting strategic cooperation in the Indian Ocean maritime politics. Sri Lanka has the potential to serve as a maritime transit centre, common forum for open maritime discussion and dialogue, maritime research hub and humanitarian and disaster relief centre promoting collaborative and assertive engagement of all IO maritime users. Therefore, the most pragmatic diplomatic approach for Sri Lanka is to gain advantage of its strategic significance as an IO littoral state to pursue initiatives which foster cooperation among major players in the Indian Ocean, making Non-Traditional Security threats as the tipping point for cooperation.

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"THE HOUSE OF THE OWLS"

Lieutenant Colonel Prabhath Atapattu

The Defence Services Command and Staff College was initially established as the Army Command and Staff College (ACSC) on 16th March 1998 with the first course consisting of 26 Army Student Officers. DSCSC was officially inaugurated on 22nd January 2007 in order to set a common stage for the three services to facilitate "joint-man-ship". In 1999, the College started awarding the Masters Degree in Defence Studies, affiliated with the University of Kelaniya and subsequently the affiliation changed to General Sir John Kotelawala Defence University.

DSCSC marked yet another milestone in the year 2008, by enrolling Foreign Student Officers, representing South Asian, Southeast Asian and African nations. It functions directly under the Ministry of Defence and is governed by a Board of Management headed by the Secretary to the Ministry of Defence and comprising of the Chief of Defence Staff and the Three Service Commanders.

Over hundred officers dressed in their ceremonial best, marched to the tune of their respective service anthems to receive their parchments from His Excellency the President. The 'Maroon Hall' – the main auditorium of the College – was decorated to represent the variety of military personnel present at this momentous annual event.

Present on the occasion were the ministers, secretaries, ambassadors, defence attaches, service commanders, top-brass service personnel and the family members of the officers. Smiling faces with tears of joy in front of their beloved spouses and parents after a challenging year, the officers in green, white and blue were breathing a sigh of relief. Memories from ice breaker to the many sleepless nights of studies ran through everyone's mind. Everyone was exceptional and hoped to obtain the Golden Owl, Golden Pen or Commandant's Honours. Ladies' Night, Diners' Club, Course Picnic, Hash Run, Students Pantomime, New Year and Vesak Festivals with the spouses and children, amidst the busy schedule of studies and the completion of the Commandant's Research Paper (CRP) and the test RICs (Red Ink Correction) from dawn to dusk were an unforgettable experience. All those past memories would be etched in their memories, making them militarily smart leaders with a balanced personality.

It was the graduation ceremony of the one-year academic course of the Defence Services Command and Staff College in 2017 and the time had come for the owlets

to bid farewell to their alma mater. The Owl's House, surrounded by the paddy fields, and the beautiful landscape of tall coconut trees always brought them into a tranquil environment for their studies. The Student Officers would recall their lecturers asking them to be like the fronds of the coconut tree which bent down when the new ones pop up from the top of the palm letting the fresh leaves to blossom. It is a fact that everyone knows, but one needs their utmost dedication and commitment to serve the nation. 'Pristine environment' starting from the majestic entrance gate and the calm and serene environment with its sprawling foliage blended with cleanliness appealed to their hearts and minds. The college, as a premier military 'learning organization', was an inspiration for nearly a year which appeased their hunger and quenched the thirst during the hardest period of their military education. The video clips and photos of different events and activities of the course displayed on the screen drew the attention of all present. Adding quintessential value to the event, the brief documentary film gave the audience the overall picture of the activities, course of studies, aims and objectives of the college and the title; passed staff college "psc". The college has gained prestige and global reputation due to the sheer dedication and commitment of the many individuals who contributed towards its growth. The college has so far produced 1,250 graduates since its inception in the year 1997 including approximately one hundred foreign student officers.

Graduation Ceremony 2017

GLORIOUS HISTORY

The establishment of the Staff College showcased that it catered to the Army's need in establishing an advanced seat of military learning for its middle-grade officers, as there were an umpteen number of demands to be met. A tranquil environment that provoked thought and intellect, facilities to house the demanding needs, and the locational convenience for students, faculty, highly accomplished staff and the resource personnel, were only a few of the criterion to be fulfilled. The pioneers found it difficult to select a suitable location in proximity to the capital to establish the college. The initial suggestions were Diyatalawa, the Skanaska project site at Kotmale and the Batalanda camp complex at Sapugaskanda.

Former President Her Excellency Chandrika Bandaranayake Kumaratunga at the Inauguration Ceremony of ACSC in 1998

The dilapidated buildings of the Sapugaskanda camp were renovated to meet a garden campus of the highest academic esteem for the men in green at the inception; the infrastructure was developed to house what was to be 'The Army Command and Staff College', the highest seat of military learning in the country. The college was prepared to enroll its first batch of students in January 1988, marking the beginning of a great source of knowledge and wisdom that would help transform the careers and lives of a chosen and elite group of middle-grade officers of the Sri Lanka Army.

Advice to formulate academic curriculum was sought from the best in the field. Thus, Sri Lanka Army looked on to their counterparts in the UK, and the latter gladly contributed with their expertise. It was felt to be a necessity that an accomplished academic staff with doctrinal knowledge was a prerequisite to fostering an institution of high academic caliber. The valuable contribution made by the British Army continued for the first four courses by way of a few Liaisons Officers providing a British Army Training.

Enhancing its academic-worth, the Army Command and Staff College initially affiliated with the University of Kelaniya, giving students the opportunity to read for a Masters Degree in Defence Studies (M Def S) whilst qualifying themselves at the Command and Staff College. The untiring efforts of a committed and dedicated leader together with a handpicked team of faculty and staff ensured the working of a hectic and demanding course calendar to precision.

This great opportunity of academic advancement that had hitherto been granted for just 58 serving officers at Staff College abroad was now to be within the reach of all aspiring middle graders qualifying for entrance.

The wise Old Owl's watchful eyes stood witness as batches of officers from our nation's three Armed Services and Police toiled day and night, as they were being put through the paces of the most demanding and hectic programme of learning. The ultimate result was to deliver the highest cumulative impact factor and militarily educated officers for the motherland. They have indeed left no stone unturned in their efforts to improve as future leaders of our militaries and are ready to spread their wings away from their nests.

Though parting the gates had an element of sadness, absolutely overriding were the tears of joy and the feeling of confidence in graduates who were to take challenges as leaders and the defenders of the nation, be it in their professional or personal lives. The nation's strategic thinkers then thought it is opportune time, for the good work proffered by the Army Command and Staff College to be extended to all three services of the nation where isolated training had resulted in many a failure when facing the internal conflict. Military experts had predicted single service operations are not conducted in most of the countries due to limited probability of success. Therefore, joint training in a joint service environment was given attention.

EXPANSION OF THE OWL'S HOUSE

Expansion was thus contemplated, and Sri Lanka witnessed the transformation of the establishment, into the Defence Services Command and Staff College (DSCSC). This set the stage for "Joint–man–ship", the sheer need of the era, where victory was guaranteed only through a united effort under a unitary command. This measure was taken to ensure and bring the militaries to a common platform, in all doctrinal and strategic level planning, war fighting techniques and procedures adopted by each of the services.

Former Secretary to the President, Mr. Lalith Weeratunga, gracing the Inauguration Ceremony of DSCSC - 2007

The Defence Services Command and Staff College enrolled its first batch of student officers in January 2007 with the addition of the Navy and Air Wings. The responsibility of administering the institution shifted from Army Headquarters to the Ministry of Defence, with which the DSCSC acquired a Board of Management of the highest profile consisting of the Secretary to the Ministry of Defence, three service commanders, Vice Chancellor of General Sir John Kotelawala Defence University (KDU) and the Commandant of DSCSC. The number of students expanded; not only with more officers from the defence services and the civil services of our nation, but also with the officers of friendly foreign countries joining the ranks.

As such, the wealth of knowledge and experience found within each course enriched the learning environment and encouraged peer learning. One of the most challenging and exciting events they encountered was brushing up of the Queen's language at Kotelawala Defence University, before they arrive at DSCSC. Crossing the English Channel and dipping in impromptu speeches was more shocking than the other three skills of the language; Listening, Reading and Writing. Attending simultaneously to the assignments given in the Pre-Course Book of DSCSC which contained assignments related to military subjects and submitting them on time; limited their free-time. The work continued to be time-consuming with the introduction of the course on Research Methodology by KDU. However everybody was able to loosen their shoulders with the knowledge and techniques taught on research counseling at KDU and was successful in producing a Research Paper. It would have been a nightmare if not for the guidance of the Academic Supervisors. The three-month Intensive English Language Course and Research Methodology package at KDU inspired them and kept them alerted for the oncoming Staff Course. Thinking that 'well begun means half done', all commenced their work on their research projects with the guidance of the academic experts at KDU. Most of the students were alien to the subject, but everybody had to dip in the sea and swim for their own survival.

THE COURSE CURRICULUM

The four Academic Terms deal with Conventional War Fighting, Counter Revolutionary Warfare, Joint Warfare and Technological Development which are comparatively familiar to a military officer. The exchange of professional knowledge and experiences as well as military technological progress of military establishments of other countries were gained through interactive workshops conducted by military training delegations visiting from friendly nations. The faculty is enhanced by a large number of eminent local and foreign scholars as visiting lecturers. The Student Officers were lectured on different fields by diplomats and top-level public service officers. The Master of Science in Defence and Strategic Studies (MSc-DSS) Degree runs concurrently by General Sir John Kotelawala Defence University

(KDU).The MSc programme constitutes modules on Sri Lankan Studies, Strategic Studies, International Affairs and Management Studies.

Experts and eminent personalities from Kotelawala Defence University, Bandaranaike International Diplomatic Training Institute (BIDTI) and the National Institute of Business Management (NIBM) visit the College as guest lecturers for the subject on International Studies, Management Studies, Strategic Studies and Sri Lankan Studies. Comprehensive workshops conducted by local and international organisations, enlighten students on national interest, international norms and conventions which govern their profession.

The college social calendar consisted of a variety of activities which knit the student officers and their families together. These activities concentrated on social and personal development of the spouses with activities such as Ladies' Night, social dancing classes and capacity development workshops through a very active Ladies' Club. Besides that, some of the events which strengthen the acquaintances of students are the Course Picnic, College Hash Run and the Students Pantomime. Shortfalls in administration and academic field, humorous occurrences among the intimates during the course are acted out at the Pantomime. Different cultures, rituals, costumes, cuisine, exhibited at International Day celebrations by the foreign students, create strong bonds and mutual understanding among all.

International Day Celebrations 2018

Local visits and the DSCSC Delegation Visits on International Collaboration help students to gain in-depth knowledge about defence establishments abroad. The opportunity reveals a bigger canvas on international governance, whilst providing an exposure to practices of regional and friendly militaries such as Australia, China, Indonesia, Israel, Japan, Philippine, Russia, Rwanda, South Korea, Turkey and UAE, thereby improving the exposure gained through the course.

DSCSC Delegation Visits on International Collaboration - 2018

For students, the hard work put in does not go unrewarded; the investments they make pay rich dividends throughout their professional and personal lives. Honouring their efforts, the Staff College presents the best of the best with the "Golden Owl" Award. This is given to the Student Officer who obtains the first in order of merit. The "Commandants' Honours" is awarded to Student Officers who obtain a merit of 70 percent and above and the "Golden Pen" is awarded to the Student Officer authoring the best research paper.

CONTRIBUTION TO NATIONAL SECURITY

Defence Forces of Sri Lanka are a Joint Defence Force that provides military and civil defence capabilities of defending Sri Lanka from external and internal violence and to promote peace, security, economic well-being, social progress and Sri Lanka's regional and global recognition. The prime responsibility of the armed forces of a country is to protect its people, infrastructure, and territory from any form of aggression. In order to face the emerging challenges, members of the security forces should be well-prepared to identify traditional and non-traditional security threats.

The Defence Services Command and Staff College produces qualified, broad-minded and far-sighted military officers to secure the country. Staff qualified officers of the Tri-services are an asset, since they are in a position to maintain an agile, high-tech

defence intelligence network to assess national security concerns through unified action by all in the intelligence community and sharing of information.

Bearing in mind that sovereignty, territorial integrity and socioeconomic well-being of a country and its nationals are the supreme concerns of the state, eight-pointed shining star, the insignia of DSCSC graduates remind them of their unwavering duty to serve towards the security and wellbeing of the mother land.

NOTES ON CONTRIBUTORS

Emeritus Professor Gamini Keerawella currently serves as the Executive Director of Regional Centre for Strategic Studies (RCSS). He earned his M.A. and Ph.D. from the University of Windsor and the University of British Columbia, Canada respectively. He was a former Senior Professor and Head, Department of History, University of Peradeniya. Prof. Keerawella is the recipient of a number of prestigious fellowships: Fulbright Scholar-in-Resident Professorship; Japan Foundation Senior Fellowship; Senior Fulbright Fellowship, Senior Visiting Research Fellow at the University of Western Australia. He has over 40 publications to his credit. He was conferred Emeritus Professorship by the University of Peradeniya in 2016.

Captain Thushantha Jayawardane RWP RSP is presently serving as a Staff Officer at the Regimental Centre, Gajaba Regiment, Saliyapura, Anuradhapura. He joined the Sri Lanka Army in 2001 as an Officer Cadet to Regular Intake 53 and followed his basic training at the Sri Lanka Military Academy, Diyatalawa. He obtained his Bachelor of Science in Military Studies from the Sabaragamuwa University of Sri Lanka in 2004 and MSc in Defence and Strategic Studies from General Sir John Kotelawala Defence University in 2018. He graduated with the Passed Staff College (psc) from DSCSC Course No 11 in 2017. He is currently reading for a Masters in Conflict and Peace Studies at the Faculty of Graduate Studies, University of Colombo.

Mr. Sanath De Silva is a Lecturer at the Department of Strategic Studies, Faculty of Defence and Strategic Studies, at General Sir John Kotelawala Defence University (KDU), Sri Lanka. He is currently reading for a PhD at the Department of International Relations, University of Colombo, on 'Nuclear Complexities in South Asia'. He was a Leadership Fellow at the East West Center and an Advance Security Course Fellow at the Daniel K. Inouye Asia-Pacific Center for Security Studies (APCSS) in Honolulu, Hawaii. He has published academic papers on Co-operative Security in South Asia and Security of Non-Nuclear Weapons States. He has also co-authored a book with Professor W. I. Siriweera, titled *Warfare in Sri Lanka: Military History of the Island from Earliest Times upto Independence*.

Squadron Leader Nuwan Premarathne joined the Sri Lanka Air Force in 2001 as an Officer Cadet to the Administrative Branch and completed his Basic Combat Training at Sri Lanka Air Force, Diyatalawa. On completion of the Basic Administrative Course and Administrative Branch Course at Sri Lanka Air Force Base, China Bay, he was commissioned in the rank of Pilot Officer in December 2002. He followed the Basic Professional Knowledge Course in Coimbatore, India in 2010 and the Junior Commander's Course at SLAF Academy China Bay in 2011. In 2017, he graduated from the Defence Services Command and Staff College, Sri Lanka earning the credentials of 'psc'.

Mr. Ashan Wickramasinghe is an Analyst by profession and is presently employed in the private sector offering research and analysis on geopolitical and security environments in various regions and markets. Prior to joining the private sector, he served in the Office of Strategic Affairs of the Ministry of Defence, Sri Lanka, as the Research Officer and Special Assistant to the Strategic Affairs Adviser. He graduated from the University of Wales, UK with honours in the field of Business Administration, and subsequently attended University of Swansea, UK where he graduated in the field of Law, specialising in law related to terrorism. He also attended the University of Sheffield, UK, obtaining a Master of Arts in International Studies, graduating with Distinction. Presently, he is reading for an MPhil leading to PhD at the Department of International Relations at the University of Colombo. Ashan is also a visiting lecturer at the University of Colombo, Bandaranaike Centre for International Studies (BCIS) and the Chartered Institute of Logistics and Transport Sri Lanka.

Lieutenant Commander Saliya Hemachandra joined the Sri Lanka Navy in 2000 as a Service Cadet. He obtained his BSc in Management and Technical Sciences, securing a First Class from General Sir John Kotelawala Defence University in 2004 and an MSc in Hydrography from the University of Goa, India in 2016. He is an IHO 'Category A' qualified hydrographic surveyor. He is currently serving as the Senior Manager, Quality Assurance and Quality Control under the Chief Hydrographer at the National Hydrographic Office.

Ms. Senuri Samarasinghe is a Junior Research Associate and a Lecturer in International Relations at the Bandaranaike Centre for International Studies (BCIS). She read for both her Bachelors and Masters Degrees in International Relations at the University of Colombo. She was awarded the Professor Shelton Kodikara Award for International Relations and the Amara Mohotty Memorial Award for the Best Performance in International Relations from the University of Colombo in 2015. Her recent research publications and conference presentations revolve around China's maritime strategy in the Indian Ocean, China-Sri Lanka strategic relations, Indian Ocean maritime politics as well as trends in forced displacement and statelessness.

Lieutenant Colonel Prabhath Atapattu commenced his career as a government trained teacher in 1984 and obtained the Government Teacher Training Certificate for English Language from the National Institute of Education (NIE) under the Ministry of Education in 1988. He joined the National Cadet Corps in 1992 and was commissioned as a Second Lieutenant in 1993. He served as a teacher at Sanghabodhi College, Nittambuwa and was mobilised to the National Youth Corps from 2003 to 2007. He served at the National Cadet Corps Headquarters and at the Media Centre of the Ministry of Defence from 2007-2010. He is presently serving as the English Instructor at Defence Services Command and Staff College.

CORE VALUES OF DSCSC

Learning Organization: DSCSC identifies itself as a catalyst for learning which seeks expansion of knowledge through realizing the full potential of its personnel. It is expected to uphold excellence in staff roles through dynamism, integrity, devotion, and the ability to learn from both mistakes and accomplishments.

Honour: DSCSC expects that all its members will strive to preserve self-respect, honesty and honour in all their deeds. Members are encouraged to put honour to the test by upholding the honour of the College.

Respect: DSCSC values mutual respect and recognizes uncompromising commitment in the achievement of mutual respect by fulfilling official obligations.

Decorum: DSCSC propagates itself as a pre-eminent defence establishment which upholds rules of decorum which is a fundamental core value of the services. Therefore, the College strives to maintain the highest, yet simple and practical standards in military decorum encompassing ethics, customs and traditions.

Excellence: DSCSC strives for excellence in all its endeavours at all levels which will ultimately contribute to the overall accomplishment of the College's objectives.

Innovation: DSCSC believes in pursuing new creative ideas leading to meaningful innovations by its members in conformity with the principles of high standards.

Punctuality: DSCSC holds punctuality as the bedrock of College's core values.

Professionalism: DSCSC holds professionalism in high esteem and fosters highest standards in professionalism within the establishment.

Mission Command: DSCSC encourages mission command at all levels and recognizes its value as a tool for problem solving and optimizing efficiency. Mission Command facilitates commanders at all levels to exercise their initiative.

Pristine Environment: DSCSC subscribes to serene surroundings of the College providing a conducive learning environment for its officers.

DRIVING TENET-Common Sense: Common Sense permeates the ideals of the Core Values of the DSCSC and it is a testament to the solid foundation the DSCSC inculcates on its officers.

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