SRI LANKA MILITARY ACADEMY JOURNAL

ස්වයෙන් නායකත්වය

Sri Lanka Military Academy Journal

Volume 4
December 2022

★ ★ ★

<u>MESSAGE OF COMMANDER OF THE SRI LANKA ARMY</u>

As the 24th Commander of the Sri Lanka Army, I feel extremely proud and joyous in carrying my felicitating message through the SLMA Journal-2022, the fourth consecutive research publication of the Academy. This academic journal carves a unique position in the Sri Lanka Army as it serves many military and non-military researchers to engage in beneficial research and to present their research findings, through which new knowledge is produced while resolutions to some of the identified problems are presented. In this process, the premier military establishment contributes immensely in elevating the Army's standards having perceived the Army's Way Forward Strategy in mind.

The unimaginable evolution of the humankind to reach to current sophistication is the result of its inventions and discoveries through analytical power, creativity and deliberate endeavours to encounter challenges. The conquest of researching originated in the pursuit of solutions to numerous challenges the mankind faced, which indeed is a blessing in disguise. A research takes the researcher on a wonderful journey of exploring the world from different perspectives with a novel learning experience. In my belief, the process of research opens up new opportunities for learning and growth of the learner. The more you research, the more viewpoints you will encounter for the progression of the society.

In the modern high-tech era, the need for research exploration in the field of military has been better understood by the Sri Lanka Military Academy and all possible ventures are sought in enhancing the military professionalism. Today, the SLMA Journal has widened its content to multiple domains such as Military, International Relations, Social Sciences, Technological Inventions and Humanity by empirically and methodically nurturing the field of research.

The papers of the referred journal provide basis for thousands of future researchers to navigate their studies on top of the findings of these studies. In the current higher education, research-based learning is highly encouraged and has been identified as the most proficient way of learning. Thus, research undeniably aids to revitalize the professional education in the Army. The multi-disciplinary research articles compiled in the Journal - 2022 portray the academic excellence and prudence of both military scholars and higher education layers of the country.

Finally, as the Commander of the Army, I would like to convey my heartiest congratulations and appreciations to the Commandant at the launch of the SLMA Journal-2022 for creating a fledging field to sharpen academic excellence and military professionalism of enthusiastic researchers. Also, I take this opportunity to thank all the authors, reviewers and Editorial Board for their contribution to launch an outstanding research publication in support of military professionalism.

H L V M LIYANAGE RWP RSP ndu
Lieutenant General
Commander of the Army

MESSAGE OF THE COMMANDANT OF THE SRI LANKA MILITARY ACADEMY

I as the Commandant of the premier military training establishment of the Sri Lanka Army deem it a great honour and dignity to bring my felicitating message through the 4th consecutive publication of 'THE SLMA JOURNAL' in coincide with the 97th Graduation Ceremony of the military Academy. In my belief, the glory of the Academy always grows and glows day by day as the Academy continues to function with her unparalleled incomparable role of nurturing and moulding adroit army officers to serve the country in pride of noble military profession.

'THE SLMA JOURNAL' was initiated with the aspiration of accommodating scholarly articles of academics and enthusiastic researchers of both civil and military institutes, helping advance intellectual capacity in military domain and research. The academic journal-2022 signifies a series of multi- disciplinary research papers on International Relations, Humanity, Management, Military History, Tourism in association with military and enriches the contents of the SLMA JOURNAL-2022 with a significant methodological contribution to the field of research too. This may vitally and directly contribute to the futuristic army vision of forming a professionally qualified force while contributing to widen the boundaries of military scope in the research field.

In modern educational sphere, research have taken up a very significant position in building knowledge and promoting advanced learning within learners. In such an academic context, attention on the current issues are mostly centered for educational progression of the researcher as well as the well being of the organization. In fact, the process of research is a splendid and amazing life experience that provides nourishment and exercises to our brains as this effort boosts extensively reading skills, passion and confidence in writing your brainstorming ideas proliferated through critical thinking.

I am so proud of the connectivity between our military officers and the professionals of other high educational institutes for sharing their expertise, experiences and skills in a common platform which can be termed as 'a fine equilibrium' for all these scholars to add a great value, depth and meaning to the annual publication. The popping trend of the both military and civil counterparts can be visualized in this contemporary learning space which should sustain for years to come. The steps taken by the army to embark on gaining high academic qualification and prospects of military personnel are praiseworthy and are to be supported in all possible means.

In conclusion, I would like to convey my warmest congratulations and sincere thanks to the Editorial Board, authors and reviewers of this Journal for publishing the Fourth consecutive referred journal of the Sri Lanka Military Academy, which will further enlighten her uniqueness and academic excellence of her children, hand in hand with intellectuals for many years.

WWHRRVMNDKB Niyangoda RWP RSP USP ndu psc
Major General
Commandant

DISCLAIMER

Facts and opinions in articles published in SLMA Journal are solely the personal statements of respective authors. Authors are responsible for all contents in the articles including accuracy of the facts, statements and citing the sources. Therefore SLMA does not bear any responsibility for the content of the articles published in this Journal.

AUTHORS' INFORMATION

MILITARY INSTITUTES
Maj Gen W W H R R V M N D K B Niyangoda RWP RSP USP ndu psc
MSc (Disaster Management), MSc (National Security and War Studies), PhD
Commandant
Sri Lanka Military Academy

Maj Gen Lanka Amarapala RWP RSP ndc psc
PGD (International Relations), MSc (National Security Administration), MSc (Defence Studies)
Commander
Sri Lanka Army Engineer Division

Capt (L) R M G C Navarathne RSP USP psc
BTech (Electrical & Electronics Engineering)
Captain
Electrical & Electronics Engineering Department (North)
Sri Lanka Navy

Maj Sumith Jayasekara USP psc SLA
BA (Defence Studies), MSc (Defence and Strategic Studies), MSc (Military Science and Military Command), MBA

Maj L G L B Gunarathne USP psc Lsc SLCMP
BA, PGD (Logistics Management), MSc (Defence and Strategic Studies)
Second in Command
7 Sri Lanka Corps of Military Police

Maj P V T M Perera psc SLSR
BSc (Military Science), MSc (Security Studies), MSc (Defence and Strategic Studies)
Directing Staff
Junior Command Course
Army War College

Maj S R R Peiris SLSC
MSc (Information Security)
Research Officer
Centre for Defence Research and Development
Ministry of Defence

Maj Sarath Jayawardane SLNG
BA, PGD (Heritage), MA (Heritage)
Sinhala Translator
Commander Secretariat
Army Headquarters

Maj R N Wimalaweera SLAGSC
BA (Econ), MA (History)
Head of the Department (General Studies)
Sri Lanka Military Academy

Maj K K C De Silva SLAGSC
BSc (Geology), MSc (Manufacturing Management)
Lecturer
Sri Lanka Military Academy

Capt G M C M Dayananda SLAGSC
BA (Hons), MA (International Relations),
MA (Linguistics)
English Instructor
Headquarters
2(V) SLAGSC

Capt K H G D Devindi SLAGSC
BSc (Chemistry), PGD (Education)
English Instructor
Sri Lanka Military Academy

Capt K T D C Samaraweera SLSC
BSc (Hons) (Engineering Physics)
Research Officer
Centre for Defence Research and Development
Ministry of Defence

Capt M D B Madhuwanthi SLSC
BSc (Hons) (Engineering Physics)
Research Officer
Centre for Defence Research and Development
Ministry of Defence

Capt J T Kalani SLSC
BSc (Hons) (Engineering Physics)
Research Officer
Centre for Defence Research and Development
Ministry of Defence

Lt Hasmitha Karunathilake MI
BSc (Military Studies)
Intelligence Officer
Special Group
Welimada

Lt R A M H Ranasinghe SLEME
BSc (Hons) (Mechatronics Engineering)
Research Officer
Centre for Defence Research and Development
Ministry of Defence

AUTHORS' INFORMATION

UNIVERSITIES AND OTHER INSTITUTES
Prof Rohan Gunaratna
MA (International Peace Studies), PhD
Professor of Security Studies
S. Rajaratnam School of International Studies
Nanyang Technology University
Singapore

Mr Rashane Jude Pintoe
B.Bus (Banking and Financial Risk Management)
Associate Research Fellow
Global Peace Institute
United Kingdom

Mr Isuru Herath
BA (Hons) (History), MPhil
Assistant Librarian
University of Peradeniya

INCLUSION

EFFECTIVE USE OF ARMOURED CORPS EMPOWERED WITH PRESENT DAY TECHNOLOGICAL DEVICES IN ENHANCING THE EFFICIENCY OF DISASTER RESPONSE STAGE OF SEASONAL FLOODS IN RATNAPURA

W W H R R V M N D K B Niyangoda[1a], Sumith Jayasekara[b], K K C De Silva[2c]
[1]Commandant, Sri Lanka Military Academy
[2]Lecturer, Sri Lanka Military Academy
[a]pandubuwa1@gmail.com
[b]sumithednp@gmail.com
[c]preethirasika1970@gmail.com

ABSTRACT

Individuals, society, states, regional or global international organizations attain security by avoiding, preventing, managing, coping with, mitigating, and adapting to the dangers offered by numerous threats, challenges, vulnerabilities, and hazards in the domestic or international context. Challenges to the survival and well-being of people and states that arise from non-military sources, such as climate change, resource scarcity, infectious disease, natural disasters, irregular migration, food shortages, people smuggling, drug trafficking and transnational crimes seem to be more common today. Floods are the most destructive and prevalent form of non-traditional disaster in both local and global contexts in terms of loss of life, property damage, frequency of occurrence and commonality. Its increasing pattern as a result of heavy rainfall in a short period of time will create a highly vulnerable situation in Sri Lanka in future. As it occurs, military forces are employed quickly to reduce the effects of the disaster. So, this research was conducted to seek possible avenues of employing military forces especially Armoured Corps to further enhance efficiency and effectiveness in managing the devastating effects of floods in Ratnapura in Sri Lanka.

The study was carried out by carefully analyzing primary data through structured interviews with professionals in the relevant field and personal experiences of the researcher, as well as examining secondary data available in scholarly journals. The research reveals that immediate responses are instrumental in ever increasing trend of disasters. Furthermore, it finds out that the efficiency of the response stage of the disaster management cycle can be enhanced by employing amphibious vehicles in Armoured Corps as a centralized operation center, technological observation center, automated alert generating center, mobile mini hospital and an information disseminating center in addition to relief services. It was also suggested that military bases to be relocated in

the most flood-affected areas in order to reduce the time it takes to respond to the flood disaster.

KEYWORDS: *Amphibious Vehicle, Armoured Corps, Floods, Response stage.*

INTRODUCTION

The term 'security', in Latin, means "safekeeping" or "preserving" something and later it has evolved as preventing harm or loss for individual, society or country. However, defining security is difficult and due to the emergence of terrorism and proxy warfare, the concept of security has become even more diversified. In defining security, Buzan et al. suggest that military security traditionally is associated with a threat to existence, and to retaliate it, usually force is used. In the liberal sense, security may mean a threat to the state's ideology and/or principles (Buzan, Waever & de Wilde 1998). As a result of developing security concern from external military threats, most experts and scholars tend to be more interested in redefining it by incorporating subjects such as poverty, trade, economics, human rights, transnational crimes, and the environment and its changes (Degaut, 2015).

According to Wolfers (1952), there are two sides to the concept of security: "Security measures the absence of threats to acquired values, in a subjective sense, the absence of fear that such values will be attacked"(Arnold, 1952, pp. 147–165). Thus, in its dual definition, security refers to lack of real hazards, such as threats, challenges, vulnerabilities, risks, as well as subjective worries, and the perception of such anxieties (Brauch, 2005).

The security threats can be categorized into two; namely traditional and non-traditional. Traditional threats are considered as issues about the threats against the essential values of the state like territorial integrity and political sovereignty in terms of weapons,

armament systems and militaries as well as diplomatic means like pacts, alliances and coalitions aimed at building special relations between states for security purposes (Attina, 2016) while Rajaratnam School of International Studies (RSIS) cited in Othman et al, 2013 non-traditional threats as challenges to the survival and well-being of people and states that arise from non-military sources, such as climate change, resource scarcity, infectious disease, natural disasters, irregular migration, food shortages, people smuggling, drug trafficking and transnational crime. Non-traditional security threats include other domains of security like human rights, politics, economy, trades, environmental changes including tsunami, floods, landslides etc. Non-traditional security threats mainly focus on internal threats that the civilian population faces domestically and individually. Swanstrom (2010) pointed out that Non-traditional (which tends to be transnational) threats to security have risen to prominence, primarily in developing and post-communist areas and then particularly in Greater Central Asia.

In terms of loss of lives, damages to property, frequency of affecting and commonality, floods are the most destructive and the most common prevalent form of non-traditional disaster in both local and global context(UNDP, 2004). Further, it was cited by Herath (2002), that floods are the most common form of natural hazard in the Asian region as well as in Sri Lanka. Floods are considered as the temporary inundation of an area of land which was not normally underwater (UNDP, 2004). Magnitude of the depth, the extent, or the duration of inundation will determine upon whether a flood is minor or major and the amount of damage it may cause. Generally, floods are associated mainly with two monsoons, the southwest monsoons (May to September) causing severe floods in the western and South Western Provinces; the

northeast monsoons (December to February) causing floods in the Eastern, Northern, and North Central provinces (climate change knowledge portal, 2021).

The Sri Lanka Army comprises of 25 Regiments and the Sri Lanka Armoured Corps (SLAC) is one of the prestigious Regiments among them. Its inception runs back to 10 October 1955 under the guidance and command of then Major (later General) D. S. Attygalle, MVO. Presently, 292 officers and 4886 other ranks are serving in five regular regiments and one volunteer unit. It has an independent Armoured Brigade and provides the Sri Lanka Army with Armoured capability, by using vehicles mainly such as T-55, T-55A, and T-55 AM2 main battle tanks, the BMP infantry fighting vehicle, the BTR-80, BTR 80A, and WMZ 551A Armoured personnel carriers. Its headquarters is at the Rock House Army Camp in Colombo and other Regiments are located at different parts of the country.

PROBLEM STATEMENT

Floods are the most frequent type of natural disaster in Sri Lanka. It occurs when land is submerged by an overflow of water as a result of heavy rainfall. From 1998 to 2017, more than 2 billion people were affected by floods worldwide. Floods, droughts, tropical cyclones, heat waves and severe storms resulted in 80-90% of all documented natural disasters during the past 10 years and flood has considered as one of the dominant hazards that is recorded an increasing pattern due to climatic change (WHO, 2022).
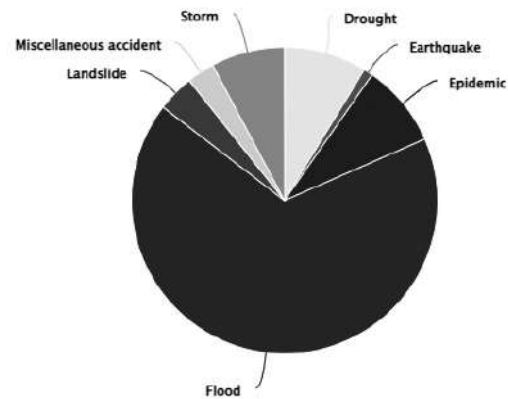
Figure 1 - Average annual hazard occurrences between 1980-2020
(Source: Climate change knowledge portal, 2021)

Sri Lanka is affected by many natural hazards and the most common among them is flood. Sri Lanka was ranked 100th out of 181 countries in the 2017 ND-GAIN Index, considering its vulnerability to climate change impacts (ADB, 2020). Following the end of the war, the Sri Lanka Army used to manage floods in varying degrees in the response stage of the disaster management cycle. It was reported that major challenges in present system are lack of coordination of logistical activities, lack of cooperation in the field between stakeholders, especially information sharing, communication difficulties, difficulties of troop movements, obstacle in using air power due to adverse geographical settings, weather, limited payload and the cost factor. Therefore, this research is conducted to seek possible avenues of employing military forces, especially Armoured Corps, to further enhance the efficiency and effectiveness in managing the devastating effects of floods in Sri Lanka.

LITERATURE REVIEW

The definition of "non-traditional security" is quite complex. According to Othman et al. (2013), non-traditional security challenges, people's survival and well-being arise from non-military sources such as climate

3

change, resource scarcity, infectious disease, natural disasters, irregular migration, food shortages, people smuggling, drug trafficking and transnational crimes, etc.

It is regarded as one of the most complex concepts in contemporary security studies. Furthermore, no one can agree on the magnitude of such threats, climate change, resource scarcity, infectious diseases, natural disasters, irregular migration, food shortages, people smuggling, drug trafficking, and transnational crimes are examples of non-traditional security concerns that threaten peoples and nations' existence and well-being (Brauch, 2011).Threats like climate change are often caused by human-induced disturbances to the fragile balance of nature, with dire consequences for both states and societies that are often difficult to reverse or repair.

Natural disasters are the result of natural processes such as earthquakes, volcanic eruptions, floods, tornadoes, and hurricanes. They are often unpredictable and have devastating effects on people and property leading to social unrests, which can in turn lead to political instability. Thomas and Lopez (2015) mentioned that the frequency of natural disasters recorded in the Emergency Events Database (EM-DAT) increased almost three-fold, from over 1,300 events in 1975–1984 to over 3,900 in 2005–2014. Guha-Sapir et al, (2015) cited in Thomas and Lopez (2015) pointed out that over 1 million people have died from natural disasters in the world and the cost of damage estimated at over $1.7 trillion since 2000. Intense climate-related disasters as well as rainfalls showed a significant increasing pattern worldwide (Thomas and Lopez 2015).

A disaster can be considered an event that cannot be managed with the resources and capabilities of the affected communities and occurs over a short or long period of time, resulting in human, material, economic, or environmental losses. It severely disturbs the functioning of communities in satisfying their needs(United Nations, nd). The process of preparing, responding, learning, and mitigating the devastating effects of disasters is called disaster management. So, organizations dealing with managing disasters are responsible for the coordination, organization, and administration of all activities and efforts to minimize destruction, prepare ahead, respond quickly, and learn from disaster occurrences at the local, district, and state levels (Coppola, 2006).

When a disaster occurs, the first respondents are employed in a suitable location to assist and secure those who are nervous, stressed or struggling to cope. So, generally, the first respondents are police officers, firefighters and medical technicians (Chokshi, Behar, Nager, 2008). However, in Sri Lanka, the military forces are the first respondent in most of the natural disasters, where they are very active in the rescue stage (during or just after the disaster). Rescue operations in floods are carried out by rescue squads of the Navy, Army, or Air Force (Wex et al., 2014). These floods are a result of climate change, which is considered a long-term change in temperature and weather patterns generated as a result of man-made actions (Change, 2017).

The Disaster Management Cycle

The ultimate goal of the disaster management cycle is to reduce or minimize the impact of the disaster by planning, responding, recovering and mitigating at in a proper manner (Sawalha, 2020). There are five stages in the disaster management cycle namely Preventing, Mitigation, Preparedness, Response and Recovery. Prevention is proactive (identifying potential dangers and getting precautions to reduce the impact) and long-term strategies are prepared in this stage. In the second stage, mitigation, possible destruction

will be minimized by taking structural and non-structural measures. Preparedness is to train communities to face disasters in an effective manner. Loop of continuous training, evaluation and corrective actions will enhance disaster readiness (Coetzee, 2012). The rescue team should effectively manage the use of resources in restoration of the environmental and personal safety, and minimizing further risk. With a gradual increase of water level in flood affected area, the victims need speedy assistance to go to a safer location. Not only that, it may need a series of appropriate actions and precautions such as identifying vulnerable people and their urgent requirement, evacuation and relocating to a safety area, providing accommodation and fulfilling other necessary requirements. Therefore, accurate and sound decision-making in the response stage plays a pivotal role in managing the floods in an efficient manner. Recovery phase entails restoring communal stability after a disaster which may also act in a prioritization.

Response Mechanism of Sri Lanka Army

The Sri Lanka Disaster Management Act No. 13 of 2005 was enacted on 13.05.2005 and Disaster Management Centre (DMC) was established with effect from 01.08.2005(Disaster Management Center, 2022). The National Council for Disaster Management (NCDM) chaired by the President and Ministry Of Defence comprise of 18 other ministries (Disaster Management Center, 2022). When the need arises, Assistant District Directors of District Disaster Management Coordinating Units (DDMCU) send a situation report and requirement to their headquarters. Then the DMC informs the Ministry of Defence to notify the particular military service, Army, Navy or Air force through the Office of Chief of Defence staff as per the a demand. If the direction comes to the Army, the AHQ informs directly the Security Force Headquarters/ Divisional Headquarters. Then, they the

Army Humanitarian Assistance Disaster Response (HADR) operation command sends a message to HADR task force through disaster management battalion HQ or through SF/DIV HQ. To reduce the time taken to receive the message, the District Disaster Management Coordinating Unit (DDMCU) allows to obtain the required service from HADR task forces through Disaster Management BN HQ or SF/DIV HQ. In all emergency and disaster situations, military personnel will always take the direction from their own military leadership following the existing chain of command (SL Army unpublished, 2015).

Response is what happens as a disaster arises (Joyce, Wright, Samsonov & Ambrosia 2009). It requires immediate as well as long-term reactions appropriately. Due to efficacy of command structure, robust approach, training, equipment, culture, ethos, professionalism and devotion to the duty, the government requests the assistance of the Armed Forces whenever a disaster strikes. They are invariably the first to respond and first to reach the affected area. As a first respondent, the Sri Lanka Army operates to provide immediate assistance to the affected people by undertaking search, rescue and evacuation measures with immediate relief in the response stage. On the occurrence of a natural disaster or imminent threat, all the concerned agencies will be informed/ notified for initiating immediate actions where necessary the follow up action.

Armoured Corps

An armoured vehicle, moving on wheels or on continuous tracks, is a military vehicle that is outfitted with partial or full armour plating to protect against bullets, shell fragments and other projectiles in providing security for own troops. T55-AM 2, BMP MK I, BMP MK II, T85 and T63-II are the armoured track vehicles still in service in Sri Lanka. However, many countries have constructed wheeled armoured

carriers that outperform tracked vehicles in terms of on-road performance, fuel economy, and maintenance costs, for infantry transport, reconnaissance, anti-tank defence, fire support, engineering, command and control, and medical evacuation. In fact, they are particularly valuable in the kind of peacekeeping and counterinsurgency operations that have become increasingly common since the Cold War's conclusion. So, BTR-80, BTR-80A, WMZ-551A are the wheeled Armoured vehicles presently used by the Sri Lanka Armoured Corps.

Sri Lanka Armoured Corps Regiments are divided into two; namely, Armoured Regiment and Reconnaissance Regiment. Roles of the Armoured Regiment are aggressive mobile action to destroy enemy armour, close combat in conjunction with infantry and creating shock action to enemies (Sri Lanka Army Publication, 2022). Roles of the Reconnaissance Regiment are to conduct medium reconnaissance, to provide security, to engage in mobile offensive operations, peacetime operations in support of civil authorities, and conducting periodical ceremonial duties. So, they are trained for war situations as well as peacetime activities (Ibid). Some of the main tasks in counterinsurgency operations are populace and resource control, assistance to civil authorities, military civil action, assistance to the local population to promote socio-economic development while providing security and stability and aid to civil power in national disaster/emergencies (Ibid). The regiment can also provide radio communications to assist the civil authorities when means of communication have broken down. The regiment can also be tasked to perform duties such as traffic control and civil action (conducting military civic action operations to gain support and respect of the people). The main characteristics of the Reconnaissance Regiment are high mobility, effective communication fitted with HF/VHF radio sets which ensure quick information sharing and flexibility. The main limitations

are less field of view and fatigue of crew due to continuous usage for an extended time period.

RESEARCH METHOD

This research falls under the category of applied research and also falls under the qualitative category. To achieve the aim of this study, three research questions were formed: "What are the strengths of military forces in dealing with different non-traditional threats?"; "What are the opportunities for utilizing the strengths of armored corps for an identified non-traditional threat (flood)?" and "What improvements are possible in meeting the requirement of non-traditional threats (floods) in Ratnapura in the present context? A narrative literature review was first carried out to build the foundation for the research as well as the theoretical understanding needed to fulfill the research questions. Then the researcher's ideas, opinions, experiences and knowledge gathered over 33 years were used as primary data sources which are the strongest in any form of data.

A literature review was carried out and the interview outline was developed using the information gathered from the literature review. Selected professionals were interviewed in a semi-structured manner to allow them to come up with their thoughts, experiences, and viewpoints related to the significant field issues. Then, structured interview questions were raised accordingly. The four professionals from National Building Research Organization, District Disaster Management Coordinating Units (DDMCU)and two team leaders of the rescue team of the Sri Lanka Army were interviewed in October and in November for 60–90 minutes and they were guided through the selected sub-sections of the analysis. Then, the collected data was analyzed using the content analysis. The most commonly used method of the qualitative content analysis was applied in addressing the research questions to achieve new insights.

RESULTS AND DISCUSSION

Increasing pattern of floods in Sri Lanka

Various hazards including Tsunami, cyclones, coastal erosion, monsoonal rains and consequent flooding, landslides etc., affect Sri Lanka in different degrees. The Disaster Management Act of 2005 acknowledges 21 natural and man-made threats. Localized and seasonal flooding pose the biggest threat to properties and people in the low land adjoining rivers and canals. According to Sri Lanka climate knowledge portal, floods seem to be increasing in the future, as rainfall keeps increasing year by year. Periods of intense precipitation can result in flash floods and landslides in Sri Lanka, leading to loss of life, livelihoods, and infrastructure. Wickramaratne et al (2012) cited in Sri Lanka climate knowledge portal highlighted that around 30% of Sri Lanka will be exposed to landslides, reportedly the third most frequently occurring hazard behind floods and droughts.

The report of the World Bank, historical records from 1974-2004 indicate that floods and droughts are increasing. The southwest monsoons (May to September) cause severe flooding in the Western and South Western Provinces; the Northeast monsoons (December to February) cause flooding in the Eastern, Northern, and North Central Provinces of Sri Lanka (Climate Change Knowledge Portal, 2021)

Fig. 1 shows that floods were very common and the biggest hazard in Sri Lanka during the period of 1980 to 2020. The report titled "Contingent Liabilities from Natural Disasters: Sri Lanka" of the World Bank highlighted that Sri Lanka losses LKR 32 billion annually due to floods(Economynext, 2022).
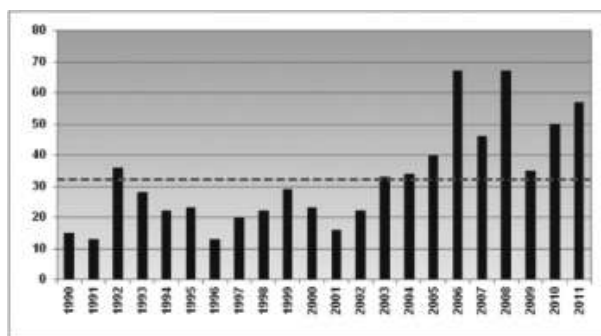
Figure 2 - Number of flood events in Sri Lanka from 1990 to 2011
(Source: UNDP book chap4 flood, nd)

The graph clearly shows the increasing trend of occurrences of floods since 1990 and they seem to increase further in future. Floods hamper the day-today routines of individuals and organizations whether it is government or non-governmental, and badly affect many streams in the country's growth. The effects will be escalated to a very high level if renovation and rehabilitation are delayed. As it needs to be immediately taken back to normalcy, very high level of effort and resources are required at a single moment.

Military as a First Resort

Particularly in Asia, military has become the 'first resort' in time of mega scale disasters and military forces have specific assets that are needed in major disasters, and they often have the capacity to respond more quickly and on a larger scale than any civilian actor (Ferris, 2012). Espindola et al (2018) cited in Godellawatta (2020) revealed that the greater difficulty is the provision of humanitarian assistance to a large number of people who are affected due to floods. Roy et al. (2012) cited in Godellawatta (2020) argues that the ultimate stage of disaster relief operation is associated with delivery of relief supplies from field warehouse to the affected people through the integration of facility location, inventory

management, transportation management and distribution decisions, while taking into account the key factors affecting it. Therefore, many governments in developed countries and in developing countries tend to regularly use military forces because of their ability to produce a rapid, positive and desired impact on the situation due to their unique hierarchical structure, organic resources, countrywide disposition, inherent communication network and of 24/7 operational.

Strengths of Military

Jobbagy (2009) revealed that the process of delivering a good product in war requires organizing change, rather not too rigid to prevent change. So, the central challenge in military operations is to manage change effectively and efficiently while accepting surprise, making moves, observing the results and continuing with good work with less supervision from the superiors. Brown et al 1998 cited in Jobbagy (2009) pointed out that the Greeks and the Germans achieved success through striking a balance between the competences of higher-level leadership and low-level empowered individuals who perform well according to local information and their understanding of the situation. Further, he stated that it orchestrated well in an atmosphere that promotes agility, information sharing, peer-to-peer relationship and empowerment of individuals. Alberts et al (2003) cited in Jobbagy (2009) that relationship plays a big role in completing the assigned responsibilities, and is pivotal to redefine the role of individual, the relationship among individuals and between the individual and the organization. Therefore, managing change in an organized manner is a main goal of military whether in war or in any other disaster.

Ferris (2012) emphasized that military assets in transportation, communications, logistics and security are often desperately needed in the early days of a disaster which other organizations do not possess. In the present set up, when a disaster occurs, the Armed Forces are the first to respond. Their resources training and experience play a big role in dealing with any circumstance. In fact, the Sri Lanka Army has set up Search and Rescue teams in all 25 districts. Within hours of a disaster, they are in the field where destruction takes place. So, military force is the best respondent for disaster management (Senaratne, 2016).

During the Interview with the director, NBRO, he stressed the importance of military forces as the best source for emergency situations as well as during and post disaster situations.

"Emergency situations in this sort of situations, need very quick responses and people who work there, need to have high mental and physical stability in order to commence and maintain a high level of integrity in meeting the desired goal in really difficult situations. Military forces exhibit their commitment and dedication, speedy result-oriented nature, its command-and-control behaviour, and most importantly country-first attitude even in these rigorous conditions. I feel that these have it made possible them in achieving very difficult tasks even in extreme conditions."

So, it is revealed that the military culture playing an important role in achieving goals even in non-military situations. According to the researcher's experiences over 30 years of military life, the civilian who enlist who at the age of 18 - 20 years, is transformed to a soldier and groomed to a required level with a set of values through very intensive basic military training which spans from 06 months to 2years and 9 months. This military training is aimed at achieving standards of the Sri Lanka Army in developing and maintaining operational readiness. A condition for such circumstances is that the training is carried out in compliance

with unique standards and in realistic situations which are highly battle-focused. The principle of combat orientation assures that all forms of peacetime training are directed towards assigned and expected combat tasks. Gradual training is of necessity for a progression from simpler to more complicated are from lower to high intensive. During the training period, certain military skills in individual, collective and small units are to be permanently developed and inculcated while they are positively assessed.(Sri Lanka Army Doctrine, 2018).

Later, many other local and foreign courses are introduced to enhance specific competencies in their regiments. With that, they are divided into 25 different regiments considering their interests, regimental requirements, national requirements etc. Then, they have to undergo a number of courses designed to enhance their level of performances and attribute military cultural values required by respective regiments. Later, they will be promoted to different ranks based on their performances at the regimental line and at the above-mentioned courses, physical fitness standards and unblemished service records. Hence, a unique set of values and specific competencies are exhibited by all members of the army. Therefore, it is obvious to have some unique values pertaining to the Sri Lanka Army as well as members of the Armoured Corps. In addition to that, the researcher experienced characteristics in military culture such as complying with orders, 24/7 working culture and 23 days continuous working and leave system, physically fit trained work force, less priority for self-work, mission command concept and working as a self-sufficient work entity to meet the requirements of emergency situations.

Robert C. Chandler, an international crisis communication academic and social scientific investigator pointed out that there are specific qualities in effective crisis leaders. It indicates that those who lead in disaster situations possess important traits and characteristics. It may be situational too. According to him, they are adaptable, experienced, communicative, critical, decisive, facilitative, goal-oriented with organizational skills, prioritizing, receptive to new or unusual ideas and responsible (Chandler, n.d.). Hence, it is very clear that the qualities and characteristics are developed in military personnel that are required to be initiated during similar kind of emergency situations. Therefore, a better efficient and effective service and results could be gained by employing military personnel in emergency situations like floods.

So, emergency situations need a very high level of efforts in very quick time to reduce the effects of disaster. Further, Director, NBRO mentioned that he observed many times the presence of military forces generates a high level of motivation to all civilians who rallied around them to work in a similar fashion. Ferris (2012) highlighted that rapid engagement of the Japanese military in response to the earthquake, Tsunami and nuclear accident of 2011 has drawn widespread public praise. Juling (2022) revealed that German armed forces earned a very high praise from the general public towards their behavior in flood assistance in the summer of 2021. By seen the rapid engagement, dedication, commitment, positive attitude, prepared to work in any difficult situation, all level command and control systems of military forces, people seem to support and rallied around them. Therefore, it is pivotal to gain the whole-hearted support from other civilians to a decisive force which is demanded by the situation. The large work force of army over 0.15 m distributed throughout the island would be another possible factor in accessing immediately to the emergency situation which other organizations do not possess.

Opportunity with Special Reference to Armoured Corps

In addition, the Director, NBRO pointed out the difficulty of employing rescue and relief teams in required places through ground due to the loss of road network and air due to bad weather, leaving boat services as the only option. Kahaduwa (2020) identified that the obstacles in using the Sri Lanka Air Force is the limitation of air power such as geographical settings, weather, limited payload and the cost. At present, the general practice is to reserve boats in predetermined specific camp areas according to rainfall predictions in order to face flood situations. Carrying boats to the required places from far, is also a big problem if a flood occurs in an area distant to the coastal area. However, according to Steele and Knight (2007), the boats and generators should be diligently maintained in order to use them immediately if the need arises due to flood disasters. It is difficult to find boats in areas far away from coastal area, such as Rathnapura district would be facing immense problems of transporting and maintaining boats and other resources in a proper manner. However, general practice seems to reserve a required number of resources, skilled men and materials in the closest military base in order to use them in any necessity arisen. If the necessity for their deployment does not generate, all efforts are in vain with a big financial wastage.

At the same time, keeping them in a safe place in the absence of a military base is also a big problem. The Rescue team leader who moved with his troops to Bulathsinhala area in 2018, experienced that low areas in the road were flooded while some were not. Therefore, they had to use boats in flooded areas while walking the rest of the distance. It created greater loss of time in reaching the location. Therefore, vehicles which can move in both water and ground (amphibious vehicle) would be an ideal option to meet this requirement.

As a regiment with amphibious vehicles, the Armoured Corps would be the right choice in meeting this type of situations. Further, he added that the required time to engage in rescue activities need to be minimized. If military bases are closer, troops movement will be quicker and easier. However, at present, the closest place for keeping such resources considering floods, may not be the military base as flood situations were not among the high priorities of consideration in finding a location for a place in establishing a military base at its inception. In fact, it is in high demand to re-establish Armoured Corps military bases as per today's requirements.
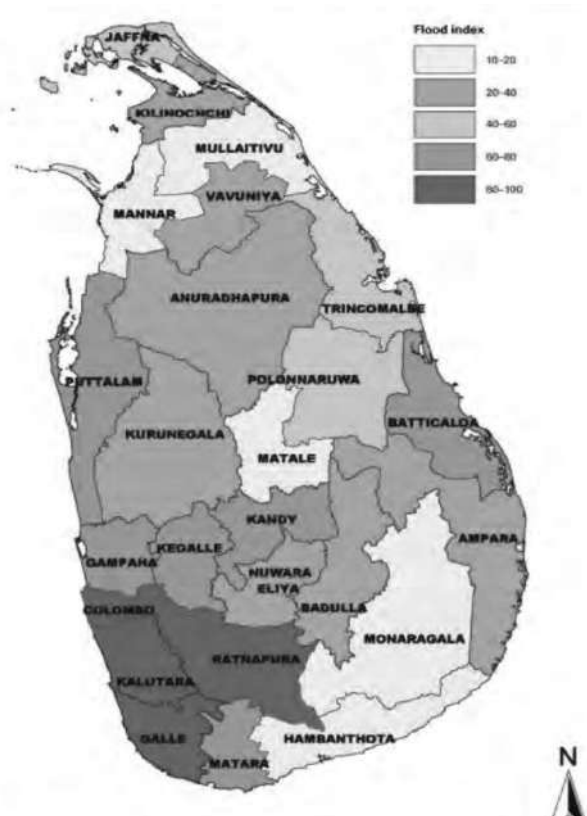
Figure 3 - Flood prone areas in Sri Lanka
(Source: Weerasinghe, 2021)

According to figure 3 flood prone map, Colombo, Kalutara, Rathnapura and Galle districts seem to have high tendencies towards floods. At present, the Armoured Corps is located in Regimental Headquarters, Armoured Brigade, 1 Reconnaissance Regiment (Colombo 15), Armoured Corps Training Centre, 3 Armoured Regiment (Anuradhapura), 4 Armoured Regiment (Trincomalee), 5 Reconnaissance Regiment (Kurunegala), 6 Reinforcement Regiment (Morawewa), and 7 Volunteer Regiment (Kekirawa).
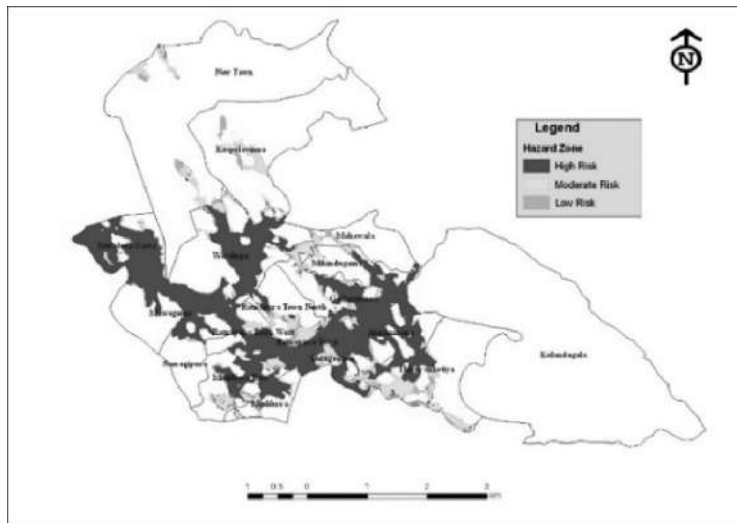
Figure 4 - Inundation zones of the Ratnapura Municipality (Source: Edirisooriya et al., 2017)

Fig 4 reveals that Ratnapura town, Angammana, Mudduwa east, Thirivanaketiya and Muwagama are highly susceptible to flood hazard (Edirisooriya et al., 2017). Hence, in order to enhance immediate relief responses, the rescue teams need to be located closer to areas which are highly susceptible to floods. Therefore, military establishments of Armoured Corps units/ regiments/ squadrons/ troops need to be relocated or temporarily placed in military establishments closer to flood areas considering minute details of flood in the above mentioned districts. Generally, military camps cannot be relocated haphazardly and it is to be done by considering imminent threats, natural and man-made both. Researchers suggest that the best choice is to temporarily amalgamate them with the existing military establishments, being standby in order to engage quickly with the response activities.

Special Strengths Pertaining to Armoured Corps

Considering the issues associated with transporting and maintaining boats and other relevant resources, it is advisable to look for other services such as helicopters or amphibious vehicles. A simulation study of hovercraft transportation carried out on the situation after Kobe Earthquake in 1995 proved that hovercraft of middle size could be very effectively and efficiently used in disaster specially for the first-aid transportation and add a large amount of transport capability which reduces the need of costly helicopters (Akimoto, 2003). It argued that the cost of expenditure for supplying goods through hovercraft is much lesser than the helicopter usage. Comparing the cost of operation for helicopters, usage of amphibious vehicle would be an ideal response to these sorts of situations where it efficiently operates in water as well as on roads.

In Sri Lanka, amphibious vehicles belong to Sri Lanka Armoured Corps and Mechanize Infantry Regiments in the army and it has varying range of efficiencies. Since this study focuses on Sri Lanka Armoured Corps and BTR 80, BTR 80A and WMZ 551A are the mainly focused amphibious vehicles which belong to 1 Reconnaissance Regiment. These vehicles have the capability to operate in the flood situations. The following table shows the main characteristics of the above mentioned three vehicles.

Table - 1 Main characteristics of BTR 80, BTR 80A and WMZ 551A

	BTR 80	BTR 80A	WMZ 551A
Type	Amphibious, wheeled, Armoured	Amphibious, wheeled, Armoured	Amphibious, wheeled, Armoured
Country	Russia	Russia	China
Wheel arrangement	8 x 8	8 x 8	6x6
Weight, t	13.6	14.5	15.8
Crew	3	3	3
Troops	8	7	9
Machine gun	14.5mm KPVT	30mm 2A72 automatic cannon	30mm 2A72 automatic cannon
Coaxial machine gun	7.62mm PKT	7.62mm PKT	7.62mm PKT
Engine type, model	Diesel, KamAZ-7403, 8-cylinder, turbo-charged, water-cooled	Diesel, KamAZ-7403, 8-cylinder, turbo-charged, water-cooled	Diesel, BF8L413F, 8-cylinder, turbo-charged, air-cooled
Max Power, (HP)	260	260	320
Transmission	Manual	Manual	Manual

Speed, km/h:
   Highway
   A float
	80
	9
		80
		9
			100
			8

Cruising range (fuel), km: highway	600	600	800

Obstacle crossing:
   Climbing, deg
   Trench, m
	30
	up to 2.0
		30
		up to 2.0
			30
			2

Dimensions, m:
   Length
   Width
   Height
	7.7
	2.9
	2.41
		7.7
		2.95
		2.8
			6.727
			2.8
			2.7

Ground Clearance (mm)	475	475	410

(Source: Product manuals and Manufacture documentations, n.d.)

Apart from these characteristics, the most important characteristic is the amphibious capability of these vehicles which help in operating during flood situations. Both BTR 80 and BTR 80A vehicles show the same amphibious capability and the operating system. The BTR-80 and BTR-80A possess fully amphibious capabilities, allowing them to cross relatively calm waters at around 9 km/h using their integrated water jet propulsion system, which requires no external preparation by the crew. The only thing left to do is to connect the snuggling tubes to the air intakes if the water level has risen to the top hull level.

Alike the BTRs, WZ-551A is fully amphibious and propelled through the water by two propellers. Before entering the water, a trim vane which is built in front of the vehicle and, the bilge pumps on the floor should be turned on. These pumps are utilized to drain the water that accumulates at the bottom of the hull. The weight, shape and the wheel arrangement give the stability in water, thereby being usable during flood situations. The main purpose of these vehicles is to carry troops to the battlefield without any damage to them. Similarly, they can be used to transport victims from the flooded area to safer places. If the situation permits, people can be accommodated on the outside (top of the vehicle) of the vehicle. Long range of operating during one cycle of fuel is an added advantage to this kind of a scenario. As per the above table, BTR 80 and BTR 80A can operate 600km. WMZ can operate 800km in one fuel cycle. Also, BTRs and WMZ551A are powered by 8-cylinder diesel engines which deliver 260HP in BTRs and 320HP in the WMZ551A. The power of both engines are more than enough to drive against the water resistance with the load. Except the WMZ 551A, BTR 80 and BTR 80A have the self-recovery capability due to its integrated winch. It is very much ideal to operate in flood scenarios. All these capabilities and characteristics imply the suitability of using these vehicles in assisting the civil authorities in

many ways such as evacuation of the victims and transportation of essential items like food, water and medicine to the affected areas in flood situations.

The Armoured Corps has a greater reputation among other regiments for the tremendous war service extended. Therefore, strong formal and informal relationships are developed. So, it makes them easier to coordinate with other regiments and get the task required by the situation. In fact, members in the Armoured Corps have been were given proper training locally and abroad to operate these vehicles in war scenario. The researcher has experienced the performance of such vehicles in reaching the right target in war situation in very difficult terrain conditions and even under heavy rain. Comparing the services of boat and amphibious vehicle, amphibious vehicle is a much better option when considering its ability to move in water and ground, time factor and most specifically the ability to move even in heavy rain as it is fully covered. Hence, employing Armoured Corps with right amphibious vehicles would be ideal in order to enhance the effectiveness of the service rendered to civilians affected by flood and to mitigate the losses incurred.

Improvements for Enhancing Services in the Response Stage

Amphibious Vehicle and Its Usages

Amphibious vehicles which have been discussed above are approximately 7m in length, 3m in width and 3m in height. As its inside is fully covered/ protected from extreme weather conditions, it can be converted to a mobile observation/control room easily and with the assurance of keeping electrical and electronic equipment inside it. Further, it has the advantage of moving through flood with a better observation that would immensely be helpful in assessing ground reality before taking decisions, especially during flood situations.

As a Centralized Operation Center

A plan is just a written document until it includes role and tasks of each party, specific responsibility, reporting relationships in an emergency, communication channels and possible backups that makes it easier in implementation (United Nations, n.d). Juling (2022) pointed out that there was a confusion of role and responsibility of German armed forces that affected badly the success when they were employed in flooding in the summer of 2021. It may be due to the poor organizational structure among parties involved in flood management event. Therefore, setting a centralized operation center with a conformed role, tasks, responsibility and command structure is really important in a disaster which needs quick organized efforts.

Kahaduwa (2020) revealed that the coordination of logistical activities is a common challenge which occurs during humanitarian operations. It is hard to keep the vertical and horizontal coordination inside and outside the cluster. If one task failed, the result would not be as effective as planned. Therefore, a centralized operation center or a field observation center may play an important role in war situation where an organized effort based on first-hand information is required. Hence, a centralized operation center consisting of main stakeholders of the actual ground, would be more convenient for coordination and communication of respective parties in the response stage to generate most effective decisions using first-hand information and implement them easily. The main objective of the emergency operation center is to carry out emergency management, and ensure the mission continuity of operation while keeping the central command and control (Emergency Operation Center, 2022). During the war, the researcher experienced the use of commanding vehicles made to use in the same purpose on the battlefield. According to manufacturers,

BTR 80 UNSH-10 and UNSH-12 are the two variants of the commanding vehicles made for above purposes with increased hull volume (UNSH, 2022). They could be used for mounting communication equipment, reconnaissance equipment, medical assistance and other possible special-purpose equipment. Furthermore, the objective of the commanding vehicles is to keep the command and control of the troops on the battlefield while being on the actual ground.

Recently, the Sri Lanka Electrical and Mechanical Engineer Regiment (SLEME) innovated AVALON 6x6 vehicle which is capable of gathering artificial intelligence with real-time information from any terrain with the help of its sophisticated accessories, including cameras, drones, bullet-proof accessories, jammers, etc. (SLEME's Biggest New Base Workshop Inaugurated & New Innovations, 2022). At present, the Sri Lanka Armoured Corps possesses these type of amphibious vehicles in service which can be easily converted for this purpose with the help of SLEME.

Kahaduwa (2020) further argued that cooperation between stakeholders is a major challenge during humanitarian operations since they facilitate the information flow effectively and to the integrated decision making of the group. By having a centralized operation center in amphibious vehicle, all stakeholders would identify their assistance required to the affected people. Therefore, converting an amphibious vehicle to a mobile centralized operation center would be an ideal solution in enriching decision making and managing the flood operation.

As a Data Collection Center

When the centralized operation center is established for amphibious vehicles, it can be driven to the closest points of the flooded area. It allows the centralized body of the response team parties to obtain first-hand information.

At the same time, if this comprises of several computers and internet connection, the flood affected people can be connected and their responses can be used as primary data, too. Then, these primary information can be analyzed and further requirement of collecting information can be assessed from birds-eye view. So, instead of using very expensive helicopter services, the amphibious vehicle with a video surveillance system coupled with drones can be used effectively and efficiently to obtain the view from the sky to assess the rise of water level in the area.

Generally, the video surveillance systems consist of the architecture components (eye of the system) such as sensors, servers and the network types and the analysis part with the processing algorithms (brain of the system) that can help to ensure a good surveillance (Elharrouss et al, 2021). Furthermore, the environment can be observed with an automated surveillance system coupled with cameras and analyzed using motion detection, crowd behaviour, individual behaviour, interaction between individuals, crowds and their surrounding environment. They are multi-tasking that includes detection, interpretation, understanding, recording and creating alarms based on the analysis. To analyse flood changes, applicability of drone system is pivotal. Patil and Ambetkar cited in Elharrouss et al (2021) the captured data through cameras in drones sent to the central stations are analyzed by the nodes. With the recent development, drones with Raspberypi kit produces better closer field images to computers, which allow decision-makers to analyze and obtain sound decisions regarding response activities especially releasing alerts to the flood affected people. At the same time, the data base including people identification, altitude of their houses using Global Position System (GPS) or General Packet Radio Service (GPRS) can be prepared well before the flood occurs. These data can be collected from people through their smart

mobile phones. This system will enhance participation of community towards disaster management. Later, the system can be developed to auto-generate alerts to the people through telecommunication services. As these facilities are already available in smart mobiles phones, people will be more updated. Furthermore, it will empower people to get their own decisions on evacuation when it is necessary.

As a Decision- Making Center

Generally, flood emergency responses in the early phase are very critical in order to reduce flood risk and its impact. But it is highly dependent on accurate prediction that is not so easy to derive in changing multiple criteria such as time factor, precipitation, conflicting priorities etc. Kahaduwa (2020) showed that in order to operate the information flow smoothly among stakeholders, especially among flood affected people, modern technologies should be adopted. Rothkrantz (2013) mentioned that some of the people in disasters were not updated with information about the easiest evacuation routes to leave their living areas for a safer location in close proximity. When the people are unaware of what is happening around them, any damage is possible. Roslan (2015) emphasized the importance of applicability of Multi-Criteria Decision Analysis (MCDA) for search and rescue teams to come to an auto-generated ranking of the current flood victims by prioritizing conditions of flood victims to efficiently and effectively locate and save them in a more transparent way.

Developing virtual realities can help the surveillance operator and the panel of decision makers to know all possible situations on a monitored scene and also react and predict events that are most likely to happen. So, 3D reconstruction algorithms with virtual reality will reduce the complexity of these tasks. (Elharrouss et al., 2021). So, decision makers will be able to obtain timely decision, to

coordinate rescue/ relief teams and to provide any other assistance to those who needs.

Khumairoh et al. (2021) show that the role of disaster communication to the society by providing accurate information at the right time, is crucial in the success of disaster risk reductions in relocating Indonesian capital city in Kalimantan. In educating, socializing and providing understanding to the public through formal and informal discussions and debates and finalizing an accurate decision by analyzing multiple criteria are vital.

In the present global context, applications of various instruments based on information and communication technologies (ICTs) have seemingly increased and Bingqing et al. (2019) showed that selective ICTs have greater potential to reduce casualties and economic losses in the disaster response stage in natural disaster situations even though some did not pay much attention to the effect of technology on rescue operation. So, the right choice of ICT would save resources in an effective and efficient way. Furthermore, the performance of ICTs needs to be systematically evaluated in order to obtain better results (Khumairoh et al., 2021). ICTS such as remote sensing, social media, geographic information system, television media, radio, telephone/mobile phone, websites, SMS, MMS, radar, global positioning system, information system, e-mail, crowd sourcing, tele medicine, video, online forum, internet, rescue robot, open street map, teleconferences, VGI, internet media, emergency management system, communication software have different capabilities and need to carefully select in order to get proper results since their role in disaster relief situations are vivid and mainly information dissemination, image collection, damage assessment, coordination of rescue work, donations collection, and geo-information display and analysis, emotional support, volunteer mobilization, looking for the missing, data management, location of affected

areas and victims, provision of tele medicine. So, an amphibious vehicle can be converted to a computer-controlled room by fixing a set of computers demanded by the situation.

As a Disseminating Information Center

Baidya and Levorato cited in Elharrouss et al. (2021) mentioned that the Internet of thing (IoT) has been the center of connected devices and such IoT-based applications provide easiness to the operator an installation and maintenance, with the purpose to respond to users' needs even connecting to the global system. During disaster decision making system or the panel assesses the situation and need to disseminate information time to time. It will allow to take appropriate actions for the betterment of the affected people not only to rescue teams but also the general public. Especially, understanding and updating the general public would make less damage.

Furthermore, the Flood Emergency Response System could be enhanced in the future probably adding new technologies such as SMS and multiple integration of additional criteria that develop its capabilities further as a better saving aid tool for search and rescue teams (Roslan, 2015). In today's global context, most speedy and efficient services are linked with internet, twitter, WhatsApp, GPS etc. It could protect more lives, property, infrastructure and the environment.

It is obvious that in a situation like flood or other natural disasters, electricity supply and communication get interrupted. Sometimes, it may take days to make it corrected after the situation gets normal. Interruption of electricity and communication may immensely affect rescue parties and other civil authorities who are involved in disaster management duties. It will hamper the role and tasks of rescue teams and other support services. But the radio communication sets available in amphibious

vehicles can be used to keep communication between relevant parties. Even hand-held radio sets will be less productive since it has low range like 2km and further it will reduce in arduous, rough and mountainous terrains. The team leader of a rescue team specifically mentioned the communication difficulties faced during their search and rescue activities. Further, he added that because of hilly nature in Ratnapura, communication through hand held devices are very limited. The communication sets fixed in the amphibious vehicles such as BTRs, WMZ 551A, BTR 80, BTR 80A, is integrated with R173 VHF/UHF communication sets that are powerful enough to communicate over a range of 20 kms.

As an Ambulance Service

Air Force aircraft evacuated 11 patients and 2 pregnant mothers to safe places. During the flight, a safe child birth took place (Kahaduwa, 2020). Further, the use of aircraft was found to be very costly. According to the manufacturer's records, BTR 80 BMM is a multi-purpose floating vehicle for solving the problems of medical support for events in combat areas and emergency situations. So, it can be easily used as a floating ambulance providing basic medical needs, if someone needs speedy medical services. A single vehicle equipped with small scale medical devices such as battery powered x-ray system along with hand held ultrasound imaging machines, solar powered portable fridges, would be extremely effective as a pre-hospital for medical emergencies (Coe, 2022).

When drones are connected to an amphibious vehicle, it can fly anywhere at any time very quickly but limiting to its ranges. In fact, flood and bad weather often make conditions so difficult for relief workers to reach the people who need assistance. Drones have the ability to fly to the place very quickly and accurately. Services will be multiplied, if it is made with water-proof capability in order

to operate in any extreme weather conditions, land on ground and float on water surface firmly (Seethalakshmi et al., 2019). The most important feature is its ability to carry materials with certain limitations. So, it can be used to quickly supply life-saving materials to the people affected by floods as appropriate. The delay of reaching the survivors by the traditional rescuers may cost lives but this weakness will definitely be fixed efficiently and effectively by using drones. In addition, the advanced techniques such as speech recognition kit fixed to the drone would recognize and sense the voices of the affected civilians and immediately locate and provide life-saving materials to them (Seethalakshmi et al., 2019).

FINDINGS, CONCLUSION AND RECOMMENDATION

This research was conducted to seek possible avenues for enhancing the employment of military forces, especially the Armoured Corps, in managing any devastating effects of floods in Ratnapura. The study reveals that the efficiency of the response stage of the disaster management cycle can be enhanced by employing amphibious vehicles used in armoured corps as a centralized operation center, technological observation center, automated alert generating center, mobile mini hospital, and information dissemination center in addition to relief services. Furthermore, it was suggested that facilities of Armoured Corps need to be amalgamated with the closest existing military base in order to engage with the flood situation quickly or to consider effective uses of Armoured Corps in flood situations as a vital factor in relocation of Armoured Corps bases in future.

REFERENCES

Akimoto, H. (2003). *First-Aid Transportation by Hovercraft in a Disaster, ResearchGate publications*. Retrieved from ttps://www.researchgate.net/publication/227182609_First-Aid_Transportation_by_Hovercraft_in_a_Disaster.

Arnold. (1952). 'National Security' as an Ambiguous Symbol. In Wolfers Source. *Political Science Quarterly*, *67*(4). http://www.jstor.orgURL:http://www.jstor.org/stable/2145138http://www.jstor.org/stable/2145138?seq=1&cid=pdf-reference#references_tab_contents

Asian Development Bank. (2020). *Climate Risk Country Profile - Sri Lanka*. Retrieved from https://reliefweb.int/report/sri-lanka/climate-risk-country-profile-sri-lanka

Attina, F. (2016). *Traditional Security Issues. ResearchGate publications*. Retrieved from file:///C:/Users/User/Downloads/weiqing1.pdf

Bingqing L.U., Zhang X., WenJ. (2019). Real World Effectiveness of Information and Communication Technologies in Disaster Relief: A Systematic Review. *Iran J Public Health*. *49*(10) 1813-1826

Brauch, H. G. (2011). Concepts of Security Threats, Challenges, Vulnerabilities and Risks, Coping with Global Environmental Change, Disasters and Security, Hexagon Series on Human and Environmental Security and Peace, *5*. doi: 10.1007/978-3-642-17776-7_2

Brauch, H. G. (2005). *Security threats, challenges, vulnerability and risks. International security, peace, development and environment*. Vol 1

Buzan, B., Waever, O. & De Wilde, J. (1998). *Security - A New Framework for Analysis*. Lynne: Rienner Publishers

Chandler, R. (n.d.). *The Marks of a Leader*. Retrieved from https://www.google.com /url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwi-9aCU7NP7AhVzi uYKHQfFABgQFnoECBMQAQ&url=https%3A%2F%2Ftraining.fema.gov%2Fhiedu%2Fdocs%2Fhazdem%2Fthe%2520marks%2520of%2520a%2520leader.doc&usg=AOvVaw3J-Vbra4cnF4Fna8teJWhx

Climate Change Knowledge Portal. (2021). Retrieved from https://climateknowledgeportal.worldbank. org/country/sri-lanka/vulnerability#: ~:text=The%20southwest%20monsoons%20(May%20 toprone %20from%20February%20to%20April

Coe, R. (2022). *Amphibious Vehicles for Disaster Relief and Emergency Medicine, World Association for Disaster and Emergency Medicine*.

Coetzee, C., Van Niekerk, D., and Raju E. (2012) Reconsidering disaster resilience: a nonlinear systems paradigm in agricultural communities in Southern Africa. *ResearchGate*.

Coppola D. P. (2006). Introduction to International Disaster Management. Third Edition. *Elsevier Inc*.

Degaut, M. (2015). *What is Security? The Role of the Military in Democratic Revolutions View project Intelligence in Brazil View project*. Retrieved from https://www.researchgate.net /publication /310495076

Disaster Management Center. (2022). Retrieved from http://www.dmc.gov.lk/index.php?option=com_content&view=article&id=29&Itemid=189&lang=en

Economynext. (2022). Retrieved from https://economynext.com/sri-lanka-bears-rs-50bn-in-disaster-damages-annually-world-bank-41460/

Edirisooriya, K.V.D., Vitanage, N.S., Uluwaduge, P., Senevirathna, E.M.T.K. (2017). Understanding Disaster Risk and Mitigation Special Reference to Ratnapura District, *7th International Conference on Building Resilience; Using scientific knowledge to inform policy and practice in disaster risk reduction*, Bangkok, Thailand

Elharrouss, O., Almaadeed, N., and Al-Maadeed, S. (2021). A review of video surveillance systems, Journal of Visual Communication and Image Representation

Emergency Operation Center. (2022). Duties and Responsibilities of the Emergency Operation Center. Retrieved from http://www.dmc.gov.lk/index.php?option =com_content&view=article&id=59&Itemid=224&lang=en

Ferris, E., (2012). *Future directions in civil-military responses to natural disasters, Australian civil-military center*. Retrieved from https://www.acmc.gov.au/resources /publications/future-directions-civil-military-responses-natural-disasters

Godellawatta, P. N. (2020). Effectiveness of the Last-Mile Distribution of Humanitarian Logistics During Flood Disasters in Sri Lanka. *Sri Lanka Military Academy Journal, 2*(1), 1-14.

Jobbagy, Z. (2009). The Efficiency Aspect of Military Effectiveness. *ResearchGate publications*

Joyce, K. E., Wright K. C., Samsonov B., and Ambrosia, V. (2009). Remote sensing and the disaster management cycle. *ResearchGate*.

Juling D. (2022). The German military response to national disasters and emergencies: A Case Study of the Flooding in the Summer of 2021. *Journal of Advanced Military Studies*, *13*(1)

Kahaduwa, D. N., and Samaranayake, S. M. (2020). Essentiality of Humanitarian Logistics for Human-Centered Military Operations during Disaster Relief. *Sri Lanka Military Academy Journal, 2*(1), 70-84

Khumairoh Z, Widana I.D.K.K. and Sumantri S.H. (2021). The role of communication as the disaster risk reduction in Indonesia capital city transference policy, *IOP Conf. Series: Earth and Environmental Science.*

Othman, Z., Nur,Jian, N. N. A. and Mahamud, A. H. (2013). Journal Kajian Wilayah. Retrieved from http://geest.msh-paris.fr/IMG/pdf/Security_for_Buzan.mp3.pdf

Roslan N. N. B. (2015). *Flood Emergency Response System Using Multiple Criteria Decision Analysis*. Universiti Teknologi PETRONAS. Malaysia.

Rothkrantz L. (2013). Crisis Management Using Multiple Camera Surveillance Systems. *Proceedings of the 10th International ISCRAM Conference*. Baden-Baden, Germany

Seethalakshmi,V., Sowndharya, N., Swathiga, B., Uma, K. (2019). Development of Amphibious Drone for Flood and Forest Rescue. *International Journal of Innovative Research in Science*, Engineering and Technology

Senaratne, B. (2016). The Role of Sri Lankan Armed Forces in Public Diplomacy in the Post Conflict Scenario, Proceedings in Defence & Strategic Studies. *9th International Research Conference*-KDU. Sri Lanka.

SLEME's Biggest New Base Workshop Inaugurated & New Innovations. (2022). Retrieved from https://www.army.lk/news/slemes-biggest-new-base-workshop-inaugurated-new-innovations-impress-days-chief-guest-1

Sri Lanka Army Doctrine. (2018). Army Training Command. Sri Lanka Army.

Sri Lanka Army unpublished document. (2015). *Concepts and Standard Operational Procedure for the Sri Lanka Army Humanitarian Assistance and Disaster Relief (HADR) Operations*.

Steele P., Knight M., (2007). Disaster Management Policy and Practice in Sri Lanka: Sharing Lessons among Government, Civil Society and Private Sector, *ResearchGate*.

Swanstrom, N. (2010). Traditional and Non-Traditional Security Threats in Central Asia: Connecting the New and the Old. *China and Eurasia Forum Quarterly*, 8(2). 35 - 51

Thomas V., and Lopez R. (2015). *Global Increase in Climate-Related Disaster*s. Asian Development bank

United Nations Development book chap4 flood. (n.d.). Retrieved from file:///C:/Users/User/Downloads/UNDP%20BOOK%20CHAP%2004_%20Flood.pdf

United Nations Development Program. (2004). floods retrieved from http://www.dmc.gov.lk/images/hazard/hazard/Report/UNDP%20BOOK%20CHAP%2004_%20Flood.pdf

United Nations. (n.d.). *Risks and Disasters*. Retrieved from https://www.un-spider.org/risks-and-disasters

UNSH. (2022). Retrieved from https://web.archive.org/web/20140302203032/ http :// www.amz.ru/produktsiy a/unsh/

United Nations. (n.d.). *Guidelines for Reducing Flood Losses*. Retrieved from www.unisdr.org

Weerasinghe, W. M. P. B. (2021). *Feeding and healthcare of livestock during natural calamities in Sri Lanka*. Retrieved from https://www.researchgate.net/publication/351123020_Feeding_and_healthcare_of_livestock_during_natural_calamities_in_Sri_Lanka

Wex, F., Schryen, G. Feuerriegel, S., and Neumann, D. (2014). Emergency response in natural disaster management: Allocation and scheduling of rescue units, *European Journal of Operational Research*, 12(2), 1297-708

World Health Organization. (2022). Floods. Retrieved from https://www.who.int/health-topics/floods#tab=tab_1

REVISITING SRI LANKA'S NATIONAL SECURITY ARCHITECTURE: UNDERSTANDING AND RESPONDING TO CURRENT AND EMERGING THREATS AND RISKS

Rohan Gunaratna[1a], Rashane Jude Pintoe[2b]
[1]*Professor of Security Studies, S. Rajaratnam School of International Studies,*
Nanyang Technology University, Singapore
[2]*Research Analyst, Global Peace Institute, United Kingdom*
[a]*isrkgunaratna@ntu.edu.sg*
[b]*rashanejpintoe@gmail.com*

ABSTRACT

Sri Lanka desperately needs a national security framework to address its challenges from economic to food security, energy to environmental security and information to cyber security. Sri Lanka's legal and policy framework to prevent and counter old threats such as separatism and religious extremism as well as new threats such as foreign interference and fake news requires new capabilities. In addition to developing a National Security Secretariat, a National Security Act, an Office of the National Security Advisor and a National Security Advisory Board is needed to secure the country during the global geopolitical, geo-economic and geostrategic shift. The inability of the State to forecast, prevent and preempt the economic crisis demonstrated the inadequacies in the national security architecture of Sri Lanka and the need to respond intelligently to another crisis in making. The physical battlespace is being supplanted by the information battlespace. However, the Sri Lankan government has not adequately recognised the importance of countering online falsehoods and manipulations known commonly as 'fake news'. Various domains of national security are at risk from multiple threats including separatism, religious extremism and geopolitical influence. The general incomprehension of the Sri Lankan national security community regarding these domains has left them vulnerable. This paper maps out the various domains of national security that threaten the anatomy of the Sri Lankan politico-economic-cum-social dimensions. It further analyses the contemporary strategies of the LTTE international network in propagating online falsehoods and manipulations against the Sri Lankan state and military on unsubstantiated allegations. The paper evaluates the role that social media plays in the rapid dissemination of these information warfare campaigns as well as the rationale behind the use of these campaigns on Sri Lankan soil. The national security community in Sri Lanka must amend its modus operandi to patch loopholes, increase efficiency and modernise its capabilities to match emerging trends of terrorism and threats to

national security. The paper makes two primary recommendations for the reinforcement of the Sri Lankan strategy which are the establishment of a National Security Council Secretariat and the development of a national security education course for practitioners in the field.

KEYWORDS: *Domains, Information Warfare, National Security, Online Falsehoods, Threats.*

INTRODUCTION

Sri Lanka's national security dimension is being threatened by multiple elements through a series of national security domains. These domains have not been adequately recognised by the Sri Lankan state, military and civil population thus leading to insufficient preparedness and defence of those domains in the nation. The state and military have demonstrated deft professionalism and brilliance in the annihilation of the militaristic element of LTTE terrorism on the island during the final phase of the war. However, the other domains of national security ought to be given due consideration in order to achieve effective defence of the very fabrics in the Sri Lankan way of life. In the decade following the war, the national security community remained complacent and the political leadership focused on reconciliation at the expense of security. This is not to say that reconciliation is insubstantial, as it is one of the most important facets of prolonged peace – but simply to note the ignorance of national security led to Islamist extremism and online falsehoods flourishing in the country.

Online falsehoods and manipulations are raging pillars of a new type of warfare that has befallen Sri Lanka. Although novel to Sri Lanka, this type of war termed Information Warfare is nonetheless not new to the world. The origins of Information Warfare seed themselves in the battlegrounds of the First World War (Hammond-Errey, 2019), although

some experts state that it began centuries prior (Bastian, 2019). The principality of this Information Warfare consists of a pertinent contrast to conventional Propaganda, which is that propaganda usually disseminated for the positive perception benefit of one's own side while Information Warfare is the act of emphasising a negative image of the opponent, usually by misinformation, disinformation and deceit (Kotelenets & Barabash, 2019).

The periodic annals of history remind us of the ever-changing nature of warfare strategy. Taking us back to the battlegrounds of the Second World War, it is imperative to note how during the interwar period (1919-1939), the French military built a 280-mile line of heavy fortifications known as the Maginot Line in Eastern France to quickly quell any future German advance into its territory (Kaufmann, Kaufmann, Potocnik & Lan, 2011). Following its overall successes in trench warfare in the First World War, the top French military experts of the time crafted this strategy (Kraehe, 1944). Yet, when the Germans attacked in May 1940, France and her allies watched in horror as the Germans launched Hitler's famous Blitzkrieg and invaded from the North, initially invading the low countries and then Northern France – rendering the feared Maginot line almost completely useless (Pintoe, 2021). Two important lessons are to be learned from this classic. First, Nazi Germany made the right strategic decisions based on the available mechanised resources in the military. Second, the French were mired by their old techniques that they failed to take into account the shift in warfare.

Similar to how the nature of warfare shifted between the First and Second World Wars, the tides of war have greatly changed in Sri Lanka from the physical battlespace to the online, diplomatic and ideological doctrines across the world. If the Sri Lankan state and military fail to effectively learn, unlearn and

relearn the new doctrine of Information Warfare, the same disappointment of 1940s France will befall Sri Lanka. The French never doubted that the Germans will advance – they just failed to understand the significance of the new mechanised age. Similarly, the military and intelligence community in Sri Lanka does not doubt that the LTTE remains a threat – they just generally fail in understanding the significance of the overall shift in LTTE strategy regarding separatism, terrorism and war. Most servicemen who fought gallantly in the North and East ought to be made aware of the wider remit of national security. There exists terrible confusion in the national security community between cyber threats and information warfare. This confusion led to the failure to develop strategic capabilities that resulted in the materialisation of the Aragalaya regime change operation.

Although the clear majority of the threat against Sri Lanka is levied by the LTTE international networks, other threats of Information Warfare exist both in the internal and external dimensions of Sri Lanka. The sub- and breakaway groups of the Janatha Vimukthi Peramuna (JVP) such as Kumar Gunaratnam's Frontline Socialist Party (FSP) (Peratugami) and the Inter-University Student Federation (IUSF) (Anthare) pose a major threat to the national security of the nation. Likewise, the radical Islamist ideologies emanating from the Gulf seep into Sri Lanka through online communications that undermine the religious peace and harmony enjoyed on the island today. The Islamic State-backed 2019 Easter Attack and the JVP-supported 2022 Aragalaya movement are classic examples of these threats.

LITERATURE REVIEW

National Security

National Security, according to Bock & Berkowitz (1966), encompasses the decisions and actions deemed imperative to protect domestic core values from external threats. Modern concepts of national security emerged during the Thirty Years' War in Europe and the Civil War in England around the 17th Century (Holmes, 2014). As per Anwar & Rafique (2012), the operations capability of national security reflects the policy directions through which the national issues of the country are perceived and answered. The domains of national security are not limited to the military and defence dimension but rather include internal security, food security, health security and economic security, especially in the third world (Azar & Moon, 1988).

However, the concept of national security remains fluid due to the various domains of the concept that pertain to individual nations. This is further reinforced by the work of Wolfers (1952), where he writes on the very ambiguity of the concept of national security and states that due to the unavailability of specifications of the concept, deep analysis of the topic on a global level is usually diluted. Therefore, it is imperative to note that the parameters of the paper will evaluate and bring forth recommendations based on domains of national security that are applicable to the Sri Lankan context in the nation's internal and external interests. The domains are further delineated under the 'Results and Discussion' section with special emphasis on geopolitics and information warfare.

Information Warfare

Former US Secretary of Defence, William Perry, rightly stated that "we live in an age that is driven by information." He stated

that this is changing the face of war and how nations ought to prepare for war (Caldwell & Williams, 2012). The works of Molander, Riddile & Wilson, 1996) published under the RAND Corporation found that there is no said 'front line' and that information warfare attacks could threaten core aspects of politics, government and corporations just as much as it could threaten the command, control, communications and intelligence (C3I) targets.
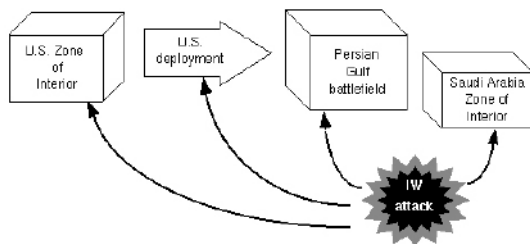
Figure 01 - Information Warfare attack capabilities during the Gulf War (Molander, Riddile & Wilson, 1996)

Figure 01 illustrates a visual perspective of how information warfare threat actors operated during the Gulf War. In this essence, external actors targeted in-theatre targets such as the Persian Gulf Battlefield but were also found to have launched information warfare attacks at home, both in the US and Saudi Zones of Interior to undermine public perception and military morale.

Molander, Riddile & Wilson (1996) further found that information warfare had a range of basic features which included;

1.   Low entry cost
2.   Blurred traditional boundaries
3.   Expanded role for perception management
4.   A new strategic intelligence challenge
5.   Formidable tactical warning and attack assessment problems
6.   Difficulty in building and sustaining coalitions
7.   Vulnerability of the US homeland

However, while this study is one of the most highly effective information warfare research to date, the gaps in geographic and operational relevance persist. This relates to the study being conducted solely from a US security perspective and therefore lacks certain elements that relate to the Sri Lankan sphere of interest, as well as relevance to the Indo-Pacific theatre. In addition to this, the date of the study being over 25 years ago, proves to be obsolete in certain dimensions such as lack of social media (SOCMINT) consideration as well as the rise of Islamist extremism. The study also encompasses the facets of information warfare as well as cyber warfare, which often analyses threats to cyber infrastructure as well. However, this paper will be offering a special emphasis on online falsehoods and manipulations against Sri Lanka through information warfare rather than cybersecurity threats.

Information Warfare vs. Propaganda

The concepts of 'traditional propaganda' and 'psychological warfare' have been vastly replaced by those of 'information warfare', 'information operations' and 'psychological operations' (Huhtinen & Rantapelkonen, 2003). Kotelenets & Barabash (2019) coherently compare and contrast the difference between the doctrines of propaganda and information war, where they note that propaganda mainly emphasises the positive perception of 'us', while information warfare is the act of emphasising the negative image of 'others'. They further note that tactics of information warfare include the falsification of information as well as the manipulation of the truth in order to comply with the agendas of the attacker. Therefore, it is imperative to cement that this paper retains a focus on the threat of information warfare operations rather than traditional propaganda.

METHODOLOGY

The wider research was based entirely on applied research through a qualitative content analysis with secondary data from past research multiple journals, books, dissertations, reports and papers. The research has collected works spanning over 75 years in order to critically approach the changing dimensions of warfare. This was coupled with exploratory research on the development of the National Security Council and Secretariat as recommended in this paper.

RESULTS & DISCUSSION

Domains of National Security

In order to effectively protect its national security, the national security community of Sri Lanka must possess a clear comprehension of the various domains of national security that are significant and under threat on the island. All domains discussed below interloop with one another due to their intrinsic nature in the wider dimension of national security. This paper will not discuss the militaristic dimension of national security, although its significance is paramount, due to the ample academic literature that exists in that regard. The following domains must be given due importance by the state, military and policymakers.

Energy Security

In the 21st century, the term 'Energy Security' has greatly permeated into the energy lexicon and gained a considerable prominence in the geopolitics and economic spheres (Muller-Kranenner, 2007). Energy security refers to the uninterrupted availability of energy sources at an affordable price (IEA, 2020). However, the consensus on energy security depends on the contextual needs of the respective nation and its energy systems (Chester, 2010). Sri Lanka does not possess a properly-documented energy system except for a few points of access including the energy policy paper compiled by the Mahinda Rajapaksa administration in 2006 (Ministry of Power and Energy, 2006), which gave some directions to the energy policy in Sri Lanka (Selvakkumaran & Limmeechokchai, 2013).

Energy security is one of the most important dimensions of national security for any nation. Consultancy of 20th century history would elucidate the importance of energy security to the Imperial Japanese Empire during the Second World War, where the US blockage of oil exports to Japan was the catalyst that triggered the Japanese attack on Pearl Harbour in December 1941 (Schimdt, 2015; Roll, 2013). Likewise, Aragalaya the regime change operation in Sri Lanka was greatly successful following the failure of the government to ensure energy security across the country due to lack of electricity, gas, kerosene, petrol and diesel (Biyanwila, 2022).

Energy security is pivotal to the national security interests of a nation and remains a prime target for external intelligence operations. This is in reference to the alleged US government interference in the 2010 Venezuelan elections, where leaked emails and documents revealed US government involvement in sabotaging the Venezuelan electricity grid and empowerment of Venezuelan political opposition to attempt to push President Hugo Chàvez from power. These leaks were published by Wikileaks (2012) through a series of emails sent between the controversial Stratfor and CANVAS organisations.

Food Security

The Food and Agriculture Organisation of the United Nations (2003) defines food security as the situation where "all people, at all times, have physical, social and economic

access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life."

Sri Lanka ranks 77 out of 113 countries in the global food security index by The Economist Group (2021). As per the Crop and Food Security Assessment Mission (CFASM) report by the Food and Agriculture Organisation & World Food Programme (2022), an estimated 6.3 million people in Sri Lanka currently face moderate-to-severe acute food insecurity. This is coupled with a near-50 per cent drop in food production due to two consecutive seasons of poor harvest and reduced imports of food grain.

The Asia Pacific Centre for Security Studies (1998) stated that food security and political stability are inextricably linked in many countries, especially in the Asia Pacific. Due to this, many countries across the world implement strategies for self-sufficiency in order to protect against unforeseen external food security threats. North Korea emphasises the concept of 'Ju Che', while Japan categorises food security as one of its six primary policies for the securing of its national security (Dupont, 1998).

Furthermore, food itself is often used as a weapon through embargoes and sanctions against enemy states. As Rosenberger (1997) recollects, food was termed the 'green weapon' during the oil crisis in the 1970s and the questions of who has and who can produce food became a strategic consideration at the geopolitical level.

Health Security

As per the World Health Organisation (2007), global health security is defined as the proactive and reactive activities required minimising vulnerability to acute public health events that endanger the collective health of populations living across geographical regions and international boundaries. McInnes (2014) states that the World Health Organisation further categorises global health security risks into particularly broad categories including;

1. Infectious diseases – such as malaria and new variants and diseases that can pose new risks and hazards.
2. Food safety – including risks from the industrialisation of agriculture among others.
3. Catastrophes affecting the natural environment such as nuclear disasters, toxic spills and natural disasters.

Malik, Barlow & Johnson (2021) note that health security risks could erode the public trust in state institutions, trigger economic instability, heighten incentives for some actors to exploit the situation and risk mass emigration. This is a clear signification of the health crisis that has unfolded in Sri Lanka in 2022, with failing trust in government medical institutions (Sarkar, 2022), mass emigration of doctors (Parthiban, 2022) and local bad actors exploiting the situation (Jayasinghe, 2022). COVID-19 and its implications on the political, economic and social dimensions of the nation and the globe have critically shaped the status of health security and left a void in the stability of the health sector in Sri Lanka.

Cybersecurity

Cybersecurity is the ability to protect or defend the use of cyberspace from cyberattacks (Craigen, Daikun-Thibault & Purse, 2014). Sri Lanka's involvement with the internet was remarkable and certain technologies were introduced to the nation even before other countries in the region (Nagahawatta, Warren & Yeoh, 2020). Both the Sri Lankan government, as well as its private sector have steadily moved into cyberspace in terms of their operations. However, an array of threats to this cyberinfrastructure exists (Riem, 2001).

Privacy and private information remain targets for cybercriminals who attempt to misuse and compromise this personal information for various reasons (De Joode, 2011; Tierney, 2018).

Sri Lanka's cyber infrastructure is threatened by a variety of actors including hackers, financial criminals and groups involved in corporate espionage. In the terrorism arena, Sri Lanka has continually been threatened by elements linked to the Liberation Tigers of Tamil Eelam (LTTE). On Victory Day 2018, so-called 'Tamil Eelam Cyber Force' cybercrime group hacked multiple websites of the Sri Lankan government (Samarawickrama, 2018). However, the LTTE's cyber capabilities existed long ago in 1998, the LTTE became the first terrorist group to launch a cyberattack on a nation's computer system, where they distinguished themselves as the 'Internet Black Tigers' and flooded Sri Lankan embassies with over 800 emails per day for two weeks (Curran, Concannon & McKeever, 2008). Cybercrime has the potential to dismantle vast segments of everyday life due to the heavy reliance of the global population on aspects pertaining to the cyber dimension.

Organised Crime

Organised Crime is defined by The Crown Prosecution Service (2019) as the planned and coordinated criminal behaviour conducted by people working together on a continuing basis. Bibes (2001, p.244) provides a clear delineation of how organised crime threatens national security, which it is stated that various narco-insurgent movements will begin to develop relationships with society. Then, these criminal networks have the tendency to grow violent at the national level when their wealth increases, which results them in using terror tactics.

If left unrestricted, organised crime has the potential to rid the nation of law and order while devastating the confidence that the public has in the government (Bibes, 2001, pp 250-252). Organised crime has the potential to affect national security and various segments of society in a variety of ways. For instance, organised crime in Columbia has led to multiple assassinations of Supreme Court justices (Long, 1985), which has critically affected the judiciary community of the nation. Likewise, according to Ellis (2016), organised crimes can also negatively affect the economy as it dramatically hinders significant development projects of a nation.

Widespread internationalisation of organised crimes in the 1990s (Kartha, 2000) has resulted in the bracket of crime increasing in Sri Lanka in the recent past. This includes underworld gang wars as well as the wider narcotics network. There has been a sharp increase in underworld shootings in 2022 (Weerasinghe, 2022), which could be a result of the politico-economic-cum-social crisis in the country. In addition to this, citing a discussion organised by the Institute of National Security Studies, Colombo Gazette (2021) reports that Sri Lanka is no longer just a transit hub for the narcotics trade but is becoming the final destination for drug trafficking as well.

Online Falsehoods

Online falsehoods refer to the concept of using unfounded and unverified messages online in order to leave behind their digital footprint in the form of texts, articles, images, videos and other forms of communication on the internet (Pal & Banerjee, 2019). The widespread access to the internet and the evolution of technology across multiple spectrums have effectively made traditional word-of-mouth to be complemented by electronic word-of-mouth (Hennig-Thurau, Gwinner, Walsh & Gremler, 2004), which is the umbrella term that is used

as reference to any type of communication disseminated by internet users (Westlund & Färdigh, 2014).

Online falsehoods and manipulations remain widespread over the internet. The World Economic Forum (2018) placed online falsehoods as one of their top global risks to multiple sectors including environmental, economic, technological and institutional systems. Online falsehoods can substantially affect a nation's corporate and social fabric. An example includes how the hoax that iodised salt can reduce the harmful externalities of radiation from the Fukushima nuclear facility in Japan after the earthquake in 2011 resulted in massive stockpiling of salt leading to a shortage (Li, 2011). Likewise, the doomsday rumour in 2012 China on prolonged darkness for three consecutive days resulted in panic purchasing of candles (Chen, 2012). Pal & Banerjee (2019) warns that if online falsehoods are believed by people on a large scale at the expense of truth, a social disaster is highly likely to materialise.

Online falsehoods remain a major threat to the Sri Lankan sphere of interest as well. Widespread misinformation and disinformation campaigns from the LTTE international network result aimed at destroying public perception of the Sri Lankan military, military leaders and government. Likewise, various conspiracy theories revolve around the 2019 Easter bombings claiming that it was the works of the Rajapaksa administration to seize political power (Fonseka, 2021). Theories such as this have been widely purported in times of disaster, such as the conspiracies about the September 11 attacks being perpetrated by the Bush administration (Knight, 2008). These theories are usually founded by opposing political parties, and entities guilty of responsibility for the disaster. In the Sri Lankan context, both the political opposition and Islamist religious extremist groups have been finding and spreading these conspiracies.

On the other hand, the Catholic clergy and Cardinal Malcolm Ranjith have been at the forefront of the dissemination of these theories due to their vulnerability in seeking justice for the Easter Attack victims (Fernando, 2021).

Governments like Singapore tackle online falsehoods through anti-fake laws that empower authorities to order individuals and groups to remove falsehoods that are against the public interest (Vaswani, 2019). Although these laws have naturally garnered criticism from multiple groups (Chua, 2013), strict laws and monitoring are required to tackle online falsehoods due to its prevalence in everyday life (Ministry of Laws, 2018; Government of Singapore, 2018).

Geopolitics

Osterud (1988) states that geopolitics encompasses the implications that derive from power politics in terms of the geographical attributes of nations and of their relative spatial locations. Geopolitics has largely transformed into geo-economics as Kacowicz (2000) puts it. This transformation could be highly observed in the interaction between Western powers and the general Global South (Pintoe, 2022). In the Sri Lankan context, geopolitical geo-economics materialises through the GSP+ conditionalities where the European Union uses economic superiority and market conditions to geopolitically dictate various aspects of internal Sri Lankan affairs (Withanawasam & Kumara, 2013). After the fall of the Soviet Union in the early 90s, the world transformed from a bipolar world to one of unipolar attributes. In this regard, the United States (US) influenced the world as a major superpower on multiple dimensions including politics, military and popular culture. In order to confront this monopolistic sentiment by the US, multiple countries began to balance the power leading to other nations like China emerging as major powers (Premaratna & Thrishali, 2020).

As Biden administration shifts US foreign policy away from the Middle East and into the Indo-Pacific region (Furse, 2022), the global spotlight and concentration of external resources are being pointed to the Indo-Pacific region. Considering Sri Lanka's strategic geographical position in the Indo-Pacific (Kumari, 2022) coupled with the prolonged US vision to counter Chinese influence in the region (Fernando, 2022), Sri Lanka must remain vigilant on clandestine foreign intelligence operations in the politico-social frameworks of the country.

The geopolitical consequences to Sri Lanka cannot be analysed in isolation restricting it simply to one particular strategy (Godellawatta, 2021) but rather a consolidated evaluation of strategies of multiple nations ought to be made. This sort of complex evaluation is worthy of its own publication and transcends the scope of this paper.

The Social Media Element

In the age of information, multitudes of online contents are being spread online with over 23 billion text messages being sent every day (Giacomini, 2021). The use of social media has increased substantially during and after the COVID-19 lockdowns in Sri Lanka (Jinasena & Weerasinghe, 2022). At the same time, teens and young adults have the most exposure to social media, where 95% of teens use a social media platform and 45% are almost constantly online (Anderson & Jiang, 2018). Due to this, the elements of online falsehoods and manipulations under information warfare actors have the ability to be rapidly disseminated across the world through multiple mediums of social media.

International propaganda campaigns by various groups use social media to disseminate 'news-like' content in order to alter public perception (DiResta et al., 2019). Although these fabricated narratives are instigated by a small minority on social media (Altay, Hacquin & Mercier, 2020), these narratives are most effective against lazy and disengaged citizens (Pennycook & Rand, 2018). A classic illustration of this was witnessed during the Aragalaya protest-riot movement in Sri Lanka where thousands of citizens followed social media to take to the streets unbeknownst to the fact that it was mainly organised by political parties and student bodies of the JVP.

In terms of the LTTE information warfare strategy, a series of posts, articles, tweets and videos are being disseminated worldwide which promote misinformation and disinformation about unsubstantiated claims of a Tamil genocide and war crimes in Sri Lanka, which are either unproven or disproven. The younger generation, especially Millennials and Gen Z, are the most affected by these online falsehoods due to easy access to these campaigns via social media. The LTTE international network tactfully utilises social media to shape the perception of the war and paint the victors as criminals in their long-term strategy of separatism.

Background of LTTE International Network

As the lion flag was being hoisted in the Sri Lankan North in May 2009, the international networks of terror were deliberating and contemplating their next move. The LTTE international network continues to launch misinformation and disinformation campaigns against the Sri Lankan state and military after the defeat of their revered leader Prabhakaran and his band of terrorists.

During the Sri Lankan war against LTTE terrorism, the Sri Lankan military used a series of strategies including unconventional and guerrilla tactics against the Tamil Tigers. Likewise, the LTTE too used diverse mechanisms for battle including guerrilla

tactics, suicide bombings and attacks on religious, civil and economic interests. In addition to the internal operations of the LTTE, the terror group handled a well-structured international network headed by various cells in Western countries for procurement, fundraising and shipping which were mostly overseen by Selvarasa Pathmanathan alias KP (Roberts, 2014).

Pre-2009, the LTTE strategies of procurement, fundraising and shipping were undertaken by multiple front organisations that were established under charitable, cultural and educational registrations but were actually terrorist-controlled institutions designed to further Prabhakaran's cause. Among these, the World Tamil Movement (WTM) was widely operated in Canada as a charity and cultural institution but was raided by the Royal Canadian Mounted Police and designated as a terrorist organisation under the Canadian Criminal Code on 16 June 2008 (Loriggio, 2008). Likewise, Karunakaran Kandasamy who headed the World Tamil Coordinating Committee (WTCC), was found guilty on 07 June 2009 of 'Material Support' and 'Criminal Conspiracy' by the Eastern District Court of New York for his involvement in LTTE fundraising procurement activities (Barron, 2009). Only two prime examples have been listed above as the sheer number of criminal activities committed by the LTTE international network would be worthy of its own publication. In the post-victory terror landscape for Sri Lanka, the LTTE international network shifted its strategy from procurement, fundraising and shipping, to lobbying, litigation and law-making. The LTTE now launches a series of misinformation and disinformation campaigns against the Sri Lankan military and state in an attempt to garner international support, interference and involvement to realise Prabhakaran's vision of an independent Tamil Eelam in the North and East of the island.

LTTE Contemporary Weapons of War

Some classic examples of information warfare against Sri Lanka exist across the world. Vijay Thanigasalam is an MP from the Scarborough Rouge Park electoral district in Ontario Canada. In 2011, he publicly praised the terrorist head of the LTTE, V. Prabhakaran as 'honourable' and as 'national leader' (Bell, 2018). In 2021, he passed Bill 104 with the support of powerful political entities in the Canadian Parliament. Bill 104 is also known as the Tamil Genocide Awareness Week Act, under which schools in Ontario are taught that there was a genocide perpetrated against the Tamil population in Sri Lanka (Weerasekara, 2021). No international court has held that Sri Lanka perpetrated genocide against her citizens, yet Thanigasalam's Bill 104 passes this unsubstantiated claim as fact. The LTTE international networks are on a continual offensive against the Sri Lankan state, military and population using misinformation and disinformation as their primary tools of war.

The Sri Lankan government under UN Security Council Resolution 1373 had proscribed an array of LTTE front organisations based on their tenets for terrorism through their lobbying, litigating and law-making of foreign political entities to interfere and get involved in Sri Lankan affairs. These organisations included Transnational Government of Tamil Eelam (TGTE), Canadian Tamil Congress (CTC), Australian Tamil Congress (ATC), British Tamil Forum (BTF), and Headquarters Group among many others (Jeyaraj, 2014). In addition to the LTTE international fronts being operational on Information Warfare, former LTTE leaders run sections of the network in their respective countries – Perinpanayagam Sivaparan alias Nediyavan runs the network in Norway while Segarapillai Vinayagamoorthy alias Vinayagam runs the network in France.

Failures of the National Security Community

Sri Lanka's national security community has been successful in many aspects, especially in the Sri Lankan war against LTTE terrorism. However, there have been instances where the national security apparatus has failed due to loopholes, overlooking and inability to act. In the late 1980s, the national security community failed to effectively prevent and pre-empt the JVP insurrection from materialising which led to scores of deaths, damage to property and economic constraints. Likewise, the national security community also failed to protect Sri Lankan sovereignty from Indian intervention during the Sri Lankan war, both during Operation Poomalai, where the Indian military dropped relief supplies to the LTTE in Jaffna (Menon, Laeeq & Bikhchandani, 2022), as well as with the Indian Peacekeeping Force.

In addition, the failure of the national security community to prevent the radicalisation of the Islamic community in Sri Lanka through extremist versions of Islam led to the Easter Sunday Attack in 2019. The Easter Sunday bombings were the result of a failure to realise and contain the growing threat of the Salafi Wahhabi ideology that penetrated the education and religious spaces in Sri Lanka. Salafi Wahhabism is a Sunni doctrine of fundamentalist Islam that teaches the concept of 'Al-wala' wa-l-bara'' meaning on the lines of 'loyalty to Muslims and disavowal of non-Muslims' (Lynch, 2010), which is one of the basic teachings of Thowheeth (Antúnez & Tellidis, 2013) – the sect of teachings followed and preached by Zahran Hasheem. Furthermore, Sri Lankan Muslims radicalised by the ideology of Jamaat-e-Islami joined Islamic State and an al-Qaeda affiliate both as operators and supports. None of the Sufis joined either the Islamic State or the al-Qaeda affiliate. The national security community banned the JMI student group but is yet to ban the main JMI body, which is a perilous mistake as the radicals of this group continue to infiltrate, proselytise and radicalise other Islamist bodies in the country.

Likewise, the national security community failed to act on the growing regime change operation backed by external facilitators and internal political parties, which threatened the political stability of the country. The 2022 Aragalaya regime change operation has led to deep political and economic instability in the nation. The 'GoHomeGota' campaign was organised in the United Kingdom. Due to widespread dissemination and propaganda in online spaces, the concept was well-captured by the average Sri Lankan citizen. The scores of people who marched to Galle Face were led by groups linked to political parties including the JVP, FSP (Peratugami) and IUSF (Anthare). The protest-riot compilation that occurred in Galle Face and other areas was a peculiar 'Horseshoe Strategy', which is when extremes of left-wing and right-wing parties come closer together for a common goal but are unrepresentative of the Sri Lankan demography (Mangu-Ward, 2021). At its peak, the demonstrations at Galle Face consisted of approximately 20,000-22,000 people, yet the sheer impact magnitude that it had on the social media and media spaces were extraordinary as the government did not possess any capabilities to counter falsehoods disseminated by the JVP organisers of the protests who frankly tricked the masses to further their political ideologies.

Response and Strategy

The core of national security in Sri Lanka continues to counter the hard threats of terrorism, however, the threat landscape has become more complex and diverse after the defeat of the LTTE ground force. The tier one national security threat is separatism and terrorism. Tier two is the religious extremism from Salafi Wahhabi ideologies emanating from the Gulf. Other threats lie in geopolitics, foreign interference, economic security, food security and energy security.

Sri Lanka ought to be geared in order to effectively take down the threats made by the LTTE international network. Information Warfare ought to be countered with an effective counterintelligence formulation that has the potential to monitor and counter online falsehoods and manipulations against the Sri Lankan military and state by disseminating the real facts of the matter at hand. Therefore, a primary recommendation to the Sri Lankan authority is the establishment of two strategies of governance;

1. National Security Council Secretariat
2. National Economic Council (NEC)
3. National Security Course for Practitioners

National Security Council Secretariat

The failures of the national security community are partially due to the potholes in the operationality of the National Security Council (NSC). The NSC lacks a Secretariat and therefore has no staff dedicated under the council for the purpose of protecting the national security interests of Sri Lanka. Therefore, an establishment of a Secretariat will enable the NSC to function more effectively and efficiently.

Under this Secretariat, the appointment of a National Security Advisor is paramount to the trajectory of the national security of the country. This advisor will function as the depute of national security and will provide advice and guidance to relevant cabinet ministers in the fields of energy security, food security, health security, economic security and other tenets of national security as discussed in this paper.

The Secretariat is also recommended to host a National Security Advisory Board, which will comprise of alternate thinkers from various fields, professions and expertise. The essence of national security threats means that threats could emerge from various directions at any time and therefore alternate thinkers are a pivotal resource in mapping potential threats as well as recommending solutions.

The National Security Council Secretariat will consist of experts from various domains to evaluate national security from multiple domains. They will be responsible for the development of policy papers to strengthen the security apparatus of the country whilst providing recommendations on various dimensions of national security. At the same time, the Secretariat will closely evaluate elements of foreign, civil and corporate society and other spheres to effectively forecast threats and duly inform the National Security Advisor who will then warn policymakers of the impending risk to security. This form of infrastructure could have prevented and pre-empted the Aragalaya regime change operation from materialising.

National Economic Council (NEC)

Sri Lanka's government continues to face unprecedented economic challenges from the still- reverberating Covid-19 health crisis, now exacerbated by the war between Ukraine and Russia that is amplifying the economic contagion. Disrupted markets, increased commodity prices, and collapsed supply chains require urgent policy, institutional and structural measures to mitigate the impacts and emerge strongly from the ongoing crisis. A national body directed by a Chief Economic Advisor that will coordinate the development of the nation's domestic and international economic agenda is urgently needed. Regular briefings by this new NEC will help keep current and future economic challenges at the forefront of the mind and thinking of the political leadership as it goes about setting Sri Lanka's priorities.

The NEC should embody a commitment to a fair process of inquiry and debate among the President's top advisors, whose ideas are tested and improved by discourse, which will align the national security interests of the country in all domains discussed in this paper. Among a number of countries which adopted Economic Councils, Singapore's economic council for example brings many perspectives, from inside and outside of government, ensuring the prime minister has timely and informed advice and policies are expeditiously implemented. In Sri Lanka Cabinet secretaries and other senior staff all could be heard in private on important decisions. They can then speak in public in unison—knowing they had a fair shot at shaping the decision. The result is key: a trusted process that provides more time for all key policymakers to advance the needs of the country, and less time wasted in bureaucratic manoeuvring.

Sri Lanka's proposed NEC would have the support of the President and his Chief Economic Advisor, who can mandate that economic policy recommendations come through the NEC process. Cabinet officials can use the NEC strategically to win broader administration support for their initiatives. As a result, most of the major economic policy initiatives of the President will be developed around a table convened by the NEC. This should be a two-way process where the President requests the NEC to explore proposed initiatives, while the Council proactively tracks economic trends and emerging issues to offer policies, programs and initiatives in response.
Potential structure of NEC: There are several possible configurations for Sri Lanka's proposed NEC. As the common denominator, the Council's advisory body should be headed by the Chief Economic Advisor as its Chairperson, with a membership of six to seven senior economic advisors – at a minimum, those with expertise in macroeconomic, trade/ industrial, agriculture, fiscal policy, and others on 'new economy' issues (technology, digital, artificial intelligence (AI), the 'blue economy', and smart cities). A standing Secretariat would support the NEC, essentially an in-house think tank that prepares regular economic reports and takes on research directed by the Council. The Secretariat would be staffed with senior economic advisors, supported by mid-level economists, researchers, statisticians etc. The senior economists would have experience in advising government or academia, with outstanding policy research credentials in their respective fields, but could explore new frontiers as appropriate. The senior advisors would also be invited to attend NEC meetings and participate in either standing or ad hoc technical committees that could be established to coordinate policy across multiple agencies. The Secretariat staff would be compensated adequately (ideally commensurate with private sector remuneration scales to ensure the best and brightest accept their job offers). The permanent staff would be augmented, on an as-needed basis, with other prominent economists and researchers from academia or other institutions. The NEC members would coordinate with the numerous department and agency heads within the Sri Lankan government, whose policy jurisdictions impact the nation's economy, to advise on executing economic policies within their respective spheres.

Scope of NEC: The economic issues that would be handled most effectively through the NEC process share some characteristics. Foremost, more than one agency typically has a stake in the economic decisions, requiring interagency input and coordination. Some coordination functions should remain with the relevant agencies. For example, in response to debt or financial market crises, the Central Bank would coordinate closely with the NEC, however, the NEC will retain the lead.

The NEC would provide policy inputs to the Cabinet and its committees. The Council also helps coordinate the development of new initiatives representing national priorities. The NEC, however, also might coordinate presidential decision-making on an issue affecting only a single agency, especially if the issue received significant public interest or would respond to the President directly. The NEC should lead a simultaneous effort to recommend new economic ideas in preparation for the annual budget and provide relevant inputs to the President's address to the nation and parliament.

National Security Course for Practitioners

Educating the next generation of leaders ought to be an utmost priority to the nation to adequately arm itself against rising national security threats in future. Justice Yasantha Kodagoda President's Counsel developed an LLM syllabus at the General Sir John Kotelawala Defence University on national security legislation which would act as a foundation document for a national security course for Sri Lanka.

The national security course must encompass multiple domains of knowledge in order to be effective on the national stage. Amongst other domains, the following stand out;

1. National Security
2. International and Regional Security
3. International and Geopolitics
4. Domestic Politics
5. Evolution of Sri Lanka
6. Significant Instance of Threats and Attacks on National Security
7. International Legal Norms and Standard Relating to International and National Security
8. International Terrorism
9. Violent Religious Extremism

The above-mentioned domains of knowledge relate to the security component of national security. However, other components also exist including law enforcement and criminal justice component, human and fundamental rights components, judicial and administrative review as well as humanitarian aspects. Therefore, a national security course of this nature will be a strongly geared framework that will allow for enhanced knowledge and expertise on national security.

The course dimensions would preferably be at least an Advanced Diploma but ideally a Master's program, specially designed for persons with a related degree or more than ten years of experience. It is recommended that the course be designed as a three-year Degree programme including a six-month project-based case study, along with internships in related institutions, modular presentations by students as well as studies on foreign and historical national security scenarios.

In order to train a core group of national security professionals in this regard, the element of criminal justice must be taught in depth. In line with this, the national security course is recommended to teach subjects such as criminal investigations, criminal prosecutions and management of penal sanctions, which are the main components of the criminal justice system. Furthermore, crime prevention and criminal intelligence are external components associated with criminal justice, which are recommended to be integrated into the course. In addition to the above, the course must also encompass learning on the legal dimension including laws on money laundering and foreign government funding within national borders, which is an important aspect in the face of rising geopolitical activity in the nation. Moreover, a critical study of diaspora activism and networking is also recommended. The spectrum of forensic sciences, with special emphasis on communication and digital

forensics, is recommended to be included. Furthermore, another critical component worth teaching is the obtaining of foreign assistance to national security-related intelligence operations and criminal investigations and joint operations with foreign intelligence and investigational agencies. This is of paramount importance in the face of external national security threats which transcend borders.

The course will also teach about the evolution of different doctrines of terrorism and its present manifestation including the component of state-sponsored terrorism. Assistance could be requested from the Criminal Investigations Department (CID), Colombo Crimes Division (CCD) and Counterterrorism and Terrorism Investigation Division (TID) for studies on investigations. These investigations must be enhanced to include internet- and digital media-based open source and special tools investigations.

CONCLUSION

The Sri Lankan military defeated the first insurgency of the 21st century due to its superior military capabilities and strategies. The successes of the Sri Lankan war against LTTE terrorism are numerous in glory and gallantry. The Sri Lankan military continues to remain successful on the ground through both non-combative and combative dimensions. However, the national security community is not yet geared to take on the emerging threat of Information Warfare that darkens the nation. It is imperative that strategic capabilities are to be developed for their use in the Information Warfare arena. The Sri Lankan military needs evolution – but most importantly a revolution in combat capabilities.

This paper recommends the establishment of a National Security Council Secretariat, and National Economic Council and the development of a national security

course for practitioners. In addition to this, it is also recommended to the Prevention of Terrorism Act of Sri Lanka be replaced with a novel National Security Act that rightly encompasses the growing threat of terrorism in the cyber and information spaces.

At the same time, the various domains of national security must be coherently communicated to all segments of government leadership complemented with the implementation of the recommendations in this paper in order to effectively protect Sri Lankan national security interests both in the internal and external spheres. Threats to Sri Lanka through separatism, religious extremism and geopolitics grow stronger and therefore, the nation must remain vigilant whilst strengthening its national security apparatus.

REFERENCES

Altay, S., Hacquin, A.-S., & Mercier, H. (2020). Why do so few people share fake news? It hurts their reputation. *New Media & Society*, 146144482096989. https://doi.org/10.1177/1461444820969893

Anderson, M., & Jiang, J. (2018). *Teens, Social Media & Technology 2018*. Retrieved from Pew Research Center website: https://www.pewresearch.org/internet/2018/05/31/teens-social-media-technology-2018/

Antúnez, J. C., & Tellidis, I. (2013). The power of words: the deficient terminology surrounding Islam-related terrorism. *Critical Studies on Terrorism*, 6(1), 118–139. https://doi.org/10.1080/17539153.2013.765703

Anwar, M. A., & Rafique, Z. (2012). Defense Spending and National Security of Pakistan: A Policy Perspective. *Democracy and Security, 8*(4), 374–399. https://doi.org/10.1080/17419166.2012.739551

Asia-Pacific Centre for Security Studies. (1998). *Food Security and Political Stability in the Asia-Pacific Region*. Honolulu. Retrieved from https://apcss.org/Publications/Report_Food_Security_98.html

Azar, E. E., & Moon, C. (1988). *National security in the third world: the management of internal and external threats*. Aldershot: Edward Elgar.

Barron, J. (2009, June 10). *Four Plead Guilty in Brooklyn to Conspiring to Support Sri Lankan Rebels*. Retrieved September 15, 2022, from The New York Times website: https://www.nytimes.com/2009/06/10/nyregion/10tamil.html

Bastian, N. D. (2019). *Information Warfare and its 18th and 19th Century Roots*. Cyber Defence Review, 33-34.

Bell, S. (2018, June 6). *Ontario PC candidate apologizes for Facebook posts praising terrorist group*. Retrieved September 15, 2022, from Global News website: https://globalnews.ca/news/4256193/ontario-pc-candidate-apologizes-face book-posts-terrorist/

Bibes, P. (2001). Transnational Organized Crime and Terrorism. *Journal of Contemporary Criminal Justice*, *17*(3), 243–258. https://doi.org/10.1177/1043986201017003004

Biyanwila, J. (2022). Sri Lanka: Behind the popular uprising. *Green Left Weekly*, (1344), 20.

Bock, P. G., & Berkowitz, M. (1966). The Emerging Field of National Security. *World Politics, 19*(1), 122–136. https://doi.org/10.2307/2009846

Caldwell, D., & Williams, R. E. (2012). *Seeking security in an insecure world*. Lanham, Md.: Rowman & Littlefield Publishers.

Chen, S. (2012, December 14). *In China, panic buyers prepare for the end of the world*. Retrieved September 15, 2022, from South China Morning Post website: https://www.scmp.com/news/china/article/1104863/mainlanders-prepare-end-world

Chester, L. (2010). Conceptualising energy security and making explicit its polysemic nature. *Energy Policy, 38*(2), 887–895. https://doi.org/10.1016/j.enpol.2009.10.039

Chua, M. (2013, May 28). *How should the Singapore government regulate online news sites*. Retrieved from Lee Kuan Yew School of Public Policy website: https://lkyspp.nus.edu.sg/docs/default -source/case-studies/how-should-the -singapore-government-regulate-on line-news-sites.pdf

Colombo Gazette. (2021). *Sri Lanka no longer just a transit route for drug trafficking*. Retrieved September 15, 2022, from Colombo Gazette website: https://colombogazette.com/2021/08/15/sri-lanka-no-longer-just-a-transit-route-for-drug-trafficking/

Craigen, D., Diakun-Thibault, N., & Purse, R. (2014). Defining Cybersecurity. *Technology Innovation Management Review*, 15.

Curran, K., Concannon, K., & McKeever, S. (2008). *Cyber Terrorism Attacks*. In L. J. Janczewski & A. M. Colarik (Eds.), *Cyber Warfare and Cyber Terrorism* (p. 3). London: Information Science Reference.

De Joode, A. (2011). Effective corporate security and cybercrime. *Network Security, 2011*(9), 16–18. https://doi.org/10.1016/s1353-4858(11)70097-6

DiResta, R., Shaffer, K., Ruppel, B., Sullivan, D., Matney, R., Fox, R., … Johnson, B. (2019). The Tactics & Tropes of the Internet Research Agency. *U.S. Senate Documents*. Retrieved from https://digitalcommons.unl.edu/senatedocs/2/

Dupont, A. (1998). Introduction. *The Adelphi Papers, 38*(319), 7–10. https://doi.org/10.1080/05679329808449508

Ellis, R. E. (2016). The Evolving Transnational Crime-Terrorism Nexus in Peru and its Strategic Relevance for the U.S. and the Region. *Prism*, *05*(04), 189.

Fernando, H. N. (2022). Impact of the Status of Forces Agreements on Host States in the Indo-Pacific: How Will Sri Lanka Tame the Dragon and Uncle Sam? *South Asian Survey*, *29*(1), 7–22. https://doi.org/10.1177/09715231221075089

Fernando, M. (2021, December 5). *Complex terror attacks take time to resolve*. Retrieved September 15, 2022, from Sunday Observer website: https://www.sundayobserver.lk/2021/12/05/impact/complex-terror-attacks-take-time-resolve

Fonseka, R. (2021, December 31). *Don't want anyone to believe SL military was involved in Easter attacks*: Prof. Rohan Gunaratne. Retrieved September 15, 2022, from The Morning website: https://www.themorning.lk/dont-want-anyone-to-believe-sl-military-was-involved-in-easter-attacks-prof-rohan-gunaratne/

Food and Agriculture Organisation of the United Nations (2003). (p. 313) *Trade Reforms and Food Security: Conceptualizing the Linkages*. Rome: Food and Agriculture Organisation of the United Nations.

Furse, T. (2022). The political economy of US maritime strategy in the Indo-Pacific. *The Pacific Review*, 1–29. https://doi.org/10.1080/09512748.2022.2111455

Giacomini, A. (2021, January 6). *The Past, Present And Future Of Messaging*. Retrieved September 15, 2022, from Forbes website: https://www.forbes.com/sites/forbestechcouncil/2021/01/06/the-past-present-and-future-of-messaging/?sh=2c005e5a9f17

Godellawatta, P. N. (2021). Future of Sri Lanka and Challenges in Indo-Pacific Region. *Sri Lanka Military Academy Journal, 3*, 26–34.

Government of Singapore. (2018). *Motion to appoint Select Committee to study deliberate online falsehoods*. Retrieved from https://www.youtube.com/watch?v=Z33B2z-nfIM

Hammond-Errey, M. (2019). Understanding and Assessing Information Influence and Foreign Interference. *Journal of Information Warfare*, 18(01), 02.

Hennig-Thurau, T., Gwinner, K. P., Walsh, G., & Gremler, D. D. (2004). Electronic word-of-mouth via consumer-opinion platforms: What motivates consumers to articulate themselves on the Internet? *Journal of Interactive Marketing, 18*(1), 38–52.

Holmes, K. R. (2014). [Review of What Is National Security?]. *The Heritage Foundation*, p. 1. Retrieved from https://www.heritage.org/military-strength-essays/2015-essays/what-national-security

Huhtinen, A., & Rantapelkonen, J. (2003). Perception Management in the Art of War. A Review of Finnish War Propaganda and Present-Day Information Warfare. *Journal of Information Warfare, 02*(01), 50.

IEA. (2020). *Our work on energy security*. Retrieved September 14, 2022, from International Energy Agency website: https://www.iea.org/topics/energy-security

Jayasinghe, C. (2022, February 11). *Health workers in Sri Lanka continue strike despite court order*. Retrieved September 15, 2022, from Economy Next website: https://economynext.com/health-workers-in-sri-lanka-continue-strike-despite-court-order-90449/

Jeyaraj, D. B. S. (2014). *Sri Lanka Proscribes 15 Suspected LTTE Front Organizations Abroad as Foreign Terrorist Entities Under UN Resolution 1373*. Retrieved September 15, 2022, from Competent Authority for Sri Lanka website: http://competentauthority.gov.lk/article_2014-04-02_1.html

Jinasena, S. J., & Weerasinghe, P. N. (2022). The Usage of Social Media during COVID- 19 Lockdown Period of 2020 in Sri Lanka. *Colombo Journal of Multi-Disciplinary Research*, 6(2), 33. https://doi.org/10.4038/cjmr.v6i2.64

Kacowicz, A. M. (2000). Geopolitics and territorial issues: Relevance for South America. *Geopolitics*, 5(1), 81–100. https://doi.org/10.1080/14650040008407668

Kartha, T. (2000). Organised crime and the illegal market in Weapons in Southern Asia. *Strategic Analysis*, 24(2), 403–422. https://doi.org/10.1080/09700160008455220

Kaufmann, J. E., Kaufmann, H. W., Potocnik, A., & Lang, P. (2011). *The Maginot Line: history and guide*. Pen & Sword Books.

Knight, P. (2008). Outrageous Conspiracy Theories: Popular and Official Responses to 9/11 in Germany and the United States. *New German Critique*, (103), 165–193.

Kotelenets, E., & Barabash, V. (2019). Propaganda and Information Warfare in Contemporary World: Definition Problems, Instruments and Historical Context. In *Advances in Social Science, Education and Humanities Research* (Vol. 374, p. 368). Atlantis Press.

Kraehe, E. (1944). The Motives behind the Maginot Line. *Military Affairs, 8*(2), 109

Kumari, A. (2022). Analyzing the Strategic Impact of the Usa and China on Sri Lanka, in Its Quest to Become a World Super Power Targeting the Various Difficulties Facing Sri Lanka as a Developing Country. (By Using "Thucydides Trap"). *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.4123742

Li, L. (2011). *How the Earthquake in Japan Caused a Run on Salt in China*. Retrieved September 15, 2022, from Economic Observer website: https://www.eeo.com.cn/ens/observations/2011/03/22/197016.shtml

Long, W. R. (1985, November 9). *12 Colombian Justices Dead: Half of High Court Killed in Takeover*. Retrieved September 15, 2022, from Los Angeles Times website: https://www.latimes.com/archives/la-xpm-1985-11-09-mn-3526-story.html

Loriggio, P. (2008, June 19). *Outlawed Tamil group fights back*. Retrieved September 15, 2022, from Toronto Star website: https://www.thestar.com/news/canada/2008/06/19/outlawed_tamil_group_fights_back.html

Lynch, M. (2010). Islam Divided Between Salafi-jihad and the Ikhwan. *Studies in Conflict & Terrorism*, *33*(6), 467–487. https://doi.org/10.1080/10576101003752622

Malik, S. M., Barlow, A., & Johnson, B. (2021). Reconceptualising health security in post-COVID-19 world. *BMJ Global Health, 06*(07), 02. https://doi.org/10.1136/bmjgh-2021-006520

Mangu-Ward, K. (2021, September 13). *Let's Play Horseshoe Theory*. Retrieved September 15, 2022, from Reason website: https://reason.com/2021/09/13/lets-play-horseshoe-theory/

McInnes, C. (2014). *The Many Meanings of Health Security*. In S. Rushton & J. Youde (Eds.), *Routledge Handbook of Global Health Security* (p. 11). London: Routledge.

Menon, V., Laeeq, H., & Bikhchandani, R. (2022, July 28). *Take care, Rajiv Gandhi told Prabhakaran. Even gave bulletproof vest before Sri Lanka Accord*. Retrieved September 15, 2022, from ThePrint website: https://theprint.in/past-forward/take-care-rajiv-gandhi-told-prabhakaran-even-gave-bulletproof-vest-before-sri-lanka-accord/1058447/

Ministry of Laws. (2018). *Deliberate Online Falsehoods: Challenges and Implications*. In *National Archives of Singapore*. Singapore: Parliament of Singapore. Retrieved from Parliament of Singapore website: https://www.nas.gov.sg/archivesonline/government_records/record-details/6797717d-f25b-11e7-bafc-001a4a5ba61b

Ministry of Power and Energy. (2006). *National Energy Policy and Strategies of Sri Lanka*. Colombo: Government of Sri Lanka.

Molander, R., Riddile, A., & Wilson, P. (1996). *Strategic Information Warfare: A New Face of War*. RAND Corporation, 5-9. https://doi.org/10.7249/mr661

Moorthy, S. (2022). *What do Sri Lanka's protests mean for India?*. Retrieved September 12, 2022, from Observer Research Foundation website: https://www.orfonline.org/expert-speak/what-do-sri-lankas-protests-mean-for-india/

Muller-Kraenner, S. (2007). *Energy Security*. London: Routledge.

Nagahawatta, R., Warren, M., & Yeoh, W. (2020). A Study of Cyber Security Issues in Sri Lanka. *International Journal of Cyber Warfare and Terrorism, 10*(3), 59–72. https://doi.org/10.4018/ijcwt.2020070105

Østerud, Ø. (1988). Review Essay: The Uses and Abuses of Geopolitics. *Journal of Peace Research*, *25*(2), 191–199. https://doi.org/10.1177/002234338802500209

Pal, A., & Banerjee, S. (2019). Understanding Online Falsehood From the Perspective of Social Problem. *Advances in Media, Entertainment, and the Arts*, 1–17. https://doi.org/10.4018/978-1-5225-8535-0.ch001

Parthiban, D. (2022, September 12). *Nearly 500 doctors leave abroad from Jan-Aug*. Retrieved September 15, 2022, from NewsCutter website: https://www.newscutter.lk/sri-lanka-news/latest-news/nearly-500-doctors-leave-abroad-from-jan-august-12092022-48227/

Pennycook, G., & Rand, D. G. (2018). Lazy, not biased: Susceptibility to partisan fake news is better explained by lack of reasoning than by motivated reasoning. *Cognition*, *188*, 39–50. https://doi.org/10.1016/j.cognition.2018.06.011

Pintoe, K. R. J. (2021). Is the Blitzkrieg Military Strategy a Feasible Tactic in Modern Day Warfare?. In *Proceedings of KDU International Research Conference 2021* (Vol. 14). General Sir John Kotelawala Defence University.

Pintoe, R. (2022). *The Infiltration of Cultural Identity in the Post-Colonial Global South*. In R. Mathew (Ed.), *Identity: Quest and Questions* (pp. 127–138). New Delhi: Authorspress.

Premaratna, S. P., & Thrishali, A. (2020). Sri Lanka and the Geopolitics of Indo-Pacific: Perceptions, Opportunities and Challenges. *Journal of Polity and Society*, *12*(1).

Riem, A. (2001). Cybercrimes Of The 21st Century. *Computer Fraud & Security, 2001*(6), 13–17. https://doi.org/10.1016/s1361-3723(01)00615-7

Roberts, M. (2014, October 24). *KP's Frantic Efforts To Save The Tiger Leaders In 2009 And USA's Pursuits*. Retrieved September 15, 2022, from Colombo Telegraph website: https://www.colombotelegraph.com/index.php/kps-frantic-efforts-to-save-the-tiger-leaders-in-2009-and-usas-pursuits/

Roll, D. (2013, December 4). The Day That Lives in Infamy: Pearl Harbor, December 7, 1941. Retrieved September 14, 2022, from The Globalist website: https://www.theglobalist.com/day-lives-infamy-december-7-1941/

Rosenberger, L. R. (1997). The Strategic Importance of the World Food Supply. *Parameters, 27*(01), 84.

Samarawickrama, C. (2018). *Tourism Ministry website hacked by Tamil Eelam Cyber Force*. Retrieved September 15, 2022, from Daily Mirror website: https://www.dailymirror.lk/article/Tourism-Ministry-website-hacked-by-Tamil-Eelam-Cyber-Force-150113.html

Sarkar, S. (2022). The devastating health consequences of Sri Lanka's economic collapse. *BMJ*. https://doi.org/10.1136/bmj.o1543

Schmidt, P. (2015). The Prize: the Epic Quest for Oil, Money & Power. *Preview, 2015*(179), 52–52. https://doi.org/10.1071/pvv2015n179p52

Selvakkumaran, S., & Limmeechokchai, B. (2013). Energy security and co-benefits of energy efficiency improvement in three Asian countries. *Renewable and Sustainable Energy Reviews, 20*, 491–503. https://doi.org/10.1016/j.rser.2012.12.004

The Crown Prosecution Service. (2019). *Organised Crime - Strategy*. Retrieved September 15, 2022, from Crown Prosecution Service website: https://www.cps.gov.uk/organised-crime-strategy

The Economist Group. (2021). *The Global Food Security Index*. Retrieved September 14, 2022, from The Economist Group website: https://impact.economist.com/sustainability/project/food-security-index/

Tierney, M. (2018). #TerroristFinancing: An Examination of Terrorism Financing via the Internet. *International Journal of Cyber Warfare and Terrorism, 8*(1), 1–11. https://doi.org/10.4018/ijcwt.2018010101

Vaswani, K. (2019, April 4). *Concern over Singapore's anti-fake news law*. Retrieved September 15, 2022, from BBC website: https://www.bbc.com/news/business-47782470

Weerasekara, D. (2021, December 9). Ontario's Bill 104: *"Tamil Genocide Education or Miseducation Week?"*. Retrieved September 15, 2022, from The Island website: https://island.lk/ontarios-bill-104-tamil-genocide-education-or-miseducation-week/

Weerasinghe, G. K. (2022, August 2). *Twenty-two underworld shootings in last 60 days result in 20 deaths*. Retrieved September 15, 2022, from Daily News website: https://www.dailynews.lk/2022/08/02/local/284252/twenty-two-underworld-shootings-last-60-days-result-20-deaths

Westlund, O., & Färdigh, M. A. (2014). Accessing the news in an age of mobile media: Tracing displacing and complementary effects of mobile news on newspapers and online news. *Mobile Media & Communication, 3*(1), 53–74. https://doi.org/10.1177/2050157914549039

Wikileaks. (2012). *VZ elections*. London: Wikileaks. Retrieved from Wikileaks website: https://search.wikileaks.org/gifiles/?viewemailid=218642

Withanawasam, M. P. K. & Kumara, U. A. (2013). *The Impact of GSP+ Withdrawal on Sri Lankan Economy*. In *Proceedings of International Conference on Business Management - ICBM* (Vol. 10). Nugegoda: University of Sri Jayawardenepura.

Wolfers, A. (1952). "National Security" as an Ambiguous Symbol. *Political Science Quarterly, 67*(4), 481. https://doi.org/10.2307/2145138

World Economic Forum. (2018). *The Global Risks Report 2018*. Cologny: World Economic Forum.

World Health Organisation. (2007). The world health report 2007: a safer future: global public health security in the 21st century. Retrieved from Institutional Repository for Information Sharing website: https://apps.who.int/iris/handle/10665/43713

STRATEGIC ESTIMATES AND STRATEGIC RESPONSES IN CRAFTING THE TOURISM INDUSTRY IN SRI LANKA WITH A FOCUS ON ECONOMIC SECURITY

Lanka Amarapala
Commander, Sri Lanka Army Engineer Division
lankaamarapala5225@gmail.com

ABSTRACT

The main objective of this study was to examine the manner in which Sri Lanka tourism contributes to Sri Lanka economy and thereby the extent to which it acts as a strengthener of the national security. The study examined the historicity of tourism in Sri Lanka, the manner in which its natural geography aided to enhance the positive image of Sri Lanka as a natural destination. The study further explored the current status of Sri Lanka tourism and the position that Sri Lanka has in the Global tourism market. Furthermore, the study focused on the challenges and threats that Sri Lankan tourism currently faces and the manner in which these could be overcome. Further, the study examined the strengths and weaknesses that the tourism industry possesses at present and presented policy recommendations on strategies to promote and sustain the same.

KEYWORDS: *Sri Lanka National Economy, Sri Lanka Tourism, Tourism Strategy Development, Tourist Destinations*

INTRODUCTION

In 1977, since Sri Lanka aligned towards market economy, one of the main factors related to the economic development in Sri Lanka was the tendency to depend on tourism as a major foreign-exchange earner. It is well-perceived that almost all governments which came into power after 1977 made diverse endeavours to promote tourism and make it one of the leading industries.

It can be perceived that as a tourism destination, Sri Lanka can compete successfully with other destinations partly because of its pivotal geographical position (Fernando, 2017b), further, it is noteworthy that its strategic location in the Indian Ocean on the major air & sea routes between Europe and the Far East is an advantage to the country's positioning as a global logistics hub (Sri Lanka Info, 2011). The island offers a landscape of various geographic and climatic diversity. The southern half of the island is dominated by rugged hill country, while the northern half is a large plain. It also

has palm-fringed beautiful beaches on the south western, southern and south eastern coastlines (Lai, 2002).

Historical Overview of Sri Lanka Tourism

Research has proved that an internal port had operated from the 2nd Century AD to 12th Century AD at Godawaya in Southern Sri Lanka near the mouth of the Walawe River. A stone tablet discovered in the vicinity of this port, carries an inscription which states that it was prepared under the instructions of King Gajabahu (114-136AD) and that the King had directed payments of duties collected at the port to be given to the Godawaya Temple for its maintenance.

(Sri Lanka Customs). This stone inscription is concrete evidence of the arrival of merchants from foreign countries to Sri Lanka, even during the 2nd Century AD. Thereby, one can hypothesize, Sri Lanka to be a destination which has been a source of voyage for centuries due to its strategic location and uniqueness. (Fernando, Bandara & Smith, 2015)

It is well noted that Chinese writers who visited Sri Lanka were some of the pioneers who wrote on Sri Lanka. For example, Bhikshu Fa-Hsien (7th century), and I-Tsiang (635-712 A.C.) are some of the Chinese visitors who wrote comprehensible books on the island. The Chinese writer, Ma Huan, in 1433, in 'Overall Survey of the Ocean's Shores,' refers to Sri Lanka as 'Ying-yai Sheng-lan-chian-chu,' or the 'Country of Sihala.' Marco Polo, a Venetian, who visited Sri Lanka in the 13th Century A.D, noted that "Ceylon … is undoubtedly the finest island of its size in all the World" (UNDP; WTO, 1993).

It is further noted that the earliest tourist arrivals recorded in Sri Lanka were mainly related to religious tourism such as worshipping shrines in ancient capitals of Anuradhapura and Polonnaruwa or pilgrimages to Adam's Peak (Fernando, 2017).

LITERATURE REVIEW

According to Goeldner & Ritchie (2009), the main perspectives of tourism are tourists, business operators who provide goods and services, governments of host destination areas and the local communities. It has been proved that understanding travel behavior, the need to focus on the customer, creating motivation in the customer to travel, therefore the need for motivation models in tourism and developing those models aid to develop tourism in a positive manner. (Goedlner and Ritchie, 2009)

It is perceived that tourism is not merely a type of travel, but a complex social field that spans the globe, comprised of diverse actors, institutions, activities, and modes of interaction that overlap with and cross-cross other forms of global interconnection. (SOAS).

Initial Strategies of Establishing Tourism

Subsequent to the Independence, the government decided to reorganize tourist activities by founding the Government Tourist Bureau under the Ministry of Commerce. The role of the Bureau was to maintain tourist promotional works overseas. A diverse range of lodging services have been erected in the country during the British colonial rule. (SLTDA, 2011). Many of these lodging spaces were originally designed for the use of planters, the business community and government officials, some were relatively luxurious accommodation facilities, such as these which were colonial governors' residences. These and similar abodes such as these colonial residences were later converted into high class hotels in Sri Lanka in order to facilitate the growing tourism industry. These included Galle Face Hotel,

Grand Oriental Hotel and Mount Lavinia Hotel in Colombo, Queens Hotel in Kandy, Grand Hotel and St. Andrews Hotel in Nuwara Eliya, and New Oriental Hotel in Galle.

In 1937, the Sri Lankan Government established its first Tourist Bureau to mainly serve the passengers and sailors travelling between the West and the East when they came ashore (Fernando, 2017). However, due to the Second World War in 1940, the Government Tourist Bureau stopped its operations. Immediately after gaining Independence, in 1948, the Sri Lankan Government attempted to revitalize tourism by re-establishing the Bureau under the Ministry of Commerce, and later the Ministry of Defense. (Karunanayake, 2017)

During 1948 to 1953, Sri Lankan tourism industry expanded and obtained a name for herself, respect and confidence. It is estimated that tourism receipts doubled from $ 1.04 million to US $ 2.23 million (Fernando, 2015) during that period. The rapid growth of international tourism around the world during the 1950s, (Nordström, 2005) largely due to the introduction of jet aircrafts for civilian transport after World War II (May & Hill, 2004), offered a golden opportunity to Sri Lanka to establish a tourism route between the East and the West. The period from 1954 – 1960 saw a sharp decline in tourist arrivals in Sri Lanka, due to the closed trade policy regime during 1954-1960 period. Therefore, the earlier tourism-oriented development failed to take root and Sri Lanka missed a golden opportunity to establish itself as a major a tourism and transport hub in between the East and the West (Fernando, Bandara, & Smith, 2016).

The Sri Lankan government expected to develop tourism as a separate sector of the country's economy by establishing the Ceylon Tourist Bureau in 1966, at a time when there were 18,969 foreign tourist arrivals in Sri Lanka. Even though specific records are not available,

"it is estimated that approximately one hundred thousand to two hundred thousand passengers visited the country per annum." (SLTDA, 2011)

However, one can argue that despite, the fluctuations, in the tourist industry in Sri Lanka in the post-independence period, Sri Lanka can be considered as one of the 'tourism countries' (TC) (Brau, Di Liberto, & Pigliaru, 2011).

Current Global Status for Sri Lankan Tourism

In the recent past, Sri Lanka made tremendous efforts in the tourism and achieved numerous awards and recognitions in international print and electronic print. Sri Lanka has been named as the top ten *coolest countries* to visit (2015). It was nominated as a top location to visit (2016) by Forbes magazine, Lonely Planet, Rough Guides, The Guardian, and The New York Times Travel.

Sri Lanka featured as one of the Top Destinations to Travel in February 2020 by Condé Nast Traveller Middle East. It was ranked as CNN Travel's 20 best places to visit in 2020. It was judged as top destination for winter travel by USA Today in 2019. It was featured in Lonely Planet's Best in Travel 2019. Travel+Leisure termed Sri Lanka among the 15 Best Islands in the World (2020).

Sri Lanka was voted by Travel Lemming Reader Awards in 2019 World's Top Destinations-number 1 in Asia. It was featured in Emerging Destination Awards-2019 as one of the six 6 Best in the World (the best in Asia). The island was ranked as one of the 10 Best Places to Visit in 2019 (Number 3) by I Escape Web Site UK. It was voted by travel influencers as Top Destination in Asia for 2019 in Travel Lemming. Sri Lanka entered the National Geographic Traveller, The Cool List of 2018 in Travel Lemming. Sri Lanka was selected Top

Global Safety Destination for Women Travellers In 2018. It topped list of 20 countries by Asian Mirror. (Sri Lankan Tourism Official Website, 2021)

However, the 2019 Easter Sunday attacks which targeted not only the Catholics, but also the tourism in Sri Lanka, rendering it an 'unsafe' place to be visited by foreigners, and heavily impacting the tourist earnings.

Key Drivers in Sri Lankan Tourist Industry

The key authorities in charge of tourism in Sri Lanka are the Ministry of Tourism, along with Sri Lanka Tourism Development Authority; Sri Lanka Tourism Convention Bureau and Sri Lanka Institute of Tourism & Hotel Management which work for the development, control and monitoring tourism in the island. Sri Lankan Airlines, Sri Lanka Airport & Aviation Services, Department of Immigration and Emigration and Electronic Travel Authorization System work towards the development in the industry. Marketing is handled by the Tourism Promotion Bureau. Tourist Hotels Association of Sri Lanka and Sri Lanka Association of Inbound Tour Operators are also vital to the industry.

The current major players in the tourism industry in Sri Lanka can be perceived as Amari Galle, Yoho Lanka (Pvt) Ltd, Shangri-LA, Mariott International, Amaya Resorts & Spa, Tangerine Group of Hotel, Jetwing Hotels, Cinnamon Hotels & Resorts, Anantara Hotels, Resorts & Spa; Ramada by Wyndham Hotels & resorts.

Investment by Foreign Investors in Sri Lanka Tourism

Scholars argue that there is a link between tourism and foreign direct investment (FDI), that there is a significant long-run equilibrium relationship between tourism, and a number of variables such as FDI, exchange rate, tourism price and civil war of the country. Aligning towards that scholarly argument, it has been recommended that Sri Lanka should introduce policies that would increase FDI inflows into the tourism industry and maintain a competitive tourism price to attract more tourist arrivals (Ravinthirakumaran, Kalaichelvi & Selvanathan, Eliyathamby & Selvanathan, Saroja & Singh, Tarlok, 2019). Researchers argue that the foreign investments in tourism in Sri Lanka is hindered by inconsistent land ownership by the foreigners. (Sirisena, 2016)

Several international and regional hotel chains such as Hilton, Marriott, Shangri-La, Six Senses, and Movenpick have currently invested in Sri Lankan tourism sector in the hotel industry. Shangri-La and Movenpick have commenced their investment projects related to the hotel industry in 2017. Hilton has taken over the control of Double Tree by Hilton Weerawila Rajawarna Resort in 2020. Others such as Sheraton and ITC are in the process of completing projects. India's ITC Group has also invested in Sri Lanka tourism. (International Trade Administration)
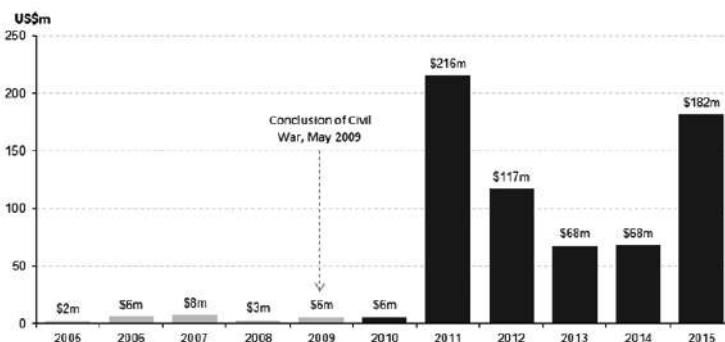

Figure 3 - Post-war Foreign Investment in Sri Lanka's Hotel Industry
(Source - Board of Investment, Sri Lanka)

Figure demonstrates the foreign investments in the country prior to the end of the war, and after the end of the war. The graphs manifest that subsequent to the termination of the war, the investments in the tourism have risen sharply. Thereby, it can be analysed that peace or the semblance of peace is a factor which attracts foreign investments into a country, and in this instance, foreign investments in the hotel industry, is demonstrated to have benefitted.

Tourist Industry's Contribution Towards Sri Lankan National Economy

Tourism in Sri Lanka can be divided into two main components; domestic and international. This paper focuses more on the international tourism. Wild life; thrills such as rafting, surfing, clear sea and clean beaches, temple civilization, medical and meditational retreats, ancient architectural remnants, Sri Lankan authentic herbs, spices and oils, and Sri Lankan helavedakama are unique and form an intricate synthesis which is the essence of Sri Lankan tourism.

Contribution of the Tourist Industry to the Sri Lankan economy was based on statistics released in the years of 2017, 2018, and 2019. During the years of 2015 to 2016, Sri Lanka saw an unmatched increase in the numbers of visits in relation to the tourist industry. The increase of tourists' arrivals can be mainly linked to the termination of war in 2009 and the infrastructure development which took place in Sri Lanka subsequently. Thereby, one can argue that peace contributes significantly to the growth of tourism.

It was in 2016, that the island marked the 2 millionth tourist's arrival. In comparison to the year 2015, this number manifested an extraordinary growth. (Munasinghe, Gunawardhana, and Ariyawansa, 2019) It was similarly identified that Asians were the principal group of people who visited Sri Lanka,

accounting to 45.1% while Western Europeans accounted to only 31.4%. (Munasinghe, Gunawardhana, and Ariyawansa, 2019) It is noteworthy, therefore to cater more towards factors which would attract and benefit the Asian travelers and to research on their main attraction points.

The proceeds from the travel and tourism sector were seen as a high contributor to the national economy. It had generated 5.1% towards GDP for two consecutive years i.e. 2017 and 2016. (Mordor Intelligence, 2021) Tourism Industry is the third-largest export earner in the Sri Lankan Economy, after remittances, textiles and garments. (Munasinghe, Gunawardhana, and Ariyawansa, 2019)

The earnings from the foreign exchange from tourism sector increased to 15.9% of total foreign exchange earnings in 2017. (Mordor Intelligence, 2021)The country recorded an average daily revenue (ADR) of LKR 20,500 in 2018 and LKR12,300 of revenue per available room (Mordor Intelligence, 2021). Sri Lanka recorded around 60% of the occupancy rate for the same year but due to the Easter terror attacks in April 2019, all the key indicators recorded fewer figures when compared to 2018.

It is noteworthy to mention, the calamities that Sri Lanka has faced and which have impacted the Sri Lanka tourism in a negative manner in recent times. The 2019, Easter Sunday attacks were a prominent factor which decreased the number of tourists into Sri Lanka. Further, the current global pandemic which has continued from 2020 up to now has impacted the tourist arrivals in Sri Lanka in a negative manner and thereby, rendered tourism industry and its employees highly vulnerable.

RESEARCH METHODS

The current study used a qualitative research framework. The study used both primary and secondary data but was mainly based on secondary data analysis. Secondary data were gathered through a thorough literature review of works which centered on global tourism as well as tourism in Sri Lanka. Journal articles as well as academic works in relation to tourism were used to gather data. Since the paper revolved around the Tourism industry in Sri Lanka as an important contributor towards Sri Lankan economy, primary data were gathered from Bank reports and other valid sources. The research study used a SWOT analysis method to study the strengths, weaknesses, existing opportunities and threats faced by tourism in Sri Lanka.

Current Challenges

Easter Sunday attacks which took place on April 21 2019, posed a huge threat to the industry. Sri Lanka witnessed a 70.8% decrease in tourist arrivals and recorded the lowest number of arrivals of around 37,000 in May 2019 (Mordor Intelligence, 2021).

In the context of COVID-19, Sri Lanka decided to reopen the country for international visitors, after tourist arrivals in 2020 fell to a fourth of the nearly 20 lakh arrivals recorded in 2019 (Srinivasan, 2021). Sri Lanka faced this challenge of covid-19 by creating a concept called "Safe and Secure" bubble. The Bureau successfully carried out the mechanisms of mandating pre-departure PCR tests for tourists, restricting their stay to designated high-end hotels and beach resorts, and allowing access to select tourist spots and limiting visitors from mixing with the local community (Sri Lanka Tourism Development Bureau, 2021). "Quarantine stay," "bio-bubbles," 'Safe and Secure' certified, Level 1 hotels were other mechanisms created by the Bureau.

Furthermore, even during the Covid third wave, the island did not close its doors to the tourists, manifesting the importance of tourism to the Sri Lankan economy.

Furthermore, it can be argued that the present instability in the economic conditions in the country induces the tourism to retreat. While, the fuel shortage has impacted almost all the sectors in Sri Lanka, along with tourism, perhaps, the greatest impact on tourism can be argued as the political crisis and the civil unrest in the country, in which numerous protests, disturb the civil life, and presents a negative image of the country which is hyped by many international media giants.

One of the prominent and long-term challenges that Sri Lanka faces in the tourism industry is the shifting nature of tourism policy along the political changes in the Sri Lankan government. None of the governments has presented a proper national policy to develop tourism industry in the country (Karunanayake, 2017).

Results of the Swot Analysis

The research study conducted a SWOT analysis in order to examine the strengths, and weaknesses that Sri Lanka had vis-à-vis the tourism industry, and the opportunities presented globally and threats that the industry faced within the field.

SWOT-TOW Analysis

In analyzing the Strengths against weaknesses, it was calculated that strengths that Sri Lanka possesses surpass the weaknesses. Further, it was calculated that Sri Lanka has more opportunities in tourism in comparison to the threats. Thereby, according to the SWOT analysis, it was concluded that tourism industry has a favourable disposition as an income generator and as a contributor towards Sri Lanka's National economy.

S-O Analysis

The following points were extracted through the SWOT analysis by assessing the strengths and the opportunities (S-O analysis);

1.   The domestic political, social and economic environment is positively inclined towards investing in Sri Lankan Tourism.
2.   The international community is favourably disposed in investing as well as visiting Sri Lanka.
3.   Sri Lanka possesses unparalleled innate geographical, climatic, temporal and wildlife factors which are strong points of attraction which cannot be surpassed by other tourist countries.
4.   Sri Lankan food/cuisine are strong points of tourist attraction.

S-W Analysis

In analyzing the strengths against the weaknesses, (S-W analysis), the researcher was able to extract the following strategies to overcome the weaknesses:

1.   Diversification of tourist products
2.   Maintain the continuous development of transportation system and infrastructure
3.   Promotion of branding Sri Lanka as a tourist destination, promote marketing, promote communication on Sri Lanka tourism; use new technological tools and platforms to promote tourism
4.   Focus on proper management of tourist sites; cleanliness, orderliness, proper staffing with good communication skills, good PR skills etc.
5.   Promote language skills, educational qualifications and professional qualifications, training human resources engaged in the tourism sector
6.   Promote low-cost accommodation for tourism within well-maintained standards.

7.   Introduce the security of the tourist as a vital part of the industry and have a separate security community with a stronger focus on tourists, have emergency numbers especially for tourists, or separate sectors within the existing forces to serve the emergency needs of tourists, so that they feel more secure.

Further, by analyzing the weaknesses and threats (W-T) it was calculated that there are certain weaknesses and threats which cannot be avoided such as extreme climatic conditions, natural disasters, health pandemics, terrorism, global economic recessions, etc. However, the study concludes that the Sri Lankan government can make pre-planned strategies to prevent the negative effects.

Tourism Strategy development and Strategic options for the development of Tourism Industry as part of national economic development and national security

The creation of the Hotel School in the 1960's in Sri Lanka, which aimed at developing the human resources in the sector can be seen as an important strategy. (Karunanayake, 2017). The establishment of the Ceylon Tourism Board (CTB) and the Ceylon Hotel Corporation under two Acts of Parliament in 1966 have also immensely contributed to the growth of the sector, specifically in tourism promotion; protecting scenic places; classification of tourist hotels; travel agents and tourism related services; statutory power on planning; controlling and assisting in policy making of the Ministry of Tourism Sri Lanka (CTB) (Karunanayake, 2017).

"Regaining Sri Lanka" introduced by the then Prime Minister, in 2003 was a policy statement which aimed at 10% annual economic growth, which included policies for broadening the clientèle base, amending the tourism law, establishing an International Tourism Advisory Council, increasing productivity in tourism

sector, and improving the civil aviation industry (Karunanayake, 2017).

"Tourism Development Strategy 2011 - 2016" developed by the Ministry of Economic Development in 2010, under President Rajapakse's government aimed at sustainable tourism development.

Reduction of the tax, licensing, and investment approval systems (one stop shop - all services in one place), supply of electricity commensurate to the increasing demand, environmentally friendly and clean city development, and attracting world renowned chain hotel companies to set up hotels in different areas in the country to increase the number of rooms and the employment opportunities, are mechanisms which were introduced to keep tourism afloat. Other strategies are: increasing the product portfolio by adding more tourist attractions to give vivid experience to the visitors, improving the quality of hospitality sector employees through training, improving transportation by modifying the road system, railways, and adding highways, developing a seaplane service for domestic air travel, improving airport and port facilities, establishing a tourist police system to improve the security and particularly to avoid harassment being experienced by tourists, making one agency responsible for tourism promotion, improving websites for easy access by the visitors including online visa obtaining facilities and strong international level promotional campaigns, and organizing meetings, exhibitions and trade fairs targeting Business Visitors and Right Type of Tourists to the Country (Tourism Development Strategy 2011-2016).
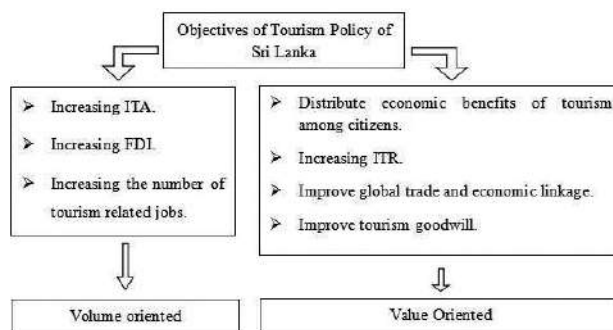
Figure 2 : Evaluation of Strategic Options (Source : Karunanayake, 2017)

In presenting strategic options for the enhancement of tourism industry in Sri Lanka, the World Bank stresses that the facilitation of public- private partnerships in key sectors (such as in infrastructure, health, and tourism), and investing in tourism infrastructure are essential. (World Bank)

The strategy of creating tourism zones aims at, Sri Lanka having few major zones in which several cities or towns which contain diverse climatic conditions, cultural monuments or cultural activities, environmental elements including flora, fauna or wildlife, etc, are clustered together, so that the tourists' will to have a longer stay in Sri Lanka and/or return to Sri Lanka as a holiday destination.

The tourism strategists further calculate that local communities will be able to engage in the hospitality service provision space or engage in relevant entrepreneurial opportunities within tourist zones. (Such as equipment servicing, laundry, artisan centres, tours, transport, agribusiness, etc.) This vision expects that there would be an expansion of the multiplier effect from tourism activities within each zone.

The policy-developers expect to form *'Protected Tourism Localities'* and *'Tourism Economic Areas.'* A *'Protected Tourism Locality'* is described as a protected area that should preserve the authentic look and feel, resulting from organic growth through creating tourist zones. Protected Tourism Localities will not allow large-scale developments, except only to enhance their unique identity and only environmentally-friendly business practices will be sanctioned in these areas. *'Tourism Economic Areas'* will be specified around the island where major construction and developments will be permitted in line with guidelines set by the central and local authorities.

Thereby, the above can be suggested as economic benefits that are related to tourism, but it is noteworthy, that there are negative effects or challenges in establishing public-private partnerships in the tourism development in Sri Lanka. (Sri Lanka Tourism Vision 2025, 2016).

Tourist Zones

Succeeding Sri Lankan governments have planned to promote tourism in Sri Lanka and have provided various strategies, such as tourist zones. Five geographical tourism zones have been identified in Sri Lanka's 25 districts. Investments have been invited to be conducted in these zones, by both locals or foreigners. It is estimated that developing these zones would strategically aid the state in producing profits. The objective of creating tourism zones was to provide the tourists, with reasons to travel and immerse themselves within one zone for a longer period (Sri Lanka Tourism Vision 2025, 2016). It has been argued by policy-makers that zoning will facilitate focused policy, planning, implementation and management strategies; enable the identification of critical aspects of physical infrastructure and connectivity within the zone and between zones; offer a range of diverse and authentic experiences such as

indigenous community neighbourhoods, Royal Craft Centres, centres for traditional medicine, meditation houses, etc. Due to this national development strategy, Sri Lanka Tourism Board is able to offer 99 years leasing period to the investors. (Mordor Intelligence, 2021)

According to Kumar, Tourism is identified as a fast-growing sector which has potential for bringing economic development to the nation. (Kumar, 2018). Within that context, the National Human Resources Development Council (NHRDC) of Sri Lanka Tourism produced a strategy for the development of the tourism and hospitality workforce development. This strategy focused on the development of the workforce in the tourism sector for a three-year plan from 2017-2020 and is the latest document depicting the governmental strategy in tourism development with the view of strengthening national economy through tourism.

The objective of this strategy was to increase the volume of the skilled and qualified people in the tourism sector so that the tourism industry could remain productive, sustainable and meet the tourist expectations. The government attempted to produce a strategy and policies to fill the identified shortage of skilled and qualified labour in the tourism industry in Sri Lanka, in comparison to the expected arrival of 4.0 million tourists by 2020.

RECOMMENDATIONS

All the above factors manifest that the Sri Lankan governments have been heavily focusing on tourism, while the present study explored the benefits derived from tourism and tourism earnings which contributes to the national economy and various strategies planned by Sri Lanka to enhance it. It can be concluded that there are many facets in the country that are underused in tourism and which can be utilized, existing factors which can be improved and new strategies which can be used to enhance tourism.

1.   The political changes in Sri Lanka affect Sri Lankan Tourism in many ways. Thereby, it is recommended that Sri Lankan tourism has a long-term plan, which will be immune to political changes, and timely whims of politicians. Within that context, it is recommended that the Sri Lankan Tourist Board be appointed as higher authority which functions independently.

2.   Tourism depends on the development of transportation, and infrastructure. Thereby, it can be suggested that the public transportation system in Sri Lanka should be developed so that tourists can travel more comfortably at a more economic price.

3.   Introduction of special buses by Sri Lanka Transportation Ministry at special rates for tourism purposes.

4.   Develop computer reservation systems for lodgings and transport so that they can be booked from a distance and directly without mediators.

5.   Introduction of new trains, and better maintenance of the existing ones are highly recommended.

6.   It is recommended to develop Cruise Tourism and negotiate to make Sri Lanka to be one of the calling ports in Cruise Tourism sector.

7.   Develop inland waterway transport facilities to facilitate the view of natural beauty of the major rivers.

8.   It is recommended to produce accommodation which is affordable for middle-class tourists to be made available in Sri Lanka.

9.   Establishing standards in educational qualifications, for hotel staffing, especially with necessary language training with a special focus on English by SLTDB.

10.   Hotel staff should be monitored, trained and managed properly and ethically.

11.   Monitor and maintain high standards in cleanliness; safety and health protocols, especially in recent times with relation to Corona, by SLTB.

12.   Sri Lanka can use technological developments such as Tiktok videos, Facebook videos/pages to promote the country's image and promote tourism.

13.   It is recommended to promote Ocean Diplomacy; thereby, promote beach-clean-ups with the coordination and cooperation of the Sri Lanka Navy, Sri Lanka Coastguard, etc.

14.   Strategies to be developed to include wind surfing, sailing and under water tourism to reach the optimum level in tourism in the country.

15.   Educational tourism; There are few ship wrecks around Sri Lanka, and one can use those as assets to invite senior researchers, academic lecturers and students who are interested in studying on shipwrecks, other historical sites, and related studies. These could be used to attract tourists related to education.

16.   Education on tourism should be included into the high-school syllabi and bachelors' degree levels, internships should be introduced at Advanced level, and Ordinary Level to give students a feel about the industry.

17.   Sri Lanka Hotel School should develop knowledge dissemination centres on tourism island-wide.

18.   It is recommended that research on tourism in Sri Lanka should be conducted; specifically on tourism forecasting- tourism demand by educational organizations, private and government think-tanks; on the manner

in which marketing can be done; on the importance of tourism in the national economy.

19.   It is recommended to promote Medical Tourism- through helavedakama which is the indigenous medicine system which can be used to attract tourists, specifically by promoting these in 5-star hotels and launch awareness programmes in major countries.

20.   Museum Diplomacy is a potential area which Sri Lanka has not explored in the tourism sector. It is a strategy used by countries such as UK and Italy, where museums are so well organized that tourists make a special effort to visit them. Important museums in central locations in the country such as in Colombo, Galle, Anuradhapura can be promoted in this context.

21.   Religious Tourism - the development of tourism in relation to Ramayana, is a huge possibility to attract Indian tourists. The Ramayana Trail is already initiated. Strategies can be used to promote religious linkages to Adam's Peak and attract pilgrims of four main religions, since the Peak is considered sacred by Muslims, Christians, Hindus and Buddhists.

22.   It is recommended to take measurements to decrease traffic accidents and road congestion to promote tourism.

23.   Create an integrated system between the agencies related to tourism in Sri Lanka.

24.   Ensure the vaccination of the whole population for the Covid-19 with the participation of all relevant authorities.

25.   Create strategies to compete with countries such as the Maldives and Thailand. Thailand and the Maldives are contemporary competitors for Sri Lanka in the industry. However, due to lack of strategies, Sri Lanka is facing difficulties to gain competitive advantage in the areas like attracting high spending luxury tourists. Therefore, strategies should be made for attracting high end tourists. This can be done through research on the manners in which these countries have progressed, the manner in which other countries in other parts of the world have progressed in tourism and developing a Sri Lanka-centric strategy.

26.   Development of Colombo Port City Project. The Port City project has the greatest potential for attracting high-end tourists and FDIs to the country. Therefore, measures should be taken to enhance the benefits of the Port City project to develop tourism industry at all tourist destinations in the country.

CONCLUSION

In conclusion, one can state that Sri Lanka possesses many geographic, climatic and civilizational factors which render it an attractive destination for tourism.

It can also be concluded that the colonial heritage which had created multiple historical networks amongst foreign countries further contributes to tourism. Further, it can be concluded that diverse Sri Lankan governments have focused on various policies to develop tourism in the country and that liberal market policies-oriented governments have contributed to this development in comparison to governments which focused on closed-economy principles.

Further, it is noteworthy that tourism has continued to contribute to the Sri Lankan national economy for a long time. It can be perceived that with the rise of peace in Sri Lanka, the political inclinations, economic tendencies and international community's attitude continue to contribute towards healthy rise of tourism in the country.

It is further concluded that opportunities that Sri Lanka has in expanding tourism outnumber the challenges and threats. However, it is also noteworthy that at present, after 2019 Easter Sunday Attacks, Sri Lanka Tourism has been facing an unprecedented number of challenges. Further, to the attacks, the spread of the Covid virus impeded the tourism in Sri Lanka yet again, not dissimilar to the impact it had on the rest of the world. But its impact on Sri Lankan economy was greater, since Sri Lanka has been depending on Tourism earnings to gain foreign currencies than the other countries in the region. However, the measures taken by the government to address these challenges were commendable such as the safe-bubbles.

However, yet again, the present fuel crisis, the economic crisis leading to the political instability of the country challenge the tourism, which are currently addressed by the government and can be successfully overcome, especially if the government follows strategies suggested by research on tourism.

REFERENCES

Customs History, *Customs History Item No 1. Godawaya Stone Tablet* (112-13 CE) http://www.customs.gov.lk/museum/customs_history/godawaya

Christian, M., Fernandez-Stark, K., Ahmed, G., Gereffi, G., T*he Tourism Global Value Chain, Economic Upgrading and Workforce Development, November,* 2011 https://www.researchgate.net/figure/The-Tourism-Global-Value-Chain_fig1_281845244/download

Department of Anthropology and Sociology, SOAS, Tourism and Travel: A Global Perspective https://www.soas.ac.uk/courseunits/15PANH059.html

Dwyer, Larry. (PDF) Megatrends underpinning tourism to 2020: Analysis of Key Drivers for Change.

https://www.researchgate.net/publication/ 228727012_Megatrends_underpinning_tourism_to_2020_Analysis_of_key_drivers_for_change

EHL Insights, Top 4 hospitality and tourism industry drivers, https://hospitalityinsights.ehl.edu/hospitality-tourism-industry-drivers

Fernando, S. Jayatillake B., Smith, C,Tourism in Sri Lanka, Research Gate, 2015 Project: Developing CGE-Tourism model for analyzing economics contribution from different markets (countries) https://www.researchgate.net/publication/282605564_Tourism_in_Sri_Lanka

Frederick, S., Daly, J, (2020) Global Value Chain Lens can inform Responses to bolster Tourism Industry in Developing Countries, Enhanced Integrated Framework, October 20, 2020 https://trade4devnews.enhancedif.org/en/op-ed/global-value-chain-lens-can-inform-responses-bolster-tourism-industry-developing-countries

Goeldner, C., Ritchie, J. R. B., (2009) Tourism Principles, Practices, Philosophies, John Wiley & Sons, Inc, New Jersey & Canada.

Kelegama, S. (2014), A Synopsis of the Keynote Address delivered by Institute of Policy Studies Executive Director Dr. SamanKelegama at the Annual General Meeting of the Institute of Hospitality – Sri Lanka Chapter, Foreign Ministry Official Website, https://mfa.gov.lk/sin/key-challenges-facing-the-tourism-sector-in-sri-lanka/

Karunanayaka Mudiyanselage Yasas Anushan, 2017, Analysis of Tourism Profile of Sri Lanka, Towards Sustainable Tourism Industry and Policy Making in Future, Ritsumeikan Asia Pacific University

Mordor Intelligence, Hospitality Industry in Sri Lanka - Growth, Trends, Covid-19 Impact, and Forecasts (2021 - 2026) https://www.mordorintelligence.com/industry-reports/hospitality-industry-in-sri-lanka

Munasinghe, Lasika Madhawa and Gunawardhana, W.H.T. and Ariyawansa, RG, (2019) Sri Lankan Travel and Tourism Industry: Recent Trends and Future Outlook towards Real Estate Developmenthttps://ssrn.com/abstract=3614984 http://dx.doi.org/10.2139/ssrn.3614984

Kumar, P., Potentials, Challenges and Opportunities for Tourism Development in the Eastern Province Sri Lanka, Journal of Tourism & Hospitality, 2018, Volume 7: Issue 2 DOI: 10.4172/2167-0269.1000343

Ravinthirakumaran, K., Selvanathan, E., Selvanathan, S., & Singh, T., Tourism and Foreign Direct Investment in Sri Lanka, (2019). Tourism and Foreign Direct Investment in Sri Lanka. South Asia Economic Journal. 19. 1-26. 10.1177/1391561419858475.

Sri Lanka Tourism Promotion Bureau, Annual Report 2010 https://www.parliament.lk/papers_presented/10082012/annual_report_srilanka_tourism_promotion_bureau_2010.pdf

Srinivasan, Meera, (2021), Sri Lanka Reopens for Tourists after 10 Months, The Hindu https://www.thehindu.com/news/international/coronavirus-sri-lanka-reopens-for-tourists-after-10-months/article33626906.ece

Sirisena, Chantal, 2016, Sri Lanka's Tourism Industry and the Foreign Ownership Debate, Talking Economics https://www.ips.lk/talkingeconomics/2016/08/18/sri-lankas-tourism-industry-and-the-foreign-ownership-debate/

Sri Lanka Tourism Vision 2025, 2016 https://www.lovesrilanka.org/wp-content/uploads/2019/05/Sri-Lanka-Tourism-Vision-2025.pdf

Sri Lanka Tourism Development Authority, 2019 https://sltda.gov.lk/en

Tourism: The Four Different Perspectives of Tourism, https://www.ipl.org/essay/Tourism-The-Four-Different-Perspectives-Of-Tourism-FJ65FAN2SU

The World Bank in Sri Lanka, Last Updated April 2021 https://www.worldbank.org/en/country/srilanka/overview#4

MOTIVES FOR TRIGGERING STRATEGIC MOVES OF RUSSIAN AGGRESSION IN UKRAINE IN 2022

R N Wimalaweera

Head of the Department (General Studies), Academic Wing, Sri Lanka Military Academy, Diyatalawa
nimalwimalaweera@rocketmail.com

ABSTRACT

Ukraine, an eastern European country,has been invaded and controlled by many countries, and empires. While human activities continued there from the 1st millennium BCE, later it was ruled by Russia and became one of the most important states in the Union of Soviet Socialist Republics (USSR) at the latter stage. Due to the collapse of the USSR, Ukraine became an independent country in 1990's. Elected governments in Ukraine showed remarkable differences in their foreign policy towards Russia and the West. Aggressive military actions such as annexation of Crimea was staged by Russia in 2014 by stating that they need to look after ethnic Russian people in that area.

The conflict between these two countries came to a climax when Russia took aggressive military means against Ukraine creating the largest refugee problem in Europe since the World War II. It was reported that Russia spends $15-20bn per month while Ukraine spends $10bn a month on the war. This creates a greater loss from their earnings ($46.2bn in two months) through oil, coal and gas sales for Russia in addition to the loss of lives, properties and social stability.

Despite greater sanctions put forward by many other countries mainly by the West and Europe, the Russians were steady in their process of sending forces to Ukraine with great motives. The two countries are situated in a common geographical setting with no major physio graphical features in between other than the river Dnieper, but the existence of two different ethnic groups basically, though they have shared a common cultural and religious setting. The collapse of USSR in 1991 and the creation of commonwealth of independent states, and gradually NATO-Ukraine-Russia relationships turning into a bad shape are the certain landmarks of the contemporary Russia-Ukraine conflict. Russian actions in Croatia, Georgia and annexation of Crimea in 2014 are many other incidents that show Russia's hopes of realizing their historical geo-political realities.

The historical idea of "Third Rome" and Russia's great power eminence, and re-tooling request for recognition as a great power are quite apparent in this study. In the process of achieving the aforementioned interests, Russian actions are analyzed by using diplomacy, information, military and the economic element as well as the foreign policy approach, especially the Western soft power approaches as well as Russian hard power and energy dependencies. The study was carried out by carefully examining the secondary data available in scholarly journals as well as hidden primary information of senior politicians taken upon their remarks. The researcher has deeply analyzed the ethnicity andgeo-strategic location of Ukraine, Ukraine's foreign policy tilting towards the West creating security of Russia a dilemma. Further, NATO's eastward movement which Russia considered as encirclement and finally Russian government's perception of Ukraine dragging Russia into a high-cost war. Hence, this study has been carried out under the purview of national security issues and motives of Russian aggression in Ukraine, pertaining to the tool DIME which explains further in this article.

INTRODUCTION

Background of the Study

Ukraine, the second-largest country in Europe which is strategically positioned at the crossroads between Europe and Asia, is of 233,088 square miles (603,700 sq. km), mainly a vast plain with no natural boundaries except the Carpathian Mountains in the southwest, the Black Sea in the south, and the Azov Sea in the southeast. The Dnipro River with its many tributaries unify central Ukraine economically and the mouth of the Danube River provides an outlet for Ukrainian trades with the Balkans, Austria and Germany (Niemeyer et al., 2022).

Figure: 01 – Location of Ukraine
(Source: https://www.countryreports.org/country/Ukraine/geography.htm

Ukrainians make up more than three-fourth of the population of Ukraine with a significant minority of Russians, creating a multi-cultural and multi-religious country (BBC, 2022)

Ukraine is bordered by Belarus to the north, Russia to the east, the Sea of Azov and the Black Sea to the south, Moldova and Romania to the southwest, and Hungary, Slovakia, and Poland to the west. In the far southeast, Ukraine is separated from Russia by the Kerch Strait, which connects the Sea of Azov to the Black Sea (Niemeyer et al., 2022).

Ukraine is characterized with a wide variety of scenery and impressive contrasts in topography mainly steppes with very fertile black soil in central and southern Ukraine, large reserves of mineral deposits in the east such as iron ore, coal, manganese, natural gas, oil, salt, sulfur, graphite, titanium, magnesium, kaolin, nickel, mercury, timber, arable land, the industrial heartland of the Greater Donbas or Donets Basin and many picturesque mountain resorts in Western Ukraine and in in the Crimean Peninsula in the extreme south (Business Today, 2022).

Different parts of Ukraine were invaded and occupied since 1st millennium BCE by the Cimmerians, Scythians and Sarmatians, the Goths, Huns, Bulgars, Avars, Khazars, Magyars (Hungarians) and by the Mongol's in the mid13thcentury further, some of them settled in different places too (Encyclopedia Britannica 2022).From the 14th to 18th century, portions of Ukraine were ruled by Lithuania, Poland, and Russia. In addition, Cossacks controlled a largely self-governing territory known as Hetmanate. Most of Ukraine fell to Russian rule in the 18th century (Buhlai and Piskizhova, 2021).

In the aftermath of World War, I and the Russian Revolution in 1917, most of the Ukrainian region became a republic of the Soviet Union. Ukraine suffered greatly under Stalin's rule in the early 1930s, known as the Holodomor which caused in killing approximately 4 million Ukrainians. Later, it was overrun by Axis armies in 1941 during World War II and retaken by the Soviets in 1944, and borders were redrawn including the western Ukrainian territories by the end of the World War II (Niemeyer et al., 2022).

The Cold War was a global struggle of the United States representing democratic capitalism against the communism of Soviet Union who emerged from World War II as

superpowers and viewed each other as existential threats although they had cooperated to defeat Nazi Germany and Japan in the World War II. It brought irreconcilable disagreements about the postwar international order rose to the surface time to time. The Soviet Union asserted the control over Eastern Europe including Bulgaria, Czechoslovakia, Hungary, Poland and Romania which the Soviet Army had liberated from the Nazis (Ali, et al., 2020).

Union of Soviet Socialist Republics (USSR) was stretching from the Baltic and Black seas to the Pacific Ocean consisting of 15 Soviet Socialist Republics included present day Armenia, Azerbaijan, Belorussia, Estonia, Georgia, Kazakhstan, Kirgiziya (now Kyrgyzstan), Latvia, Lithuania, Moldavia (now Moldova), Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan (Business Today, 2022).

As a result of internal and external factors, Union of Soviet Socialist Republics disintegrated in 1991 and first Estonia, Latvia and Lithuania had achieved their complete independence and were internationally recognized as sovereign states. Later the independence of Ukraine and Belarus was given in 8th December 1991 after signing an agreement with Russia for the establishment of the Commonwealth of Independent States (CIS), with an agreed common policy for foreign affairs and defence. It marked that cessation of the USSR as a geopolitical reality later on (Niemeyer et al., 2022).

Presidents of Ukraine and the USA signed a statement in 1994, reaffirming Ukraine's commitment to transfer all strategic nuclear warheads which were considered as one-third of Russia's nuclear weapons, to Russia and dismantle strategic launchers in its territory. It further noted that U.S. readiness to assist Ukraine in dismantling the launchers and specifies security assurances

and Ukraine received it accedes to the Nuclear Nonproliferation Treaty (NPT) as a Non–Nuclear Weapons State (The Conversation, 2022).

Then, the North Atlantic Treaty Organization (NATO) welcomes Ukraine into its partnership for peace, a collaborative arrangement opens to all non-NATO European countries and post-Soviet states. Later,Russia becomes a member and conducts various cooperative activities with NATO, including joint military exercises until 2014 when NATO formally suspends ties. Though Russia had opposed the eastern expansion of NATO, thirteen former partnership members eventually joined the alliance (Office of the Historians, n.d.).

In 05th December 1995, the Budapest Memorandum on Security Assurances was signed by Russia, Ukraine, the United Kingdom (UK), and the United States, following Ukraine's accession to the NPT as a non–nuclear weapons state. They committed to respect Ukraine's sovereignty, territorial integrity, and independence, and promised not to threaten or use force against Ukraine (Jha et al, 2022).

Then relationship with NATO gradually developed in the period of first president Kuchma and the next president Yushchenko who seems to be closer to European Union (EU), NATO, and the West through a big protest as Orange Revolution. Thereafter, the tensions between Russia and Ukraine increased as a result of transit dispute in 2006, opposing NATO discussion of providing Membership Action Plans (MAPs) for Croatia, Georgia, and Ukraine in 2008. Russia's decision of invading Ukraine in 2008 resulted because of beginning of discussions of developing closer political, legal and trading ties with the EU by Ukraine. Yanukovych's government decision of not signing EU agreements created hostile relations with Brussels and Washington. Later on, political

uprisings in Ukraine created hostile relations with Russia and came to the highest level with invasion over Crimea in 2014. It was not accepted by Brussels and Washington (Plokhy, S, 2006) and the re upon, Russia-West relations became worst because of the incidents like, Russia forces started influencing the provinces where Russian majority lived. U.S. military aid assistance began later through the Ukraine Security Assistance Initiative program in 2017. Thereafter, this scenario resulted creating largest troop build up in Ukrainian border areas and in Crimea in 2021 and took place military influence in 2022 claiming Ukraine is a part of Russia when Putin addressed the nation.

Build-up in Ukrainian border areas and in Crimea in 2021 was under military influence in 2022 because of claiming Ukraine as part of Russia when Putin addressed the nation (Jha et al, 2022).

RESEARCH PROBLEM

The war between Russia and Ukraine in 2022 so far claimed the lives of 2,899 civilians, military casualties probably in the tens of thousands (back in March, military intelligence and the US State Department estimated Russian military losses at 7,000 and Ukrainian losses at 2,000-4,000). It resulted in destroying cities, millions of refugees spending enormous sums of money daily. Further, he revealed according to the estimates of the Ukrainian Ministry of Finance, Ukraine spends $10bn a month on the war. Meanwhile, Russia spent $15-20bn for the war (Lakhera, 2022).

Since most of the countries, especially, the European Union strongly condemned the Russian invasion of Ukraine and Russia may lose their high earnings ($46.2bn in two months) through oil, coal and gas sales (Ibid). If the sanctions are continued and continuous loss of cordial relations with other countries is likely to occur. Russia may face a financial

collapse as a result of ongoing war with Ukraine. As a result, the situation may develop into an economic crisis and social unrest. Hence, a central aim of this paper is to analyze the possible motives triggering strategic moves of Russia to invade Ukraine in 2022.

SIGNIFICANCE

Russia's invasion of Ukraine on 24 February 2022, was considered as the largest conventional military attack in Europe since the World War II. It was timely happened after expressing Ukraine's wish to join the NATO. At first, this invasion had endangered many innocent civilians and the Ukrainian government. However, its effects will be felt even by the other side of the world.

The EU is one of the main global economic powers and remained most important geo-political player as well. However, the recent offensive has raised fears of another European war.

Currently, as a result of the war, many people become homeless and fled to closer EU countries creating the biggest refugee problem in Europe. The US made sanctions have raised prices, creating hipper inflation in many parts of the world, depreciating the value of currencies badly, resulted market crashes in Russia as well. The loss of Russian exports which include fossil fuel and other commodities impact badly on Europe as well as other countries. Since Russia is a major exporter of natural gas and petroleum, energy prices have been risen, creating an energy crisis. Industries with high usage of energy have also taken a greater hit with the raising prices of consumer goods. In addition, food prices have been spikedas fertilizer and wheat are the main exports from Russia and Ukraine. As usual, the stock market has suffered causing many troubles. So, this crisis seems to be interconnected with many aspects of international power dilemma, findings of

this research may provide valuable findings in order to minimize effects of this type of war in future.

LITERATURE REVIEW

Theory of National Interest and Foreign Policy

National Interest

In simple terms, a nation is a group of people who has links to each other in some manner, in terms of ethnicity, religion or culture etc. A state is a geographical entity that belongs to a particular nation and both words together mean a Nation State. The term national interests are the aspirations of a particular Nation State. In other words, national interest is self-preservation of people in a particular country or a Nation State. According to Thomas Robinson, national interests are six types as follows:

1.	Primary Interests.
2.	Secondary Interests.
3.	Permanent Interests
4.	Variable Interests.
5.	Common Interests.
6.	Absolute Interests.

The primary interests are mainly the country's requirement of physically defending against an invasion in order to protect its culture and its political identity. Therefore, these interests should be essentially secured by a Nation State (Liu, 2014). Therefore, primary interests cannot be compromised at any cost. Secondary interests are the need of defending the citizens abroad and looking after their comfort and wellbeing. Thirdly, the permanent interests, which are not changing for a long span of time and continued to hold unchanged, by the great powers in the world. For example, the USA's interest on Middle-East region is a permanent interest in the USA foreign policy.

During the colonial period, Britain maintained a massive navy in order to maintain security and trade, which can be taken as a permanent interest. Variable interests are the interests that are maintained to safeguard the nation from the changes happening in the environment. This type of variable interests arises because of the conflicts between the individuals, public opinion, group interests and political groups (Nuechterlein, 2009). These interests are also defined as the interests that are in between primary and the secondary interests. Common interests are maintained by the nation states, when there is a problem or a special situation, in the sectors of economy, diplomatic situation or trade. Keeping power balanced among the nations is such a common interest under this category. The sixth interest explained by Nuechterlein (2009) was absolute interest. These interests are derived because of the common interests but they are different. Rising of this kind of interest is a matter of time and space. Soviet Russia maintained buffer states during the period of Cold War could be mentioned as an absolute interest.

Foreign Policy

A foreign policy is a vision of a desired outcome or set of interests in interacting with another state/actor; the strategies and ideas used in achieving these goals and the available resources at a state's disposable, in guiding its interaction with other states (Bojang, 2018). Foreign policy becomes very important in maintaining relationships with countries. Because of globalization, the interrelationships or interactions among states have increased to a very high level. Held (cited in Bojang, 2018) that the foreign policy of every state is influenced mainly by two determinants. They are named as external and internal. Further, internal determiner depicts the interests of its people while, the external factor elaborates the external factor including outside political threats such as invasions by the other countries as their political goals.

Further, Bojang (2018) points out that, the main external factors that determine the foreign policy of a state are the international system or power structure, international law, international organizations, alliances, military strength or arms race etc.

According to scholars, the internal determinant factors are culture, population, size of country and geography, economic development and natural resources, military capabilities, political system, personality and character of the leader, political parties and interest groups, pressure groups, public opinion, science and technology etc.

Among many other concepts that are used to study international relations, the concepts of "Power" and the "National Interest" are prominent. These are the two commonly used concepts by analysts for International relations. The main reason is that both of the concepts are a key to decide the country's foreign policy on other nations. The "Foreign Policy", "National Interest" and the concept of "Power" have a triangular relationship.

A foreign policy of any country is a written document showing a vision of a desired outcome or a set of interests in interacting with another state/actor; the strategies and ideas used in achieving these goals and the available resources at a state's disposable, in guiding its interaction with other states. Foreign policy plays a pivotal role in maintaining relationships with other countries in the world. Because of globalization, the interrelationships, interdependencies or interactions among sovereign states have escalated to a very high level. The foreign policy of a state is usually a result of 'coalitions of active actors and groups situated both inside and outside state boundaries. Its substance emanates from issues of both domestic and international politics, and it involves processes of bargaining and compromise involving trade-off affecting the

interests of both domestic and international groupings (Shyrokykh, 2018). So, it is very clear that foreign policy need to address two important factors namely, internal and external factors.

The DIME Model

The primary responsibility of the government is to safeguard sovereignty, its citizens, economy and the institutions. As the governments are the short-term decision-makers of the modern statehood, they are continuously involved in building their national power. Though policy makers and strategists have long understood that there are many more instruments involved in the national security policy development and implementation, the tool DIME, which denotes diplomacy, information, military and the economic elements are very popular among the analysts in the world (FAS, 2022).

RESEARCH METHODOLOGY

This research falls into the category of an applied research and also comes under the qualitative category. Secondary data was analyzed using qualitative content analysis. After collecting the journal articles related to key words of Russia-Ukraine conflict, encirclement of Russia, geography, geo-economics, geo-politics, national interests and security concerns, the researcher studied Russia-Ukraine conflict on global and regional point of view, and finally derived the possible strategic reasons behind aggression on Ukraine. Finally, the model DIME used as main tool to give to understand de-motives for Russian national power and to understand motives behind the current aggression against Ukraine.

Conceptualization

The research discusses Russia aggression based on its security, economy, social, cultural and strategic perspectives in order to understand this situation in a more effective manner.
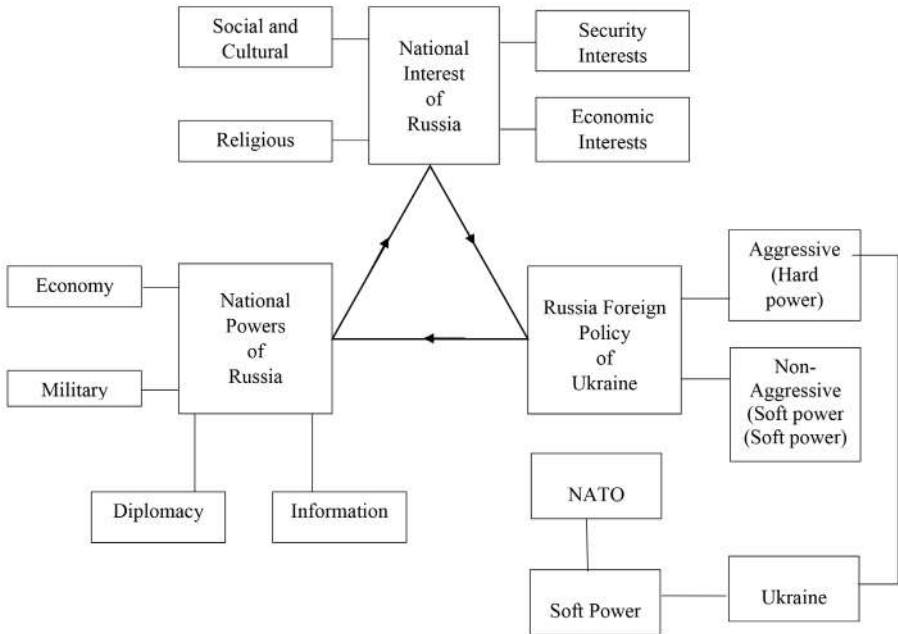

Figure: 02 – Conceptualization

ANALYSIS

With the collapse of the USSR in the early 1990's, the anarchic international system generated a deep insecurity for the Russian identity, despite its great geo-political standing, that had provided its existence for many centuries in the past. However, later Russia became a member and conducted various cooperative activities with NATO, including joint military exercises, until 2014, when NATO formally suspended its ties. The motives behind the current Russian strategic moves are analyzed by using Diplomatic, Information, Military and Economic (DIME) factors in relation to its current war and its background setting.

The Diplomatic Array and the Foreign Policy

In the part of Ukraine, seemingly they have developed its foreign policy under the influence of both East and the West. Shyrokykh (2018), mentioned that the European Union (EU) and to a lesser extent, the North Atlantic Treaty Organization (NATO) influenced Ukraine mostly through the soft power of attraction, positive conditionality, financial assistance and capacity building while Russia has attempted to shape Ukraine's foreign policy choices by using hard power, negative externalities and coercion through capitalizing on existing energy and trade interdependencies. Shyrokykh further mentions that, just after independence, foreign policy was aligned towards west during the Leonid Kravchuk's presidency (1991–1994). It may be due to weakening of Russia's power as a super power, domestic pressure for freedom and aspiration to integrate with rich western countries with a view of developing better relations in order to upgrade the living conditions of the nation.

During Leonid Kuchma's period as a president featured pro-Russian rhetoric and the emergence of a multi-vector vision of foreign policy. After the orange revolution in 2004, Viktor Yushchenko came to power and went back to the original vision of pursuing integration into political, economic and military organizations and alliances, both transatlantic and regional. Later, Ukraine's foreign policy reverted to Kuchma's Multi-vectorism (Niemeyer et al., 2022). A lot of political changes happened during the first few years in his presidency including dismissing his cabinet in 2006, failure in parliamentary election in 2006 and 2007, and dissolving the parliament in 2008 etc. Victor Yanukovych became the president in 2010 after a close battle with Tymoshenko supported by most of western Ukraine. He was able to gain greater executive authority later in 2010 when the Constitutional Court overturned the 2006 reform that had enhanced the powers of the prime minister. Then, following a fractious parliamentary debate, Ukraine agreed to extend Russia's lease of the port at Sevastopol, originally set to expire in 2017, until 2042 with an agreement in receiving Russian natural gas on subsidiary price. Next, they expressed the greater concerns towards Russia by officially abandoning its goal of joining NATO (Jha et al., 2022).

In the parliamentary election in October 2012, Azarov elected as the Prime Minister and formed a government with the support of Communist and independent deputies. In late 2013, President Yanukovychwas under pressure from his supporters in Moscow, scrapped plans to formalize a closer economic relationship with the EU and was pressured to join the not-yet-formed Eurasian Economic Union. Many Ukrainians perceived Yanukovych's decision as a betrayal by a deeply corrupt and incompetent government, and it ignited country-wide protests known as Euromaidan which resulted inchanging the Ukraine government after a mass scale protests (Ding, 2022).

The arrival of Petro Poroshenko to power in 2014, Ukraine shifted back to the policy of EU and NATO integration (Shyrokykh, 2018) and under amid strenuous Russian objections, Poroshenko signed the long-delayed association agreement with the EU, pledging closer ties with Europe. Therefore, it is very clear that the foreign policy of Ukraine is wavered and shifted from Russia to EU time to time. On the other hand, Frye cited in Shyrokykh, (2018) that the foreign policy preferences of candidates became important in gaining power, rather than their native language or ethnicity. So the foreign policy preferences of presidential applicant seem to be crucial not only for the choice of international cooperation partners but also shaping domestic political landscape. So, Russia seems to maintain some control through elected presidents of Ukraine who had closer relations with them until 2014. But signing the agreement with the EU pledging closer ties with amid objections of Russia by the president Poroshenko seems to minimize as much as possible.

Finally, the foreign policy of Ukraine has developed as a natural response to the contextual factors in the presence of strong externalities positive from the West and negative from Russia and shaped by both cost-benefit calculations and normative concerns (Jha et al., 2022). The EU has not only been seen as a crucial actor that hastens transition. Ukraine's European choice and its European political identity were equally instrumental in determining pro-European foreign policy

for Ukraine. Sincerely or strategically used, Europeanisation has become an integral part of the political debate and identity of Ukraine (Shyrokykh, 2018).

Information Array

Information plays a growing role and a responsibility in the international security system, which is common for Russia's national security as well. Dan Kuehl of the National Defence University, defined the Information Warfare as the "conflict or struggle between two or more groups in the information environment" (Stupples, 2015). The states in the 21st century progressively started launching non-lethal attacks, manipulation of information, targeting physical, logical and social layers against an enemy's information systems have given impetus to information warfare.
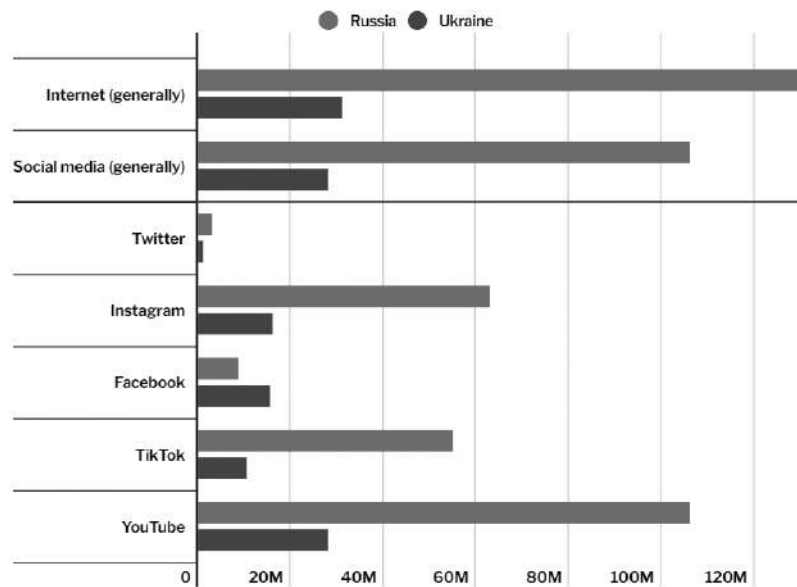

Figure 3 - The use of social media during the Pre-War Era, by Russia and Ukraine
(Source: Christian Perez, Senior Policy & Quantitative Analyst with FP Analytics, and Anjana Nair, Policy Fellow with FP Analytics 2022.)

The Russian information warfare had started even before the invasion of Crimea and Eastern part of the Ukraine by the Russians. The above bar graph shows how the two countries had involved in the information warfare and the dominance of Russia in it. Maj General Evan Vorovyev and col(R) Valerykiselyov", (cited in Jaitner 2015) explains, "Information is now a species of weapon". Further, Jaitner reveals that the information warfare in Eastern Ukraine and Crimea by Russia was highly successful and identified that conventional cyber-attacks against Ukraine by Russia were negligible. But the attacks which based social media and narrative-focused that includes information,have been common. Meanwhile, the above source explains that, Russia considered the cyber as a subordinate to information security which allows national security planners to oversee both technical (the inferiority of password files) data and cognitive (political information) data. There, they have defined and protected the borders of Russia's information space which is highlighted in Russian doctrines strategies and activities both at home and abroad including Ukraine. Here, Russia seems to protect the Russian ideology, citizens in abroad, values, and also is strengthening their national borders through effective use of information warfare.

The Array of Geo-strategic and Military

The Historical Setting

Professor SergiiIaromenko from Odessa National Economic University, Ukraine pointed out that three different postulates for the idea of Greater Russia. The historical basis of Russia's aggression against Ukraine can begin in the 14th and 16th centuries which Muscovy considers as a collector of lands of the former Kievan Rus, and the endless expansion of Muscovy continued throughout its history even in the USSR which provided for the formation of a vertical system - the main khan, to which

all taxes and incomes of the neighbourhood, the complete dependence of vassals (Buhlai and Piskizhova, 2021).

Another postulate of Great Russia is based on Christianization of the outskirts of Kievan Rus, which had a significant impact on the assimilation of the Finno-Ugric people and the spread of Church Slavonic, and later Russian. After the 17th century it was intensified and forcibly transferred to the omophorion of the Orthodox Church with its center in Moscow in promoting an idea of Greater Russia, the triune people, the election of the tsar and the assimilation of Belarusian and Ukrainian lands (Plokhy, 2006).

The third postulate of Great Russia was transformed into the idea of the Third Rome, which must regain its power, the borders of Kievan Rus and the greatness of the "Russian" people. It continues to be seen as the idea of a special path, a triune people and a common history, a single church.

Yorulmaz (2021) stated that Russia has still tried to preserve its great power eminence and sovereign statehood in military power and armed intervention understanding and usage, and Russia justifies its absorption of Crimea and armed intervention in Ukraine as the must of great power eminence and sovereign-statehood.

Krotov (2021) pointed out that Russia began to get back on its feet showing early aspirations of returning to great power status as evidenced by systematically retooling and bolstering its instruments of national power (diplomacy, information, military or economic) since early 2000's.

Ellman, (2022) stated that the quest for recognition as a great power has been both the result of Russia's geographic expansion and its driver and stated that Geographic expansion

emphasizes the center of Russia's claims to recognition as a great power.

Yorulmaz (2021) stated in order to offset the dangers or threats, Russia has employed its armed forces and tried to increase its military capacity as it believes that great power eminence and sovereignty depend on military tools only. Further, he stated that Putin's Russia has maintained to perceive the Balkans as its hinterland & backyard and tried to take part in the region in the context of its great power eminence and sovereign statehood.

Figure 4 - Ukraine
(Source - WorldAtlas.com)

Figure 5 - Geography of Russia and Ukraine
(Source - WorldAtlas.com)

The Geography

The Carpathian Mountain runs from Slovakia, west of Ukraine and Romania. If it is crossed, no mountain range existed within Ukraine territory. Then, the Crimean Mountains exist in the extreme south along the coast (figure 4).

Apart from Ural Mountains, from Ukraine up to Cherskiy range coupled with the other mountains, the territory is almost a topographically plain structure. From Carpathian Mountains up to stand over mountains, the territory is more or less plain structure with low altitude with minimal obstructions to those who travel (see figure 5). It means those who entered to Ukraine may proceed to the majority of Russian territory without a huge problem. According to the Rim Land and Heartland theory, Ukraine seems to be the rimland of Russia heartland. When an enemy seizes the power in Rimland, Heartland will automatically be destabilized. As a result, the trend of foreign policy of Ukraine is pivotal for the stability and security of Russia.

Cecire (2014) noted that Russia considered the Jutting Black Sea peninsula as a one of the most important places for them because it has a major Russian naval base, the anchorage for Russian Black Sea fleet and some 15,000 Russian military personnel. Furthermore, Crimea has a largely pro-Russia population, only a tiny distance across the Strait of Kerch from Russia, it's defensible with little more than a choke point connecting it to the Ukrainian mainland, and easily supplied by pre existing supply routes for the naval base. Soviet leader Nikita Khrushchev transferred Crimea from Russia to

Ukraine in 1954 to strengthen the "brotherly ties between the Ukrainian and Russian people." However, since the fall of the union, many Russian nationalists in both Russia and Crimea longed for a return of the peninsula. The city of Sevastopol is home port for Russia's Black Sea Fleet, the dominant maritime force in the region. So, Russia's perception seems to create security and protection for their naval base, Russian black sea fleet through the acquisition of Crimea at the time of Ukraine moving closure to West.

In the 1990s, major industrial production was concentrated in the hands of a few influential business groups especially in Ukrainian heavy industry-major ferrous metal industry in Donets. Since it is greatly influenced by energy consumption, it was heavily dependent on energy imports from Russia and its low energy prices. In fact, it leads them to be in favour of maintaining an interest to preserve the status quo and tighter cooperation with Russia (Shyrokykh, 2018). Russian diaspora, approximately eight million ethnic Russians were living in Ukraine as of 2001, mostly in the south and east of Ukraine in which Moscow claimed a duty to protect these people as a pretext for its actions in Crimea and the Donbas in 2014 (Lakhera, 2022). So, this situation seems to create favourable platform for Russia to gain support from general public in this area in carrying out their propaganda.

Annexation of Crimea

Before 2014, the Crimean Peninsula was officially a part of Ukraine but Crimea had its own parliament and government with power over agriculture, tourism and public infrastructure (Li, 2016). Further, he pointed out that the majority of Crimea's population is made up of ethnic Russians with a minority population of Ukrainians and Crimean Tatar. In the "Budapest Memorandum" signed by Russia, Ukraine, the UK, and the United States in 1994, the UK, Russia, and the United States essentially consecrated the sovereignty and territorial integrity of Ukraine as an independent state (UNO, n.d.). In fact, Russia and these western countries accepted that Ukraine is an independent country. As a result, neither a threat nor a force in any means intricate against its territorial integrity is to be accepted. However, it was violated by Russia by using force to invade and annex Crimea in 2014 without permission from the Ukrainian government.

As a result of escalating protests of Ukrainians in 2013 against pro-Russian president, Viktor Yanukovych, who decided to suspend the signing of the Ukraine-European Union Association Agreement, he was ousted from power by pro-EU protesters in Kievin 2014. It seemed that it would negatively affect Russia in two ways either by losing their power in Ukraine with ousting Yanukovych from the power and becoming Ukraine more favourable to EU with the possibility of signing Ukraine-European Union Association Agreement. In fact, it annoyed the Russian President Vladimir Putin and he decided to send Russian armed forces to take control over Crimea from Ukraine pointing the protection of ethnic Russian in Crimea and then immediately authorities in Crimea with the help of Russia hastily. Russia organized an independence referendum in which 97% voters needed to be a part of Russia (Li, 2016). Christie (cited in Li, 2016), the independence referendum, the annexation of Crimea, and its subsequent incorporation into the Russian Federation. This caused serious tension between Russia and Ukraine and the West. Further, Russia argued that the discourse contrasts the Ukrainian-speaking Pro-European west and the Pro-Russian east as two historical and cultural entities, informed by conflicting memories and aggressive identities that have little chance of coexisting as a united country.

Russia argued that the political development in Ukraine is a Western-backed "fascist coup" that endangered the ethnic Russian majority in Crimea and ordered a covert invasion of Crimea that was later justified as a rescue operation, saying "There is a limit to everything and with Ukraine, our western partners have crossed the line" (Masters, 2022). It encouraged pro-Russian protesters became increasingly assertive in Crimea, surrounded the airports in Simferopol and Sevastopol, occupied the Crimean parliament building, raised a Russian flag, dismissed the sitting government and installed Sergey Aksyonov, the leader of the Russian Unity Party, as a new Crimea's prime minister. Later, the Crimean parliament voted to secede from Ukraine and joined the Russian Federation with a public referendum on March 16, 2014.

However, the Kremlin regards the former Soviet Union as its legitimate sphere of interest and assumes the right to define the region's security and political situation while determining its political and economic orientation (Torbakov, Tolstrup cited in Shyrokykh, 2018). In a statement by president Putin says that Western nations are constantly trying to sweep Russia into a corner. But,there is a limit to everything, and our Western partners are acting irresponsibly and unprofessionally. This clearly illustrates his perception about acts of western countries (Shyrokykh, 2018). For the Kremlin, exercising control over its post-Soviet neighbours is a vital political, economic and symbolic objective. The current Putin regime seeks to boost its domestic legitimacy by asserting Russian dominance in the region (Sestanovich cited in Shyrokykh, 2018).After the Soviet Union collapsed, many Russian politicians viewed the divorce with Ukraine as a mistake of history and a threat to Russia's standing as a great power. Losing a permanent hold on Ukraine, and letting it fall into the Western orbit, would be seen by many as a major blow to Russia's international prestige.

President Putin has repeatedly stated that Russians and Ukrainians are one group of people and has referred to Ukraine as a 'complex state formation', implying that, ultimately, it does not have to be seen as a properly sovereign state. Subsequently, Kyiv's steps to further integrate with Western-led organizations are perceived by both Russian political elites and wider population as a betrayal. As a result, Russia's unwillingness to accept an independent political Ukrainian identity has produced Europe's worst crisis since World War II (Shyrokykh, 2018). Professor SergiiIaromenko from Odessa National Economic University, explained, Ukraine had repeatedly mentioned that the Kremlin Government does not view Ukraine as an equal, independent state and even at the 2008 NATO Bucharest Summit. In the eyes of the Kremlin, Ukraine is a province that has rebelled against the center and it is time to pacify it. So it may be the main reason to use public humiliation and coercion in other former Soviet republics and provinces of the Russian Empire (Tempest, 2022).

Encirclement of Russia

When Germany surrendered on 7 May 1945, the Soviet Red Army occupied much of Eastern Europe including Poland, Czechoslovakia, Hungary, Austria, Romania, Bulgaria, and roughly one third of Germany which made Western European nations nervous and suspicious about potential Soviet designs for a military invasion of Western Europe. Responding to this perceived threat, on 04 March 1948, Great Britain, France, Belgium, the Netherlands and Luxembourg met in Brussels to consider the development of a mutual assistance pact designed for the military and political protection of its members. The result of this meeting was the signing of the Brussels Treaty (Christiansen, 2001).

According to declassified U.S. Soviet, German, British and French documents posted

by the National Security Archive at George Washington University, Gorbachev and other Soviet officials received a repetitive promise of no inch eastward NATO expansion by Western leaders during many discussions in the process of German unification conducted in 1990s. It is noted that the rapprochement of Russia with the West and integration of East European states into Western economic institutions were accepted even by hard liners in Moscow in the early 1990s (Maitra, 2021). Savranskaya and Blanton in 2018 noted that both Mikhail Gorbachev and Boris Yeltsin were under the impression that there would not be any actual movement of hardware and infrastructure towards East. According to Kozyrev, the declassified documents from U.S. and Russian archives also showed that U.S. officials led Russian President Boris Yeltsin to believe in 1993 that the Partnership for Peace was the alternative to NATO expansion, rather than a precursor to it. But, he further mentioned that KGB-associated veteran, Evgeny Primakov, the chief of the foreign intelligence service told Yeltsin that Clinton deceived him to get NATO approval and that was a trick to draw East Europeans into NATO, leaving Russia in the cold. So, it is evident that Moscow government comprised of both positive and negative opinions towards NATO actions (Berls, 2021).

Kozyrev noted that Yeltsin felt offended and betrayed with the NATO's approval of interest in a simple formula in December 1994. The Partnership of Peace "sets in motion a process that leads to the enlargement of NATO." He was also enraged by Clinton's recurring failures to consult, in fact a "courtesy call" would do in advance of the U.S. bombings of Bosnian Serbs under NATO auspices. So, Russia felt it as a second-rate partner consideration from US and NATO, which leads a gradual increase in disparity among them. It allows hard-liners to gain some sort of control in Moscow by perverting democratic and market reforms at the end of 1994 with the suspicion of top-level politicians including even reformists towards NATO (Kozyrev,). Russia continued to strongly oppose NATO when they stopped Serbian cruelties in Kosovo in 1999 shortly after admitting Poland, Hungary and the Czech Republic as new members (Kyrychenko, 2020). As a result of the disintegration of the Soviet Union in 1991 altering the nature of European politics, as Europe's premier military organization, the North Atlantic Treaty Organization (NATO) was interested in extending its sphere of influence in the region by inviting some Central and Eastern European states to join the Atlantic Alliance (Christiansen, 2001).

Kozin (2014) noted that ever since the collapse of the Soviet Union, the alliance's attempts to establish a political relationship with Moscow on very selective basis and to a very limited extent. It was applicable even to military and conducted small exercises in search-and-rescue operations at sea, counter-terrorism and piracy, and exchanging signals between ships with an exchange of military delegations. Further, he pointed out that Washington has invited Moscow for consultations on missile defense (but not for negotiations) and fail to reach any agreement even after 12 years. Further, he emphasized by analyzing the US position outlined in these meetings, as well as American statements on missile defense that US was never motivated to reach mutual acceptable and practical agreement. So, it is clear that both Russia and US were suspicious about each other even at the end of World War II and later it seems to be gradually escalated. Jang (2022) point out that the period of great-power rivalry is not over because major powers still fear each other in the contemporary world. Kozyrev (n.d.) pointing out the statement of the President of Czechoslovakia, Vaclav Havel made in 1992 in Moscow, on his wish to join NATO in order to experience full-scale western democracy seems to be the main reason of general public too. That seems to be

the driving force behind the desire of joining NATO by former USSR countries. But, Hill and Gaddy cited that Putin has mainly highlighted Russia's own values as patriotism, collectivism, solidarity and the belief that Russia is destined always to be a great power exerting its influence abroad. So, it seems to be the main element for Russia's security as per their belief, the great power eminence, sovereignty and economic

progression. Furthermore, he stated that the understanding of sovereignty and democracy of the West and Russia are quite different and the West focuses on promoting liberalism, democracy and civil society, while Russia has prioritized the 'state' by ignoring society, individuals or social forces. So, it proves that values of these two cultures seem to be different and pivotal in understanding influence of Russia on Ukraine.

Figure - 6
(Source - oneworld.press)

Kozin (2014) stated that the American missile-defense system deployed in Romania and Poland, as well as in the seas and oceans bordering Russia, is directed against Russia, its strategic and tactical nuclear forces. Further, he showed that belief of America's military and political leaders, was to intercept Russian nuclear missile by the Pentagon's attack weapons.

Acton (2015) pointed out that the danger on Russia of deploying such weapons on the Russian perimeter is rapid attachment of American and NATO anti-ballistic weapons to their nuclear and conventional weapons.

Furthermore, Kozin (2014) showed that the alliance's military machine is at the doorstep of Russia, sharp changes in the behaviours of Baltic countries before and after joining alliance, the sharp rise in anti-Russian sentiment cultivated by leaders of these countries made worries for safety and security of Russia. At the same time, four major problems of NATO expansion to Russia are a disastrous defeat for Russian diplomacy, reduction of Russian influence in international affairs, a defeat for Moscow's policy in engagement with the West, and a defeat of Moscow's policies towards near abroad and Eastern Europe (Christiansen,2001).

Furthermore, Cecire (2014) noted that by seizing Crimea, Moscow seems to issue a red alarm to Western Ukraine which already predisposed towards the West. But Russia can influence Ukraine even without deploying its military forces, Russia already possessed a rich array of options for destabilizing Ukraine by proper manipulating of Ukrainian depends on Russia for energy, trade etc. or through their local pro-Russian compatriots.

Maitra (2021) noted Moscow was quite agnostic about NATO enlargement in parts of central Europe and former Warsaw pact countries and did display aggression only when Russia's direct strategic interests were perceived to be threatened, such as Russian military supply chains in Eastern Ukraine, a naval port in Crimea, and defensible terrain and established bases in Georgia.

Figure - 7
(Source: NATO)

Figure - 8
(Source: NATO, IISS)

The Economic Dimension

Professor SergiiIaromenko from Odessa National Economic University, Ukraine mentioned that most of Russia is not suitable for growing agricultural products while Russia sees Ukraine, Kyiv as an opportunity to fill shortfalls to ensure its own food security because Russia suffers from Western restrictions and sanctions (Shahini et al., 2022). It reveals that Ukraine is very important in maintaining food security of Russia in forefront of Western sanctions. Professor SergiiIaromenko from Odessa National Economic University, Ukraine pointed out that Ukraine's economic potential is primarily of interest not to natural resources, although Ukraine ranks second in the world in terms of manganese ore reserves but with the enterprises of the military-industrial complex located in Donbass, Lugansk, exported to the Russian Urals, creation of naval complex including port Odessa and with two ports (South, Black Sea). It becomes a key concern since Russia does not have a profitable port on the Black Sea. So that's why Russians showed the interest and attempted to partially buy it back.

Professor Laromenko further mentioned that the Ukrainian economy is energy intensive and needs significant natural gas resources for ferrous metallurgy. With the unavailability of oil and the absence of having long-term oil supply projects (the Middle East and South Caucasus) not only because of the complexity of oil delivery logistics, but also due to the pressure from Russian authorities to halt energy diversification, Ukraine has only to depend on oil and gas supplies on Russia. Russia has relied on Ukrainian pipelines to pump its gas to customers in Central and Eastern Europe for decades, and it pays billions of dollars per year in transit fees to Kyiv. The flow of Russian gas through Ukraine continued in early 2022 despite the outbreak of wider hostilities between the two countries. Russia had planned to transport more gas to Europe via its new Nord Stream 2 pipeline, which runs under the Baltic Sea to Germany, but Berlin froze regulatory approval of the project after Russia's invasion. (Masters, 2022)

CONCLUSION

In geographical senses, historical, cultural, economic, trade and even security concerns of Ukrain-Russsia relations depict the story of its inseparable nature. The great geographers, historians explained Russia as a heartland, a great fortress and the Russians and Ukrainians consider themselves as aliened to their land with great patriotic beliefs. Historical reports prove that Ukraine was invaded many times since 1st millennium BCE. In the 20th century, it was captured and ruled by Russia, and became one of the most important states in the Union of Soviet Socialist Republics (USSR) at the latter stage. The collapse of the USSR due to weakening of the main country, Russia politically, economically and militarily, created Ukraine an independent country in 1990s. Since then, elected governments of Ukraine from time to time showed greater differences in their foreign policy towards Russia or the West. In the meantime, NATO enlargement was taking place opposing Russia's interests. Seeing Ukraine's interest of joining NATO, Russia took an aggressive military action ofthe annexation of Crimea in 2014 followed by a referendum by stating that it needs to look after ethnic Russian people in that area. The conflict between these two countries came to a climax in 2022, when Russia took aggressive military means against Ukraine creating the largest refugee problem in Europe since the World War II. It is reported that Russia spends some $15-20bn per month while Ukraine spends $10bn a month on the war.

Geo-strategic location of Ukraine is really an important factor not only in physical security means, but also in food security,

trade security, information security, cultural security and ideological security. Rather than considering Russia and Ukraine separately, both countries have gained more recognition and existence in the current global order. Ukraine can be considered as the door-step of Russia and the change in Ukraine foreign policy (favouring west)could have created greater risks and instability in Russia. Currently, the unread geographical relations have misled and distracted the relations between the two countries currently. On the other hand, Russia's perception as NATO's eastward movement created greater security dilemmas on Russia. In addition to Russian government's perception of moving Ukraine away from Russia and trying to get closer to West, the current Russia's USSR mentality and Russia's belief of themselves as a great power,the eminence towards Russia, seems to play a greater role in taking aggressive military means over Ukraine. The traditions of ancient empires (collecting taxes), religious traditions (Slavon Church), the idea of third Rome (becoming a world power), Russian ethnicity, Securing of trade routes, Securing of Russia's legitimate sphere of influence and Russia feeling of second rate partner among the European countries are the major reasons for Russians to make counter reactions on Ukraine.

REFERENCES

Acton, J. (2015). Russia and Strategic Conventional Weapons. *The Nonproliferation Review, 22*. 141-154. doi:10.1080/10736700.2015.1105434.

Ali, A., Ali, T., and Sultan, H. (2020). SINO-RUSSIA NEXUS AND NEW COLD WAR IN EURASIA. *Pakistan Journal of Humanities and Social Sciences Research, 3*. 01-12. doi:10.37605/pjhssr.3.1.2.

BBC. (2022). *Ukraine Country Profile*. Retrieved from https://www.bbc.com/news/world-europe-18018002

Berls, R. E. (2021). *The Roots of Russian Conduct*. Retrieved from https://www.nti.org/analysis/articles/special-report-the-roots-of-russian-conduct-test/

Bojang, A. S. (2018). The Study of Foreign Policy in International Relations. *Journal of Political Sciences & Public Affairs. 06*. doi:10.4172/2332-0761.1000337.

Buhlai, N., and Piskizhova, V. (2021). The Federation of Greek communities of Ukraine: History of formation and activity. Scientific Papers of the Kamianets-Podilskyi National Ivan Ohiienko University. *History. 18*. 254-274. doi:10.32626/2309-2254.2021-34.259-274.

Business Today. (2022). *Are Ukraine's vast natural resources a real reason behind Russia's invasion*? Retrieved from https://www.businesstoday.in/latest/world/story/are-ukraines-vast-natural-resources-a-real-reason-behind-russias-invasion-323894-2022-02-25

Cecire, M. (2014). *The Russian invasion of Ukraine*. Retrieved from file:///G:/research%20articles%20for%20SLMA%20and%20DA/articles%20for%20research%20article%20DA/encirclement%20russia/cecire_crimea.pdf

Christiansen, J. W. (2001). "*NATO expansion: Benefits and on sequences*". Retrieved from https://scholarworks.umt.edu/etd/8802

Ding, Y. (2022). The Implications of Russia-Ukraine Conflict for Geo-Economics Development. *Economic Problems and Legal Practice. 18*. 230-237. doi:10.33693/2541-8025-2022-18-4-230-237.

Ellman, M. (2022). Russia as a great power: from 1815 to the present day Part II. *Journal of Institutional Economics. 1*-16. doi:10.1017/S1744137422000388.

FAS. (2022). Strategy: Directing the Instruments of National Power. Retrieved from https://fas.org/blogs/secrecy/2018/04/strategy-jcs/

Jang, W. (2022). Great Power Rivalry and Hedging. *The Chinese Journal of International Politics, 15*. 395-421. doi:10.1093/cjip/poac021.

Jha, A., Bhatt, N., Dixit, A., Kumar, U., and Choudhary, L. (2022). Role of Religion and Politics in War Between Russia and Ukraine: A Study. *International Journal of Early Childhood Special Education*. 2022. doi:10.9756/INT-JECSE/V14I4.156.

Kozin, V. (2014). *NATO Constitutes a Threat to Russia's Security. Countering NATO Propaganda on Russia, center for research on globalization*. Retrieved from https://www.globalresearch.ca/nato-constitutes-a-threat-to-russias-security-countering-nato-propaganda-on-russia/5428290

Kozyrev, A. (n.d.). *Russia and NATO Enlargement: An Insider's Account*. Retrieved from https://transatlanticrelations.org/wp-content/uploads/2019/04/19-Kozyrev.pdf

Krotov, P. (2021). Russia of PeterI: Gaining Great Power Status. *MGIMO Review of International Relations. 14*. 30-48. doi:10.24833/2071-8160-2021-6-81-30-48.

Kyrychenko, B. (2020). HOW THE WEST WON: Post-Cold War negotiations on NATO enlargement. *Global Affairs Review, 1*. doi:10.51330/gar.0020114.

Lakhera, P. (2022). A Quest for hegemony or glory: Ukraine as a battle ground between U.S.A and Russia. *Research Review International Journal of Multidisciplinary. 7*. 156-164. doi:10.31305/rrijm.2022.v07.i07.023.

Li, Y. (2016). Crimean crisis and military balance in Asia. *Contemporary Chinese Political Economy and Strategic Relations. 2*. 239-271.

Liu, Z. (2014). *Concept of National Interest*. Retrieved from https://www.worldscientific.com/doi/10.1142/9781938134395_0003

Maitra, S. (2021). NATO Enlargement, Russia, and Balance of Threat. *SSRN Electronic Journal, 21*(3), 35-46. doi:10.2139/ssrn.3887828.

Masters, J. (2022). *Ukraine: Conflict at the Crossroads of Europe and Russia*. Retrieved from https://www.cfr.org/backgrounder/ukraine-conflict-crossroads-europe-and-russia

Niemeyer, K., Goad, R., and Lough, J. (2022). *History of the Ukraine*. Retrieved from https://www.researchgate.net/publication/360335506_History_of_the_Ukraine. doi:10.13140/RG.2.2.21261.61926.

Nuechterlein, D. E. (2009). National interests and foreign policy: A conceptual framework for analysis and decision-making. Cambridge University Press.

Office of the Historians. (n.d.). *North Atlantic Treaty Organization (NATO)*. Retrieved from https://history.state.gov/milestones/1945-1952/nato

Plokhy, S. (2006). *The Origins of the Slavic Nations: Premodern Identities in Russia, Ukraine, and Belarus*. 1-367. doi:10.1017/CBO9780511496837.

Shahini, E., Skuraj, E., Sallaku, F., and Shahini, S. (2022). The Supply Shock in Organic Fertilizers for Agriculture Caused by the Effect of Russia-Ukraine War. *Scientific Horizons, 25*. 97-103. doi:10.48077/scihor.25(2).2022.97-103.

Shyrokykh, K. (2018). The Evolution of the Foreign Policy of Ukraine: External Actors and Domestic Factors. *Europe Asia Studies. 70*. 832-850. doi:10.1080/09668136.2018.1479734.

Stuppless, D. (2015). *What is information warfare?* Retrieved https://www.weforum.org/agenda/2015/12/what-is-information-warfare/#:~:text=Dan%20Kuehl%20of%20the%20National,fancier%20way%20of%20describing%20hacking. from

Tempest, M. (2022). *How NATO's Bucharest summit came back to bite in Ukraine*. Retrieved from https://euobserver.com/opinion/154452

The Conversation. (2022). *Ukraine got a signed commitment in 1994 to ensure its security – but can the US and allies stop Putin's aggression now?* Retrieved from https://theconversation.com/ukraine-got-a-signed-commitment-in-1994-to-ensure-its-security-but-can-the-us-and-allies-stop-putins-aggression-now-173481

UNO. (n.d.). *Budapest Memorandum*. Retrieved from https://treaties.un.org/Pages/showDetails.aspx?objid=0800000280401fbb

Yorulmaz, M. (2021). The Effects of Russia's Great Power Eminence and Sovereign State Perception on the Balkans, *Manisa Celal Bayar University Journal of Social Sciences*, doi:10.18026/cbayarsos.958578

CREEPER: THE FIRST INDIGENOUSLY DEVELOPED HAND-HELD DIGITAL MOBILE RADIO (DMR) IN SRI LANKA

R M G C Navarathne[1a], S R R Peiris[2b], R A M H Ranasinghe[2c]

[1]Captain, Electrical & Electronics Engineering Department (North), Sri Lanka Navy
[2]Research Officers, Centre for Defence Research and Development - Ministry of Defence, Sri Lanka
[a]geethnavarath*ne@gmail.com*
[b]*raji.oshin@gmail.com*
[c]*mudithahranasinghe@gmail.com*

ABSTRACT

Communication plays a crucial role in the context of military operations. The Revolution of Hand-Held radio from Analogue to Digital Technology reached up to many advanced radios with the application of Modern Technology. A famous means of communication utilized in modern military warfare is Digital Mobile Radio (DMR). However, due to high cost of DMRs, it cannot be easily catered to suit various requirements. This paper aims at discussing the first Hand-Held DMR designed and developed for the Sri Lanka Military named the Creeper (The unique bird who can sing vast frequency bands). Creeper aims to reduce the capital cost investment on expensive DMR and provide flexibility for future improvements. The Creeper DMR is checked against existing DMRs such as Racal Cougar, tested on the field, and made many improvements. A Voice Coder (Vocoder) is used to meet the VHF frequency bands designed and then further developed to work on both VHF and UHF bands. The test results were satisfactory in the field and are currently the same is being used by Tri-services in Sri Lanka. Creeper has successfully provided a cost-effective solution and would stand out as a possible future foreign market.

KEYWORDS: *Creeper, Digital Mobile Radio, Military communication, UHF, VHF, Vocoder.*

INTRODUCTION

Early communication was mainly based on smoke, hand gestures and signal flags, which then evolved to communication via Morse code and Telegraph. However, these modes of communication were constrained by different terrain features and distance constraints. With the advent of military warfare, communication tactics had a drastic transformation from communication by means of animals to radios ("War Communication during WWI," n.d.). World War II, which took place from 1914 to 1918, played a major role in developing military communication. The Motorola SCR-300 was the original walkie-talkie radio used by the Army Signal Corps, which allowed real-time communication on the battlefield despite the harsh terrain (The History of Radio, 2022).

Also, with the development of digital signal processing techniques, a more robust set of radios replaced the old bulky analogue-based radios with digital technology. These Digital Mobile Radios (DMR) are a system that sends digital signals to small devices called radios (DMR Radio Facts and Figures: A Look at the Current State of DMR Radio. - Newshunt360, 2021). It was standardized under the European Telecommunications Standards Institute (ETSI) Standard TS 102 361 parts 1-4, which is later commercialized for worldwide use (About ETSI, 2013).

Digital Mobile Radios (DMRs) have become a popular candidate in enabling efficient communications, especially in military communication. DMRs, in general, provide both Digital and Analogue mode compatibility. Also, they are embedded with noise cancellation and secure measures to overcome eavesdropping and spoofing attacks (DMR Radios - Digital Mobile Radios | Hytera, 2022). These features of the DMR are the facilitating advantages for the popularity of DMR. However, the main disadvantage of DMR includes the inability to radio build quality over the whole spectrum.

The Sri Lanka Army, Navy, Air Force and Police use various types of radio transceivers in order to achieve their daily operations. The most common type of currently used radio set for this purpose is the infamous Racal Cougar Net System (COUGARNET, 2021). However, these radio transceivers are very expensive and no substitutes are available. Also, it requires a considerable capital cost. Centre for Defence Research and Development (CDRD) initiated a project of designing DMRs as a solution to this issue which was an opportunity and a challenge. This paper mainly focuses on providing a viable and robust solution, which has already been tested and successfully deployed on the field by initiating the first hand-held Digital Radio Set for Sri Lankan Military named Creeper. The product was released in three different versions and improved based on previous feedbacks and timely requirements. The first version of the Creeper DMR (V1.1) was only capable of communicating in the VHF frequency band. In the second version (V1.2), UHF frequency band was included along with Global Positioning System (GPS) for navigation. The latest of third version (V1.3) has IP67 standards in order to adhere to Ingress Protection Regulations.

Figure 1 - Logo of the "Creeper"

The research project is aimed to fulfil the following research objectives:

1. Locally produced, operationally viable and economically advantageous DMR for military services.

2. Addressing custom requirements tailored as per the services of operation.

The paper is structured as follows; Literature review section briefly describes the similar work that has been undertaken previously. The Methodology section discusses the design and development procedures as proposed. The results and discussion section presents the results and further improvements. Finally, the conclusion section sums up the paper.

LITERATURE REVIEW

Speak easy is a software-based digital mobile radio initiated to emulate more than five military radios (Upmal, 1995). The designed radio, however, supports mostly outdated Frequency Division Multiple Access (FDMA) communication scheme, which imposes severe

downsides when compared to modern DMR. Modern military communication methods are envisioned (Viswanathan, 1993), where Quadrature Phase Shift Keying (QPSK) digital modulation schemes and trends. Very Large-Scale Integration (VLSI) technologies are expected to boom in military communication via Digital Mobile Radios. Viswanathan mainly has focused on cellular-based radios, which impose conventional implications as in conventional cellular networks. Various solutions, such as utilizing Long-Term Evolution (LTE) which offers eNodeB Radio Access Network (RAN) to provide Time Division Multiple Access (TDMA) to provide a communication channel for DMR in congested regions, are evaluated (Qaddus, 2016).

Also, significant research has been conducted on the feasibility of existing Digital Audio Radio Services (DARS) for military applications (Hale & Ballinger, 2002), which are extremely expensive and cannot be deployed in the context of Sri Lanka. A narrowband communication radio was developed, which supports both UHF and VHF frequency bands, with 2.4kHz bandwidth which cannot achieve the required voice quality in the context of military applications (Boucher, Jolly, Lodge, & Dery, 1990). Moreover, this proposed tactical radio didn't have DMR capabilities.

According to the literature review, it is evident that no progress has been made on developing a hand-held DMR counterfeit for Sri Lankan military applications. Therefore, the initiated Creeper DMR by CDRD is the first hand-held DMR to be developed and customized for Sri Lankan military applications.

METHODOLOGY

This section discusses the methodology followed in developing the solution. Since 2015, many research officers have attended to the development of Hand-Held radio, the project initially focused on three aspects of designing. The project's initial stage aimed to produce Voltage Control Oscillator (VCO) with a phase lock loop to produce the required frequency range of interest. Then, the design of the Direct Digital Synthesis (DDS) based transceiver was to be developed to generate an analogue waveform, usually a sine waveform, by generating a time-varying signal in digital form and then performing a digital-to-analogue conversion.

In the first stage, CDRD developed a handset only with a UHF frequency band radio set and tested the prototype. However, further enhancements were proposed due to its bulky nature, the long antenna design, and less efficient battery life. Secondly, CDRD developed a VHF radio set using the Racal Cougar Net System.

In the second design phase, the battery was replaced by a Ni-Cd battery, however, considerable battery life was not obtained. Moreover, the radio communication range was limited to 1km.

However, due to lack of technical feasibility and limitations, the proposed methodology has reformed, and a different approach was implemented. As the final step, a Digital Signal Processing (DSP) based programmable transceiver (RDA1846S) was developed. This can be programmed according to various operational requirements. This methodology was employed in the design phase of the initial circuit design of the proposed DMR. To design the concept as shown in figure-2. the modulation and demodulation standard intercom dedicated chip named as HR_C5000 family used to interface with trans-receiver to process communication smoothly. This chip is a product of Hong Rui independent research and development in China. This is in line with standard digital intercom dedicated chip. The same is used for 4FSK modulation and demodulation technology, 12.5K

channel using 2-slot TDMA communication mechanism to achieve 2 way digital voice and data communication transmission, support full-duplex, half-duplex communication.
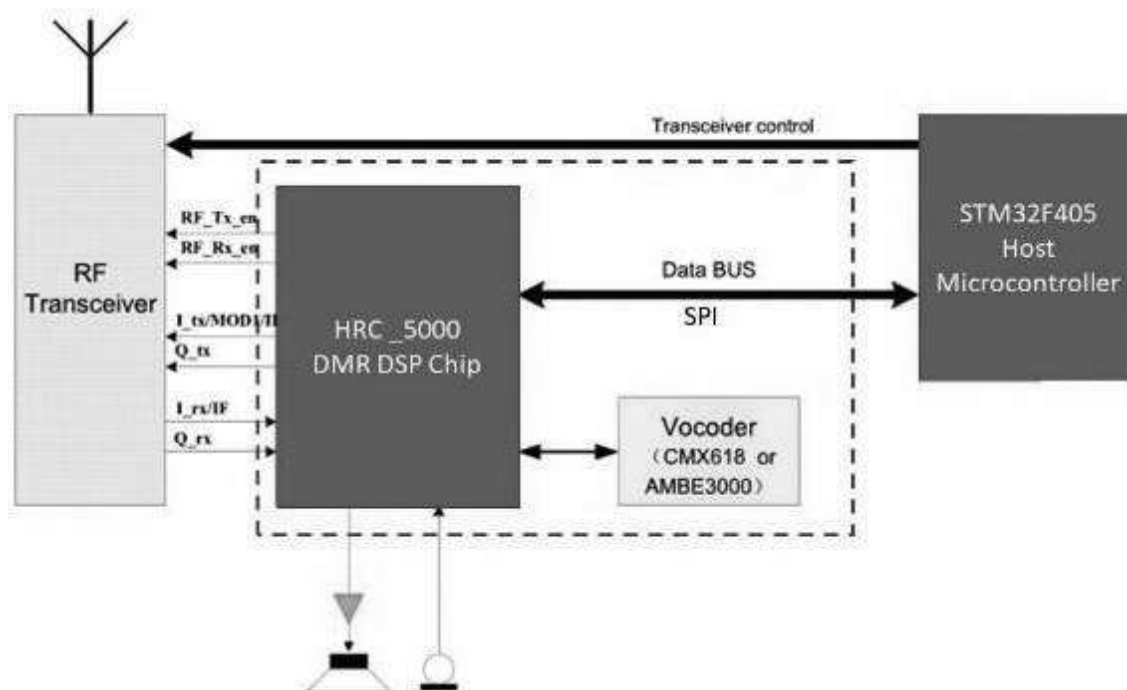
Figure 2 - The block diagram of
the main concept

HR_C5000 chip design with the physical layer, data link layer and call controller. Also, application of this chips is digital intercom handsets, private cluster terminals, low-speed data, voice transmission terminal applications support for trunk and end-to-end use. Chip used C-Bus and McBSP interface seamless docking of vocoder chips such as CMX638 (Consumer Microcircuits Limited) or AMBE3000 (Digital Voice Systems, Inc.). The Creeper DMR has used AMBE3000 Vocoder and same type Vocoder used by Motorola. Hence, the Creeper is satisfying the Motorola communication standard Tire I and Tier II. Also, it has used standard Serial Peripheral Interface (SPI) for flexible selection of vocoder, support for encrypted voice, data interface, digital voice recording, playback, display connections and a tone input providing difference interface with the use of Microcontroller STM32F405.

Chip built-in high-performance as shown in figure 3, dual-channel AD / DA unit to support baseband In-phase Quadrature (IQ) inputs which can be configured to IF IQ, this can be configured to IF, two Point modulation and other RF interfaces to provide independent IQ bias voltage adjustable design. In IQ modulation, it can set a standard Analog walkie-talkie processing unit to support 12.5KHz / 25KHz channel communication. The power supply of 3.3VDC to the chip is supporting built-in power management module in order to achieve low-power usage and long battery life.
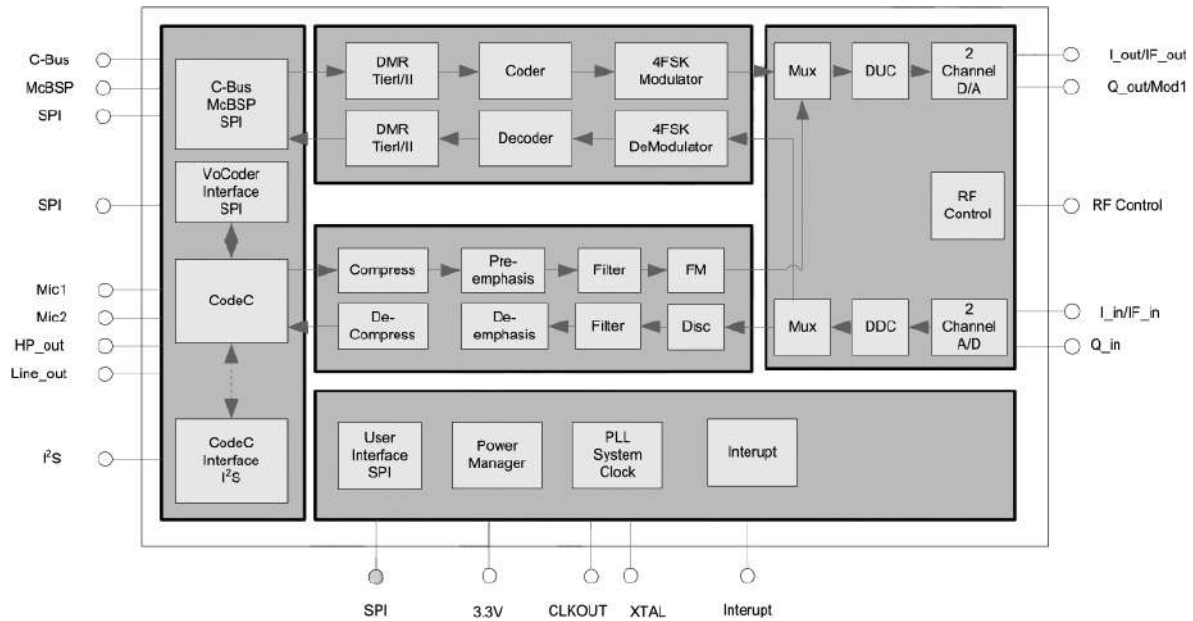
Figure 3. The block diagram of main hardware

With this the initial technical knowledge and experience, CDRD Radio and Electronics Wing was able to design indigenous Creeper DMR Set for the first time in Sri Lanka. This was developed in three different versions with the customization with difference end users from Tri-servicers. A summary of the version-wise features is listed in Table 1.

Table 1 - Version wise features of Creeper DMR

Version	Chip Used	VHF Band	UHF Band	GPS Facility	IP67 Standard
V1.1	HR_C 5000	√	-	-	-
V1.2	HR_C 6000	√	√	√	-
V1.3	HR_C 7000	√	√	√	√

For the Creeper, 2000mAh Li-Ion battery was used. Also, two types of Antennas named whip antennas were designed, as shown in Figure 4. The extended Antenna is capable of operating in long range, whereas the short

Antenna is capable of operating in short ranges. During range testing it was found that range differed from 2 to 3 Km when using both Antennas.
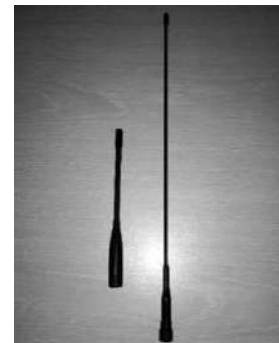
Figure 4 - Two types of whip Antennas

Major difficulties were encountered in designing in such complex circuit boards and enclosures. To address that various software on enclosure and circuit designing tools such as AutoCAD, MATLAB and Applied Wave Research (AWR) software were used, this software had utilized to design and finalize the two layers PCBs and enclosures. Due to lack of

technical feasibility, resources, requirements and knowledge gap on ability to design of PCBs in Sri Lanka, it was found difficult in fabricating PCBs and enclosure in Sri Lanka. Hence, a different approach was implemented. Therefore, all PCBs and enclosures sent to China for fabrication. The footprint of the circuit board is as shown in Figure 5 and Figure 6. Printed Circuit Board (PCB) design which consisted of eight layers is as shown in Figure 7:
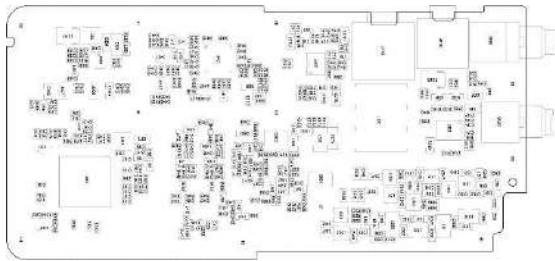
Figure 5 - Footprint - Top Layer
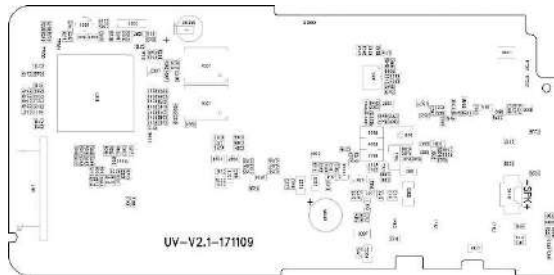
Figure 6 - Footprint - Bottom Layer
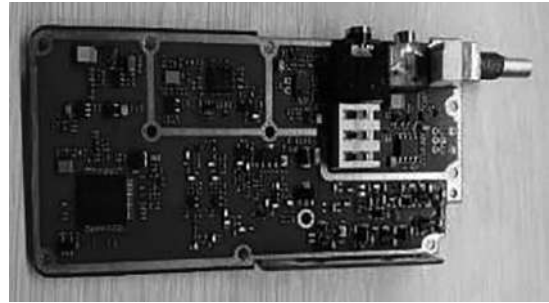
Figure 7 - Final PCB Design

Moreover, to the requirement, the initial battery charger pack was custom-made to enable two charging slots to reduce the charging time and enhance the product efficiency as depicted in Figure 8.

Figure 8 - Two-way battery charger for Creeper DMR

The Creeper DMR chip HR_C5000 by default has a programmable and user-friendly software. The same has been designed, modified and customized according to the requirement mainly focusing on military use. The main window of the software is as shown in Figure 9:
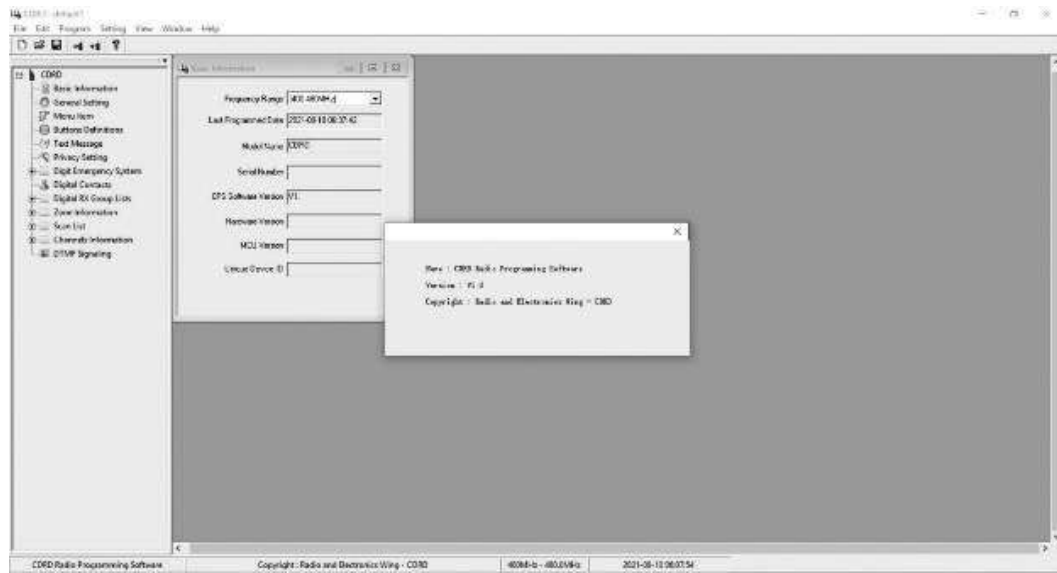
Figure 9 - Software Main Window

The same software can be used to read or write necessary information to the radio. Moreover, it is capable of altering general settings of the radio such as Radio Name, Radio ID, Power ON Password, Alert ON and PC Programming Password. Also, the Channel settings include the settings such as Channel Mode (Analogue/Digital), Channel Name, Channel Bandwidth, RX / TX Frequency and Power Output (1W / 5W).

RESULTS AND DISCUSSION

This section describes the product specifications and briefly discusses its significance. Then, results are tested on field testing to validate the operational and functional features of the DMR in the field.

The product is based on main communication chip of HR_C5000/HR_C6000 (Miklor, 2017). The Creeper V 1.2 and V 1.3 are operated in both VHF and UHF frequency bands. The VHF band frequency is 136 - 174 MHz and UHF frequency is from 400 - 480 MHz. These radios use technology on either Frequency-Division Multiple Access (FDMA)

or Time-Division Multiple Access (TDMA) technologies. The final product, the third version of 'CREEPER' is as shown in Figure 10:

Figure 10 - The CREEPER

The Creeper uses TDMA as the digital function. TDMA is a less power-consuming scheme when compared to FDMA, which consumes power. Moreover, the FDMA scheme can be used only in the places where the number of channels is less and FDMA cannot have a high transmission speed. In contrast, TDMA in an environment of small multipath delay TDMA can achieve high transmission speed. Also, the spread spectrum technique has been able to

increase the number of transmission channels using the TDMA scheme (Jiang, 1987).

For the basic encryption, the DMR is built with software-based encryption. Software-based encryption is vital in ensuring unauthorized eavesdropping. However, the launch of signaling and user identification is unencrypted. Further, security is guaranteed by using Dual Tone Multi-Frequency (DTMF) function, which allows operating the radio when there is interference in the radio system.

Main features of DMR are listed below:

1. Frequency Band VHF 136 MHz – 174 MHz
2. 1000 Programmable Channels
3. 250 Programmable Zones
4. Voice Operated Exchange (VOX)
5. Digital Coded Squelch (CTCSS / DCS)
6. High / Low Power Modes
7. Wide / Narrow Bandwidth

Technical specifications of the developed DMR are listed below:

1. Frequency Range: VHF channels: 136 - 174 MHz
UHF channels: 400 - 480 MHz
2. Channel Spacing: 12.5 kHz
3. Operating Voltage: 7.4 V
4. Operating Temperature: +5 º C to +40 ºC
5. Audio Output Power: ≤1000mW @ 16 Ω
6. Dimension: 131 x 61 x 36 (mm)
7. Weight: 258g
8. Output Power: ≤5W (HIGH) / ≤ 1W (LOW)
9. Vocoder Type: AMBE+2TM
x. Spurious Radiation: Antenna: 9 kHz – 1 GHz ≤-57 dBm / 1 GHz – 12.75 GHz ≤ - 47 dBm

Further, functional and operational details are given in the own created user Manual with the product for reference. The main parts of the Creeper DMR are shown in Figure 11:

Figure 11 - Main Parts of the Creeper DMR

The performance of the DMR is first predicted on the basis of the specification given in details during research phase and it was tested by the CDRD with available resources. Range testing has been carried out in difference terrain in various weather conditions. Table 2 summarizes the maximum distance achieved in different terrains:

Table 2 - Maximum distance achieved in different terrains

Terrain	Distance
Flat Ground with no many obstructions (LOS)	10-12 km
Urban/Jungle Area	4-5 km
Inside multi-storied buildings	Upto 20 floors

(Source: Survey Data)

However, on several field tests, the DMR underperformed the specifications provided as expected. According to the Sri Lanka Navy field test (DGL, SLN HQ letter DGL.560/C/

SD/1/2021 dated 12 August 2021), suggestions were made to adhere to Ingress Protection (IP Ratings) and GPS facility to help navigation. These were then considered and included in the latest versions of the DMR. Especially for Sri Lankan Navy, IP67 was included in the latest version to adhere for the Ingress Protection Rating, where it is totally protected from dust and from immersion between 15cm and 1m for 30 minutes (IP Ratings Explained | IP Rating Chart - Rainford Solutions, 2014).

After the modifications of all end user requirements, the CDRD finally succeeded to deliver 200 numbers of Creeper DMR V 1.3 to the Sri Lanka Navy. During the second field test conducted by the Sri Lanka Navy, (SLN HQ letter CWL/05/05 dated 21 February 2022), each and every parameter of the Creeper DMR was tested and from the given data, the following test results were observed for the analysis:
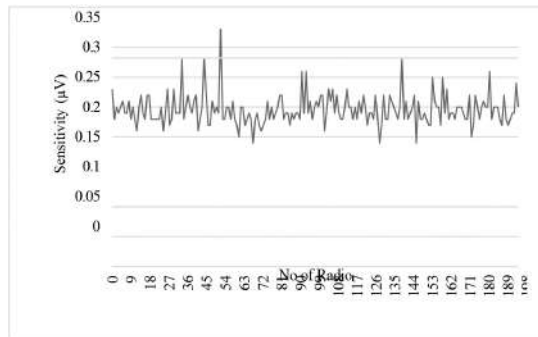
Figure 12 - Sensitivity of radios
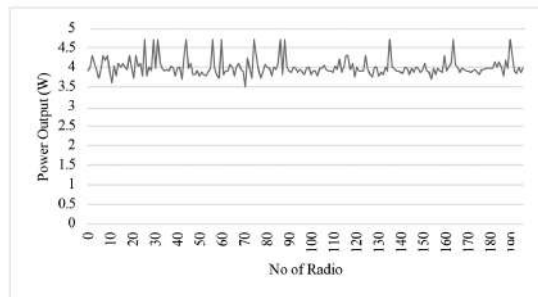
Figure 13. Power output of radios
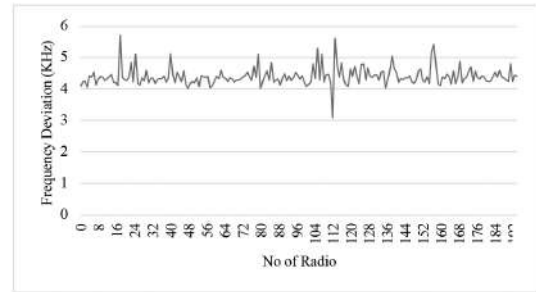
Figure 14. Frequency deviation of radios
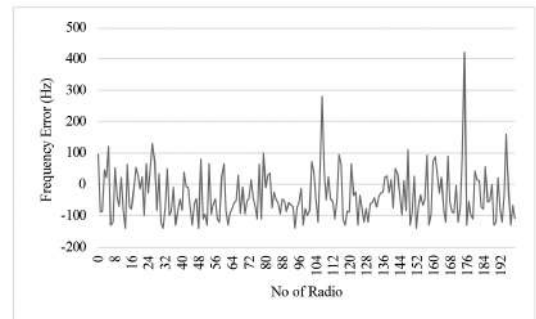
Figure 15. Frequency error of radios

According to the data obtained from the test results from the Sri Lanka Navy field test, the above graphs are plotted. Figure 12 shows the voltage sensitivity of the Creeper. In general, as per naval standards, any given hand-held communication set receiver sensitivity can be read as less than 0.25 μv. In the plot in Figure 12, 07 of the radios have exceeded the aforesaid value. Then, only 3.5% radio voltage sensitivity has given some high values. This can be neglected when communication process is done in Digital mode.

The output power of the Creeper is shown in Figure 13. As per specifications of the radio, power output is 5W. However, the result shows that output varies approximately from 3.8W to 4.8W. This result shows that there is a slight deviation in the expected results from the final product. However, during the range test in different fields, it was found that all radios are working in a satisfactory manner. Moreover, this kind of deficiencies will be taken in the future for upgraded Creeper versions.

Figure 14 shows the frequency deviation while Figure 15 shows the frequency error of Creeper. According to the plotted graph's results of No 09 radios showed that ±1 KHz deviation in frequency and only No 02 radios have been given some frequency error (more than 200 Hz). That indicates 5.5% radios only have some frequency issues and all other radios work satisfactorily. When considering the average of working satisfaction, the percentage of Creeper is 95.5%.

From the test result and feedback obtained from the end users, the following pros and cons have been identified. Some pros are as follows and the deficiencies to be addressed properly in future:

1.   Audio Volume and Quality: Good response for low frequencies even in the noisiest environments.

2.   Rugged Construction: IP67 compliant and thus waterproof for 30 min. submerged in up to 1m of water.

3.   Multi-colored LCD Display: Having a multi-colored LCD display on the radio allows for easy use and programming while moving.

4.   Front Panel Programming: This radio is capable of being programmed via the keypad, allowing users to make limited changes without a PC.

5.   Antenna Connector: The Antenna connector for this radio uses a SMA connection which allows it to be easily connected to an external Antenna.

Some cons are as follows:

1.   Software Polish: There are a number of oddities/complexities within the firmware of the radio that impacts overall users' experience.

2.   Bluetooth Capability: This radio has no Bluetooth capability, therefore, the use of wireless audio accessories is not possible.

By considering the commercial availability of the different type of Dakota Alert, Icom, Motorola and Wouxun hand-held communication sets with creeper hand held sets comparison chart is given in following table 3:

Table 3 - The comparison chart of various H/H com sets

Items	Dakota Alert (M538HT)	Icom (V1OMR)	Motorola (RMM2050)	Wouxu n (KG- 805M)	Creeper V1.1	Creeper V1.2	Creeper V1.3
Frequency band (VHF)	✓	✓	✓	✓	✓	✓	✓
Frequency band (UHF)						✓	✓
FM Radio			✓	✓	✓	✓	✓
LCD Display	✓			✓	✓	✓	✓
Adjustable Squelch		✓		✓	✓	✓	✓
Power Save	✓	✓	✓	✓	✓	✓	✓

Selectable Power Level			Hi /Lo	Hi /Lo	Hi /Lo	Hi /Lo	Hi /Lo
PC Programmable			✓	✓	✓	✓	✓
CTCSS / DCS			✓	✓	✓	✓	✓
VOX				✓	✓	✓	✓
Text Messaging				✓	✓	✓	✓
Privet calling					✓	✓	✓
GPS facility						✓	✓
IP standard		IP 67	IP 54/55	IP 55	IP 61	IP 61	IP 67

CONCLUSION

Military communication plays a crucial role in military operations and in maintaining proper order and governance. With the advent of Digital Mobile Radios, rising popularity was gained by DMR, especially in the context of military communication. However, such commercialized DMR imposed a significant drawback in terms of capital cost, which also accounted for a considerable amount of military cost and security services. Identifying this issue, CDRD Radio and Electronics Wing initiated a robust solution which is also promisingly reasonable to address the problem by initiating the first hand-held Digital Radio Set for Sri Lankan Military named Creeper.

Creeper was initiated with the VHF frequency band, which then integrated UHF frequency band along with all other modern features such as GPS that are readily found in modern DMR. However, all these features were developed without incurring much of the capital cost that would otherwise be invested on importing comparably expensive DMR. It is also provided with a user manual along with the software to easily customize according to the end-user need.

According to field deployed tests and field operations, Creeper successfully achieved the expected outcome set by Radio and Electronics Wing of CDRD. With that, it can be concluded, that all the 200 numbers of DMRs have given excellent performance according to the specifications of the Creeper with some minor deficiencies. By obtaining these radios by Tri-servicers, it could save Millions of rupees flowing to other countries and saving foreign reserves in the country.

In future work, considering all minor deficiencies the CDRD is ready to produce upgraded Creeper DMR version 1.4, incorporating the Sri Lankan Army 1:50,000 map feature as expected. Also, it is expected to incorporate the Creeper in disaster management operations and developed further.

In the present scenario, the following numbers of DMR Hand-Held Sets are used in Tri-servicers and they work satisfactorily with good performance. Very recently, due to the good performance of the same some numbers of radios have already, been dispatched to be used by peacekeeping force in Mali to enhance the communication capabilities.

1. Sri Lanka Army   - 110 Nos
2. Sri Lanka Navy   - 210 Nos
3. Sri Lanka Air Force   - 10 Nos
4. VIP duties   - 20 Nos

REFERENCES

About ETSI. (2013). Retrieved from http://portal.etsi.org/portal/server.pt/community/ERM/306?tbId=624

Boucher, L., Jolly, Y., Lodge, J. H., & Dery, S. (1990). A narrowband tactical radio for the VHF and UHF frequency bands. In *Proceedings - IEEE Military Communications Conference, 3*. Retrieved from https://doi.org/10.1109/milcom.1990.117613

Cougarnet. (2021). Retrieved from https://radiohistory.uk/cougarnet.htm

DMR Radio Facts and Figures: A Look at the Current State of DMR Radio. - Newshunt360. (2021). Retrieved from https://newshunt360.com/dmr-radio-facts-and-figures-a-look- at-the-current-state-of-dmr-radio/

DMR Radios - Digital Mobile Radios | Hytera. (2022). Retrieved from https://www.hytera.com/en-products/digital-radio/dmr-two-way-radios/

Hale, A., & Ballinger, D. (2002). Military applications for Digital Audio Radio Service (DARS). *IEEE Aerospace Conference Proceedings, 3.* Retrieved from https://doi.org/10.1109/AERO.2002.1035232

IP Ratings Explained | IP Rating Chart - Rainford Solutions. (2014). Retrieved from https://rainfordsolutions.com/products/ingress-protection-ip-rated-enclosures/ip-enclosure-ratings-standards-explained/

Jiang, T. (1987). COMPARISON BETWEEN THE THREE MOBILE DIGITAL COMMUNICATION SYSTEMS. *IEEE Vehicular Technology Conference*, 359–362. Retrieved from https://doi.org/10.1109/VTC.1987.1623570

Qaddus, A. (2016). Real Time Performance Analysis of Digital Mobile Radio (DMR) and APCO Project 25 (P-25) Radio Systems in Land Mobile Radio (LMR) Systems. *International Journal of Computer Engineering and Information Technology, 8*(3), 49–55. Retrieved from www.ijceit.org

The History of Radio. (2022). Retrieved from https://armedforcesentertainment.com/news/afe-presents-a-celebration-of-radio-history/

Miklor. (2017). Retrieved from https://www.miklor.com/MD380/

Upmal, D. W. (1995). Speakeasy: The Military Software Radio: The Speakeasy Phase II radio will use programmable processing to emulate more than 15 existing military radios. Speakeasy is a challenge, even with recent advancements in DSP technologies. The benefits, however, make the challenge highly worthwhile. *IEEE Communications Magazine, 33*(5), 56–61. Retrieved from https://doi.org/10.1109/35.392998

Viswanathan, M. S. (1993). Tactical Military Communication Networks of the Future. *Defence Science Journal, 43*(1), 71–78. Retrieved from War Communication during WWI. (n.d.). Retrieved July 13, 2022.

පුරාතන ශ්‍රී ලංකාවේ බලකොටු, සහ ඒවායේ ආරක්ෂක විධි විධාන පිළිබඳ ඓතිහාසික අධ්‍යයනයක්

Isuru Herath
Assistant Librarian, University of Peradeniya
isuruhistory@gmail.com

ABSTRACT

This study was conducted in order to examine the historical study on the ancient Sri Lankan's forts and security arrangements. According to Sri Lankan's written history there were uncountable number war affairs maintained among native enemies as well as foreign military forces. The study discuses ancient forts and security arrangements guided by the War Scientists in the Island. Some of them were fixing guard tours, protective moats, organizing keeps (fortified tours), building ramparts, crocodile guards etc. In addition to that they utilized various types of war tactics such as ambushing solitary groups, sniper attacks, poisoning enemies' wells, throwing baluster to camps etc. This study provides some information about traditional military strategies and its knowledge on the siege practices and important boundary security methods. Furthermore, it helps formulate war strategies for the 21st century military affairs for future studies.

KEYWORDS: *Guard Tours, Keeps Siege, Moats, Sniper Attacks*

හැඳින්වීම

ක්‍රි.පු යුගයේ සිටම ශ්‍රී ලාංකිකයෝ සංග්‍රාමයේ අතිදක්ෂ පළපුරුදු සෙන්පතිවරුන්ගෙන් සමන්විත යුද හමුදා පැවති අතර රට සරිලන ආකාරයේ තාක්ෂණයෙන් යුක්ත බලකොටු නිර්මාණය කළ බවට වංශකතා සහ පුරාවිද්‍යා තොරතුරු මත අනාවරණය වෙයි. තවද ඒවායේ ආරක්ෂාවට විවිධාකාර ආරක්ෂක ක්‍රමවේද අනුගමනය කළහ. ඇතැම් විට දේශපාලනික හෝ සමාජාර්ථික හේතු මත විවිධ උපක්‍රම යොදා බලකොටු අත්පත් කොට ගත්හ. සාහිත්‍ය සහ පුරාවිද්‍යාත්මක මූලාශ්‍රයවලට අනුව ලෝක ඉතිහාසයේ පැවති බලකොටු හෝ බලකොටු නගර අතර ඇමරිකා එක්සත් ජනපදයේ ටෙක්සාස් ප්‍රාන්තයේ පිහිටි ඇලමෝ (Alermo) බලකොටුව, ග්‍රීසියේ ඇතැන්ස් (Athens) බලකොටු නගරය, ඉතාලියේ රෝමය (Rome), ඉන්දියාවේ දෙවලතාබාද්, ගවාලියෝර්, රතු බලකොටුව, පාටලීපුත්‍රය, මධ්‍යම ආසියාවේ සමර්කාන්ඩ්, චීනයේ තහනම් නගරය, මැදපෙරදිග මැසඩා (Mazada) බලකොටුව සිහියට නැගෙයි. එසේම ආරම්භයේ සිට ක්‍රි.ව. 21 සියවස දක්වා ලෝකයේ බිහි වූ යුධමය වශයෙන් සන්නද්ධ බලකොටු (Fort), බලකොටු නගර (Fort city), කඳවුරු (Camps) වටලා (siege) අත්පත් කර ගැනීම සඳහා ගෝලීය සහ දේශීය ආරක්ෂක විශේෂඥවරු අනේකවිධ යුධ උපක්‍රම ක්‍රියාගත කළහ. ගුවන් හමුදා හරහා එවනු ලබන පරමාණු බෝම්බ (Atomic Bomb), බංකර් බස්ටර් (Bunker buster) වැනි විශේෂ ගගණ ප්‍රහාරක බෝම්බ මෙන්ම කාලතුවක්කු

(Artillery) යුද ටැංකි (Armoured Tank), නෞකා සහ ගොඩබිම්හි මිසයිලාගාර මගින් එවිය හැකි බැලස්ටික් මිසයිල හෙවත් අන්තර් මහද්වීපික මිසයිල (Ballestic), සෑම්ස් මිසයිල (Sams) වැනි බලකොටු එළිමහන් කඳවුරු, භූගත කඳවුරු, සන්නද්ධ නගර විශාල කොට දැමිය හැකි බලසම්පන්න විනාශකාරී යුධෝපකරණවලින් නූතන රටවල් සන්නද්ධව සිටින අතර ඒවා හරහා ඔවුහු ස්වකීය ප්‍රතිවාදීන්ට අයත් බලකොටු විනාශ කළා පමණක් නොව බියගන්වා අත්පත් කොට ගත්හ.

විශේෂයෙන්ම නැපොලියානු සංග්‍රාම, පළමු සහ දෙවන ලෝක සංග්‍රාම, වියට්නාම සංග්‍රාමය වැනි අධික ලෙස දිග්ගැසුන සංග්‍රාමවලදී හිරෝෂිමා (Hiroshima) ගුවර්නිකා (Guvarnica), ස්ටැන්ලින්ග්‍රාඩ් (Stalingrad), ඩ්‍රෙස්ඩන් (Dresden), ඩියන් බියන් ෆූ (Dian bien - fue) වැනි සන්නද්ධ බලකොටු සහ නගර වටලා අත්පත් කර ගැනීමට විරුද්ධ පාර්ශවයන් අනුගමනය කළ නවීන යුධ උපක්‍රම මෙහි දී සිහියට නැගෙයි. තව ද පුරාතනයේ සිට වර්තමානය දක්වා දීර්ඝ කාල පරිච්ඡේද තුළ ලෝකයේ පහල වූ පෞර රාජ්‍යයන්, අධිරාජ්‍යයන්, රාජධානි සහ නූතන පෙන්වාදෙන පරිදි නිශ්චිත දේශසීමාවක් තුළ දේශපාලන වශයෙන් සංවිධානය වූ ජනතාව කුඩා රාජ්‍යයන් වල ස්වාධීනත්වය සහ භෞමික අඛණ්ඩතාව කෙරෙහි දේශසීමා බලපානු ලබයි. ඇතැම් විට ආක්‍රමණ, සිවිල් යුද්ධ, සංක්‍රමණ වැනි මානුෂීය හේතු මෙන්ම භූමිකම්පා සුනාමි වැනි ස්වභාවික හේතු නිසාද රාජ්‍යයක දේශ සීමාවන් වෙනස් වුවා පමණක් නොව සම්පූර්ණ රාජ්‍ය පවා මිහිමඬලින් තුරන් විය හැකිය. බාබේරියානු ආක්‍රමණ නිසා දේශසීමා පළුදු වී රෝම අධිරාජ්‍ය විනාශ වීම මෙන්ම භූමිකම්පා සහ සුනාමි නිසා ග්‍රීක මිථ්‍යා කතාවල සඳහන් අත්ලාන්ටික් අධිරාජ්‍ය (Atlantic Empire) විනාශ වීම මේ සඳහා ගත හැකි කදිම නිදසුන් වේ. මේ නිසාම අතීතයේ මෙන්ම වර්තමානයේ දී ද ලෝකයේ බොහෝ රාජ්‍යයන් සහ අධිරාජ්‍යයන් පාලනය කළ අයවලුන් අනේකවිධ ක්‍රමවේද හරහා දේශසීමා (Border) ආරක්ෂා කිරීමට උත්සහ කළහ. ඒ අතරින් ක්‍රි.පු 256 දී මින් වංශික චීන අධිරජ දරුවන් ඉදිකළ සැතපුම් 1500 ක් දිග, උස අඩි 22 සහ ආරක්ෂක මුරපොළවලින් සමන්විත චීන මහා ප්‍රාකාරයට (great wall) හිම් වන්නේ සුවිශේෂී ස්ථානයකි (රාවෝ 2003:63). මීට අමතරව දේශසීමා ආරක්ෂා කිරීම සඳහා 100000 අධික සෙබළ අනුයුක්ත කළ රෝමන්වරු බලකොටු (Fort), කඳවුරු (Camp), සීමා මුර පොලවල්, (Out put), මුර අට්ටාල (Guard Tower) සහ දාරුමය හෝ ගල් ප්‍රකාර ඉදි කළහ. මේවායේ රාත්‍රී කාලයේ සතුරන් හඳුනා ගැනීම සඳහා ගිනි පහන්

සවිකළහ. දේශසීමාසන්න බලකොටු වල රාජකාරී කළ සෙබළ ලිමිටානියස්වරු (Limitanis) නම් වූ අතර, දේශසීමා වල මුර සංචාරය කළ සෙබළ කොමිටාටෙන්සිස් (Comtantenis) යනුවෙන් හඳුන්වන ලැබිණි (හේරත් 2016:175).

අරමුණ සහ ක්‍රමවේදය

මෙම ලිපියේ අරමුණ වන්නේ යුරෝපාග මනයට පෙර පුරාතණ ලංකාවේ ද බලකොටු, දේශසීමා ආරක්ෂක විධිවිධාන සහ ස්වකීය සතුරන්ගේ බලකොටුකරණයට එරෙහිව අනුග මනය කළ බලකොටු වැටලුම් යුද්ධ උපක්‍රම පර්යේෂණ දෘෂ්ටි කෝණයෙන් හඳනා ගැනීමය. මෙහි දී පර්යේෂණ ක්‍රමවේද වශයෙන් නිරීක්ෂණය සහ ඓතිහාසික පර්යේෂණ ක්‍රමය භාවිත කෙරිණි. මෙහි දී ප්‍රාථමික සාහිත්‍ය මූලාශ්‍රය වශයෙන් මහාවංශ රාජාවලිය උම්මග්ග ජාතකය දඹදෙණි අස්න කඳවුරු සිරිත භාවිත කරන ලදි. විශේෂත්ව නම් ද්විතීයික සාහිත්‍ය මූලාශ්‍ර වශයෙන් මෙම විෂය ක්ෂේත්‍රය පිළිබඳව දේශීය සහ විදේශීය වශයෙන් උගතුන් අල්ප වශයෙන් පර්යේෂණ කොට තිබීමය. එකී අතලොස්ස අතර සෙනරත් පරණවිතාන (පරණවිතාන, 2015), විල්හෙලම් ගයිගර් (ගයිගර්, 1969), ගැස්ටන් පෙරේරා (පෙරේරා, 2014), රිසිමන් අමරසිංහ (අමරසිංහ, 1998), ටී.ජී. කුලතුංග (කුලතුංග 1988), එල්ලාවල මේධානන්ද හිමි (මේධානන්ද, 2004) සහ එච්.ඒ.පී. අභයවර්ධන (අභයවර්ධන, 1978) යනාදීන්ගේ පර්යේෂණ වාර්තා ප්‍රයෝජනවත් වෙයි. යුරෝපාගමනයට පෙර පුරාතණ ලංකාවේ ද බලකොටු පැවති බවට සාධක අනුරාධපුරය, පොළොන්නරුව, උදුන්දොර, සීගිරිය, යාපහුව, ශ්‍රී ජයවර්ධනපුර කෝට්ටේ, මහනුවර යන ප්‍රදේශවලින් හමුවන බලකොටු නටබුන් වැනි පුරාවිද්‍යාත්මක මූලාශ්‍රයන් ප්‍රයෝජනවත් වෙයි. වංශකථාවට අනුව විජයාග මනය හා සබැඳි පුරාවෘත්තවල සීර්සවත්ප්‍රපුරය නම් ස්වදේශිකයන්ට අයත් බලකොටු නගරයක් පිළිබඳ විස්තර අන්තර්ගත වෙයි. එසේම මහාවංශයේ මහත් අහිරුවෙන් වර්ණිත දුටුගැමුණු කථා වස්තුවේ මාගම සිට මහවැලි ගඟින් උතුරට මහියංගනය, අඹතිත්ථ, සත්බෑ කෝට්ටිය, අන්තරා සොබහ, දෝණ, හාලකෝල, නාලිසොබහ, දිසාහයගල්ල ඇතුළ බලකොටු 18 ක් අල්වා ගත් බවට සඳහන් කරයි (මේධානන්ද 2002 : 50). ක්‍රි.ව. 5 - 6 සියවසේ දී ධාතුසේන රජතුමා ද දකුණු ඉන්දීය සතුරන් පරදවා දිවයින පුරා බලකොටු 21 සැකසූ බව ලක්දිව ඉතිහාසයේ සඳහන් වෙයි.

පොළොන්නරු යුගයේ පාලකවරුන් වන 1 විජයබාහු, 1 පරාක්‍රමබාහු යනාදීහු ද ස්වකීය යුද්ධ ව්‍යාපාරවලදී තාවකාලික බලකොටු ඉදිකොට තිබේ. ක්‍රි.ව. 1215 කාලිංග මාඝගේ ආක්‍රමණයට එරෙහිව ශ්‍රී ලාංකේය දේශප්‍රේමීහු ගොවින්දහෙල, මිනිප්පේ, යාපහුව සහ දඹදෙණිය කේන්ද්‍රකොට ගෙන ප්‍රබල බලකොටු තනා දිවයිනේ සෙසු ප්‍රදේශ ආරක්ෂා කළහ. ක්‍රි.ව. 15 නිශ්ශංක අලගත්කෝනාර යාපනයේ පාලකයාගේ බලපෑමෙන් ශ්‍රී ලංකාව බේරා ගැනීම සඳහා ශ්‍රී ජයවර්ධනපුර කෝට්ටේ බලකොටුව ඉදිකළේය. තවද ක්‍රි.ව. 15 - 19 පැවති මහනුවර රාජධානි සමයෙහි ගලගෙදර, ගිරිහාගම, බලන වැනි යුද්ධමය වශයෙන් වැදගත් මර්මස්ථානවල බලකොටු ඉදිකොට තිබේ.

බලකොටු ආශ්‍රිත ආරක්ෂක ක්‍රමවේද

පුරාතන ලෝකයේ පෙර අපර දෙදිග ජාතීහු බලකොටු, බලකොටු නගර, තාවකාලික කඳවුරු, සුරක්ෂිත කිරීම සඳහා විවිධාකාර ආරක්ෂක ක්‍රමෝපායන් ක්‍රියාගත කළහ. විශේෂයෙන්ම රෝමාන්වරු වඩාත් සුරක්ෂිත දරුණු වැටලීමකට (Siege) ප්‍රහාරයකට ඔරොත්තු දිය හැකි දෘඩ ගල්කුට්ටි, දැව හෝ ගඩොලින් නිම වූ බලකොටු සහ තාවකාලික කඳවුරු (Camp) ඉදිකළහ. එහි සැලැස්ම බොහෝ විට සෘජුකෝණාශ්‍රාකාර හැඩයක් ගත් අතර, තරමක උස් බිමක ගොඩනෑංවීම සිරිත විය. බලකොටු සීමාව මුමුමනින්ම වෙළුම් (Vallum) හෙවත් ප්‍රාකාරයකින් නිර්මිත වූ අතර එය ප්‍රධාන දොරටු හතරකින් සහ මුර අට්ටාල (Sentry Towers) 12 කින් සුරක්ෂිත විය. බලකොටු පවුරින් එපිට අවකාශය දිය හෝ මඩ අගලකින් (Pitch) සහ ලී උල් සහිත ලොකු කුඩා බොරු වලවල් වලින් සමන්විත විය.

පොදුවේ බලකොටු සහ බලකොටු නගරවල නේවාසිකව රාජකාරී කළ සෙබළ ලිමිටානියස්වරුන් (Limitanei) යනුවෙන් හැඳින්විය (හේරත් 2016 ; 174 - 175). පෙරදිග ලෝකයේ බලකොටු සැකසීම පිළිබඳව විමසා බැලීමේදී කෞටිල්‍ය අර්ථ ශාස්ත්‍රයෙහි පෙන්වා දෙනු කරුණු වැදගත් වෙයි. (බෂාම් 0962; 176) අර්ථ ශාස්ත්‍රයට අනුව ජනපද සීමාවන්හි සිවු දිශාවෙන් යුද්ධයකට සුදුසු, ස්වභාවික ස්ථාන වල බලකොටු ගොඩනැංවිය යුතු වන අතර, ජලයෙන් වටවුණු දූපතක ඉදිකරන බලකොටුව ඕදක වෙයි. ජලය, තෘණ ආදියෙන් තොර නිසරු ප්‍රදේශයක සකසන බලකොටු ධාන්වන වේ. ගස් කොළන් බහුල ස්ථානයක ඉදිකරන බලකොටුව වන දුර්ග වෙයි. කටු පඳුරු වලින් ගැවසුන වගුරු බිමක ඉදිකරන බලකොටුව

බඳන නම වෙයි (කෞ. අර්ථ ශාස්ත්‍රය 2003; 134 - 135). මීට අමතරව බලකොටුවක් හෝ බලකොටු නගරය මුර අට්ටාල, දිය අගල් වලින් සමන්විත විය යුතු බව කෞටිල්‍ය පෙන්වා දෙයි. ඇතැම් විට කෞටිල්‍යයට මෙම බලකොටු හා සම්බන්ධ උපදෙස් ස්වකීය කෘතියට අන්තර්ගත කිරීමේදී ඇකිමේනිඩ් පර්සියානු අධිරාජ්‍යයේ බලකොටු තැනීමේ උපදෙස් මෙන්ම අපරදිග බලකොටු ඉදිකිරීමේ ක්‍රම ශිල්පවලට ණය ගැති වෙන්නට ඇත. විශේෂයෙන්ම මෙකල කෞටිල්‍ය සිටි තක්ෂිලාව කලක් පර්සියානු අධිරාජ්‍යයට යටත්ව, පසුව තාවකාලිකව මහ ඇලෙක්සැන්ඩර්ගේ හමුදාවට යටත් වුණු එමෙන්ම ප්‍රකට කීර්තිමත් අධ්‍යාපන ආයතනවලින් සමන්විත නගරයකි. එබැවින් කෞටිල්‍ය මෙම උපදෙස් ස්වකීය ගෝලයා වන චන්ද්‍රගුප්ත මෞර්යයට ලබා දෙන්නට ඇත. එය වඩාත් තහවුරු වන්නේ බාහිර උවදුරු මැඩලා චන්ද්‍රගුප්ත ඉදිකළ පාටලි පුත් අගනුවර සැළසුම ඇකිමේනිඩ් පර්සියානු අධිරාජ්‍යයේ අගනුවර වන පර්සි පොලිස් (Persipolis) වලට සමාන වීමෙනි. මෙය ස්පුනර් කළ කැණීම් මගින් වඩාත් තහවුරු විය. විශේෂයෙන්ම මෙගස්තිනස් පෙන්වා දෙන පරිදි පාටලීපුත්‍රය දුනුවායන්ගෙන් පිරිගිය මුර අට්ටාල 570 කින් සහ ආරක්ෂිත දොරටු 64 සමන්විත, ශක්තිමත් දාරුමය ප්‍රාකාරයකින් අන්තර්ගත බලකොටු නගරයකි (බෂාම් 1962 ; 176).

මීට අමතරව ශ්‍රී ලාංකේය රජදරුවන් සහ මෞර්යය රජදරුවන් අතර පැවති දේශපාලනමය සහ සංස්කෘතික සම්බන්ධතා, පෙර අපර දෙදිග තානාපතිමය සහ වෙළඳ සම්බන්ධතා, සංක්‍රමණ, ආක්‍රමණ, තුළ හමුදා ගෙන්වීම් වැනි අනිවාර්ය ඓතිහාසික සාධක නිසා ලංකාවට බලකොටු හා ඒ ආශ්‍රිත විවිධාකාර යුධමය තාක්ෂණය ලැබෙන්නට ඇත. ඇතැම් විට එකී තාක්ෂණයන් ද එක්කාසු කරමින් සහ ස්වකීය තාක්ෂණික කුසලතා එකතු කර ගනිමින් පුරාතන ලාංකේය යුද්ධ විශේෂඥවරුන් ද බලකොටු, කඳවුරු බලකොටු නගර ඉදිකරවන්නට ඇති බවට ධනාත්මකව සිතිය හැක. ඉපැරණි අනුරාධපුර, පොළොන්නරුව, සෙංකඩගලනුවර, ශ්‍රී ජයවර්ධනපුර කෝට්ටේ යන බලකොටු (බලකොටු නගර) ජලය හා බැඳුණු බලකොටු ආරක්ෂණ විධික්‍රම භාවිතා කොට තිබේ. නිදසුන් ලෙස අනුරාධපුරය, මල්වතු නිම්න ප්‍රදේශයේ ඉදිකොට අභය වැව, බුලන්කුලම වැව, නුවර වැව සහ තිසා වැව යන කෘතිම ජල දුර්ග, නගරයට මධ්‍යගත වන සේ ඒ අවට සුරක්ෂිතව නිර්මාණය කොට තිබේ (කුලතුංග 1988 ; 151). ඇතැම් විට සතුරු උවදුරකදී වැව් කණ්ඩිය බිඳ දමා සතුරන්ට විනාශ කොට හෝ කොටු කොට බලකොටු නගරය සුරක්ෂිත වන සේ

අනුරාධපුරය අවට මෙම ජල දුර්ග මාර්ග නිම කරන්නට ඇත. පොලොන්නරුව තොපා වැවට සම්බන්ධ කොට තිබේ. ශ්‍රී ජයවර්ධනපුර කෝට්ටේ බලකොටුව දියවන්නා ඔයෙන් සහ වගුරු බිම් කඩකින් වටවී තිබේ. සෙංකඩගල නුවර (මහනුවර) මහවැලි ගඟෙන් සහ නුවර වැවෙන් සුරක්ෂිත වී ඇත. බලකොටු නගරයක් කවාකාර සතරැස් හෝ සෘජුකෝණාස්‍රාකාරව ඉදිකළ යුතු බවත්, සෑම පැත්තකින්ම එක් දණ්ඩක (දණ්ඩ යනු අඩි 6 කි) අන්තරය සහිත වූද, දණ්ඩ 14, 12 සහ 10 අතර පළලින් යුතු දිය අගල් තුනක් ඉදිකළ යුතුය. එහි ගැඹුර බවෙන් අර්ධයක් විය යුතුය. අගලේ දෙපැත්ත ගලින් හෝ ගඩොලින් සකසා වර්ෂය පුරා දිය අගලට ජලය ලැබෙන සේ නිමවා කිඹුලන් ඇති කළ යුතුය. දිය අගල් වල අඩි 24 ඇතුළතින් අඩි 36 ක් පමණ උසැති, එමෙන්ම පළල උස මෙන් දෙගුණයක් සනකමින් යුතු ගල් ප්‍රාකාරයක් ඉදිකළ යුතුය. ගවයින් සහ අලින් ලවා පාගවා ප්‍රාකාර පදනම ශක්තිමත් කොට විෂ කටු ගස් විශේෂ පැළ කළ යුතුය (කෞ. අර්ථ ශාස්ත්‍රය 2003 ; 134 - 135). ප්‍රධාන ප්‍රාකාරයට පසුව නියමිත දුර ප්‍රමාණයෙන් පළල මෙන් දෙගුණයක් පමණ උසින්වු අවශේෂ ප්‍රාකාර දෙකක් ගඩොලින් බැඳ අගල කටුවැලි සහ ජලයෙන් පිරවිය යුතුය (කුලතුංග 1988 ; 152). යනුවෙන් කෞටිල්‍ය උපදෙස් රාශියක් ලබා දුන්න ද, බොහෝ කරුණු ගතානුගතික බව විල්හෙල්ම ගයිගර් පෙන්වා දෙයි (ගයිගර් 1969 ; 72). කෞටිල්‍යගේ කරුණු වල ප්‍රායෝගිකභාවය කෙසේ වෙතත් ලාංකිකයන්ද බලකොටුව අවට ප්‍රාකාර සහ දියඅගල් තැන වූ බවට සාධක අනුරාධපුර, පොලොන්නරුව, සීගිරිය, යාපහුව, පඬුවස් නුවර බලකොටු සහ බලකොටු නගර පරීක්ෂා කිරීමේ දී පෙනී යයි (අමරසිංහ 2005 ; 29). විශේෂයෙන්ම කුටකණ්ණතිස්ස රජතුමා සත්රියන් උස ප්‍රාකාරයක් සහ අගලක් අනුරාධපුර වටා ඉදිකළ අතර ක්‍රි.ව 1 සියවසේදී වසභ රජතුමා පෙර සඳහන් කළ අගනුවර ප්‍රාකාරය රියන් 11 දක්වා උස් කොට සකසා දොරටු සතරෙහි මුරගෙවල් සතරක් නිර්මාණය කළ බව මහාවංශය පෙන්වා දෙයි (දේවේන්ද්‍ර 1970 ; 155). මෙම ප්‍රාකාරය සැතපුම් 3/4 x 3/4 දිගින් යුක්තය. රූපවංශයට අනුව එය උතුරේ සිට දකුණට පැවති දුරම පෙරදිගටත් බටහිරටත් වූ බවට සඳහන් වෙයි. (රූපවංශය 1959 ; පිටු 17) සීගිරි බලකොටුව ප්‍රාකාර තුනකින් සහ දිය අගල් දෙකකින් සමන්විතය. විශේෂයෙන් පිටත ප්‍රාකාරය මැටියෙන්ද මධ්‍ය ප්‍රාකාරය ගඩොලින් ද ඇතුළු ප්‍රාකාරය ගල්, ගඩොල් සහ මැටියෙන් ශක්තිමත් කර තිබේ (අමරසිංහ 2005 ; 29).

පළමුවන විජයබාහු, පළමුවන පරාක්‍රමබාහු යන රජදරුවන් ද පොලොන්නරු බලකොටු නගරය වටා ප්‍රාකාර තුනක් සහ දිය අගලක් නිර්මාණය කොට තිබේ (කුලතුංග 1988 ; 155). විශේෂයෙන්ම පොලොන්නරුව රාජ, සිංහ, හස්ති, ඉන්දු, හනුමන්ත, කුවේර, චණ්ඩි, රාක්‍ෂස, සර්ප, ජල, උදාන, මායා, මහාතිත්ථ, සහ ගාන්ධර්ව යනුවෙන් දොරටු 14 තිබූ බව පෙනේ. මෙම දොරටු ඉහලින් ඇති තොරණේ දොරටු කැඩීමට එන සතුරු ඇතුන් සහ සතුරන් මර්ධනයට කැකුරු ලෝහ ගුලි සහ කකාලැණ ලෝහ මැලියම් වක් කළ හැකි ස්ථාන තිබූ බව වංශකථා වල සඳහන් විජිතපුර සටනින් මොනවට පැහැදිලි වෙයි. එය මෙසේය.

"ඒ නුවර වනාහී පරිඛාතුයක්ද උස් වූ ද පවුරු තොරනය. ලොහොකම් කළ දොරය (යන මෙයින්) සතුරන් විසින් බිඳ හෙළිය හැක්කේ නොවේ. ඒ ඇත් තෙමේ දෙදෙනින් හිඳ දෙදෙලින් ගල් සුණු ගඩොල් බිඳ යඬදොර පැමිණියේය. තොරණ හුන් දෙමළ අනෙක ප්‍රකාර ආයුධයන් ද කකියා ගිය ලොහෝ ගුලි ද එ සේම කකාල මැලියම් ද දැමුය. පිටලු ලහටු දුමන කළ කඩොලාත් තෙමේ දුවමින්, වේදනාවෙන් මිරිකුණේ උදක ස්ථානයට ගොස් එහි ගිලිණි ... (මහාවංශ 25 පරි ; ගාථා ; 28 - 31).

ගෝපුර යනුවෙන්ද හැඳින්වෙන්නේ පෙර සඳහන් කළ දොරටුවට ඉහලින් සකසන ලද ආරක්ෂක නිවස්න විශේෂයකි (කුලතුංග 1988 ; 160). දිය අගල, ප්‍රාකාර සහ ගෝපුරවලට අමතරව අට්ටාල යනු බලකොටුවේ කොටු බැම්මේ දොරටුව සහ ප්‍රාකාරය තීරණාත්මක හෝ හදිසි අවස්ථාවල ආරක්ෂා කර ගැනීමේ දී සෙබළුන්ට ගැවසීම සඳහා නිමවා ඇති ඉදිරියට ගිය මැස්සක් වැනි කොටසක් බව පෙනේ. කොට්ඨක යනු ප්‍රාකාරය හෝ දොරටුව විනාශ කිරීමට පැමිණෙන සතුරාට සැඟව සිට ප්‍රතිප්‍රහාර දීමට අට්ටාලයකට වඩා ප්‍රාකාරයේම ගොඩනංවන ආරක්ෂක කාමර විශේෂයකි. පළමුවන පරක්‍රමබාහු රජුගේ සෙනවියන් දකුණු ඉන්දියාව ආක්‍රමණය කළ සමයේ දී කුන්දුකාල් ප්‍රදේශයේ සකසන ලද බලකොටුව දැඩ ගලින් කළ පවුරු තුනකින් ද දොරටු 12 ක් සහ මධ්‍යයේ චතුස් ශාලාවකින්ද සමන්විත විය. මීට අමතරව තොරණ යනු බලකොටුවට ඉහලින් සකසා තිබෙන ආරැක්කු විශේෂයක් බවත් කඩොල් ඇතු දොරටුවට පහරදුන් විට තොරණේ කොටස් ඇතු මතට කඩා වැටීමෙන් පෙන්නුම් වෙයි (කුලතුංග 188 ; 161).

සාමාන්‍යයෙන් බලකොටු නගරයක් ඇතුළ නුවර සහ පිටත නුවර යනුවෙන් කොටස් දෙකකට බෙදනු ලැබිණ. පාලකවරු, වෙනත් ප්‍රභූවරු, භික්ෂු කොටස් පූජනීය වස්තු වල වාසස්ථාන ඇතුළ නුවර ස්ථාපිත වූ අතර පිටත නුවර රෝහල, ධාන්‍යාගාර, බැරැක්ක, අශ්ව හෝ ඇත් ගාල, කම්මල, හෝජන ශාලා, ස්ථාපිතව පැවති බව අනුරාධපුර, සීගිරිය, සහ යාපහුව බලකොටු නිරීක්ෂණය කිරීමෙන් පැහැදිලි වෙයි. භූගෝලීය පදනමක් පැවතියද මහනුවර යුගයේ ද ගිරිහගම, ගලෙගෙදර, සහ බලන බලකොටු බැලුමගල්වල හෝ බැලුමගල් වලට ආසන්න උස්බිම් වල නිමවා තිබිණි. ගිරිහගම බලකොටුව චතුරාශ්‍රාකාර ඉදිරිපසින් සහ පසු පසින් දොරටු නිමවා තිබිණි. මහනුවර යුගයේ කපොළු ආශ්‍රිතව උස්බිම් වල හෝ බැලුමගල් වල කුඩා බලකොටු නිර්මාණය කරන්නට ඇත්තේ, ඈත සිටම සතුරා හඳුනාගෙන ගිනි දැල්වා අනතුරු සංඥා දී, පසුව ගරිල්ලා ප්‍රහාර දීම සඳහා විය යුතුය (හේරත්, 2016 : 60). එය වඩාත් තහවුරු වන්නේ ක්‍රි.ව. 1761 උඩරටියන් සතුව පැවති ගිරිහගම බලකොටුව අත්අඩංගුවට ගත් හේබර් නම් ලන්දේසි සෙබලෙකුගේ පහත දැක්වෙන ප්‍රකාශයකිනි.

> ''මෙම ස්ථානය ආරක්ෂා කර ගැනීමට සතුරාට ආයුධ උවමනා නැත. ගල් කැබලි විසි කිරීමෙන් පමණක්ම ඔවුන්ට අපව පසුබැස්සවීමට ඉඩ තිබිණ (දේවරාජ, 1997 ; 17).''

සීගිරි බලකොටුව දකුණින් පිහිටි දොරටු ද ගඩොලින් නිමවා හැකිලිය හැකි යකඩ දොරවල්වලින් සකසා තිබිණ. සීගිරි බලකොටු නගර නිර්මාණයේ දී සුදු කන්ද, ඇලහැර, කණ්ඩලම, රිටිගල, දඹුල්ල, යන කඳුවලින් මෙන්ම පිදුරංගල, මාපාගල යනා දී බැලුමගල්වලින් ද ස්වභාවික ආරක්ෂා ලබාගෙන තිබේ (අමරසිංහ, 2005 : 31). මීට අමතරව සිංහ සෝපානය සහිත පර්වත මස්තක රාජමාලිගාව ඈතින් පෙනෙන සතුරෙකුට කිසියම් බියක් ගෙනදෙන ආකාරයට සැලසුම් සහගතව නිමකරන්නට ඇත. ක්‍රි.ව. 15 වන සියවසේ දී ලාංකීයයන් ඉදිකළ තවත් ප්‍රබල බලකොටුවක් වන්නේ ශ්‍රී ජයවර්ධනපුර කෝට්ටේ ය. මඩ ගොහොරු සහිත වූ නිසාද උතුරු, බටහිර, සහ නැගෙනහිර දිශාවන්ගෙන් වකුව ගලන දියවන්නා ඔයෙන් වට වීම නිසා කෝට්ටේ බලකොටු භූමිය වූ දාරු ග්‍රාමයට ඇතුල්විය යුත්තේ දකුණේ පිහිටි කුඩා පටු බිම් තීරුවකිනි. නිශ්ශංක අලගක්කෝනාර විසින් දාරු ග්‍රාමය වටා ගැඹුරු දිය අගලක් සහ කළ ගල් ප්‍රාකාරයක් සකසන ලදි. නිම්නයට ප්‍රවේශ වන

පටු භූමිය ද වටකොට ප්‍රාකාර ඉදි කෙරිණ. තවද ප්‍රාකාර බැම්මේ ඉවුරු දෙක අතර අඩි දහයක් පමණ නිසා එම ප්‍රදේශයේ මුර සෙබලුන්ට මුර සංචාර කළ හැකි විය. පවුරු පිටත වේදිකාවේ ආරක්ෂාව වර්ධනය කරමින් මුර අට්ටාල, යකඩ කුරු (ඉඳංගිනී), බොරුවලවල් (වට්ට වෙට්ට), ලී උල් (මරාල) සහ කොටි මුහුණක ආකාරයෙන් යුත් උගුල් (පුලිමුබම්) සකසා තිබූ බව නිකාය සංග්‍රහය උපුටා දක්වන ඉන්දුකීර්ති සිරිවීර පෙන්වා දෙයි (සිරිවීර, 2013 : 84). පෙර දක්වන ලද බලකොටු ආරක්ෂක විධික්‍රම බොහෝමයක වචන දෙමළ සහ මලයාලම් පදවලින් නිෂ්පන්න වූ ඒවා වෙති. එසේම කෝට්ටේ (දෙමළ කෝට්ටි) බලකොටු තාක්ෂණය ද්‍රවිඩ සම්භවයක් සහිත පෙළපතකින් එන අලගක්කෝනාර ස්වකීය මුතුන් මිත්තන් සිටි මූල් භූමියෙන් රැගෙන එන්නට ඇතැයි සැලකීම සාධාරණ. බලකොටු ආරක්ෂණ විධික්‍රමවලට අමතරව ඒවා තුළ සිටින සෙබලුන් සහ ජනතාවගේ චිත්ත ධෛර්ය වර්ධනය කරනු පිණිස සහ ඇදහිලි කිරීම පිණිස කුඩා ආගමික ස්ථාන ඉදිකෙරිණි. නිදසුන් ලෙස ක්‍රි.පූ. 4 වන සියවසේ දී පණ්ඩුකාභය රජතුමා අනුරාධපුර බලකොටු නගර අවටට දිශාවන්හි චිත්ත රාජ, කාලවේල, වලවාමුඛ, පශ්චීම රාජිණි, වැනි ස්වදේශික අධිභෞතික චරිත ඇදහීමට දේවාල සැකසූ අතර, කෝට්ටේ බලකොටු ඉදිකළ අයවලුන් විසින් බලකොටුව තුළ විභීෂණ, සමන්, ස්කන්ධ, උපුල්වන් යන ප්‍රචලිත දෙවිවරු ඇදහීමට කුඩා පූජනීය ස්ථාන ඉදිකරවන ලදි. එසේම ඒවායේ භාරකරුවන්ට නිරතුරුවම ආගමික වතාවත් කරවන ලෙස අධිපතිවරු නියම කළ බව කෝට්ටේ බලකොටුව පිළිබඳව තොරතුරු වාර්තා කරන නිකාය සංග්‍රහය පෙන්වාදෙන්නේ මෙපරිද්දෙනි.

> ''...පවුර මුදුනෙහි සතර දිග ආරක්ෂා පිණිස සිරිලක අරක්ගත් කිහිරැලි උපුල්වන්, සමන් බොක්සැල්, විභීෂණ, ස්කන්ධ කුමාර යන සතරවරම් මහරජුනට වෙන වෙනම දේවස්ථාන කරවා අනෙක ප්‍රකාර හේරි, තූර්ය, නෘත්‍ය, ගීත වෘත්තාදියෙන් නිරන්තර පූජෝත්සව පවත්වන සේ ව්‍යවස්ථා කරවා...''(නිකාය සංග්‍රහය, 1997 ඃ32).

මීට අමතරව බලකොටු සුරක්ෂිත කිරීමට නිලබල ක්‍රමයක්ද පුරාතන ලංකාවේ පැවති බව පෙනේ. බලකොටු, බලකොටු නගර ආරක්ෂා කිරීමට නූතන නගරාධිපතිවරුන්ට තරමක් සමාන නගර ගුත්තික නම් තනතුරක් පැවති බව වංස කථාවල සඳහන් වෙයි. නිදසුන් ලෙස පණ්ඩුකාභය රජතුමා

ස්වකීය මාමා වූ නගර ගුත්තික නම් තනතුරක් ප්‍රධානය කොට දිවා කාලයේ සහ විශේෂයෙන් රාත්‍රී කාලයේ දී නගරය ආරක්ෂා ඔහු වෙත පවරන ලදි. නගර දොරටු වැසීම, ගෝපුර, මුර අට්ටාලවල සෙබලන් පරීක්ෂා කිරීම, නගරාරක්ෂක බලකොටු (Garrision), මුර අට්ටාල, ගෝපුර, ප්‍රාකාර අලුත්වැඩියා කොට දිය අගල් පිරිසිදු කිරීම සහ මළමිනී නගර ප්‍රාකාරයෙන් පිටත පිහිටි සොහොනට ගෙන යාමට කසල ශෝධකයින් (Cleaners) සහ සොහොන් පල්ලන් (Undertakers) මෙහෙයවීම යනාදිය නගර ගුත්තික අතින් ඉටුවන්නට ඇති. මහනුවර යුගයේ දී රජ මාළිගාව සහ නගරය ආරක්ෂා කිරීම සඳහා අතපත්තුවේ කාර්යංශ සහ මඩුවේ කාර්යංශ යන සේනාංක දෙකට පවරා තිබිණි (හේරත්, 2016 : 59). මීට අමතරව පරාක්‍රමබාහු රජතුමාගේ යුද්ධ සෙනෙවියන් අතර මායාගෙයිනාථ් හෙවත් මායා රටේ පාලකයාගේ බලකොටුව හෝ රජ මාළිගාවේ ආරක්ෂාව භාර නිලධාරියෙකුද සිටි බව පෙනේ. බලකොටු දොරටු ආරක්ෂා කිරීම දෝවාරික නම් ආරක්ෂක නිලධාරි පිරිසක්ද සේවය කළහ. මහනුවර යුගයේ සිටි දුක්ගන්නාරාළ දුක්ගන්නා උන්නැන්සේලා සැතපෙන ගෙයි අප්පුලා, වාසල මුකංවිට්ටි, වාසල මුදලිවරු, වාසල මුහම්දිරම්වරු, වාසල ඒකනායක වැනි රජමාළිගාවේ ආරක්ෂාවට සිටි අවශේෂ නිලධාරීන් ය (විමලකීර්ති, 1947 : 175). මහනුවර යුගයේ දී මොවුන්ගේ කාර්යභාරය වූ මහාවාසල මුර කිරීම, සෙබළ් මෙහෙයවීම යනාදියට සීමා විය. තවද රාජ දෝහී කුමන්ත්‍රණකරුවන් සහ අකාර්යක්ෂම සෙබලුන් සහ නිලධාරීන් සොයා බලා වාර්තා කිරීමටත්, අත්අඩංගුවට ගැනීමට බලකොටු නගර ආශ්‍රිතව විධිමත් ඔත්තු සේවයක් පැවති බවට සාක්ෂි ඇත (හේරත්, 2016 : 71). මහනුවර නගරයට පිවිසිය හැකි සෑම මාර්ගයකම කඩවත් මුරපොළවල් ගොඩ නගා තිබිණි. ඒවායේ ඉහළ පහළට වැසිය හැකි කටු දොරවලින් සමන්විත විය. මේවායේ සේවය කළ අයවලුන් කටුපුරුල්ලේවරු නම් විය. මෙම මුර පොළවල් (Output) හරහා යාමේ දී නූතන පාස්පෝට්වලට සමාන මුද්‍රා විශේෂයක් භාවිත කරන ලදි. එම මුද්‍රාව ජාති, පන්ති, වෘත්තීන්වලට අයත් ජනතාවට අනුව වෙනස් වූ බව රොබට් නොක්ස් පවසයි (එදා හෙළදිව, 1992 : 81). පෙර සඳහන් කළ බලකොටු රැක ගැනීමේ ක්‍රමවේදවලට උම්මග්ග ජාතකයේ සඳහන් යුධ උපක්‍රම ද එකතු කළ හැක. උම්මග්ග ජාතකයේ සඳහන් බලකොටු රැකගැනීමේ යුධ උපක්‍රම වන්නේ මියුලු නුවර ආක්‍රමණය කිරීමට සැරසෙන බ්‍රහ්මදත්ත රජුගේ සතුරු සේනාවට වැලි ගසා පසව ප්‍රාකාරවල සිට ඊ හෙළි ප්‍රහාර එල්ලකොට මර්ධනය කිරීම වැදගත් ය. තවද නගර ප්‍රාකාරවල සිට රසවත් ආහාරපාන

භුක්ති විඳිමින් ගී ගයමින් සැණකෙළි පවත්වමින් කිපෙන සුළු විකාර කථා පවත්වමින් සතුරාගේ යුධකාමී මනස දුර්වල කිරීම හෝ සංග්‍රාම පීඩනය (Combat Stress) ඇතිවන ආකාරයට කටයුතු කිරීමද තවත් බලකොටු ආරක්ෂක යුද උපක්‍රමයකි. විශේෂයෙන් පෙර සඳහන් කළ උපක්‍රම මධ්‍යකාලීන යුගයේ දී භාවිතා කළ බව උම්මග්ග ජාතකයේ පහත දැක්වෙන ප්‍රකාශනයෙන් මනාවට පැහැදිලි වෙයි.

"..ඒ බස් අසා බලසම්පන්න යෝධයෝ නොයෙක් ආයුධ ගත් අත් ඇති වර නුවර ගනුම් හයි පවුරු වාසල් සමීපයට ගියාහු බෝධි සත්ත්වයන් වහන්සේගේ යෝධයන් විසින් දමන ලද කලල් වැලි ආදියෙන් මහා විනාශයට පැමිණ ද නුවර බිඳිනා තබා පුර සමීපයත් යා නොහී නැවත යන්නාහ. බදින් සමහර කෙනෙක් නොනැවතී, පවුරු බිඳුම් හයි වාසි කියා සාහසිකව වැද ඊ දඬු මුණ කොහොල් තොමර හෙණ්ඩි වාලාදින් දමා ගසා මහා විනාශයට පමුණුවන්නාහ. බෝධි සත්ත්වයන් වහන්සේගේ යෝධයන් බ්‍රහ්ම දත්තයන්ගේ යෝධයන්ට අතින් මුහුණන උසුළු පෑ නොයෙක් ප්‍රාකාරයෙන් ආක්‍රොශ පරිභව බෙනෙමින් ගැහැට කරන්නාහ. මච්ච මාංස හා කන බොන දෑ හා රා විත් ඔඩම් යනාදිය පුරා ගෙන පිටත සිටිය වුනට දික්කර පුළ ගන්වා නැවත තුමූ වැ කන්නාහ. බොන්නාහ. මෙසේ සතුරන් කිපෙන සුළු වූ නොයෙක් විකාර කරමින් පවුරින් ඇතුලේ පදනම උනට පෙනෙන නියායෙන් සක්මන් කරන්නාහ (උම්මග්ග ජාතකය, 2001 : 112)"

මීට අමතරව ඔත්තුකරුවන්ගේ මාර්ගයෙන් උපක්‍රමශීලිව සතුරු සේනා නොමග යවා ඔවුන් වණ්ඩ කිඹුලන් සහ මෝරුන් පිරි දිය අගල්වලට යොමු කිරීමේ යුධ උපක්‍රමයක් ද උම්මග්ග ජාතකයේ අන්තර්ගතය. ක්‍රි.ව. 11 පළමුවන විජයබාහු රජතුමා චෝලයන්ගෙන් පොළොන්නරු නගරය අල්වා ගැනීම සඳහා සිදු කළ දීර්ඝ වැටලීමේ දී රවි දේව, වල නම් ඔත්තුකරුවන් දෙදෙනෙකු යොදවා නගරයේ දොරටු ඇර තිබේ (මහාවංසය, 58 : පරි 56 : 58 ගාථා). බලකොටුවක්, බලකොටු නගරයක් හා කඳවුරක් ඉදිකිරීමේ දී භූගෝලීය කරුණු සහ

88

දේශපාලන කරුණු මෙන්ම සංස්කෘතික කරුණු ද බලපා තිබේ. එනම් බලකොටු නගර ඉදිකිරීමේ දී ඒවාට නම් ලෙස පුලස්තීපුරය, ශ්‍රී ජයවර්ධනපුර කෝට්ටේ, සෙංකඩගල නුවර වැනි මනා පෞර්ෂයක් ගෙන එන නම් යොදා තිබේ. එසේම ආරක්ෂක නිවස්න නැකැත්වලට අනුවද නිමවා තිබෙන බව අනුර නැකතකින් අනුරාධපුරය ඉදිකිරීමෙන් පැහැදිලි වෙයි. සෙංකඩගල ශ්‍රී ජයවර්ධනපුරය ගොඩනැංවුණු භූමිය හා සබැඳි බොහෝ ජනප්‍රවාද වලින්ද හෙළිවනුයේ එය පීඩිතයන්ට ජයක්, අහිංසකයාට නිවහනක් සැපයන්නක් මෙන්ම ක්ෂේම භූමියක් හෝ විජය භූමියක් ලෙසය (හේරත්, 2016 : 34). සමකාලීන පාලකයාගේ හෝ බලකොටු නිර්මාතෘවරයාගේ හෝ ආගමික නායකයෙකුගේ නමකින් බලකොටු හඳුන්වා දුන් බවද පෙනෙයි. මෙම නාමකරණයන්ගෙන් ද පැහැදිලි වන්නේ මනා පෞර්ෂයක් සහිත නාමයකින් සතුරා බියක්, කුකුසක්, සැකයක් ඇතිවන ආකාරයට බලකොටු හැඳින් වූ බවයි.

ඉපැරණි ලක්දිව බලකොටු වටලා අත්පත් කොට ගැනීමේ යුධ උපක්‍රම

දැනට ලැබී ඇති ඓතිහාසික දත්තවලට අනුව ලංකාවේ ප්‍රථම වරට බලකොටු වැටලීමේ යුධ උපක්‍රම ක්‍රියාගත කොට තිබෙන්නේ කාවන්තිස්ස හා දුටුගැමුණු (ක්‍රි.පූ. 161-137) විසිනි. ඒ එළාරට එරෙහිව ය. ප්‍රථමයෙන්ම කාවන්තිස්ස රජතුමා එළාරට එරෙහිව දිවයිනේ සෙසු ප්‍රදේශ එක්සත් කිරීම සඳහා රෝහණ දිග ලංකාවේ පිහිටි සේරා, සෝම සහ ලෝන යන බලකොටු නගර ධාතු නිධන් කිරීමේ පෙරහැරක් පවත්වා නිර්ලෝහීව යටත්කොට ගනී. එයම පූර්වාදර්ශය කොට ගනිමින් දුටුගැමුණු රජතුමා ද ශාසනය බබුළවන්නට එතෙර යම් බව පවසමින් සදාතුක ජයකොන්තය හෙවත් රාජ්‍ය සෙංකෝලය රැගෙන හික්මුණ 500 පිරිවරාගත් චතුරංගනී සේනාව රැගෙන ප්‍රථමයෙන්ම නිර්ලෝහීව එළාරගේ මහවැලි ගඟට එපිට බලකොට යටත් කරගැනීමට උත්සහ ගනී. යම් හෙයකින් සතුරා ඊට අනුකූල නොවී නම් එළාරගේ බලකොටු වටලා අල්ලා ගැනීමට පියවර ගත්තේ ය. මහියංගනයේ ජනු, අඹතොත තිත්ථ්ම්හ, සත් බෑ කොටිය, අතුරුහෙබ මාකොටු නමැත්තා, දෝණ නම් ගම ගවර, හල්කොල ඉසුරු, නැලිහෙබ, නාලික, දිග් අබාගල දික් අහා, කස්තොට කපිස්ස, කෝට නුවර කෝට, හාලවහානක, වහිට්ට නුවර වහිට්ට, ගැමුණු ගම ගැමුණු, කුඹගම කුඹ, තඹිගම තඹ, උන්නගම උන්න, ගම මයිල්ලෑන යන දෙබයන් , ජඹුගම ජඹු නැමැත්තා යනාදීහු උපායශීලිව අත්අංගුවට ගත්තේ ය. ඒ අතරීන් අඹතොත

බලකොටුව අල්ලා ගැනීමට සිංහල සේනාවට මාස හතරක් ගතවිය. පසුව ස්ත්‍රී දූතයෙකු වූ අඹතොත එළාර බලකොටුවේ ප්‍රධානියාට තම මැණියන් ලබාදෙන බවට පවසා උපායශීලිව අල්ලා ගැනීමට දුටුගැමුණුට හැකි වූ බව පරණවිතාන පෙන්වා දෙයි. (පරණවිතාන, 2015:153) මෙහි දී පැන නගින ගැටලුව වන්නේ දුටුගැමුණු රජතුමාගේ ඉහත යුධ ව්‍යාපාරයේදී එළාර පාර්ශවීය ප්‍රධානින් අල්ලාගත් බවට සඳහන්ව තිබීම ය.

විශේෂයෙන්ම මෙහි ලැයිස්තුවේ දික් අබා හෙවත් දිසාහය නමැත්තා කාවන්තිස්සගේ වෙනත් බිසවකගේ පුතෙකි. හෙතෙම පිය රජතුමාගේ අණින් එළාරගේ පාලන ප්‍රදේශයත් රෝහණ දේශය වෙන් කරන මහවැලි නදියේ එපිට ඉවුරු වළල්ල පදනම් කොටගත් දේශ්සීමා ව ආරක්ෂා කළ දිසාහය බව නූතන විද්වත් මතය වෙයි. (පරණවිතාන, 2015:153) කුමන හෝ හේතුවක් මත දිසාහය, නන්දික, කපිස්ස ගැමුණු, ඉසුරු යනාදි ආර්ය සමහවයක් සහිත නායකයන් එළාරගේ පාර්ශවයට එක්වන්නට ඇති බවත්, මෙය අවබෝධ කොටගත් දුටුගැමුණු උපායශීලිව අභිතව අල්වාගෙන තම පාර්ශවයට එක්කොට ගන්නට ඇත. මෙයින් බියට පත් පෙර බලකොටුවල ඉතිරිව සිටි සතුරු සේනා විජිතපුර නම් එළාර පාර්ශවීය ප්‍රබල බලකොටුවට පලා ගියහ. විජිතපුරය ශක්තිමත් බලකොටුවක් විය. එය සතර දිශාවෙන් ප්‍රාකාරයකින් ද, පවුර වටා වියලි අගලය, මඩ අගලය, දිය අගල් යනාදි අගල් තුනකින් සමන්විත වූ අතර ප්‍රධාන ලෝහ දොරටු හතරකින් එය නිර්මිත විය. මෙය යටත්කොට ගැනීමේ ඇති අපහසුතාවය දැනගත් දුටුගැමුණු රජතුමා ස්වකීය අශ්වාරෝහක සේනා ප්‍රධානි වේළුසුමන නැගෙනහිර දෙසින් ප්‍රබල ප්‍රහාරයක් එල්ලකොට සතුරු සේනා බලකොටුව දෙසට පලා යාමට සැලැස්විය. වහා ක්‍රියාත්මක වූ සිංහල සේනාවේ සිටි නන්දිමිත්‍ර, සුරනිමල සහ කඩොල් ඇතා දකුණු දොරටුවෙහි සටන් කළ අතර මහාසෝණ, ගෝඨයිම්බර, ථේර පුත්තාභය යනාදීහු ඉතිරි දොරටුවල සටන් කළහ. මේ අතර කඩොල් ඇතා සතුරු බාධක දුරලමින් ප්‍රධාන දොරටුව බිඳ දැමූ අතර සෙසු යෝධයෝ ද අනෙක් දොරටු බිඳ දමා සතුරන්ව පරාජය කොට විජිතපුර බලකොටුව අත්පත් කොට ගත්හ. (මහාවංසය 25 පරි : ගාථා 1 - 46) විජිතපුරය අල්ලා ගැනීමෙන් පසුව ගිරිලක නම් සතුරු නගරය අල්ලාගෙන මහා අගල් තුනකින් වට කරන ලද කොළොම් වැල්වලින් හාත්පස ඇවුරුණු එක් දොරටුවක් ඇති මහෙල නගර නම් බලකොටුව හාර මාසයකින් පුරා වැටලීය. පසුව මන්ත්‍ර යුද්ධයක් පවත්වා මහෙල නුවර බලකොටුව අල්ලා ගැනීමට සිංහල සේනාවට හැකිවිය. මෙහි දී මන්ත්‍ර යුද්ධය යන්න

කුමක් ද යන්න වංසත්ථප්පකාසිනීය විග්‍රහ කරයි. එනම් සතුරු නුවරට ඔත්තුකරුවන් යවා බොරු ප්‍රවෘත්ති යවා ප්‍රති වැටලීම නතර කරවීම ලෙස යි. එහි දැක්වෙන්නේ (වංසත්ථප්පකාසිනීය, 1994 : 380) මෙයාකාරයට උපක්‍රම ද විටෙක ප්‍රහාරාත්මක වැටලීම් සහ චර පුරුෂයන් යවා සතුරු බලකොටුව බෙලහීන කරවීම වැනි බලකොටු වැටලුම් යුද්ධ උපක්‍රම හරහා ලංකාව එක්සත් කිරීමේ ව්‍යාපාරය සාක්ෂාත් කිරීමට දුටුගැමුණු රජතුමාට හැකිවිය.

දෙවන සේනගේ මදුරාපුර වැටලීම සහ පළමුවන විජයබාහුගේ පොලොන්නරු වැටලීම.

මීළඟට ලංකා ඉතිහාසයේ සතුරු බලකොටු වැටලීමක් පිළිබඳව වාර්තා වන්නේ දෙවන සේන (ක්‍රි.ව. 839 - 874) දවසය. ස්වකීය පියා වූ 1 සේන රජුගේ කාලයේ සමකාලීන පාණ්ඩ්‍ය පාලක ශ්‍රී මාර ශ්‍රී වල්ලභ ලංකාව ආක්‍රමණය කොට අනුරාධපුරය කොල්ලකා ආපසු ගියේ ය. ඊට පිළිතුරු වශයෙන් ශ්‍රී මාර ශ්‍රී වල්ලභගේ කැරළිකාර පුත්‍රයා වූ වරගුණවර්මන්ට සිහසුන ලබා ගැනීමට සහ පිණිස කුට්ටක සෙනෙවියාගේ නායකත්වය යටතේ ප්‍රබල සේනාවක් පාණ්ඩ්‍ය දේශයට යැවීය. පාණ්ඩ්‍ය දේශය බට සිංහල සේනා මදුරාපුරය වටලා එහි දොරටු අවහිර කොට ගෝපුර, අට්ටාලක, සහ ප්‍රාකාරය විනාශ කළේය. අට්ටාලක යනු හදිසි අවස්ථාවලදී ආරක්ෂා කිරීමේ දී සෙබළුන්ට ගැවසීම සඳහා ඇති ඉදිරියට නෙරා ගිය මැස්සක් වැනි ආවරණයකි. කොට්ටික යනු ප්‍රාකාරය හෝ දොරටුව බිඳින සතුරාට පහරදීම සඳහා නිමවා ඇති ආවරණයකි. (කුලතුංග, 1988 : 161) ගෝපුර යනු බලකොටුවේ සතර දිශාවේ සහ දොරටුව දෙපස තනවා ඇති විශාල මුර ගෙවල් විශේෂයකි. බලකොටු හා සබැඳි එම ආරක්ෂක මුරපොලවලට පහර දී සිංහල සේනා මදුරාපුරය යටත් කොට ගන්නට ඇත. (මේධානන්ද, 2012 : 129) මීට අමතරව පළමුවන විජයබාහු රජතුමා (ක්‍රි.ව. 1051-1106) ලංකාව එක්සත් කිරීමේ යුද ව්‍යාපාරයේ අවසාන භාගයේ චෝළයන්ගේ ජනතා පුරම් හෙවත් පොලොන්නරුව අත්අඩංගුවට ගැනීම සඳහා එකී බලකොටුව අසලම වෙනත් කඳවුරක් තනා පුරා මාස එක හමාරක් වැටලීය. බියට පත් චෝළයින් නුවරට පිවිස වසන ලද පුරදොර ඇතිව බිහිදොර අට්ටාල සම්බන්ධ කරමින් යුද්ධ කළහ. අවසානයේ රවිදේව, චල නම් විජයබාහු රජතුමාගේ ඔත්තුකරුවන් දෙදෙනෙකු සුක්ෂමව චෝළ බලකොටුවේ දොරවල් විවෘතකොට සිංහල සේනාවන්ට ඇතුලට ඒමට කටයුතු කරවීම නිසා පොලොන්නරුව අල්ලා ගැනීමට විජයබාහු ප්‍රමුඛ ලාංකේය සේනාවන්ට හැකිවිය.

පරාක්‍රමබාහු රජු මෙහෙය වූ බලකොටු වැටලීමේ යුධ උපක්‍රම

මහා පරාක්‍රමබාහු රජතුමා (ක්‍රි.ව. 1153-1186) ලංකාව එක්සත් කිරීමේ යුධ ව්‍යාපාර මෙන්ම පාණ්ඩ්‍ය දේශය සහ බුරුම ආක්‍රමණය කිරීමේ යුධ ව්‍යාපාරවල දී අනේකවිධ බලකොටු, නගර බලකොටු, දුර්ග සහ තාවකාලික කදවුරු විවිධාකාර උපක්‍රම හරහා අල්ලාගත් බව සඳහන් වෙයි. ඒ අතරින් විලාන නම් ස්ථානයේ වූ ගජබාහු රජුගේ දුර්ග බලකොටුවක් පරාක්‍රමබාහුගේ සේනා විසින් අත්පත් කරනු ලැබුවේ රාත්‍රී කාලයේ උමං බිඳීමේ දක්ෂ සොරුන් දෙතුන් සීයක් රහසේ යවා ඔවුන් ලවා තියුණු මුව අං වලින් උමගක් හාරා ඇතුල්වීමෙනි. (කුලතුංග, 1988 - 1163). මීට අමතරව පරාක්‍රමබාහු සේනාවේ දකුණු ඉන්දියාවේදී චෝලයන්ට පවා යටත්කර ගැනීමට නොහැකි වූ සෙන්පොන්මාරි නම් බලකොටුවේ ප්‍රාකාර සහ ගෝපුර විනාශ කරමින් එය යටත් කර ගැනීමට සමත් විය.

උම්මග්ග ජාතකය කෘතියෙන් හෙලිවන බලකොටු වැටලීමේ යුධ උපක්‍රම

කුරුණෑගල යුගයේ වීරසිංහ ප්‍රතිරාජ හෝ වෙනත් උපායශිලි රාජ්‍ය පාලනය පිළිබඳව පරිචයක් සහිත පුද්ගලයෙකු අතින් රචිත උමන්දාව හෙවත් උම්මග්ග ජාතකය නම් කෘතියෙන් පැරණි ලක්දිව බලකොටු වැටලුම් යුද උපක්‍රම කිහිපයක් හඳුනාගත හැකිය. එහි මිසුරු නුවර වටලෑම, නුවර ගැනීමට යෙදු උපාය යන පරිච්ඡේදවල සහ උමඟ කැනීම යන පරිච්ඡේදවල ප්‍රස්තුත මාතෘකාවට අදාල දත්ත ලබාගත හැකිය. උම්මග්ග ජාතකයෙන් හෙලිවන බලකොටු වැටලුම් යුද උපක්‍රම වන්නේ උපරිම යුද්ධ ශක්තිය යොදා අගල, ප්‍රාකාර, දොරටු, මුර අට්ටාල, වාසල් දොරටු උප බලකොටු යන නගරාරක්ෂක විධිවිධානවලට ප්‍රබල ප්‍රහාරයක් එල්ලකොට සතුරු බලකොටු යටත් කර ගැනීම වැදගත් වෙයි. එම උපක්‍රමය බ්‍රහ්මදත්ත රජුගේ මුවින් පිටවන්නේ මෙලෙසිනි.

".... බ්‍රහ්මදත්ත රජ්ජුරුවෝ ඒ බස් අසා දා ඩෙන් ගසන ලද ආශීර් විෂයක් හූ මෙන් ක්‍රෝධයෙන් දිලිහී කිපුනා හූ කොල වහා මේ නුවර ඒ ඒ දිගින් අගල මැඩහස්වා පවුරු දොරටු, අටලු වාසල් බලකොටු ආදිය බිදි සුනු විසුනු කෙරෙමින් මහා නුවර වැද ගැල් පුර ගෙන මුත් කොමඩුබාතා සේ ජනයා ඉස් කපා ගනුව වේදෙහ රජහු ඉසක් වහා ගෙනවය කීහ...." (උම්මග්ග ජාතකය 2001 ඃ 113)

මීට අමතරව දෛනික මානව කටයුතු සඳහා අත්‍යවශ්‍ය වන දර, ආහාර පාන සහ පානීය ජලය යනාදී අත්‍යවශ්‍ය සැපයුම් මාර්ග අවහිර කොට පසුව සතුරා හාමත්කර සතුරු බලකොටුව අත්පත් කර ගැනීම උම්මග්ග ජාතකයේ සඳහන් තවත් ප්‍රමුඛ පෙළේ බලකොටු වැටලීම් යුද උපක්‍රමයක් (උම්මග්ග ජාතකය, 201 : 113 : 115) මෙම යුද උපක්‍රමය ක්‍රි.පූ. 2 සියවසේ ග්‍රීක්වරු සතුව පැවති සිරැකියුස් පෞර රාජධානිය මෙන්ම මැද පෙරදිග මැසඩා (Mazada) බලකොටුව අල්ලා ගැනීම සඳහා රෝමන්වරු අනුග මනය කොට තිබේ. අත්‍යවශ්‍ය ද්‍රව්‍ය සැපයුම් අවහිර කොට මිශුලු නුවර අත්අඩංගුවට ගැනීමේ එක් යුද උපක්‍රමයක් මෙසේ ය.

ඒසකලැ දේවයන් වහන්ස, මෙවිට මා සිතූ දෙය ඉතා මැ යහපත නුවරට වී සාල් නම් පිටතින් මැ වන්නේ යැ ඒ වී සාල් වැද්ද, නොදෙම්හ බතින් පීඩිත වූ මනුෂ්‍යයෙන් දොර ඇර පියන්නාහ. එවිට අල්ලාගෙන කැමැත්තක් කරමහ. (උම්මග්ග ජාතකය 2001 : 114)

උම්මග්ග ජාතකය පැරණි ආගමික මූලාශ්‍රයක් වුව ද එමගින් මධ්‍යකාලීන ලංකාවේ බලකොටු වැටලීම් උපක්‍රමවල ඡායාවක් දැකිය හැකිය.

යුරෝපියානු ආක්‍රමණිකයන්ට එරෙහිව ලාංකිකයන් ක්‍රියාගත කළ බලකොටු වැටලීම් යුද උපක්‍රම

ක්‍රි.ව. 16 සියවසේ සිට ක්‍රි.ව.17 සියවස දක්වා කාලය තුළ අරාබි, තුර්කි බලකොටු වැටලීම් ක්‍රමවේද ගුරුකොට ගනිමින් මෙරට පෘතුගීසි බලකොටු යටපත් කිරීමට ලාංකිකයන් උත්සාහ ගත්හ. පෘතුගීසීන්ට එරෙහිව ලාංකිකයන් විසින් සිදු කරන ලද පළමුවන බලකොටු වැටලීම සිදුවූයේ ක්‍රි.ව. 1519 දී ය. ඒ ලෝපෝ ද බ්‍රිටෝප්සින් ශක්තිමත් කළ පෘතුගීසි බලකොටුවට එරෙහිව ය. ඒ පිටවැස්ම සඳහා පොල් ගස බහුලව යොදා එකී බලකොටුවේ ආසන්නයට යාමට ලාංකිකයන්ට හැකි විය. තවද ආහාර පාන වැනි අත්‍යවශ්‍ය ද්‍රව්‍ය ලබා නොදී සතුරු සේනා බලකොටුව තුළට පසුබස්සවා බලකොටු මතට නගර වැටලුම් යුධෝපකරණ (Siege Weapon) සහ රාත්‍රියේ ගිනි බෝල සහිත හී විදින ලදි. මෙහි දී අරාබිවරු ලාංකිකයන්ට සහය පළ කළහ. එම වැටලීම රීබෙයිරෝ මෙසේ වාර්තා කරයි.

"....මරක්කලයින් විසින් පොළඔවනු ලැබු ස්වදේශිකයෝ අප අවිශ්වාස කොට ආහාර පාන විකිණීම

ප්‍රතික්ෂේප කොට ඒවා ලබාගැනීමට ගිය අපේ මිනිසුන්ට ද අඩත්තේට්ටම් කළහ. අපගේ බලකොටුවට ආසන්නව පිහිටා තිබුණු කොළඹ නගරයට පහරදීමට අන්තිමේ දී අපට සිදුවිය. අනපේක්ෂිත ලෙස අප ඔවුන්ගේ ප්‍රධාන මාර්ගයට ගිනි තැබුවෙමු. සන්ත්‍රාසයට පත්ව පැනදිවූ මිනිසුන් ආපසු පැමිණ අපගේ කොටුව තුළටම පසුබැසීමට සැලැස්වූ නිසා අපට මහත් ඵල හානි සිදුවිය. අපගේ බලකොටුව යටපත් කර ගැනීම සඳහා ඔවුන්ගේ මිනිසුන් විසිදාහක් රැස්ව අට්ටාල දෙකක් මත තුවක්කු සවිකොට යන්ත්‍රු හයසියයක් මාර්ගයෙන්, දිවා කාලයේ, වියත් දහයක් දිග හෙල්ල එවූ අතර රාත්‍රී කාලයේ දී ගිනි බෝල සහිත හී ද විදින්නට වූහ. අපට ඇති වූ ප්‍රධාන හිරිහැරය නම් බීමට වතුර සොයා ගැනීමය. (රීබෙයිරෝගේ ලංකා ඉතිහාසය, 2003 : 16)

මෙපරිද්දෙන් කොළඹ පෘතුගීසි කොටුව වැටලීම මාස පහක් පැවති අතර. හදිසියේම තම බලකොටුවලින් එළියට බට පෘතුගීසීහු සැලි හෙවත් බලකොටු පිටතට පැමිණ ප්‍රහාර එල්ල කිරීමේ ක්‍රමවේදය හරහා සහ ඔවුන්ගේ ප්‍රබල කාල තුවක්කු සහිත නෞකා හරහා ප්‍රහාර එල්ලකොට ස්වදේශිකයන් පසුබැස්ස වූහ. පෘතුගීසීන් ලංකාවෙන් තුරන් කිරීමට අදහස් කළ මායාදුන්නේ සහ ටිකිරි කුමරු හෙවත් පළමුවන රාජසිංහ ප්‍රමුඛ සිතාවක සේනා ක්‍රි.ව. 1562 සිට 1565 දක්වා පළමු වැටලීම කෝට්ටේ පෘතුගීසි බලකොටුවට එරෙහිව ක්‍රියාගත කළහ. එම වැටලීම පහත සංක්ෂිප්තව දැක්වෙයි. මායාදුන්නේ රජතුමා ඒකනායක මුදලිගේ නායකත්වයෙන් සෙබළුන් 4500 ක් ද, රාජකීය ඉංජිනේරුවන් 400 ක් ද, අශ්වාරෝහක අනුබණ්ඩයක් සහ ඇතුන් 4 යුත් සේනාවක් සකසාගෙන ක්‍රි.ව. 1562 කෝට්ටේ වැටලීම ආරම්භ කෙරිණි. මෙහිදී වැඩි වශයෙන් සිතාවක සේනා මහත් පරිශ්‍රමයක් දරා පටුබිම් තීරයක් වූ පිටකෝට්ටේ ප්‍රහාර එල්ල කළද එය අසාර්ථක විය. නගරය ගොඩබිම් පිහිටීම නිසා පෘතුගිසින්ගේ නාවික බලයද බල රහිත විය. සිතාවක සේනා ඉනිමං සවි කරමින් පෘගීසි සෙබළුන් සහ වැසියන් කෙතරම් ආහාර හිඟතාවේ සිටිය දයත් ඇතුන්, අශ්වයින්, බල්ලන්, බළලුන්, උරගයින් අනුභව කළ පමණක් නොව සතුරු සෙබළුන්ගේ මිනිමස් කෑමේ අවධානමක් ද පැවතින. එහෙත් සිතාවක සේනා

පසුබැස ගියද, යලි ආහාර හිගතාවයක් ඇතිවේදෝ යන බියෙන් පෘතුගීසිහු සතුරු සෙබළුන්ගේ තරබාරු සිරුර ලුණු තබා කල් තබා ගැනීමට පියවර ගත් බව රිබෙයිරෝ මෙසේ පෙන්වාදෙයි.

"....සතුරන් නැවත වරක් එතිඊ සැක කළ හෙතෙම පසුව ප්‍රයෝජනයට ගැනීම සදහා මළමිනි ලුණු දමා තබාග න්නා ලෙස අණ කළේ බලකොටුවේ ආහාර හිගයක් තිබූ නිසාය..."

(රිබෙයිරෝගේ ලංකා ඉතිහාසය, 2003 : 55)

මායාදුන්නගෙන් පසුව බලයට පත් වූ ඔහු පුත් පළමුවන රාජසිංහ විසින් ක්‍රි.ව. 1579 - 1580) දක්වා ද තෙවැනි වරට ක්‍රි.ව. 1587 - 1588) දක්වා පෘතුගීසින්ට අයත් කොළඹ බලකොටුව වැටලීය. පෘතුගීසින්ගේ බලය ඇත්තේ ඔවුන්ගේ යුධ නැව් මත බව දැනගත් රාජසිංහ බේරේ වැව හිස් කරනු පිණිස ඇලක් කැපවීමෙහි නිරත විය. මේ නිසා පෘතුගීසි නැව්වලට එහි පැදවීමට නොහැකි විය. මෙම වැටලීම නිසා කොළඹ නගරය දුර්භික්ෂයෙන් වේලී ගිය අතර 30000 පමණ වූ ජනතාව කුසගින්නෙහි සිටියහ. (අමරසිංහ, 1998 : 119) උඩරටින් උමං කනින්නන් ගෙන්වා පෘතුගීසි බලකොටු අල්ලා ගැනීමට උත්සහ කළද එය අසාර්ථක වීම නිසා කොළඹ කොටුව වැටලීම නතර කිරීමට පළමුවන රාජසිංහට සිදුවිය. ක්‍රි.ව. 1587 සිට ක්‍රි.ව. 1588 දක්වා කාලය තුළ ස්වකීය අවසාන ප්‍රබල වැටලීම පෘතුගීසින්ට එරෙහිව සිදු කිරීමට පළමුවන රාජසිංහ පියවර ගත්තේ ය. එතරම්ම කාර්යක්ෂම නොවූ කාලුතවක්කු තිබීම හේතු කොටගෙන, සීතාවක සේනා මිනිස් බලයේ පිහිට පැතීමට සිදුවූ බව පෙනේ. ඒ අනුව පෘතුගීසි බලකොටුව අවට දිය අගල සහ බේරේ වැව පෘතුගීසි නෞකාවලට පැමිණීමට නොහැකි වන අයුරින් අගල් කපා හිදවන ලදි. ඇළ කනින විට හමු වූ විශාල කළු ගල් පර්වතයක් හමුවිය. පසුව ඒ මත ඇඹුල් කිරී සහ විනාකිරී දමා ඊට පසුව ගිනි තබා එය මහත් පරිශ්‍රමයක් දරා කැඩීමට සීතාවක සේනාවලට හැකිවිය. මෙනිසා ජල මට්ටම තවත් අඩුවිය. (රිබෙයිරෝගේ ලංකා ඉතිහාසය, 2003 : 66) වැව සම්පූර්ණයෙන්ම හිස් කර පසුව සිදු කළ සංග්‍රාමය ගැස්ටන් පෙරේරා මෙසේ විස්තර කරයි.

"....රාත්‍රී කාලයේ එම පහරදීම කරනු ලැබිණ. හට සේනාංක තුනක් ජලය සින්ද වූ වැව් පත්ල හරහා

ගොස් නැගෙනහිර සහ දකුණ කොටු පවුර එකතු වන ස්ථානයේ තිබූ අට්ටාල තුනට පහර දුන්හ. මෙම පහරදීම මට්ටම තුනකින් කරනු ලැබුහ. පොළොව මට්ටමේදී ඉංජිනේරු හමුදාවේ හටයන් හා පතල් කිනින්නෝ කොටු පවුරේ අත්තිවාරම යටින් හාරා කොටු පවුරේ පදනම දුර්වල කිරීමට උත්සහ ගත්හ. රාජසිංහ රජුගේ රණශූර ඇත්තුද කොටු පවුරට පහර දුන්හ. මේ ඇතුන් මනාව පුහුණු කරන ලද ප්‍රචණ්ඩ සතුන් වූ අතර ඔවුන් මහත් පරිශ්‍රමයකින් මැටි තාප්පවල මුදුන් අල්ලා ඇද තාප්ප කඩා බිඳ දැමීමට තැත් කළහ. තාප්ප මත සවිකර තිබූ යුද්ධායුධ හොඩින් අල්ලා ඇද බිම දැමූහ. මේ අතර රාජසිංහ රජුගේ අති දක්ෂ හමුදාව කොටු තාප්පයට හේත්තු කළ ඉනිමංවලට නගිමින් කොටු තාප්පය මුර කරන පෘතුගීසි හමුදා හටයින්ගේ ඇඟට ගිනි මොලවන ලද බඳුන් විසිකර ඔවුන් පලවා හැරීමට උත්සහ ගත්හ. (පෙරේරා 2014 ඃ 379-380)

පෘතුගීසිහුද සිංහල සේනා පෘතුගීසි කොටු තාප්පයට නැගීමට තිබූ ඉණිමං ඔවුන්ගේ හෙල්ලවලින් ගසා පෙරළූ අතර තාප්පයට පහරදුන් ඇතුන් මත ගින්දර සහිත බඳුන් පෙරලුහ. මින් වේදනාවට පත් සීතාවක ඇතුන් කලබලයට පත්ව සීතාවක සෙබළ පාගමින් පලා ගියහ. තෙවන වැටලීමෙන් ද සීතාවක හමුදා පරාජයට පත්විය. පසුව ඔත්තුකරුවන් සහ මන්ත්‍රකරුවන් හරහා පෘතුගීසි බලකොටුවේ ලිංවලට වස දැමීමට සහ බලකොටුව තුළ ඇති නගරයට ගිනි තැබවීමට රාජසිංහ උත්සහ කළද එය අසාර්ථක විය. පසුව ලස්කිරිඤ්ඤා සෙබලෙකු සේ සීතාවකයින් ප්‍රසිද්ධ මන්ත්‍රකරුවෙකු කුමන කරුණකට හෝ වෙස්වලාගෙන පැමිණිය ද ඔහු අල්ලා මරා දැමීමට පෘතුගීසිහු කටයුතු කළහ. එම පුවත හාස්‍යජනක ලෙස රිබෙයිරෝ මෙසේ දක්වයි.

".... ඉන්පසු ඉතා ප්‍රසිද්ධ මන්ත්‍රකාරයෙක් ලස්කිරිඤ්ඤා හේවායකු සේ වෙස්වලා පැමිණි කල්හි ඔහු අල්ලා වද දී ප්‍රශ්න කළවිට රහස් හෙළි කළේ ය. නොයෙක් රූප සටහන් සමග මිනිසුන්ගේ න්, ගස්වලත් රූපද භූතයින්ගේ

92

වැඩ ගැනීමට සඳහා යොදාගන්නා මන්තු අඩංගු පොතක්ද ඔහු ළඟ තිබී සොයාගන්නා ලදි. ඔහු ගෙන ඔලගුවේ මිනි හිසක් ද, නයි පෙණයක් ද, විෂ සහිත ගස්වල පොතු කෑලි හතක් ද, බෙත් ගලක් ද, ගම්මිරිස් ඇට කීපයක් ද, ඉඟුරු කහ සහ මොනර පිහාටු කීපයක්ම තිබිණ. මන්තුකාරයා මරා දමා ඔහුගේ භාණ්ඩ සියල්ලම ගිනිබත් කරන ලදි. (රිබෙයිරෝ ලංකා ඉතිහාසය 2014 : 72)

ඉන් පසුවද කාලතුවක්කු පුහාර හරහා රාජසිංහ කොළඹ වැටලීමට උත්සාහ කළද එය අසාර්ථක විය. කොළඹ වැටලීමෙන් දශක පහකට පසුව දෙවන රාජසිංහ ඇතිපොල දුක්ගන්නාරාල නම් මුදලිවරයාගේ නායකත්වය යටතේ කි.ව.1938 තිකුණාමල බලකොටු වටලා අත්අඩංගුවට ගත් අතර කි.ව. 1762 කීර්ති ශී රාජසිංහ රජුගේ නියමය පරිදි ගලගොඩ අදිකාරම් විසින් ලන්දේසිගතව අයත් කටුවන - හක්මන සහ මාතර බලකොටු වටලා අල්ලා ගන්නා ලදි. ශී ලාංකේය රජදරුවෙකු කළ අවසාන බලකොටු වැටලීම වන්නේ කි.ව. 1803 ශී විකුමසිංහ රජුගේ නියමය පරිදි ලේව්කේ දිසාව විසින් ඉංගීසින්ට අයත් හංවැල්ල බලකොටුව වැටලීම වෙයි. මෙම වැටලීම්වල දී මුල් අදියරවල දී සිංහල සේනාවන්ට ජයක් හිමිවුව ද අවසානය පරාජයට පත් විය. ලේව්කේ දිසාව රජුගේ උදහසට ලක්ව මැරුම් කෑවේය.

මේ අනුව කි.පු. 2 සියවසේ සිට කි.ව.17 සියවස දක්වා කාල සමය තුළ සතුරන්ට එරෙහිව ලාංකිකයා ඉතා දියුණු උපායෝචිත බලකොටු වැටලුම් කුමවේද භාවිත කළ බව මෙයින් සඳහන් කළ හැකිය. ඒ බව රිබෙයිරෝ, ක්ටේරෝස්, කූටෝ, රොබට් නොක්ස් වැනි විදේශිය වාර්තාකරුවන් පැසසුමට ලක්වීමෙන් ද, මනාව පැහැදිලි වෙයි. විශේෂයෙන්ම සතුරන්ට එරෙහිව ලාංකිකයන් අනුගමනය කළ යුධ උපකුම අතර සතුරු බලකොටුවල අත්‍යවශ්‍ය දෑ හිඟවන තුරු වැටලීම, බලකොටු තුළට උමං කැනීම, නගර වැටලුම් පුහාර යන්තු මඟින් පුහාර එල්ල කිරීම, බලකොටු මැද ඇති ළිංව වලට වස එකතු කිරීම, බලකොටුවල ඇති අට්ටාල, ගේපුර දොරටු විනාශ කිරීම වැනි ඉතා කාලෝචිත බලකොටු වැටළීම් යුධ උපකුම අනුගමනය කළ බව පෙනේ. මීළඟට දේශසීමා ආරක්ෂක කටයුතු විමසා බලමු.

පැරණි ලක්දිව දේශසීමා ආරක්ෂක විධිවිධාන

මෙරට ඓතිහාසික මූලාශු වලට අනුව පුථම වරට දිවයිනේ කුමවත් දේශසීමා ආරක්ෂක සංවිධානයක් සංවිධානය කොට තිබෙන්නේ කි.පු 02 වන සියවසේ රෝහණ දේශ පාලනය කළ කාවන්තිස්ස රජතුමාය. හෙතෙම රජරට එළාර නම් දෙමළ ආකුමණයන්ගෙන් දක්ෂිණ ලංකාව (රෝහණය ද ඇතුළව) ආරක්ෂා කිරීම සඳහා මහ ගඟ හෙවත් මහවැලි ගංගාවේ සියලු තොටුපොළවල් සඳහා නිරන්තර ශක්තිමත් ආරක්ෂාවක් සැපයුවේය. විශේෂයෙන් මහවැලි ගඟේ පුබල තොටුපළක් වන කසාතොට සුරකිමට ස්වකීය අපුධාන බිසවකගේ පුතු දිසාහය කුමාරයන් යෙදවූ කාවන්තිස්සයන් පසුව ඔහු යටතේ හාත්පස යොදුන් දෙකක් ඇතුළත පුධාන කුලයෙන් එක පුතකු බැගින් කසාතොට කඳවුරට යෙදවීය. මෙම පුවත් මහාවංශයේ මෙලෙස දැක්වෙයි.

කාවන්තිස්ස රජ දෙමළන් වැලකනු පිණිස මහ ගඟ සියලු තොට හැම කල්ම ආරක්ෂා කරවී රජහුගේ අන්බිසක පුත් දිසාහය නම් කුමාරයෙක් වී ගඟයෙහි කසාතොට උහුලවා ආරක්ෂා කරවී ඒ තෙමේ ආරක්ෂා පිණිස හාත්පස දෙයොදුනෙක්හි (තැන) මහකුලයකින් එක එක පුතෙකු බැගින් එහි (කඳවුරට) ගෙන්වීය (මහාවංසය පරි 23 ගාථා 16-19:).

කාවන්තිස්ස රජතුමාගේ අණ දීම යටතේ දිසාහය කුමාරයා මහවැලි ගඟේ යුධමය වශයෙන් වැදගත් සියලු තොටුපළ ආරක්ෂා කරන්නට ඇත්තේ එළාරගෙන් රෝහණ දේශයට ආකුමණයක් එල්ල විය හැකි බවට අනුමාන කළ නිසා බව පෙනේ. එය වඩාත් තහවුරු වන්නේ දිසාහය පාලනය කළ කසාතොටට ආසන්නව දිඹුලාගල පර්වතය තිබීමෙනි. යම් හෙයකින් එළාරගෙන් රෝහණ දේශයට ආකුමණයක් එල්ල වුවහොත් එය කල්තියා හඳුනා ගැනීමට දිඹුලාගල පර්වතය මුදුනේ සිටින අයෙකුට හැකිය. මෙම සාධක නිසා දිසාහයට කසාතොට හා ඒ ආසන්න දිඹුලාගල කේන්දුකොට ගෙන මහවැලි ගඟේ තොටුපළ ආශිත දේශසීමා ආරක්ෂක වළල්ලේ පුධාන අණදෙන මුලස්ථානය පිහිටුවන්නට ඇත. පසුව මහවැලි ගඟෙන් මෙපිට දේශසීමාව ආරක්ෂා කිරීම සඳහා, දේශසීමාසන්න පුදේශ දිසාහය කුමාරයාගේ නායකත්වය යටතේ කුලවත් තරුණයන් ගෙන් සමන්විත සේනාංක තනවා කඳවුරුගත කරන්නට ඇත. මේපරිද්දෙන් රෝහණයේ යුද්ධ විශේෂඥයෝ කසාතොටට වැඩි ආරක්ෂාවක් යොදන්නට ඇත්තේ එතැන අඹන්ගඟ සහ මහවැලි ගඟ එක්වන ස්ථානය වීම නිසාය.

93

අනෙක එතැන එළාර පාර්ශවයෙන් බොට්ටුව හරහා රෝහණ දේශසීමාවට ආක්‍රමණය එල්ලකල හැකි ආකාරයට මහවැලි ඉවුරු දෙක පළල් වී ඇත. එසේම අඔන් ගඟ මහවැලි ගඟට එක්වන ස්ථානයට එපිට එළාරයන්ගේ ප්‍රබලතම බලකොටුව වන විජිතපුරය පිහිටා ඇත. මෙම සාධක නිසා කාවන්තිස්ස ප්‍රමුඛ රෝහණ යුධකාමීන්ට කසාතොට රැක ගැනීම අතිශයින්ම වැදගත් විය. ඇතැම් විට දුටුගැමුණු ඇතුළ විමුක්ති සේනා මාගම සිට අනුරාධපුරය බලා සටන් මෙහෙය වීමේ දී රෝහණ රාජධානියේ දේශසීමාව වන මහවැලි ගඟේ මෙපිට ප්‍රදේශ වල මහියංගනය, අඔතොට, සත්බෑකෝට්ටේ, අන්තරන සොබ්බ, දේඝණ, හාලකෝළ නාලි සොබහ, දික්අබාගල (දිඹුලාගල) කස්තොට, කෝටනුවර, හාලවහානක, වහිටිඨ, ගාමිණී, කුම්බගාම, නන්දිගාම, බානාගාම, තඹගම, ජම්බුගාම, යන එළාර පාර්ශවීය බලකොටු හා එහි ප්‍රධානීන් නොමරා අල්වා ගත් බවට ගුප්ත ප්‍රවෘත්තියක් මහාවංශයේ අන්තර්ගතය (මහාවංසය, පරි 25 ගාථා 1-20). එළාර පාර්ශවයේ වුවද ඔවුන් නොමරා අල්වාගත් බවට මහාවංශයේ සඳයන් වන්නේ ඇයි ද යන්න සලකා බැලිය යුතුය.

මෙම බලකොටු ප්‍රධානින්ගේ නාමයන් බොහොමයක් දෙමළ නොවන නාමයන්ය. නිදසුන් ලෙස දිසාහය, නන්දික, කපිසිස, ගාමිණී යන නාමයන් පෙන්වා දිය හැක. විශේෂයෙන්ම මෙම ලැයිස්තුවේ සඳහන් දිසාහය නැමැත්තා පැහැදිලිව ම කසාතොට ප්‍රමුඛ මහවැලි ගඟේ මෙපිට තොටුපොලවල් ආරක්ෂා කරවීම සඳහා කාවන්තිස්ස රජු විසින් පත්කළ අන්‍ය බිසවකගේ පුත්‍රයා වන දිසාහය බවට සැක නැත (මේධානන්ද, 2006 : 66). නන්දික යනු නන්දිමිත්‍රගේ පියා වූ එළාර රජුගේ මිත්ත සෙනෙවියාගේ සහෝදරිය පාවාගෙන සිටි තැනැත්තා විය. මෙම සාධකවලට අනුව මහියංගනයේ සිට කසාතොට දක්වා පැවති එළාර පාර්ශවීය බලකොටු පෙර කාවන්තිස්ස සහ දිසාහය විසින් මහවැලි ගඟේ පැවති තොටුපොලවල් ආරක්ෂා කිරීමට යෙදූ බලකොටු විය යුතුය. කාවන්තිස්සගේ මරණයෙන් පසුව රජ පවුල තුළ ඇති වූ සටිටන නිසා හෝ එළාර විසින් සිදුකරවන ලද සූක්ෂම ආක්‍රමණයක් හෝ තනතුර ලබා දීමක් හෝ අල්ලස් දීම වැනි ක්‍රියාමාර්ග නිසා පෙර සඳහන් රෝහණ ආරක්ෂක විශේෂඥයන්ගේ මහවැලි ගඟේ තොටමුණු ආශ්‍රිත ආරක්ෂක වළල්ල උල්ලංසනය වන්නට ඇත. කාවන්තිස්ස රජතුමාගේ ප්‍රධාන දේශසීමා ආරක්ෂක අණදෙන නිලධාරියා වූ දිසාහය ප්‍රමුඛ කණිෂ්ඨ තොටමුණු ආරක්ෂක නිලධාරීන් එළාරගේ පක්ෂය ගන්නට ඇත්තේ මේ නිසා විය යුතුය (පරණවිතාන 1964:163). මීළඟට

දිවයිනේ දේශසීමා ආරක්ෂක විධිවිධාන තරකල පාලකවරුන් වශයෙන් සැලකෙන්නේ ක්‍රි.ව 05 වන සියවසේ දී රජකල ධාතුසේන රජතුමා (ක්‍රි.ව 459-477) සහ ඔහු පුත් පළමුවන මුගලන් රජතුමාය. (ක්‍රි.ව 495-513) විශේෂයෙන්ම ධාතුසේන රජතුමා ලංකාව පුරා ස්ථාන 21 ක බලකොටු පිහිටුවා සඬ ද්‍රවිඩ ආක්‍රමණයන්ට දැඩි පීඩනයක් එල්ල කොට, වසර 27 පුරා අබණ්ඩව සටන්කොට පරාජයට පත්කල බව මහාවංශය සඳහන් කරයි. (මහාවංසය පරි 41 ගාථා 13-14:) මේ අනුව පෙනියන්නේ දිවයින පුරා දේශසීමා ආරක්ෂක විධිවිධාන තර කිරීම සඳහා බලකොටු 21 පිහිටුවා ද්‍රවිඩ විදේශ ආක්‍රමණයන් පරාජයට පත්කල බවයි. සඬ ද්‍රවිඩයන් පරාජයට පත්කළ ද ඔවුන්ගේ අභියෝගයන් කිසියම් දුරකට ඉතිරිව පැවති බව පෙනෙන්නේ ධාතුසේන රජු පුත්, එසේම සිගිරි කාශ්‍යප පරාජය කොට රජවු මුගලන් රජතුමා නාවික හමුදා මාර්ගයෙන් ලංකාව අවට සාමුද්‍රික සීමාව ආරක්ෂා කළ බවට වංසකථාවල සඳහන්ව තිබීමෙනි. ''සයුරින් අරක් බැඳ ලක්දිව නිර්ණය කළේය.'' යනුවෙන් මහාවංශය පුවතින් දැක්වෙන්නේ එය වෙය (මහාවංසය පරි 48 ගාථා 13-14 :). මීට අමතරව පැරණි රජදරුවන් දිවයිනේ දේශසීමා ක්‍රමානුකූලව පාලනය කිරීමටත්, ඒවායේ ආරක්ෂක සංවිධාන කටයුතු විධිමත් කිරීමටත් සහ නීතිය ක්‍රියාත්මක කිරීම සඳහා ලංකාව පිහිටි,රුහුණු, මායා යනුවෙන් පාලන එකක තුනකට බෙදා බලය තරමක් විමධ්‍යගත කොට ඒවායේ පරිපාලනයට දක්ෂ කුමාරවරු පත් කළහ. ඒ අනුව රජරට හෙවත් පිහිටි රටේ ආරක්ෂක කටයුතු මහ රජතුමා ද, මායා යෙවත් දක්ෂිණ දේශයේ පාලනය මාපා හෙවත් යුවරජතුමාද රෝහණය ආදිපාදවරයාද පාලනය කළ බව පෙනේ. පලුකාලිනව එම තත්වය තව දුරටත් සංකීර්ණය වී මධ්‍යම කඳුකරය පාලනයට මලයරාජ නම් දැරූ නිලධාරියෙකු පත්කළ බව ඓතිහාසික මූලාශ්‍ර සාක්ෂි දරයි. මීට අමතරව මාතලේ කඩයිම් පොත ත්‍රී සිංහලේ කඩයිම් පොත වැනි කඩයිම් පොත් වලට අනුව දිවයිනේ වනාන්තර බඳ ප්‍රදේශවල දේශසීමා ආරක්ෂා කිරීම සඳහා වැද්දන් පවා යෙදවූ බව පෙනේ. එවැනි විස්තරයක් පහත දැක්වෙයි.

''............බීජ් දෙවුලේ හෙල් කඳුරෙන් පහල කනත් හමුවේ කන්නිල වැද්දා හිරකර හිටියා නිකකොටුවේ හේරත් වැද්දා හිරකර හිටියා, මහ තම්පලා වැද්දා පලාපත්වල හිරකර හිටියා, දොඩා වැද්දා දෙඹලගම හිරකර හිටියා වාය. වල්ලිවෙල වල්ලි වැද්දා හිරකර හිටිනවාය ''(අභයවර්ධන, 1996:55) එහෙත් මහනුවර යුගය වන විට ත්‍රිවිධ යුරෝපානු ආක්‍රමණ හේතුවෙන් උඩරට රාජධානියේ බොහෝ දේශසීමා පහතරට ප්‍රදේශ දක්වා සීමා සහිත

වූ හෙයින්, රාජධානියට පිවිසෙන සෑම මාර්ගයකම, දුර්ගයකම කඩවත් මුරපොලවල් සකසා තිබුණි. එම දොරටු සහිත මුරපොලවල් කටු අතු, කටු පඳුරු, කටු ලී වලින් නිමවා තිබිණ. මෙම මුර පොලවල් ආරක්ෂා කළ සෙබළුන් කටුපුරුල්ලේවරු යන නාමයෙන් හැඳින්වෙයි. මුරපොලවල් හරහා යාමේ දී නූතන පාස්පෝට් වලට සමාන මුදා විශේෂයක් භාවිත කරන ලදි. එම මුද්‍රාව ජාති, පන්ති, වෘත්තීන් වලට අයත් ජනතාවට අනුව වෙනස් වූ බව පෙනේ. උඩරට රාජධානියේ දේශසීමා ආරක්ෂක විධිවිධාන පිළිබඳව කදිම විස්තරයක් රොබට් නොක්ස් නම් ඉංග්‍රීසි ජාතිකයා තම An Historical Relations of the Island of Ceylon නම් කෘතියෙන් මෙසේ පෙන්වයි.

''........ මෙම කන්ද උඩරට රාජධානියේ දුර්ග ස්ථානයේහි නිරන්තරයෙන්ම අරක් ගත් මුරකරුවෝ ඇත්තාහ. කටු දොරටු ඇත. සාමාන්‍ය වශයෙන් හැම මාවතකම ඇතුළ් වන ස්ථානයෙහි මුරකරුවන් ඇත්ත යුද්ධ කාලයෙහි කන්ද උඩරට රාජධානියෙහි හැම දුර්ගස්ථානයක්ම හැම මධ්‍යස්ථානයක්ම හැම මරු කපොල්ලක්ම විශේෂ මුරකාවලුන් විසින් රක්නා ලද්දේ වෙයි. විශේෂ ආරක්ෂකයන් විසින් අරක් ගන්නා ලද මෙම කටු දොරටු වලින් අවසර නැතිව කිසිකෙනෙකුට ඇතුල් විය නොහැක්කේය. මෙම කටු අතු, කටු පඳුරින්,හෝ කටු ලී එකටෙක යා කොට වෙලා බැඳ දොරක් ලෙස නිර්මාණය කොට මග හරස් කිරීමට යොදා ඇත්තේය. මෙම කටු දොරටු වලින් එකක් පෙරළා සිය රටට පැමිණීමෙන් පසු ග්‍රේහැම් විද්‍යාලයේ කෞතුකාගාරයේ තිබී මට දක්නට ලැබිණ. මෙය වූ කලි අඩි 10-12 උසට තබන ලද දොර පළුවක් වැන්න. මෙම කටු දොර අවශ්‍ය වූ විට උස් පහත් කල හැකි වන පරිද්දෙන් කඤයක ආධාරයෙන් හරස් පොල්ලක බැඳ ඇත්තේය. අලි ඇතුන්හට ගමන් කරන්නට පුළුවන් වන තරමේ මේ කටු දොරටු විශාලය උසයි. දැනට රජතුමාගේ වාසභවනය පිහිටි දිගිලිය නුවර හැම මාර්ගයකම හැඩි දැඩි මුරකරුවෝ මුරකාවල යෙදෙති. කිරි මැටියෙන් මුදා තබා සලකුණු කරන ලද ලාංඡන හෙවත් බල සලකුණු නැතිව මේ තැන්වලින් කිසිවෙකුට යා නොහැකිය. මේ කිරිමැටි සළකුණු අපේ රටවල පාස්පෝට් බඳු බල පතුවෙනුවට පාවිච්චි කරනු ලබන බල ලකුණු වෙති. මේ මැටි ලකුණුවලින් බාධවක් නොමැතිව යාම සඳහා මහවාසලින් විශේෂ ඉල්ලීමක් අනුව ලබාගත යුක්තකි. එය දරන්නුන්ගේ තනතුරු හා තත්ත්වය අනුව මෙම මැටි සළකුණු වෙනස් වන්නේය. හේවායන් සඳහා නිකුත් කරනු ලබන මැටි සලකුණු කොට ඇත්තේ හෙල්ලක් කර තබාගත් මිනිසෙකුගේ රූපයකි. කම්කරුවන්ගේ සලකුනේ කද කර තබාගත් මිනිස් රූපයකුත් සුදු මිනිසුන්ගේ සලකුනෙහි අංශයක අසිපතක් දරා හිස් වැස්මක් දරා මිනිස්රූපයකුත් ඇත්තේය. මෙපරිද්දෙන් ඒ ඒ ජාතිවල, පන්තිවල, වෘත්තීන් වල ජනතාව සඳහා විවිධ වූ ලාංඡන ඇත්තේය. එසේ වුවද අගනුවරින් පිටත යන්නවුන් ගැන පමණ පරීක්ෂාවක් අගනුවරට ඇතුල්වන්නවුන් සම්බන්ධයෙන් නොකරනු ලැබේ'' (නොක්ස් 1992:175).

මීට අමතරව සතුරු සේනා උඩරට දේශසීමා උල්ලංඝනය කළහොත් ඒ බව උඩරට රාජධානියටම දැන ගැනීම සඳහා දුර්ග මාර්ග අවට බැලුම්ගල් හෙවත් නිරීක්ෂණ කඳු ගැට ඉහළ මුදුන් ගිනි දල්වනු ලැබේ. මීට අමතරව කුඩා කඳු ගැට ආශ්‍රිතව හී මුරපොල නම් මුර පොලක් පැවති අතර අනතුරුදායක තොරතුරක් ලැබූ සැනින් යාබද හී මුරපොල වෙත ඊයක ආධාරයෙන් ඒ පණිවිඩ යවනු ලබයි. එම අනතුරු මධ්‍යයේ සතුරු පිරිස පැවතියහොත් මැරූ වැලවල් ඇටවීම, සැඟව සිට වටකර පහරදීම, ගස් ගල් පෙරළීම වැනි ගරිල්ලා යුදෝපක්‍රම හරහා ඔවුන් පරාජය කිරීමට උඩරට සේනාවන්ට හැකිවිය.

නිගමනය

මෙම කරුණු වලින් සනාථ වන්නේ පැරණි ලාංකිකයන් සතුව ඉතා දියුණු දේශසීමා හා බැඳුණු ආරක්ෂක විධිවිධාන රාශියක් පැවති බවයි. එසේම යුරෝපාගමනයට පෙර ශ්‍රී ලාංකිකයන් සතුව ඉතා දියුණු බලකොටු හා බැඳුණු ආරක්ෂණ ක්‍රමවේද පැවති බවටත් ස්වකීය සතුරන්ගේ බලකොටුකරණයට එරෙහිව අනුගමනය කළ බලකොටු වැටලුම් යුද්ධ උපක්‍රම රාශියක් පැරණි ලක්දිව පැවති බවටත් මෙමගින් නිගමනය වනවා සේම ඇතැමෙක් නූතන දේශසීමා සහ බලකොටු ආරක්ෂක උපක්‍රමවලට සමාන වීම තවත් විශේෂ ලක්ෂණයක් ලෙස හඳුනාගත හැකිය.

ආශ්‍රිත ග්‍රන්ථ නාමාවලිය

ප්‍රාථමික මූලාශ්‍ර

උම්මග්ග ජාතකය. (2001). රංජිත් වනරත්න. සංස්. කොළඹ. සමයවර්ධන සහ සමාගම

කෞටිල්‍ය අර්ථ ශාස්ත්‍රය. (2003). (පරි. හිරිපිටියේ පඤ්ඤාකිත්ති හිමි). කොළඹ, එස්. ගොඩගේ සහ සහෝදරයෝ

නිකාය සංග්‍රහය. (1997). කුමාරතුංග මුනිදාස. සංස්, කොළඹ. බෞද්ධ සංස්කෘතික මධ්‍යස්ථානය

මහාවංසය. (1996). හික්කඩුවේ ශ්‍රී සුමංගල හිමි. දේවරක්ෂිත පඬිතුමා. සංස්. කොළඹ, ජාතික කෞතුකාගාර දෙපාර්තමේන්තුව

සිංහල වෘපවංශය. (1959). රංජිත් වනරත්න. සංස්. කොළඹ. සමයවර්ධන සහ සමාගම

ද්විතීයික මූලාශ්‍රය

කුලතුංග. ටී. පී. (1988). මධ්‍යකාලීන ලංකාවේ ආරක්ෂක සංවිධාන. කොළඹ. ඇස්. ගොඩගේ සහ සහෝදරයෝ

හේරත්, ඉසුරු. (2016). කන්ද උඩරට ගරිල්ලා යුධ උපක්‍රම. ජා ඇළ. සමන්ති ප්‍රකාශකයෝ

අමරසිංහ, මාලිංග. (2005). පුරාණ ලක්දිව රජමාළිගා. කොළඹ. දයාවංශ ජයකොඩි සහ සමාගම

බෂාම්. ඒ ඇල්. (1962). අසිරිමත් ඉන්දියාව. කොළඹ. අධ්‍යාපන ප්‍රකාශන දේපාර්තමේන්තුව

ගයිගර්, විල්හෙල්ම්. (1969). මධ්‍යකාලීන ලංකා සංස්කෘතිය. කොළඹ. ඇම්.ඩී. ගුණසේන සහ සමාගම

විජයවර්ධන, කුසුම්සිරි. (2011). යාපනුව පුරාණ රාජධානිය. කොළඹ. දයාවංශ ජයකොඩි සහ සමාගම

පරණවිතාන, සෙනරත්. (2014). පුරාවිදු පර්යේෂණ. බොරලැස්ග මුව. විසිදුණු ප්‍රකාශකයෝ

සිරිවීර, ඉන්දුකීර්තී. (2019). ඉතිහාස තරංග. වරකාපොල. ආර්ය ප්‍රකාශකයෝ

මේධානන්ද, එල්ලාවල හිමි. (2002). සිංහලයේ විමුක්තිදායකයා. දුටුගැමුණු මහරජතුමා. කොළඹ. දයාවංශ ජයකොඩි සහ සමාගම

දේවරාජ, ලෝනා. (1997). කන්ද උඩරට රාජධානිය. කොළඹ. රජයේ මුද්‍රණ නීතිගත සංස්ථාව

දේවේන්ද්‍ර, ඩී. ටී. (1970). සදකඩ පහන සහ වෙනත් ලිපි. කොළඹ. ඇස්. ගොඩගේ සහ සහෝදරයෝ

මැද උයන්ගොඩ, විමලකීර්ති හිමි. (1949). සිංහල ආණ්ඩුව. කොළඹ, අනුලා මුද්‍රණාලය

හේරත්, ඉසුරු. (2016). රෝම අධිරාජ්‍යයේ ප්‍රභවය. ජා ඇළ. සමන්ති පොත් ප්‍රකාශකයෝ

ආරියපාල, ඇම්. බී. (2014). මධ්‍යකාලීන ලංකා සමාජය. කොළඹ. අධ්‍යාපන ප්‍රකාශන දෙපාර්තමේන්තුව

ලියනගමගේ, අමරදාස., සහ ගුණවර්ධන, රණවීර. (2014). අනුරාධපුර යුගය, කොළඹ, ඇස්. ගොඩගේ සහ සහෝදරයෝ

නෙල්සන්, ඩබ්ලිව්. ඒ. (2011). ශ්‍රී ලංකාවේ ලන්දේසි බලකොටු. කොළඹ. සූරිය ප්‍රකාශකයෝ

අමරසිංහ, රිස්මන්. (1998). සිතාවක රාජධානියේ උන්නතියද අවනතියද සමහර අංග පිළිබඳ විමර්ශනයකි. කතෘ ප්‍රකාශනයකි. නාවින්න තරුමි ප්‍රින්ටර්ස්

පෙරේරා, ගැස්ටන්. (2014). ශ්‍රී ලංකේය ඉතිහාසය. කොළඹ. ඇම්. ඩී. ගුණසේන සහ සමාගම

අභයවර්ධන, එස්. ඒ. පි.. (1978). කඩඉම් පොත් විමර්ශනය. කොළඹ. සංස්කෘතික දෙපාර්තමේන්තුව

කුලතුංග, ටි. පි. (1988). මධ්‍යකාලින ශ්‍රී ලංකාවේ ආරක්ෂක සංවිධානය. කොළඹ. එස්. ගොඩගේ සහ සහෝදරයෝ

Siriweera, W.I, and De Silva Sanath, (2017). Warfare in Sri Lanka, Colombo, Sarasavi Publishers

Oppert, G. (1972). On the weapons, Army organization and political maxims of antient Hindus, b Madras, Madras University press.

96

Sri Lanka Military Academy Journal

THE PRESENT UPRISING OF THE   PEOPLE AGAINST THE NATIONAL CRISIS: THE ROLE OF MILITARY

L G L B Gunarathne[1a], K H G D Devindi[2b]
[1]Second in Command, 7 Sri Lanka Corps of Military Police
[2]English Instructor, Sri Lanka Military Academy
[a]*lahirubuddhikagunarathne@gmail.com*
[b]*chamararuchira672@gmail.com*

ABSTRACT

"Out of the Barracks" - The role of the military in democratic revolution upon a national crisis or the participation of armed forces under a national crisis has not been adequately addressed among local communities. Many argue that such domestic roles bolster the military politically and eventually lead to an overthrow of rickety governments. Sri Lanka, being reclassified from a middle-income state to a low-income country by the World Bank, is turning to a desperate island in the fast-developing Asian continent, lacking steady economic growth for more than two decades; now the country has enlisted a rapid response from the support of its militaries domestically without risking the regime. Presently, Sri Lanka faces budget and current account deficits, hyperinflation, devalued currency and huge sovereign debt that can no longer pay leading to a climax of uprising the public; alarming a threat to its national security. This study leverages the military coexistence that systematically evaluates when and how militaries are used in the public upon a national crisis. Based on the secondary data on domestic military deployments and a lower ratio of quantitative literature about the current situation; this study suggests that decisions about whether to deploy the army as a key supporter of securitization. In this backdrop, the manuscript at the outset discusses the existing national crisis and military role to assist in maintaining national security. Researchers have thrived to identify the challenges and constraints in the involvement of the military. Finally, recommendations to overcome such drawbacks are proposed. Since, the military has a wider context of Army, Navy and Air Force; this study will dwell only on the role of the Sri Lanka Army.

KEYWORDS: *National Crisis, National Security, Military interventionism, Opportunities, Threats*

INTRODUCTION

Sri Lanka is facing the most difficult national crisis in recent history. The country's economy has collapsed to unprecedented levels of inflation. The shortage and skyrocketing prices of basic commodities have created many hardships in the country's social life circle. People gathered in the streets, villages and cities for demonstrations through both peaceful and

violent protests cursing the existing rulers and also the past government which has recently left for misappropriations alleged by certain political leaders. There was a month-long protest in the Galle Face Green, claiming a system change. The intensified public disorder was developing into an (Sunday Observer, 2022). Protests, which had been building from late February in response to Sri Lanka's worst economic crisis in nearly 75 years of independence, have morphed into a nation-wide uprising and the culmination was hit in the month of May 2022. Protesters were demanding the resignation of the government and a system change.

In sudden provocation, violent mobs were launching attacks around the country targeting politicians and their properties. Police and military used the least force to control the protesters and protests initially, but when the situation was exaggerated, the government declared a State of Emergency to protect the citizens and properties. Accordingly, "military troops were called in to control the mobs island wide to ensure the normalcy" (Kamalendran, 2022). However, civil society activists and diplomatic communities immediately condemned the military employment. Some media agencies pictured the situation as an attempt for military rule. When a country is in a crisis, military involvement to maintain the security seems straightforward and simple at first glance. However, when troops intervene to defend the government and the constitutional principles upon which it stands, sometimes the situation may turn bitter. Therefore, it is important (Kamalendran, 2022) to understand how best the military role could be used in a national crisis.

In any means of consideration for national security, the legal framework of the involvement of Sri Lanka Army in any crisis situation as a key component is officially and cognitively dictated in the Sri Lanka Army Doctrine published in 2018. As per the sections 24, 27 and 29 of chapter 2; the instruments of national power are the tools that a country can use to influence others to achieve its desired arms. They are Diplomacy, Information, Military and Economy. The ability to achieve the national interests depends on the potency of these instruments and the effectiveness of the strategy for employing them. The national security strategy aims at employing the instruments of national power, in the most competent manner, in order to achieve the stated national strategic objectives. It is also clearly stated that identification and elimination of causes and situations of internal strife or disturbances as one of the primary national security objectives that can be derived from the strategic and political guidance available. In pursuance of these objectives, Sri Lanka Army will evolve its military objectives and remain in strategic locations throughout Sri Lanka, ever ready to respond to any threat to national interests. The size, disposition, capabilities and the capacity of the Army are consistent with the objectives and priorities of Sri Lanka's national policy (Doctrine, 2018).

According to the Constitution of the Democratic Socialist Republic of Sri Lanka of 1978, the head of state, the president of Sri Lanka, is nominally the commander – in – chief of the armed forces has extended the guidance on empowering the law and order by assuming duties and responsibilities to Sri Lanka Army. The country's National Security Council which is also chaired by the president is the authority charged with formulating and executing defence policy for the nation. The proceeding authority is the highest level of the military headquarters - Ministry of Defence (MOD). MOD's main responsibility is the management of triforces where the Supreme Commander and the Minister of Defence is again chaired by the president. Hence, it can be rationally brought out that the Sri Lankan military (and Police) is/ are directed with an authority to maintain the national security by the executive bodies of the

Sri Lankan government. With that outset, the objective of this study is to evaluate and unveil the role of the Sri Lanka Army in providing assistance for maintaining national security in the existing national crisis and to propose recommendations.

The Existing National Crisis

World Food Programme analyses that "the economic turmoil in Sri Lanka could escalate into a full-blown humanitarian emergency" (Affairs, 2022, p. 2). The rising inflation severely affected the increase of prices in goods and services. The Galloping Inflation has marked the highest in Colombo Consumer Price Index in March 2022, since 2008. Hence, the existing economic insecurity in the country can be identified as a National Crisis situation.
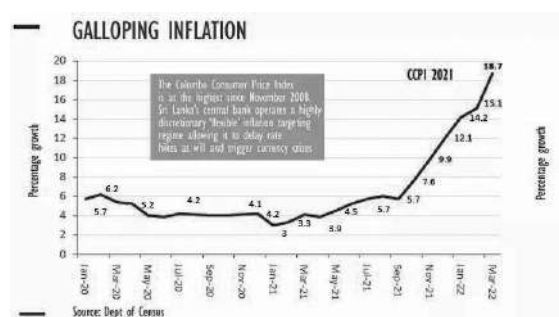
Figure 1- Colombo Consumer Price index. (Source - Department of sensors, January 2020 to March 2022)

Escalation of Uprising Situation

The former President Gotabaya Rajapaksa declared a state of emergency on the 1st April 2022, followed by all island curfews. On the 9th May 2022, some pro government supporters conducted attacks on peaceful protests at the Galle Face and it resulted in a series of massive violent mobs island wide. Anti-government protesters launched more attacks, set fire to the homes, vehicles of many ruling party officials and their supporters. The Prime Minister's residence was stormed by angry mobs and they forced his resignation.

Army had to protect and rescue him to a safer location. During the violent mobs, "nine persons were killed, 136 incidents of causing damages to properties and 102 incidents of setting fire and damages to vehicles were reported" (Kumarasinghe, 2022).

On the 11th May 2022, security forces were called in to assist the police in maintaining law and order. Within a few days the military were able to control the violent situation and guarantee normalcy.

LITERATURE REVIEW

National Crisis

National crisis is a situation or time at which a nation faces intense difficulty, uncertainty, danger or serious threat to people and national systems and organisations and a need for non-routine rules and procedures emerge accompanied with urgency (National Emergency Management Agency, 2017).

National Security

National security means the ability of a state to provide protection and defence of its citizenry. The components of national security may differ from the particular country's national interests. National Security concerns of Sri Lanka are ranging from national defense, foreign relations, economic factors, environmental issues, socio cultural and techno-scientific and information affairs (Doctrine, 2018).

National Security Threats

National security is affected by human emotions and motives arising from greed, fear, safety, favours etc. Anything that threatens the physical well-being of the population or jeopardises the stability of a nation's economy or institutions is considered a threat for national security (University, 2020).

According to North Atlantic Treaty Organization the Crisis Management means that "Crisis management is one of NATO's fundamental security tasks. It can involve military and non-military measures to address the full spectrum of crises before, during and after conflicts" (NATO, 2022). Therefore, it is of utmost importance to view and look for extended possibilities in which the Sri Lanka Army can be effectively and efficiently employed in the existing national crisis and also in future possible crises.

Military Interventionism

Many lessons can be learnt from the past scenarios that have already been reviewed in common literature on Military interventionism. According to Farid Boussaid (2021), the Zairean regime of Mobutu Sese Seko was destabilised by the Moroccan intervention in the Shaba crisis that took place from 1977 to 1978. This direct military intervention by Moroccans led to a steady prevention for the collapse of Mobutus's power. This involvement further extended to an allocation of a larger number of troops for the United Nations' mission that had already taken place during the end of 1960s. Not only that, it also opened up a firm facility to build direct contacts with important key deciders of the new state republic of Congo which became independent in 1961. As per Boussaid Military interventionism appears in people's preferences for anti-system politics"(Albrecht et al., 2021) ; means that, the most prompt provocation for an unstability of a certain country is the anti - system politics. This in turn would bring an intra - democratic transition between the existing rulers and the opposition parties. Such opposition parties, so called " Anti-political establishments" forward their views to highlight a greater liking for an intensified role of many, both civilian and state trade unions as an alternative for newly rising political groups. At last, an election of a new outside representative would be an incoherent phenomenon to act out

as a civil society activist where simultaneously the military is considered as an 'authoritarian alternative.'

Anti-establishment sentiments will continue to be an important element in Tunisian post-authoritarian politics, evidenced by the rise to power of Kais Said in the 2019 presidential elections and his 2021 decision to dismiss parliament (Albrecht et al., 2021). Further to express that, a favoured support for military intervention would have negative effects in the public security and in the peaceful transformation of the country's political alliances. For the Sri Lankan context, Ali Riaz (2022) has urged that "In the past few days, there have been concerns about whether the situation is heading towards a direction that may lead to a military intervention in politics. Although the military has enjoyed enormous power in Sri Lanka, it has never openly intervened and never dictated to the politicians" (p. 105).

The Sri Lankans were informed to pay concerns regarding a military intervention after the statement of the Chief of Defense Staff General Shavendra Silva requesting all the Sri Lankanas who are currently living in the country as well as who are abroad but still supporting the propaganda to help the armed forces and the police in order to verify that the "PEACE" is sustained within the country because a chance has evolved to solve and settle the current crisis situation in a harmoniuos manner. The Defence Ministry's top official, Kamal Gunaratne, said in a press conference: "None of our officers have a desire to take over the government. It has never happened in our country, and it is not easy to do it here" (Dikson, 2022).

Some Sri Lankan political analysts argue that while few of the military officials might have decided to support the past governing regimes, which were not much inclined to trap themselves in Sri lankan politics. Still the

military has remained on the sidelines, evidently acting as professionals and showcasing to the politicians that the military is not absent from the scene. Once the former president fled the country, it was seen by many as the military eventually took a side. However, the way how certain political parties and protesters would judge the role of the military is an "unlocked" question. Ali Riaz (2022) states in one of his journal articles that the leaders in a particular country may have to face some unprecedented situations. "The question is, what role will the military play under such circumstances?"

RESEARCH METHODS

This research falls into the category of applied research and a mix method as it contains a high ratio of qualitative and few quantitative data. Secondary data and related other published literature along with web sources were analysed. After collecting the journal articles related to key words, the factors which caused the crisis, effects of the crisis and analysing the potential threats using fishbone analysis, cause and effects diagram, SWOT analysis, finally evaluated the impact on the local dynamics to produce contextual, real-world knowledge about the social structures or shared beliefs of unrest public who are experiencing a national crisis. As a specific group, the armed forces are engaged to control such catastrophes by the law of the state even though it is not pre planned or more interpretive. The study has narrowed down to the role of the Sri Lanka Army as it is very significant to elaborate the capabilities and the commitments of the military in non-combatant phases. The significance of this study is to bring out the pivotal role in controlling and managing the internal crisis situations providing the utmost support for the state authorities by inculcating the 4 M's of Sri Lanka Army being as the largest organisation in the country by its manpower.

RESULTS AND DISCUSSION

The existing national crisis of the country has been created due to long- and short-term impacts of some overlapping factors which are identified as follows:

The Causes of Economic Crisis:

There are eight practical causes of the economic crisis, numbered from 1 to 8 which overlap with what's on either side and contribute to the Economic Crisis. It further depicts that all these causes have adversely affected and become more intense with the effects of the Economic crisis which has been created by themselves.

1. Negative effects of COVID - 19 pandemic.
2. Depletion of foreign exchange reserves.
3. Central Bank decisions for cutting taxes to revitalise the economy.
4. Government borrowed vast sums of money to fund public services.
5. National policy changes in the agriculture sector.
6. Russia - Ukraine conflict on Sri Lankan imports.
7. Failing negotiations with the International Monetary Fund.
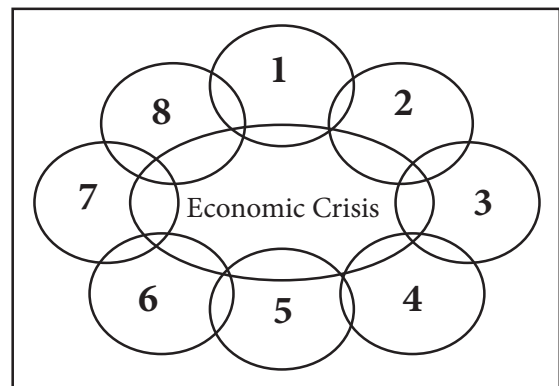8. Political corruption and mishandling of government money.

Figure 2 - Factors Caused for Economic Crisis. (Source - Developed by the researchers)

1.   Negative effects of Covid - 19 pandemic.

The economy and the people of Sri lanka have experienced a huge shock as a result of the COVID-19 pandemic outbreak. It explored the anticipated effects on poverty and disparities in the aftermath of significant job and wage reductions. Although pre-existing risks were high because of the country's high levels of informality and poverty, it is a noted fact that those concerns were still comparatively low before the pandemic.

Many workers lost their daily earnings during economic downturns because they did not have the access to employment protection or other job-related safety programmes. It was believed that the government's various relief programmes would have minimised the shock of this labour market.

However, the government's policy initiatives were insufficient to find a balance between a stable economy and the recovery process, especially in sensitive areas. Achieving this balance would have benefited in reducing the effects by the pandemic and lowering the issues on disparities. Also the government authorities could have allowed and approved a transition to a more flexible social protection system as an important support that could be promptly and effectively implemented during the crisis situations. Such a system would also prevent any possible catastrophes by providing much - needed and timely solutions in the future.

2.   Depletion of foreign exchange reserves.

The Central Bank of Sri Lanka reveals that the nation's available foreign reserves have decreased from USD 7.6 billion in 2019 to USD 1.6 billion by the end of 2021 (Public Finance.lk, 2022). The particulars have further illustrated that when compared with Sri Lanka's regional peers such as Bangladesh, Nepal, Pakistan and

India during the pandemic, only Sri Lanka's reserves appear to have decreased, but the reserve balances of its fellow Asian nations that are mentioned above have increased.

3.   Central Bank decisions for cutting taxes to revitalise the economy.

When the government allocated more tax income in its 2019 budget, problems started popping up. It is a clear fact that the country had long-standing problems with declining tax revenues. The decrease in tax revenue since 2016 and the failure to recognize and restructure the increasing debt earlier; are one of the root causes of the current crisis situation (Moore, 2017). In order to revitalise the economy, the government decision to cut taxes on some goods and services had a backfiring effect on the government revenue.

4.   Government borrowed vast sums of money to fund public services.

Over the last decade, the Sri Lankan government borrowed vast sums of money from international lenders to develop the infrastructure of the public services and imported goods and had less concern to support the local economy and boost its exports. To pay off the government debt, the country had to depend on its foreign exchange reserves. This has become one of the reasons to decrease the country's foreign reserves by nearly $6.0 billion in the recent years.

5.   National policy changes in the agriculture sector.

The government's decision in 2019 to ban chemical fertiliser and transform to organic farming led to catastrophic results in the agricultural sector. The government failed to increase domestic production of organic pesticides and fertilisers and provide farmers with subsidies. It decimated the yields of more

than " two million farmers representing 27% of the national labour force" (Department of Census and Statistics, Ministry of Economic Policies and Plan Implementation, 2020). Rice, Sri Lanka's dietary staple that it used to produce adequately and even exported; saw average yields slashed by 30%. For the first time in decades, Sri Lanka had to import rice. The production of rice declined by 30% and the export of tea fell by 18%, shrinking the country's foreign exchange earnings. Due to the great pressure aroused from the farmers, agrochemical import ban was lifted in November 2021.

6.   Effects of Russia - Ukraine conflict on Sri Lankan imports.

The ongoing conflict between Russia and Ukraine led to a regular fluctuating in the prices of crude oil, sunflower oil and wheat. Such an inflation in fuel and commodities, made a detrimental effect on the Sri lankan economy. In 2020, both the countries accounted for 2% of the country's imports and 2.2% of the country's exports respectively.

Imports from Russia
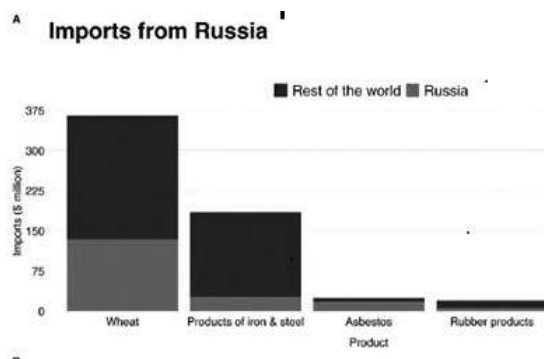
Figure 3 - Sri Lanka's Imports to Russia and Ukraine
(Source : https://island.lk/russia-ukraine-conflict-economic)

Imports from Ukraine
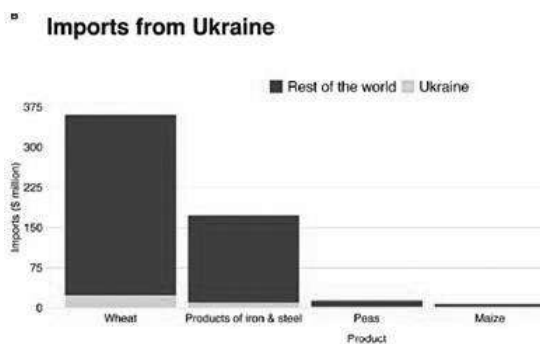
Figure 4 - Sri Lanka's Exports to Russia and Ukraine
(Source: https://island.lk/russia-ukraine-conflict-economic)

7.   Failing negotiations with the International Monitory Fund (IMF).

The Sri Lankan government tried its level best to succeed in the negotiation talks with the IMF but failed to reach an agreement on a bailout plan for the country on the edge of bankruptcy.   Thereby the government implemented daily limitations on necessities in the health sector and public transportation systems. It further prompted the public anger into the belief that the nation was already in a "fragile state," where people could no longer support their families.

8.   Political corruptions and mishandling of government money.

This is considered as a major problem in all levels of political hierarchy from the top echelons to minor staff levels. There have been numerous incidents where those who engaged in corruption were released without being punished because of their political ties. The country's widespread corruption culture has contributed to rising poverty and high economic disparity, which provoked island wide protests against the politicians claiming a system change in 2022.

RESULTS OF THE CRISIS

The Sri Lankan government officially declared an economic crisis in March 2021, leading to high inflation and food emergency. It has subsequently created the following negative effects in the country and social life pattern of the citizens:

1.   High Inflation

The inflation caused a high increase in prices of fuel, gas, basic food items, medicines and imported commodities as well as in electricity, water, transport and other services.

2.   Power Cuts

The debilitating power cuts highly affected the domestic activities and other public routines such as functioning of schools, hospitals and food and shopping malls. This also affected the maintenance of government and private sector institutions and their administration.

3.   Fuel Issues

The shortage of fuel supply badly disturbed the maintenance of essential services leading to many collapses of public and private transport systems. To collect fuel, people gathered in long queues at fuel stations, without attending to their jobs and routine work.

4.   Internal Security Issues

The economic hardships disturbed the normalcy of the country. It created social unrest and a severe threat to peace. Hence the government had to impose curfew and state of emergency that inculcated an emerging situation of violent social media propaganda in Facebook, Instagram etc.

The disruptions of the social life pattern created huge stress for citizens. Thus, they started protests against the government which subsequently intensified to an uprising situation in the country.

Effects to the National Security

The integrated effects of the existing economic crisis have created a greater threat to the country's national security and as such, have to be identified and addressed effectively. The analysis of "Potential Threats" was done by a "Fishbone analysis." This tool has been used to examine the existing economic crisis and its potential threats for national security.

The fishbone root cause analysis diagram below shows how the effects of the economic crisis have been related to national security.

The codes a, b, c… and a1, b1, c1… represent the causes and effects respectively.
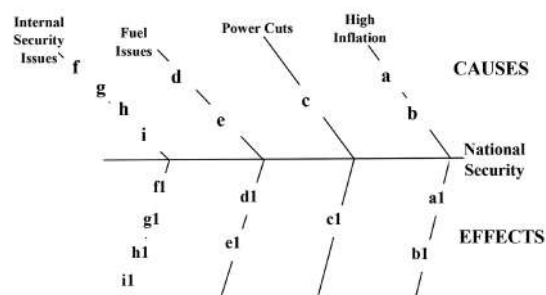
(Source: The diagram was developed by the researchers based on the following source https://www.fcgov.com/lean/files/fishbone-reference-guide)

As per the above fishbone root cause analysis, the process of examining the causes, effects and determining the gaps is explained as below:

One of the main results of the crisis is the high inflation which causes less production of food (a) and zero capacity to afford basic food items by the people (b). This directly accounts for food insecurity (a1) and negatively affects food supply systems or stores (b1) building an immense threat to national security. Therefore, a gap is built up on ensuring food security and functioning of the food supply chain with its related systems and stores.

Secondly the regular power cuts disturb the smooth functioning of domestic, public and private sector activities (c) leading the employees to refrain from attending to work and having constraints on social life patterns (c1). This builds gaps in finding ways and means to function the government and private sector and the need for renewable energy sources.

Thirdly, the fuel shortage minimises and holds the transport of essential food, medicine and other services (d), collapsing the social life pattern of the general public which aggregates unrest (d1). It was also witnessed that people gathered in long queues at fuel stations (e) leading to many disputes occurring at fuel stations (e1). So, a gap is built on how to maintain essential services and to ensure the security and protection of the general public.

Fourthly, internal security issues like social unrest and the uprising situation disturb the country's law and order (f), making civil police unable to control and disperse the public (f1). Hence, the proper employment of the Army to support the police is encountered. The government had to impose a "state of emergency" and curfew to normalise the situation (g). So they employed security forces to assist and ensure the law and order (g1) where the need arises to overcome the existing legal constraints and a challenge is built upon the reputation of the Army. The violent social media propagandas ran all over the island (h), losing the public support for government effort,

for police and security forces (h1). This brought out a heavier gap on ensuring public support for the defence role. Finally, this crisis situation provides a fine platform for transitional groups to operate (i) in which such groups can enter the country through sea (i1). So, a gap of providing support for maritime security is noted.

Fulfilment of these gaps could ensure national security.

Role of Sri Lanka Army under the National Crisis

Sri Lanka Army Way Forward Strategy 2020-2025 indicates the responsibility of defending the national security concerns in the full spectrum of conflicts including war. Thus, a major role of the Sri Lanka Army will be "to assist government agencies to deal with internal threats and provide aid to civil authority in times of national disasters, calamities and emergencies, when requested" (Doctrine, 2018). To fulfil that role, Sri Lanka Army Land Operations Doctrine indicates the following tasks:

1. Assistance to civil authorities to maintain law and order in times of civil unrest, uprisings and disturbance to civil administration.

2. Provision of assistance to government-initiated nation building programmes.

In an emergency, the Sri Lanka Army provides Military Aid for Civil Authorities (MACA) under three categories of "Military Aid to Civil Community (MACC), Military Aid to the Civil Ministries (MACM) and Military Aid to Civil Power (MACP) (Authorities, 2018)". The tasks may be different according to the situation and cause.

The SWOT Analysis

The SWOT analysis has been used to evaluate the role of the Sri Lanka Army to provide assistance for maintaining national security in the existing national crisis; and identify the capabilities, pros and cons on the government perspective.

The below chat shows the methodology used to evaluate the role. The code 1, 2, 3… represents related factors against each topic.

Internal	Strengths: 1, 2, 3, 4, 5, 6..	Weaknesses: 1, 2, 3, …..
External	Opportunities: 1, 2, 3, …..	Threats: 1, 2, 3, 4 …..

.

Figure 6 - SWOT Analysis Evaluation Methodology.
(Source: The table was developed by the researcher based on the following sources: https://www.researchgate.net/publication/319367788_swot-_analysis_a_theoretical_review)

According to the above SWOT Analysis Evaluation Methodology, the identified Strengths and Weaknesses can be controlled internally by proper utilisation and effective employment of available resources.

The external factors of Opportunities and Threats may be difficult to control; therefore, proper procedures have to be adopted to overcome the drawbacks. Accordingly, recommendations could be made, to fulfil the identified gaps.

Strengths that can be controlled internally:

The identified strengths are as follows:

The professional and competent manpower, available assets and capabilities of the Army, can efficiently provide assistance to the existing crisis situation by mean of:

1.   Ensuring of Food Security

The Sri Lanka Corps of Agriculture and Livestock (SLACAL) will ensure food security in the Army and support the government's agriculture policy on food security with their capacity. The Sri Lanka Army "Wagasangramaya" programme is a 'home grown solution' to make the country sustainable in crop growth. It encourages people to form domestic model farms, animal husbandry and horticulture in respective Security Forces Headquarters (SFHQ) areas. These efforts can be further enhanced through supplementary participation and technological advancements.

2.   Securing of Food Supply

The Sri Lanka Army can be employed in guard duties, patrols, perimeter securities and traffic control duties, to protect critical food supply systems, stores and infrastructure assets. Qualified officers and other ranks could be employed to undertake important distribution activities.

3.   Support the Functioning of Government and Private Sectors

The competent manpower and organisational assets can be employed to support the functioning of management structure in government/public sectors. This task has been remarkably proven by the Sri Lanka Army during COVID - 19 relief operations.

4.   Maintaining of Essential Services

Under the supervision of the Ministry of Defence (MOD), the Army Headquarters (AHQ) has initiated eight contingency plans to provide MACM during an emergency to maintain essential services in the fields of railway, electricity, transport, petroleum, sewerage disposal, national water supply, telecommunication and health services.

5.   Assisting the Police

Military assistance to the civil police for maintenance of law and order can be achieved through MACP. The cooperated contingency plans will facilitate the quick reactions in sudden aggressions.

6.   Infrastructure Development

The Sri Lanka Army Engineers (SLE) and Sri Lanka Army Corps of Engineer Services (CES) have the capabilities to contribute to a range of infrastructure development projects. With their capacity, they provide assistance for road maintenance, houses and building renovations in affected areas and giving a support hand to the government in "nation building."

Weaknesses that can be controlled internally:

The identified weaknesses are as follows:

1.   State of Emergency

The regulation offers a legal platform to employ the military in uprising situations. However, employing troops and their actions may sometimes fall against state's laws, constitution laws and with some laws governing the military under international obligations like International Humanitarian Law (IHL) and Human Rights (HR). Issues in the usage of minimum or maximum lethal force to control the situations and constraints to justify whether the Army may be required to use such force or not.

2.   Controversial of Emergency Regulations

International Commission of Jurists (ICJ) has demanded the Sri Lankan government to immediately revoke the emergency regulations. ICJ has pointed out that those regulations provide security forces with extensive power of search, detention, prosecution and punishment. Sri Lanka is bound as a party to the International Covenant on Civil and Political Rights (ICCPR) to respect a range of rights, among others including the right for liberty, freedom of expression and freedom of assembly.

3.   Gaps in Rules of Engagement (ROE)

The commanders and subordinates have to understand the Rules of Engagement (ROE) to ensure the operational planning and execution of operations within a fully legal framework, and to prevent overuse of powers. The unavailability of structured and well explained set of ROE's within the Sri Lanka Army happens to build restrictions for proper understanding of their contents and to take appropriate actions.

Opportunities

The identified opportunities are:

1.   Use of Renewable Energy Sources

This is one of the important opportunities identified. The Sri Lankan Army has the capacity to implement solar and biogas projects within the organisation as an immediate effort to generate energy and subsequently it could be introduced to sister services and other institutions.

2.   Assistance for Welfare Camps

The present Sri Lanka Army is highly capable to maintain the government welfare camps to support the much-needed citizens. The Army's competence and the ability to perform this task has been remarkably demonstrated during the humanitarian operation and COVID-19 quarantine operations.

3.   Revision of concepts and procedures

The available policies, concepts, procedures, job descriptions, job specifications and contingency plans are presently outdated as they have prepared for offensive and defensive perspectives. Those should be revised and updated considering the present situation in the country and emphasising the role to be performed by the Army. Such updates can be amended by calling management reviews within or outside the Army under the supervision of the Ministry of Defense.

Threats

The identified threats are:

1.   Over Militarization

This is one of the most widely spoken topics during the crisis situation where it had been food for thought to see whether the country's deterioration due to the crisis would become a further havoc by over- militarization. Many still suspect that the ongoing government is ready to penalise the victims (so called public) even by such attempts. However, when an Army troops are employed to assist the civil police, it is obvious to see that the law enforcement becomes overly militarised.

2.   Vulnerability

Army troops which are employed to control vulnerable protests, mobs and riots will face risk, unsafe and danger. Soldiers in uniform on the streets can increase the security, but it makes them more vulnerable for agitations and excitements.

3.   Emergence of Transnational Crimes

Transnational crime groups may exploit avenues through the sea, to patronise the country in the existing crisis situation.

4.   Violent Social Media Propaganda

Internet based anti-Army violent social media campaigns have negatively highlighted the role of the Army and employment of soldiers in public security.

RECOMMENDATIONS

National Security can be guaranteed by having military power that is capable of protecting the nation from any threat; and, the other instruments of national power in good order to safeguard the national interests. As the sentinel of this proud nation, the Sri Lanka Army as they have always been, are ready and equipped to take up these challenges and protect the country in its quest for greatness.

Based on the study, it was identified that to ensure food security and to support the government's agriculture policy on food security, the capabilities of the Sri Lanka Army Corps of Agricultural and Livestock (SLACAL) and "Waga Sangramaya": project have to be further enhanced through supplementary participation and technological advancement. To improve the effectiveness of the food supply chain, qualified officers and soldiers can be tasked for important food distribution activities and protecting vulnerable food supply stores/systems through guard duties, perimeter securities, patrols, traffic control duties etc.

Many government and private sector activities can be effectively functioned employing qualified officers and soldiers along with organisational assets as per the requirements. This can be further lodged with officers and soldiers involved in contingency plans to support government ministries for maintaining essential services during an emergency after training and thoroughly educating on their role and task.

Through the study, it was clearly explained that the Ministry of Defence, Army Headquarters and Police Headquarters are to prepare integrated contingency plans; which could assist immediate employment of police and Army troops to control sudden aggressions and riot situations in order to refrain from legal ambiguities. This can be made more practical by educating officers and soldiers on existing legal framework and grey areas of State of Emergency, Emergency Law and Rules of Engagement, usage of minimum or maximum lethal force to control situations and the international obligations of International Humanitarian Law and Human Rights.

The Sri Lanka Army can progress with the theme of "Green Energy" by initiating plans to introduce solar and biogas projects in camp premises as an immediate effort to generate energy. For "Nation Building ", the Conventional Armed Forces in Europe (CFE) and the Directorate of Emergency Services (DES) of Sri Lanka Army can cooperative and provide support for possible infrastructure development activities in affected areas.

Another important aspect that could come across by doing the research was outdated policies, concept of operations, procedures, job descriptions, job specifications and contingency plans to be updated and revised emphasising the role of the Army to provide assistance in the existing crisis situation. Officers and soldiers must be well briefed and educated to refrain from uninhibited, indiscreet talks or conversations, especially that might unintentionally lead to revealing private or sensitive information in open forums exposing to civilians. Army troops must be updated with existing situations before they are employed for controlling protests, providing security for fuel sheds etc. Commanders should obtain "After-duty feedback" from the respective parties.

According to the study it's understood that there is an important responsibility to be carried out by the respective Army Security Forces Headquarters by liaising with the Sri Lanka Navy and preparing contingencies to eliminate possible transnational crime groups and threats entering through the maritime boundaries, vulnerable beaches and inland routes.

To cover the spectrum of cyber security threats, the Chief Signal Officer has to prepare contingencies to counter internet based anti-Army violent media campaigns and to liaise with the Directorate of Psychological Operations to rebuild the image of the Army.

CONCLUSION

Present Sri Lanka is at a crucial juncture in its proud history. Facing an economic crisis and safeguarding social and security morals in this crucial time is the greatest challenge of the country. It may be due to the context of globalisation or may be an attempt by internal and external adversaries to undermine the beliefs of this great country. We, as a nation, need to stand as one, as one nation to sustain our hard-earned peace. Achieving economic prosperity, building ethnic unity and harmony and active participation of all communities in the system of governance are critical ingredients to overcome this national crisis and ensure national security. Being the "defenders of the Nation" the Sri Lanka Army would play a pivotal role in controlling and managing the

internal crisis situations providing the utmost support for the state authorities by using its 4 M's – Men, Machineries, Methods and Materials. Currently, the Sri Lanka Army is the largest organisation within the country by its manpower.

As discussed in the research, a unique challenge placed upon the Sri Lanka Army is to anticipate change in time and to be prepared to adapt as necessary for the conduct of its primary role in ensuring national security in this existing crisis situation. The importance of quick perception and adaptation derives from the vital nature of national security.

REFERENCES

Albrecht, H., Bishara, D., Bufano, M., & Koehler, K. (2021). Popular support for military intervention and anti-establishment alternatives in Tunisia: Appraising outsider eclecticism. *Mediterranean Politics*, 1-25. https://doi.org/10.1080/13629395.2021.1974691

Albright, D. E. (1980). A comparative conceptualization of civil-military relations. *World politics, 32*(4), 553-576. https://doi.org/10.2307/2010057

2022 AFP. (2022). *Crisis-hit Sri Lanka deploys troops to quell protests.* Retrieved from france 24: https://www.france24.com/en/live-news/20220402-crisis-hit-sri-lanka-deploys-troops-to-quell-protests-1

Adeniyi, D. (2022). *Everything to Know About Sri Lanka's Economic Crisis.* Retrieved from BORGEN magazine.

Affairs. (2022). *World food Programme Sri Lanka Situation Report. UN, UN office for the coordination of Humanitarian Affairs.* New York: UN.

Ajazeera. (2022). *Diplomats urge Sri Lanka to reconsider 'state of emergency'.* Retrieved from Aljazeera News: https://www.aljazeera.com/news/2022/5/6/state-of-emergency-declared-in-sri-lanka-as-strike-halts-country

Bank, W. (2021). *The COVID-19 Impact on Livelihoods and Poverty in Sri Lanka : Background Note to Sri Lanka Poverty Assessment.* Washington DC: World Bank Publications.

Buddhavarapu, R. (2022). *IMF-Sri Lanka bailout talks end without a deal.* Retrieved from cnbc.com: https://www.cnbc.com/2022/06/30/imf-sri-lanka-bailout-talks-end-without-a-deal.html

Central Bank of Sri Lanka. (n.d.). *Financial Consumer Department (FCRD).* Retrieved from Central Bank of Sri Lanka: https://www.cbsl.gov.lk/en/fcrd

Daily. (2022). *Sri Lanka Crisis: What role would the military play?* Retrieved from The Daily Star: http://www.thedailystar.net/opinion/views/sri-lanka-crisis-what-role-would-the-military-play-3069351

Department of Census and Statistics, Ministry of Economic Policies and Plan Implementation. (2020). *LFS Annual Report 2020.* Retrieved from statistics.gov.lk: http://www.statistics.gov.lk/LabourForce/StaticalInformation/AnnualReports/2020

Doctrine, S. L. (2018). *Military Aid to the Civilian Authorities* (13 ed.). (D. o. Training, Ed.) Colombo, Western, Sri Lanka: Sri Lanka Army.

GUZMAN, C. D. (2022). *The Crisis in Sri Lanka Rekidles Debate Over organic Farming.* Retrieved from Time: https://time.com/6196570/sri-lanka-crisis-organic-farming/

Jayasinghe, U. (2021). *Sri Lanka rows back on chemical fertiliser ban, but yields may not rebound.* Retrieved from reuters.com: https://www.reuters.com/markets/commodities/sri-lanka-rows-back-organic-farming-goal-removes-ban-chemical-fertilisers-2021-11-24/

Jayawardena, K. (2022). *Should the constitutional council be made "Rights Free"?* Retrieved from Sunday Times: https://www.sundaytimes.lk/020707/columns/focus.html

Kamalendran, C. (2022). Protesters face arrest if they disrupts normalcy. *The Sunady Times*, p. 2.

Konara, A. (2022). *Getting out of a debt hole: Some advice for Sri Lanka's establishment.* Retrieved from Managing Debt Blueprint for Sri-Lanka: https://www.managing-debt-blueprint-for-sri-lanka.co.uk/

Kumarasinghe, K. (2022). *Stern action agains those involved in violent action.* (C. Newspapers, Ed.) Daily Mirror, p. A4.

Lanka, C. B. (2018). *Measures to Reduce Interest Rates, Enhance Market Liquidity & Finance the Government.* Retrieved 2022, from Central Bank of Sri Lanka: https://www.cbsl.gov.lk/en/COVID-19-monetary-policy

Mallawarachchi, B. (2022). *Sri Lanka Is on the Brink of Bankruptcy*. Retrieved from The Diplomat: https://thediplomat.com/2022/05/sri-lanka-is-on-the-brink-of-bankruptcy/

Moore, M. (2017). *The Political Economy of Long - Term revenue Decline in Sri Lanka*. Retrieved from www.ICTD.ac: https://www.ictd.ac/publication/ictd-wp65/

National Emergency Management Agency. (2017). *No declared emergencies*. Retrieved from civildefence.govt.nz: https://www.civildefence.govt.nz/about/contact-us/

NATO. (2022). *Crisis management*. Retrieved August 30, 2022, from nato.int: https://www.nato.int/cps/en/natohq/topics_49192.htm

PTI. (2022). *Crisis-hit Sri Lanka lifts state of emergency*. Retrieved from The Hindu: https://www.thehindu.com/news/international/crisis-hit-sri-lanka-lifts-state-of-emergency/article65442716.ece

Public Finance.lk. (2022). *Free and Open Access to Public Finance Data and Analysis*. Retrieved from Public Finanace.lk: https://publicfinance.lk/en/topics/is-the-pandemic-the-sole-cause-for-the-depletion-in-sri-lanka-s-foreign-reserves-1646912468

Ranasigam, K. (2022). *Financial Crisis in Sri Lanka in South Asia*. Retrieved from Counter Currents: https"//countercurrents.org/2022/10/financial-crisis-in-sri-lanka/

Sheahan, M., & Marsh, S. (2022). Germany to increase defence spending in response to 'Putin's war' - Scholz. Retrieved from reuters.com: https://www.reuters.com/business/aerospace-defense/germany-hike-defense-spending-scholz-says-further-policy-shift-2022-02-27/

Sunday Observer. (2022). No Coup or Orders to Shoot at Site. feature, p. 5.

Transparency. (2021). *Curruption Perception Index 2021, Sri Lanka*. Retrieved from transparancey.org: https://www.transparency.org/en/cpi/2021/index/lka

UN. (2021). Statement by H.E. Gotabaya Rajapaksa President of the Democratic Socialist Republic of Sri Lanka UN Food Systems Summit 23 September 2021. Retrieved from Permenent Mission of Sri Lanka to the United Nations: https://www.un.int/srilanka/news/statement-he-gotabaya-rajapaksa-president-democratic-socialist-republic-sri-lanka-un-food

University, E. K. (2020). *5 Threats to National Security and How Government Protects its Citizens*. (E. K. University, Editor) Retrieved from EKU Online blog: https://safetymanagement.eku.edu/blog/threats-to-national-security/

Wijesinghe, A. (2022). *Russia-Ukraine conflict: Economic implications for Sri Lanka*. Retrieved from Island.lk: https://island.lk/russia-ukraine-conflict-economic-implications-for-sri-lanka/

World Bank. (2022). *Where we work*. Retrieved from worldbank.org.

BTR-80A ARMOURED PERSONNEL CARRIER SIMULATOR: A STATE OF THE ART SOLUTION TO TRAIN BTR CREWS OF SRI LANKA ARMOURED CORPS

K T D C Samaraweera[1a], M D B Madhuwanthi[1b], J T Kalani[1c], R A M H Ranasinghe[1d]

[1]Research Officers, Centre for Defence Research and Development, Ministry of Defence
[a]chathumi.samaraweera@gmail.com
[b]mdb.madhuwanthi@gmail.com
[c]tkjayasingha@gmail.com
[d]muditharanasinghe@gmail.com

ABSTRACT

Armoured Personnel Carriers (APCs) crew training is limited due to the high cost involved in live training sessions. The main objective of a Simulator is to provide a low-cost indigenous solution to train the BTR-80A APC crew of the Sri Lanka Armoured Corps. It has been designed with the virtual concept by simulating functions on a virtual APC and operating it on a virtual terrain. This virtual APC is animated by feeding real-time information from complex hardware and software setups. The hardware setup has been developed by using an abandoned BTR-80A APC. The electronics give real-time information on the operations of each important sensor mounted part of the APC. This information is processed in a software platform and fed into the virtual APC to animate the APC according to the real-time information. The APC, Main Control Station and Dome Screen Projection are the three main sections of this system. The main control station controls the power and software of the system. Driver is equipped with almost every driving option in the APC. Gunner is equipped with the 30 mm main gun and the supporting PKT gun by simulating realistic weapon characteristics, ballistics, time of flight, blasting effects and natural sounds. The Commander can observe targets, judge distances to respective targets and instruct the Gunner. The Instructor's Panel is provided for the instructor to observe trainees' real-time behaviour. This simulator system provides a low-cost indigenous solution to train the APC crew of the BTR-80A APC. As a result of this solution, environmental pollution also can be reduced.

INTRODUCTION

Armoured Personnel Carriers (APCs) have proven their capabilities and success during all major combat operations conducted in the past and have been a decisive factor in winning the war againt the LTTE. Although the peace prevails at present, maintenance of APCs and training of APC crews have become an essential requirement to keep up the combat readiness and to maintain a continuously updated professional force.

However, training of Drivers, Gunners and Tank Commanders is limited due to the high cost (Ammunition Cost, Fuel Cost, Maintenance Cost and Training Cost) involved in live training sessions. The BTR-80A Simulator is designed and developed to address the above issues, and the major objective is to provide a low-cost indigenous solution to train BTR-80A Drivers, Gunners and Commanders of the Sri Lanka Armoured Corps. The trainees are trained in a classroom environment by providing them with a practical experience by engaging them with a BTR-80A APC, and training activities are carried out under different terrain conditions. Hence, high productivity, high effectiveness and high efficiency can be gained from the simulator training sessions. This is also one of the main objectives of this simulator solution. Apart from the main objectives, when a live firing session it damages and disturbs the environment. This solution helps reduce the environmental pollution and disturbances up to a certain level. Hence, protecting the environment is also an objective of this project.

LITERATURE REVIEW

At present, conducting training in any field, Military, Aviation, Medical etc, have constraints due to high cost involved in training sessions. Since Sri Lanka is a developing country, it is an essential requirement to reduce the cost involved in training sessions. Even though the training cost can be reduced of live training sessions, it is not possible to reduce the productivity, effectiveness and efficiency of training sessions. In order to reduce the cost and keep the quality of training, the best solution is the simulator solution. When we focus on Military Training in Sri Lanka, there are few simulator solutions, for small arms (T56 Gun Simulator), some of the battalion support weapons (81 mm Mortar Simulator), Ships and Aircrafts, but not for APCs. The main objective of this research project is to find a simulator solution for BTR-80A APCs.

In the following section, the worldwide solutions for simulators are studied. The benefits, drawbacks, advantages, disadvantages and how these research papers assist this research projects are discussed in the following sections;

"Development of an engineering simulator for armoured vehicle": In this research paper, a simulator solution is given to overcome several issues caused by the traditional armoured vehicle designs. The issues are of high cost and long cycle development problems. Also, to test the rationality of the design to investigate different parameter effects on vehicle performance, to study man-machine efficacy, and to train crews. As a solution for those issues, they are introducing an Armoured Vehicle Engineering Simulator (AVES). In that Simulator, they cover eight areas. They are the vehicle dynamics, motion platform, visual simulation, sound effect, cockpit, man-machine interface, vibration seat and main console. The development of AVES not only

provides a platform for new vehicle designs and performance evaluation but also it makes further research on man-machine efficacy (Tang, 2015).

In this research, they have done great work when it comes to developing vehicle dynamics; they have included a 6 Degrees of Freedom Stewart Motion Platform. Also, they have included visual simulations, sound effects etc. But they have not considered the background view of the APC. Suppose the trainee trains under an open hatch situation, and if he needs to observe the background of the APC from the open hatches no option has been provided. In order to cover this drawback in the BTR 80A Armoured Personnel Carrier Simulator, a specially designed Dome type Screen Projection has been introduced.

"Infantry Combat Vehicle Driving Simulator (BMP II DS)": This product was introduced by Zen Technologies Limited. BMP II Driving Simulator has been developed to train recruits as well as Special Drivers to drive Infantry Combat Vehicle (ICV) or the APC in operational and peacetime scenarios. The special ICV/APC driver training simulator includes only a driver cabin that contains the Driver's controls, indicators, viewing devices and instrument panel of a standard ICV. This Simulator has comprehensive 3D Computer Generated Imaginary (CGI) visuals. A 6 Degrees of Freedom Motion Platform, driven by synchronised terrain and vehicle dynamics, provide the motion to feel that the trainee is expected to experience when he is in a similar driving environment during training or an operation (Zen, 2005).

They have done a good job in producing a driving simulator for BMP II combat vehicles by adding all the features essential for drivers like; the motion of the vehicle, Driver's controls, indicators, viewing devices and instrument panel. They have only simulated the Driver's

side but not to train the Gunner or Commander. But in the BTR 80A APC Simulator, the Driver, Gunner and Commander simulations are included. Hence, the whole crew can be trained simultaneously. This is an advantage for Sri Lanka Armoured Corps since they can conduct their training sessions for the entire crew of the BTR-80A APC.

"Crew Gunnery Simulator for T-72 Tank (T-72 CGS)": This product was introduced by Zen Technologies Limited. T-72 CGS is a comprehensive simulator designed to train both Commanders and gunners of Tank T-72, enabling skill development from basic to advanced levels. They have included all the interactive controls like instruments, indicators and gauges in the gunner compartment, Gunner's Sight TPDK-1, Commander Sight TKN 3B and all gunnery-related controls in Gunner and Commander sections. Also, they have developed the jerk on main gun firing (Zen, 2006).

The designers have facilitated the Gunner and Commander but not the Driver. Hence, the whole crew cannot be trained by using this Simulator. But in the BTR 80A Armoured Personnel Carrier Simulator, the driver section, gunnery section and commander section are included and simulated. Hence, the whole crew can be trained simultaneously.

The digital environment of the BTR 80A Armoured Personnel Carrier Simulator reduces the long-term expenditure. This research mainly aims to create a simulator solution to reduce several problems, on field training sessions. Mainly hoping to reduce the cost of ammunition, fuel, training cost and maintenance cost. The Simulator offers trainees a realistic and immersive environment in order to practise and improve their responses and decision-making skills. This powerful simulator-based training platform may not offer a 'real-life' experience. The simulators

allow trainees to practise in a variety of different scenarios and environmental conditions that they may never encounter during on ground training. Hence, this is a financially beneficial and effective training simulator to train trainees of the Sri Lanka Armoured Corps.
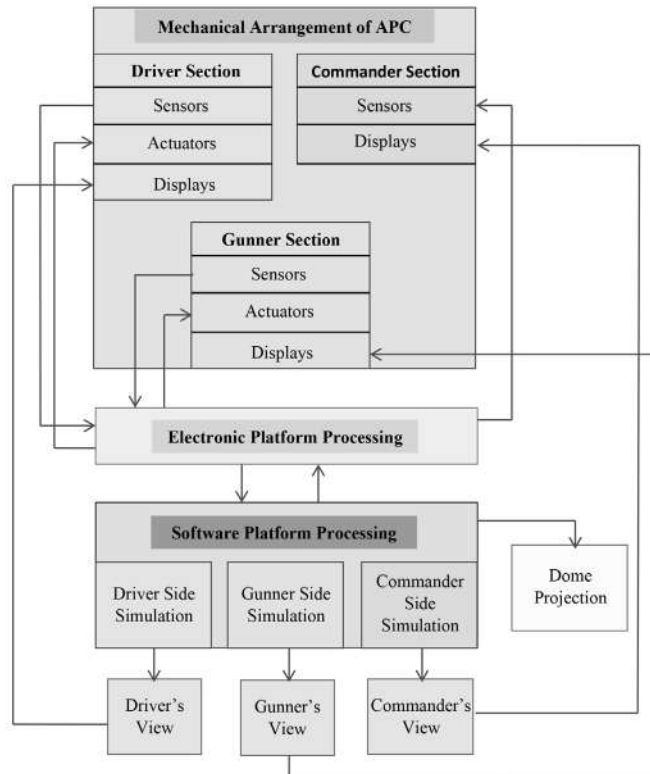
Figure 1 - Basic set up of the system

METHODOLOGY

In this section, the scientific methodology of this research is explained. The overall idea of the system included mechanical, electronical and software arrangements as the following block diagram simply depicted:

Mechanical Arrangement and Sensor Interfacing

1. Under the Driver, Gunner and Commander sections, almost all the controllers of the APC are simulated with sensors in order to detect the states of those controllers.

For that, each and every controller inside the APC is coupled with sensors using modified mechanical arrangements.

2. Also, the foot pedals, steering wheel, dashboard parameters, hydraulic distributor and all other levers are coupled with sensors with use of mechanical arrangements.

3. The Driver's seat is equipped with actuators (stepper motors) to move the seat according to the motion of the virtual APC in the software programme.

4. In Gunner Section, all the controllers of day and night sights, the parameters in gun and turret control boxes, firing options and other controllers which are used to move the gun and turret are connected with sensors using modified mechanical arrangements.

5. The Commander Sight also has the ability to move, as in a real sight, and that movement is detected by sensors in the Commander's sight.

6. Other controllers of the Commander's sight are also coupled with sensors by using mechanical arrangements.

7. All the views (Gunner's sight, Commander's sight, windscreen views etc.) relevant to Driver, Gunner and Commander sections are given inside the APC using separate LED displays.

8. Those displays are mounted in respective places inside the APC by placing newly built mounts in relevant places.

Electronic Platform Processing

1.   First, the data from sensors are collected by the electronic circuits and then transmitted to the PC using the RS 485 Serial Communication Protocol.

2.   Also, the data coming from the PC are passed to actuators by using this platform. The data generated by the PC are transmitted to the electronic circuits by using the same RS 485 Serial Communication Protocol, and then that data are fed to the actuators.

3.   12 V, 15 V and 36 V DC power supplies for displays, circuits, sensors and actuators are also distributed by separately built power supply units.

Software Platform Processing

1.   The "Unity" game engine is used to develop the software platform.

2.   All the transmitted data from the electronic circuits are processed inside this software platform and simulated all the functions in the virtual APC.

3.   After that, the information of the virtual APC is passed to the electronic circuits in order to operate actuators.

4.   The motion of the virtual APC is fed to actuators of the motion platform to operate the Driver's seat according to the orientations of the virtual APC.

5.   All the views required for Driver, Gunner and Commander sections are generated in the software platform according to the position and orientations of the virtual APC in the virtual environment.

6.   After that, those views are fed to the Dome Screen Projection and other displays inside the APC.

RESULTS AND DISCUSSION

Main Control Station

The whole system is controlled by this station. The main control station handles the system power (AC & DC), and all the electric appliances, computers and power supply units are installed in this station. The following figure shows the arrangement of those units inside the main control station.

The control station is developed to facilitate the instructor. The instructor can get an overall idea of the present state of the training crew (Gunner, Commander and Driver). He can observe and guide the BTR Training Crew with the help of this control station. Further, he can test the reactions of the trainees by simulating emergency situations. A warning generation option is given to the instructor, and with that option, the warnings can be generated in the Driver dashboard inside the APC. Moreover, the instructor can add targets to the virtual environment and can check whether the trainees are getting the target accurately. The instructor is facilitated with the following panels:

1.   A - Instructor's Panel
2.   B - Gunner's Day Sight and Night Sight View
3.   C – Commander's Sight View
4.   D – Driver's Windscreen View
5.   E – Commander's Windscreen View
6.   F - Meter Panel of the Driver's Dashboard

By observing all the views on the control station, the instructor can get a comprehensive awareness of the behaviour of trainees, and is able to direct the trainees for a complete training session. The following figure shows the main control station:

Figure 2

Dome Screen Projection

A 180o dome has been placed in front of the Simulator. It gives a broader view of the terrain for the instructor and the APC crew. If the trainee trains under an open hatch situation and if he needs to observe the outer environment from the APC, the trainee can use this option to observe the outside ground. The outside viewers can also watch the movement of APC from the dome projection. The following figure shows the dome projection view:

Software Developments

1.   User-Friendly User Interface (UI) panels are given in this Simulator.

Figure 3

2.   The Simulator is facilitated with two scenarios, called "Tactical" and "Driving"; hence the instructor has the opportunity to select the appropriate terrain.

Figure 4

3.   The instructor has to select the relevant camera views for the Driver, Gunner and Commander in the respective computer in order to accurately position them.
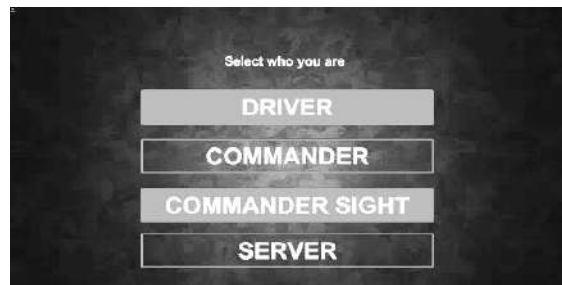

Figure 5

4.   Several common options like "Menu", "Settings"," Resume", "Exit", and "Camera Positions" are also available in this system.
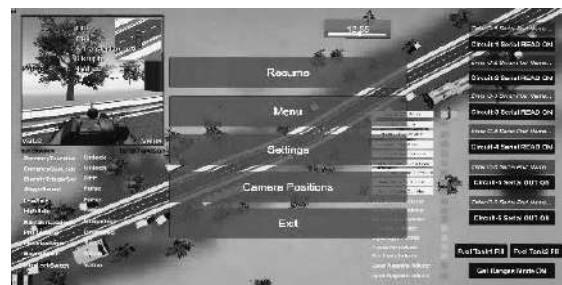

Figure 6

5. The Simulator can be controlled through the Instructor Panel. The panel contains the following key features:

1. Data controlling panel
2. Driver and gunner indicator options
3. Fuel tanks refill option
4. Real-time updates for the Driver
5. Real-time updates for the Gunner
6. Time adjusting option
7. Real-time data display option

Options in the BTR-80A APC Simulator

Driver Section

The Driver is equipped with almost every driving option in the BTR-80A APC, such as common driving options like steering, clutch, brake, accelerator, gear and hand brake, as well as unique driving options in the APC such as hydro-jet system, special driving levers, dashboard, night sight etc. The Driver can see the virtual terrain from the given display placed on the windscreen. It is possible to drive the BTR- 80A APC practically using this windscreen display and simulated real driving parameters. Night driving also can be done by using the night sight of the Driver. The meter panel, warning alarm indicators and switches on the dashboard are provided for the Driver to observe the real-time status of the APC and to make necessary decisions according to the situation. The following figure shows the display arrangement of the driver section:

1. The BTR 80A APC has amphibious capabilities. Hence, by using the hydro-jet system and other related options like hydraulic distributors, the APC can also be driven on water. The following figure shows the amphibious options for the Driver:

2. In this system, the view of the Driver's Night Sight is simulated and displayed on a screen placed in the front left corner of the Driver.

3. Two degrees of freedom motion platform is developed only for the Driver's seat to give pitching and rolling effects to the Driver while driving the BTR-80A APC based on the virtual terrain conditions.
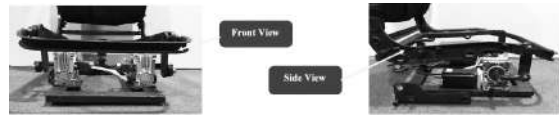
Figure 7

Gunner Section

The Gunner has a major role in this Simulator. The 30 mm main gun and the supporting PKT gun of the BTR-80A APC are included in this system by simulating realistic weapon characteristics, ballistics, time of flight, blasting effects and natural sounds. The Gunner's cabin is equipped with the most important options related to the 30 mm main gun and the supporting PKT gun. The 30 mm main gun controlling options like turret control panel, gun control panel and main turret controls, as well as important common options for both guns like day sight, night sight and firing buttons, are simulated by modifying real components in the BTR-80A APC. It is possible for the gunners to operate these modified components and practice firing drills. A display is provided with day and night sight views to observe virtual terrains and aim at the targets on the terrain. It is also possible to control the 30 mm main gun in vertical and horizontal planes with respect to the APC.

1. The reticule patterns of day sight for ground and air targets are given in the following figure:

Figure 8

2.   The view of Gunner's sight when a target is being hit.

3.   Reticule patterns of night sight for hard and soft targets are given, and the respective patterns according to the ammunition types HE, AP and KPVT are as follows:

Commander Section

The Commander guides the Gunner to take targets by observing the terrain with the help of the Commander's Sight. In this system, the Commander can observe targets, judge distances to respective targets and instruct the Gunner. These tasks are done with the modified Commander's Sight in the BTR-80A APC by simulating important features such as range finder and sight view. The Commander's Sight view is simulated on a screen. From this, the Commander can observe the virtual terrain by rotating the whole sight in vertical and horizontal planes. The Commander can communicate with the Gunner and the Driver by using the original communication system.

CONCLUSION

1.   The BTR-80A Armoured Personnel Carrier Simulator can be used to train the whole crew of a BTR-80A APC. The roles of Driver, Gunner and Commander can be successfully trained, simultaneously by focusing on the same target as in an actual mission.

2.   The trainees can operate the real components of a BTR-80A APC while training under this Simulator. Hence, the trainees can gain a real practical experience on the APC while learning in a classroom.

3.   The Driver can be trained in urban areas and also in cross-country areas. In an urban area, the terrain consists of a road track and a lake. Hence, the Driver can develop driving skills on water.

4.   By using the warning generating option of this system, the instructor can generate errors in the APC. Hence, it is possible to develop the decision-making ability of the Driver.

5.   The Driver can feel the motion of the APC from the motion platform, which is included in the Driver's seat.

6.   The Gunner can be trained in a separate tactical terrain, where fixed targets can be added to the ground at a fixed distance. Therefore, trainees can be initially trained on the whole drill of getting a target accurately and firing to a fixed target where the distance is known.

7.   After basic training, Gunners can be trained to get targets at a random distance. Different types of targets such as bunkers, combat vehicles, enemy tanks, heavy vehicles etc can be included.

8.   Both day and night sights of Gunner are functioning in this Simulator. Therefore, the trainees can practise aiming at a target in both day and night environmental conditions.

9.   The Commander can also be trained to observe a target and decide the range to the target with the help of a range finder on the Commander's Sight.

10. The trainees can move the sight of the Commander as in a real BTR-80A APC, and the trainee can observe the target in the virtual environment through the sight. The Commanders sight is also facilitated with both day and night sight options.

11. The simulators are cost-effective and time-saving.

12. Operating an APC, vehicle or weapon without having simulator training would be very costly and time-consuming.

13. Simulators allow many people to be trained simultaneously in one room without sacrificing the quality of learning. Simulation-based training takes away the costs associated with running the vehicle and operating weapons, making it a highly cost-effective solution for the Sri Lankan Forces or other training institutes.

14. When it comes to the ammunition cost, there is no ammunition production factory in Sri Lanka. Therefore, Sri Lanka needs to spend more dollars to import the ammunition. Hence, the simulators are a great solution for developing countries like Sri Lanka.

15. The initial cost of production is a little bit higher, but the maintenance is much cheaper. Since this is an indigenous solution, it saves more money rather than buying a simulator from overseas.

16. When it comes to the training cost, simulators have become an invaluable training tool for the Sri Lankan tri forces, offering trainees a unique and comprehensive simulation-based training experience whilst saving both time and money.

17. Currently, Sri Lanka is facing a lot of problems when it comes to fuel consumption inside the country. An APC consumes a large amount of fuel for one training session. But we can reduce the fuel cost by using simulators. The Simulator consumes only a little bit of electricity power. This is one of the best cost-effective solutions for Sri Lanka.

18. Simulator-based learning offers trainees a controlled and safe environment when they are training with dangerous vehicles and weapons, which give them experience and high confidence and requires them to perform effective tasks when engaging with real-world scenarios.

REFERENCES

Knoke, B. (2020). Training simulators for manufacturing processes: Literature. *WILEY*, *17*.

Patle1, D. S. (2018). Operator training simulators in virtual reality environment for process. *VIRTUAL REALITY, AUGMENTED REALITY AND COMMERCE*, *19*.

Tang, F. (2015). Development of an engineering simulator for armoured vehicle. *International Conference on Automation, Mechanical Control and Computational Engineering (AMCCE 2015)*, *5*.

Torre, G. G. (2016). Workload perception in drone flight training simulators. *Computers in Human Behavior*, *6*.

Zen, T. (2006). Crew Gunnery Simulator for T-72 Tank (T-72 CGS). *Zen Technologies Limited*, *2*.

Zen, T. L. (2005). Infantry Combat Vehicle Driving Simulator (BMP II DS). *Armoured Vehicle Simulators, 2*.

THE POWER BALANCE BETWEEN INDIA AND CHINA FOR A PROSPEROUS FUTURE FOR SRI LANKA

G M C M Dayananda

English Instructor, Headquarters, 2(V) Sri Lanka Army General Service Corps
gmchathu@gmail.com

ABSTRACT

Sri Lanka's advantageous geographic location has made it a focal point in the Indian Ocean in the twenty-first century. In particular, the clashing ambitions of India and China, two of Asia's emerging superpowers, have compelled, Sri Lanka to rethink its external strategy. India is Sri Lanka's closest neighbour, and the strategically most significant one. Both nations have had significant links dating back to centuries. When considering the Sri Lanka's strategic location, it has an impact on India's security and strategic interests. India is therefore opposed to China and other powerful nations being present in Sri Lanka. On the other hand, Sri Lanka, which is situated astride one of the busiest sea routes, has relied on China's economic assistance, primarily in loans. Hence, Sri Lanka has become an unwitting participant in the power politics of an emerging great power rivalry pitting two Asian great powers. China and India are the most populous nations in the world. They are regarded as great powers in international politics, hence they wield a greater capability to significantly influence the regional and international systems. Sri Lanka's strategy for balancing its close relations with these two regional powers will be analyzed in this research. The goal of this study is to evaluate the significance of the assistance provided by both China and India. Information in this regard will be gathered via secondary sources, such as academic journals, electronic databases, and textbooks. Further, Sri Lanka's geographic location offers a significant advantage for the successful development of the nation. Therefore, it is recommended to prepare a long-term action plan to deal diplomatically between these two countries to build up a prosperous future for Sri Lanka.

KEYWORDS: *Geographic Location, Power Politics, Superpowers, Strategic interests, security.*

INTRODUCTION

According to the maritime strategist Alfred Mahan, 'Whoever controls the Indian Ocean will dominate Asia; the destiny of the world will be decided on its waters.' (Ghosh, 2011) The relationship between India - China has been quarrelsome in the past decade and

therefore Sri Lanka's relations with these two Asian giants have been of particular local and international interest. There appears to be a degree of confusion as to how Sri Lanka manages its relations with these two Asian great powers. India and the United States of America are methodically observing the expansions in the relationship between China and Sri Lanka. During the past decade, China has given a substantial amount of loans to Sri Lanka. On the other hand, Sri Lanka's geo strategic location and India's security sensitivities mean that Sri Lanka is obliged not to estrange its relationship with New Delhi, and be cognizant of Indian security interests in the region.

Sri Lanka's relationship with India goes back to the arrival of Vijaya, and later the arrival of Arahat Mahinda Thero during the reign of King Devanampiyatissa. At the end of the colonial rule of British India, India emerged as the regional heavyweight. New Delhi has wielded a degree of influence in domestic politics in Sri Lanka as well through the Northern Tamil and Upcountry Tamil constituencies. Further, India played a key role in introducing the 13th amendment to the Sri Lankan Constitution.

Countries along the Silk Road have always been far more significant to global economic conduct. Due to the economic importance of the Indian Ocean in terms of East and West maritime trade, the region has caught the interest of major nations. In Monsoon, Rober Kaplan argues that the Indian Ocean resides once again at the heart of the geopolitical world map. Both old and new history provides evidence for this.

In the future, the great game will be played in the Indian Ocean. The primary international participants in the Indian Ocean region will be the current global power, the United States of America, rising China, and emerging India. The balance of power theory portends that the threatened regional nations will join ranks with like-minded regional nations to counter a rising power. The same dynamic is gradually unfolding in the Indian Ocean region as the United States and regional states; India, Japan and Australia come together under the Quadrilateral Security Partnership. The fact that the Indian Ocean is the only ocean named after a state is noteworthy, which made some countries to question whether India owns the ocean.

On the other side of the conflictual dynamic, the security of China's maritime lines of communication is a prerequisite for China's economic growth. Hence, lateral pressure experienced by the Chinese state, in terms of uninterrupted supply of raw materials and new markets, coupled with its great power ambitions are the drivers of China's strategic presence in the Indian Ocean.

From ancient times, Sri Lanka was had close ties with India due to the geographic proximity and shared culture. According to Ganeshan Wignaraja (2022), India was the first to respond to Sri Lanka's desperate calls for foreign aid to tackle its crippling debt and economic crisis in the recent past. India has been motivated by both the unfolding humanitarian crisis affecting the Sri Lankan people and political pressure from South India. In the first six months of 2022, Indian aid worth US$3.5–4 billion has flowed to Sri Lanka through credit lines, loans and grants (Ganeshan Wignaraja, 2022).This is India's largest bilateral aid programme in recent times.

On the other hand, Sri Lanka's relations with China have had a significant impact on the nation's economy. China has financed the building of strategic ports all over the world. Sri Lanka's port of Hambantota, also built under a Chinese loan, and of which the majority stake was later given to a Chinese State Owned Enterprise is a lynchpin of the string of pearls

in the Indian Ocean. The Chinese-financed port infrastructure include Gwadar in Pakistan, Chittagong in Bangladesh, Sittwe, Kyaukpyu in Myanmar etc. Hambantota port holds a special strategic significance due to its proximity to the important Indian Ocean East-West shipping arterial. With Hambantota as a key port in the string of pearls, China is better positioned to secure its place in the Indian Ocean to expand its interests. Also, an offshore financial hub is anticipated to emerge from the special financial zone known as Colombo International Financial City (CIFC). The brand-new mini-city is constructed on a 269 hectares-long island that has been raised out of the water to the north of Colombo.

Furthermore, China maintained its engagement with Sri Lanka long after the conflict ended, aiding in the development of its infrastructure. The development initiatives started by the Sri Lankan government in the post-conflict period were initially given to India under the assumption that India would heavily interfere with the island's nation-building process. However, when such requests were rejected by the Indian Government, China jumped in under its OBOR initiative (One Belt One Road).

Even though India and Sri Lanka have a close relationship, it is depicted that there has been a degree of mistrust in the relationship between New Delhi and Colombo. Due to that Beijing emerged as the dominant foreign player in Sri Lanka. This is evident in the fact that from 2010 onwards, China has been the nation's largest single lender and source of foreign direct investment. At the same time, Sri Lanka imports more from China than India.

The very nature of Chinese investment in the island nation and what this could signify amid a potential great power rivalry are India's main concerns. Chinese investments in Sri Lanka have repeatedly fallen short of producing the level of local employment or revenue required to justify the debt, drawing criticism for being made in exchange for political "kickbacks" and the lack of transparency required for review and assessment. This failure, in part, has forced the Sri Lankan government to declare bankruptcy and surrender strategically located Hambantota in exchange.

For Chinese investment, Sri Lanka has frequently leased away property, as was the case with the Port City of Colombo project, where Beijing obtained more than 100 hectares in exchange for a US$1.4 billion investment. China has gained a steadily expanding territorial footing in the nation through such methods. Sri Lanka now stands to lose control of even more land in such strategically placed areas as the economic crisis worsens. Given its closeness to some of the busiest maritime routes in South Asia and the fact that India regards the island nation as an essential component of its "sphere of influence," this would increase Indian concerns about a bigger Chinese presence in this area.

In more immediate terms, state that it handles more than 30% of India's container traffic and 60% of its trans-shipment, any significant disruption to the Colombo Port's regular operations as a result of the crisis would be of grave concern for India. Additionally, Sri Lanka is a significant market for Indian exports, receiving more than $4 billion in goods each year. There would be significant repercussions for Indian exporters if the economic crisis gets worse. In addition to trade, India has significant investments in the island nation in the fields of manufacturing, petroleum refining, real estate, etc., all of which could suffer from the crisis.
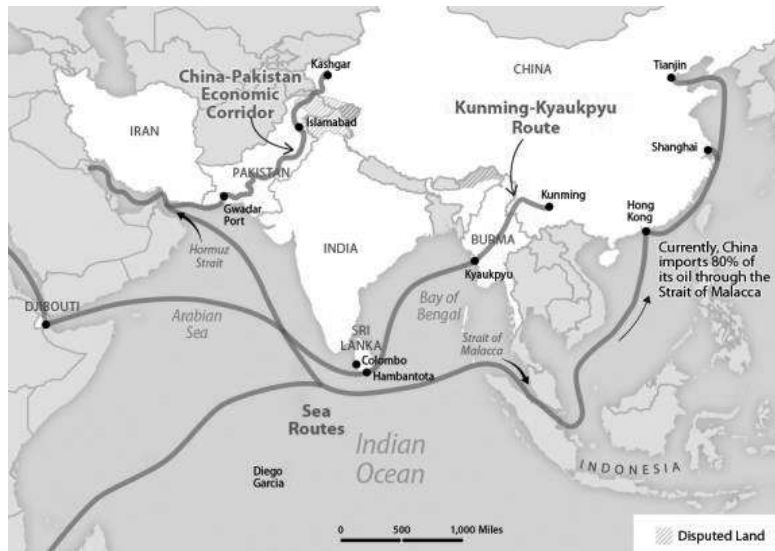
Figure 1 – China- India Great Power Competition in the Indian Ocean Region: Issues for Congress
(Source: EveryCRSReport. Com)

LITERATURE REVIEW

According to Cicilia (2015) China has had deep pockets to support Sri Lankan development and infrastructure projects. It had no qualms about the economic viability of projects, especially since the vast majority of the funds were given as loans which meant Sri Lanka would have to pay them back. These assertive policies cemented the Colombo-Beijing relationship. In 2009, China replaced Japan as the primary donor. China provided total assistance of US $5.056 billion between 1971 and 2012. However, 94 per cent of these funds were received from China. Only 2 per cent of these funds were grants, the rest were soft loans. In contrast, nearly 30 per cent of the Indian aid of US $1.6 billion was grants.

According to Moramudali (2021), China has been a major economic partner for Sri Lanka. Beijing's assistance has been crucial in saving the poorly performing Sri Lankan economy during the last three years. At the same time, Sri Lanka is compelled not to antagonize India, the closest neighbour of the island, with which Sri Lanka's relationship runs deep and far back. The India-Sri Lanka relationship is vastly different from its ties with China. With India, Sri Lanka's relationship during the post-colonial era goes well beyond economic relations. India has been extremely influential in Sri Lanka's domestic politics.

According to Mujtaba (2022), a Chinese Ship Yuan Wang 5' was scheduled to arrive at Hambantota port of Sri Lanka on 11th August 2022 and to stay there till 17th August 2022. The main purpose of the arrival of the ship was mainly for refuelling and replenishment purposes. However, there was apprehension in India about this highly sophisticated ship. This is because Yuan Wang 5' could be used for eavesdropping and India was wary that the Chinese vessel could be on a spy mission on India.

Small States and Balance of Power

The rise of India and China has significant consequences for the South Asian region, including Sri Lanka. One of these significant consequences is a regional power transition, in which Sri Lanka, as a small South Asian state, has invited China into the South Asian balance of power. In International Relations theory, small states have been the objects, not the subjects of study (Neumann et al., 2006).

According to Annette Baker Fox, it was not until World War II that small states like Norway and Spain were studied for the former's failure and the latter's success in avoiding the war. (Neumann et al., 2006) suggest multiple ways to study the effects of small states on international

relations, two of which include understanding their capabilities and their institutional roles. Kauppi and Viotti (2020) suggest Capabilities are "material and nonmaterial resources that can serve as the basis for power".

According to Neumann et al. (2006), Hans Morgenthau's magnum opus Politics Among Nations (1948) should more appropriately be called Politics Among Great Nations. According to Morgenthau, "small nations have always owed their independence either to the balance of power, the preponderance of one protecting power or to their lack of attractiveness for imperialistic aspirations" (Morgenthau, 1993).

Two-Level Game Theory

Two-level game theory, first introduced by Robert Putnam in 1988, serves as a political model of international conflict resolution between states. This perspective highlights the deep connection between domestic and international politics. State executives are "chief negotiators" involved in some form of international negotiations (Putnam, 1988).

Chief negotiators need domestic approval of these negotiations at the ratification stage. Ratification can take many forms, both formal and informal. Ratification can look like a formal vote in parliament or a public approval rating. This section argues that Sri Lanka's domestic politics serve as a constraint for Sri Lankan foreign relations with China and India. The concept of win sets defines the theory, where the domestic win set is the driving force behind international negotiations (Putnam, 1988).

According to Putnam (1988), win-sets are "the possible outcomes that are likely to be accepted by the domestic interest groups who either must ratify the agreements or provide some other form of government backing."

International agreements only occur when there is an overlap in the win-sets of the states involved in international agreements. Essentially, the desired outcome in a domestic win-set serves as the boundary or the scope of what chief negotiators can accept internationally. The domestic win-set is a constraint.

METHODOLOGY

To examine the objectives of the research, this study has used some of the principal methodologies. Further, the secondary data is used to analyse the sources. Documentary analysis and theoretical analysis are the key methods which are used in this process. Moreover, qualitative research methodology is used in analysing the facts. Further, by analysing the given secondary data, the particular study interprets them to identify explicit issues.

Land Border Tensions

While the dynamics of maritime security between China and India are changing quickly, the two countries are still at odds over the disputed land border in the Himalayas. Late in 1962, China and India engaged in a month-long border conflict. India suffered a catastrophic defeat in the war, and Indian officials still feel deeply betrayed by China. The 14th Dalai Lama, Tibet's spiritual leader, was forced into exile in India as a result of a 1959 Tibetan rebellion against Chinese Communist Party rule, which strengthened China's perception of an Indian danger to its control of Tibet. After the border battle, China kept control of a sizable portion of what was formerly Indian territory in the western sector of the frontier, known as Aksai Chin. Additionally, enormous areas of large tracts of land are also claimed by China in the eastern sector of the border in Arunachal Pradesh, and China does not acknowledge the 1914 McMahon Line, which was acknowledged as the border between India

and Tibet by British and Tibetan authorities and by the newly independent India in 1947.

As China and India's influence has grown over time, the buffer states that historically helped keep India and China apart have come under strain. Similar to Nepal, Bhutan might be seen as a geopolitical buffer between India and China. Bhutan and India forged a friendship treaty in 1949, and Bhutan heavily depends on India for defence. The Communist Party of China took control of Tibet in 1951, and India conquered Sikkim in 1975.

The Rivalry between India and China in the Indian Ocean Region

China and India's rivalry is growing in the Indian Ocean Region (IOR), a crucial geostrategic area that connects the Middle East's energy-rich countries with Asia's thriving economies. For the United States, this rivalry has enormous strategic ramifications. The Indo-Pacific area is becoming increasingly important to American military and economic strategy, according to succeeding U.S. governments. The Indo-Pacific area is seeing a geopolitical rivalry between free and oppressive conceptions of the international order, according to the Trump Administration's National Security Strategy from December 2017. India has identified the threat of a 'string of pearls' network setting up by China and its effects may be coming true.

The belt and road initiative in Sri Lanka can be identified as an effort by China to reduce strategic vulnerabilities by diversifying its trade and energy routes. Trade and energy routes were diversified by China to minimize the strategic vulnerabilities. Political affiliations in the Indian Ocean region were strengthened by expanding trade and infrastructure investments. Powerful behaviour in the East China Sea and South China Sea and border tensions with India have contributed to the growing rivalry between India and China.

Despite being a small state, Sri Lanka is one of the most strategically significant nations in the Indian Ocean region. Due to Sri Lanka's proximity to both the regional superpowers and the major maritime lanes, it has been noted that the two Asian area heavyweights have established a presence there through a variety of channels. Being a part of the "String of Pearls" plan over the Indian Ocean has increased Sri Lanka's strategic significance with China's Maritime Silk Road initiative. To support the nation's prosperity, Sri Lanka, a small state in South Asia, has tightened her knot with both the Dragon and the Elephant.

Some in India feel encircled by China's strategic moves in the region while China feels threatened by its limited ability to secure its sea lanes. Understanding and effectively managing this evolving security dynamic may be crucial to preserve regional stability and U.S. national interests. Some states in the Indian Ocean region appear to be hedging against China's rising power by building their defence capabilities and partnerships, while others utilize more accommodative strategies with China or employ a mix of both.

Some also see an opportunity to balance India's influence in the region. Hedging strategies by Asian states include increasing intra-Asian strategic ties, as well as seeking to enhance ties with the United States. This may present an opportunity for enhanced security collaboration, particularly with like-minded democracies such as the United States, India, Australia and Japan. While forces of nationalism and rivalry may increase tensions, shared trade interests and interdependencies between China and India, as well as forces of regional economic integration in Asia more broadly, have the potential to dampen their rivalry. The United States' presence as a balancing power can also contribute to regional stability.

Geopolitical Ambitions of China

China's rapidly expanding mega-investment projects in key littoral countries of the Indian Ocean such as Sri Lanka are fueling speculation over Beijing's attempt to constrain India's influence in the region. Observers consider such activities to be part of China's "String of Pearls" strategy, which centres on developing a series of naval facilities across the Indian Ocean for use by the Chinese navy in case of conflict to alter the balance of power against India. The String of Pearls concept informs a general viewpoint about the strategic end of Chinese investments, but it seems to lack the explanatory power to flesh out the dynamics involved to alter the balance of power in the region. (Journal of Indo-Pacific affairs, 2021)

The Geopolitical Importance of Chinese Investments in Sri Lanka

It can be clearly identified that Chinese investments are being done basically in three sectors. China is working on development projects in Sri Lanka because of the country's strategic location in the Indian Ocean and its desire to seize control of the region. A diplomatic effort has been made to maintain tighter ties with South Asian nations, and Sri Lanka would serve as the hub connecting Asia and Africa on the envisaged "21st-century silk route." Thus, China's objective of forging a Sino-centric Asia is gradually realized through strategic cooperative alliances with other Asian nations.

According to Teshu Singh, (2015), Chinese investments in Sri Lanka can be primarily found in three sectors: trade, infrastructure and defence. Infrastructural investments such as the Colombo-Katunayake Expressway, the National Theatre of Performing Arts, and the Bandaranaike Memorial International Conference Hall (BMICH) are symbolic of the Chinese presence in Sri Lanka. Apart from these investments, two other projects – the Hambantota Port and the Colombo Port City project – have drawn attention to the nature of Chinese investments in Sri Lanka.

China has been steadily advancing in the establishment of its commercial relationship with Sri Lanka. At a time when the Colombo government has been relatively friendly toward the major regional power, Beijing is maximizing its economic potential through the construction of ports, special economic zones (SEZ), and other crucial mega-infrastructure projects. A contentious law was recently implemented in the nation to facilitate further expansion of Chinese commercial activities.

Sri Lanka's parliament passed the Colombo Port City Economic Commission Act (which went into effect on May 27, 2021) to administer a massive Chinese luxury oceanside development project. However, the undertaking was controversial from the outset because it contains elements considered to be unconstitutional by the country's Supreme Court and members of parliament.

The Colombo Port City Company, a unit of China Communications Construction Company, invested roughly US $1.4 billion in the reclamation of land and the construction of critical infrastructure adjacent to Colombo Port City. In return, it obtained the right to use 62 hectares of marketable land on a 99-year lease from the Sri Lankan government, according to the project's website.

The South Asian nation continues to receive billions of dollars in loans from China for mega-projects that include a seaport, an airport, highways, power plants, and the port city, even after the completion of another 99-year lease of Sri Lanka's Hambantota Port to a Chinese company in 2017. This will unavoidably cause Colombo to incur even more debt. The

most important query is: Given the prospect of negative economic returns, why does China continue to invest in a debt-ridden Sri Lanka?

One widely held interpretation of China's approach to Sri Lanka is that it uses commercial loans to advance its economic and geostrategic interests in the country. This view has been expressed by US Vice President Mike Pence, billionaire financier George Soros, the New York Times and think tanks in Delhi and Washington DC. They argue that the BRI (Belt and Road Initiative) has extended large commercial loans for infrastructure projects in Sri Lanka without the strict conditionality normally imposed by multilateral development banks. Consequently, projects that were not commercially viable, particularly the Hambantota Port, sustained losses. As a result, Sri Lanka became entangled in a debt trap that resulted in the country conceding majority control in national assets like Hambantota Port and made the country vulnerable to Chinese influence.

The CPC is one of China's flagship projects and a major component of Xi Jinping's Belt and Road Initiative (BRI). Spanning over 269 hectares of reclaimed land from the sea, the project is worth US $1.4 billion and is the single largest investment in Sri Lanka. Colombo being amongst the top 25 busiest ports in the world, the proposed project is being marketed as a 'world-class city' not just for Sri Lanka, but for South Asia.

Geopolitical Interests of India

The two nations have a long history of political, socioeconomic, intellectual, cultural, religious, and linguistic exchanges that dates back to more than two thousand five hundred years. Along with the many changes over time, the relationship between the two countries has grown and evolved, including all areas of interest that are currently relevant.

In terms of size, geography, and potential strategic might, India continues to be the dominating force in South Asia, which Sri Lanka would find difficult to ignore. Even throughout periods of a variety of delicate diplomatic difficulties, successive governments maintained a highly cordial relationship with India. In recent years, the relationship has been further enhanced in view of harnessing mutual interest in expanded fields of economic development, education, culture, and defence, as well as a broader understanding of key strategic concerns.

Due to a lack of a cohesive foreign policy and significant domestic issues, India also played a crucial role in aiding the LTTE's (Liberation Tigers of Tamil Elam) development in the early stages. India also actively supported efforts to put an end to the LTTE terrorism. India had supported the government of Sri Lanka's call to action to combat the LTTE in a number of ways following the murder of former Indian Prime Minister Rajiv Gandhi and the gradual rise of the LTTE as a potential threat to their national security. India had offered assistance for Sri Lankan infrastructure development projects even in post-conflict conditions. A few examples of projects include building a power plant, residences and hospitals, dredging the Kankasanthurai Port, and reconstructing the northern railway line. These initiatives are largely intended to advance post-conflict peacemaking by enhancing the Northern region's infrastructure.

More than any other country in the area, Sri Lanka has improved its relations with India on the economic, military, and social fronts. India and Sri Lanka have a strong commercial and investment relationship. While Sri Lanka is India's second-largest economic partner in the SAARC area, India has overtaken Sri Lanka as its main trading partner globally. Due to the expansion of bilateral commerce, a number of well-known Indian corporations have made large investments in Sri Lanka.

In a connection that dates back to centuries, Sri Lanka and India have strong cultural, religious, and economic links. Delhi has been a significant trading partner for Colombo, which imports several goods from India, particularly food items. The minority Tamil community of the island nation is closely allied to Tamil Nadu residents of South India both culturally and ethnically.

In the recent past, Sri Lanka's currency has started to devalue, but the country's geo strategic currency should still be robust given the competition in the region between China and India. The Asia-Pacific and South Asia are seen in post-Cold War international affairs as an intensive geopolitical and strategic region of major power conflicts. The spread of development projects to tiny nation-states in and around South Asia is one way that the Sino-Indian rivalry in the region has taken shape. Small nations like Bangladesh, Nepal, and the Maldives are aggressively balancing these Asian heavyweights in reaction (Madan, 2021).

Influence of China

As an emerging power, China has long-standing strategic interests in both South Asia and the Indian Ocean. Since the beginning of the BRI (Belt and Road Initiative) infrastructural connectivity project, China has laid down some roots in and along the shores of the Indian Ocean. This includes the port of Hambantota in Sri Lanka, which was acquired by China on a lease for 99 years. Similarly, natural gas, power grids, and the Payra deep sea port projects in Bangladesh, as well as infrastructure, industries and a hydropower plant in Nepal, are all Chinese strategic endeavours (Samsani, 2021). Because Beijing skillfully built infrastructure and loan links with Indian Ocean littoral governments, China is notably present in maritime and strategic choke spots. China has played a major role in the growth of India's economic ties over the past ten years. By

deliberately hedging between the two to achieve its objectives, Sri Lanka has gained an economic advantage as the two titans flex their financial might to gain sway in Colombo (Attanayake, 2022).

There is a pattern that may be seen: both China and India have engaged in related industries. Both have invested heavily in large-scale projects including the construction of ports, railroads, and airports. However, the majority of these mega projects did not produce the desired results; rather, they increased Sri Lanka's financial responsibilities.

FINDINGS

The conflict between India and China as it stands now is probably not going to turn violent, but it does signal a breaking point in the relationship. Fundamentally, it has undoubtedly ushered in a fairly protracted but low-intensity Cold War in Asia, which will profoundly affect and restructure global alliances, the general strategic balance of forces in every region, and most importantly, the strategic dynamics in our own South Asian Region.

The relationship between the Great Powers-the United States, China, and Russia-as well as the role that big powers like India and emerging powers like Iran, Turkey, and Indonesia play in relation to that Grand Triangle, is what is guiding world history today and will continue to do so for the foreseeable future.

The recent conflict demonstrated that South Asia itself is the centre of contradictions between the two Asian superpowers, India and China if the bigger conflict between the USA and China plays out in the Asia-Pacific region, or the larger "Indo-Pacific" region. The two countries' conflicting strategic interests are mostly focused on South Asia. The world is currently dealing with a low-intensity Asian

Cold War within a new global Cold War between the USA and China, all of which are occurring (at least initially) against the backdrop of a worldwide economic crisis and political upheaval.

As their intrinsically limited consciousness presupposes, in the newly inaugurated historical period, Sri Lanka's fate will not be ultimately decided by the internal dynamics chosen by narrow nationalists, petty autocrats, and the local military apparatus, but rather by the global, continental, and regional dynamics of Great Power rivalry and the alignment and role of Big/ Pivotal/Emerging Powers within that Great Power rivalry.

Sri Lanka faces a wide range of intricate difficulties. How could Sri Lanka avoid getting entangled in these two concentric Cold wars given its strategic location in the Indian Ocean region, which has already been designated a theatre of conflict? When Sri Lanka is not even close to being geographically equidistant from the two Asian superpowers, how can a policy of equidistance be practically applied?

States often use a friendly power far away to counterbalance a friendly power close by because tense situations are more likely to arise with neighbours (Kautilya). On the other side, one is most vulnerable to one's neighbour, especially when there is a significant asymmetry in sizes and strengths. This issue is made worse when the typical power distribution that a small state engages in takes on a new meaning in a situation with more rivalry and conflict.

In such a situation, big powers often interpret the actions of minor states through the lens of the great power competition and respond or act in advance in accordance with their perceptions. Even though conversations typically centre on what Sri Lanka should do, it may be more crucial to establish clarity regarding what Sri Lanka should and should not do.

India, as a big power with a global role, will have a heightened strategic and security sensitivity to matters all around it, including on its southern perimeter or flank. Sri Lanka is located on India's southern perimeter, and after the recent conflict on its northern perimeter, India will have a heightened sensitivity to matters on its southern perimeter. Sri Lanka must make sure that no indication of a special bond with or preference for any of the two Asian participants in this cold war is made, nor must it permit such a showing.

The external sector of the Sri Lankan economy is currently experiencing significant problems. Due to limited inflows of foreign currency, the nation struggles to make its obligations on its international debt. The COVID-19 outbreak made things worse and Sri Lanka lost a substantial portion of foreign exchange earnings from tourism, which is one of the main sources of foreign currency influx. On the other hand, Sri Lanka's duties regarding the repayment of its foreign debt are unchanged. When everything is considered; Sri Lanka is now in a precarious situation. The main worry is that Sri Lanka cannot just view its challenges as domestic political ones. It should take assistance from other parties, including China, India, the United States, and global institutions like the IMF or World Bank, to address Sri Lanka's external sector weaknesses.

RECOMMENDATIONS

The mechanism of balancing the interests of China and India: Because of India's increased post-Galwan sensitivity to the Chinese encirclement through proxies and Chinese influence on its strategically important Southern perimeter, Sri Lanka would be wise to avoid any behaviour that creates the impression or perception of over-dependence on, special affinity with, or strategic adoption by China. This would allow India to counter or prevent any potential for any such threat/power projection by the perceived rival/adversary.

Sri Lanka is torn between China, its steadfast, wealthiest, and most powerful ally, and India, its closest and only neighbour, the source of the island's civilization, the regional hegemon and the only force that can directly determine its future. Sri Lanka should avoid appearing to adopt or be adopted by either party in order to further its enlightened self-interest.

The goal of this study was to evaluate Sri Lanka's alternatives for handling its relations with both China and India. In order to accomplish its main goals, the trends examined Sri Lanka's geo-strategic location and its related strategic interest through a descriptive and analytical methodology.

Geographically speaking, Sri Lanka is situated on the rimland's outer crescent, with the Indian Ocean to its south and the Indian subcontinent to its north. It is close to the Sea Lines of Communications (SLOCS), which are crucial for China's trade and energy needs, and is situated in a strategically significant area. Sri Lanka's proximity to India further enhances its significance because of India's interests in the Indian Ocean. Sri Lanka, which pledged to adopt a "neutral" foreign policy stance, has joined both the Indo-Pacific and China's BRI. Due to China's strategic intrusions into the country, despite verbal claims of a "neutral" and "balanced" foreign policy with non-aligned principles, its successive governments have been unable to put words into deeds. Sri Lanka should pursue a non-aligned foreign policy. Sri Lanka should not favour either China or India. In order to take advantage of opportunities, these two countries would be compelled to adopt a balanced strategy.

Constitutional reform cannot be successful on its own without good changes in politicians' attitudes and behaviours, which are crucial for the well-being of the populace in a cordial atmosphere. Since the members of Parliament are responsible for carrying out the national mission, the prevalent obstructionist political culture may also have an impact on the outcome of the constitutional reform process. In Sri Lanka, after gaining independence, politics has gradually drifted away from broad public interests and toward the specialized short-term objectives of politicians who have chosen politics as a lucrative career. A strong foundation for protecting national interest and sovereignty is provided by fostering outstanding bilateral cooperation between these two countries.

Sri Lanka is one of the most popular tourist destinations due to its combination of distinctive wildlife, golden beaches, a rich cultural past, and breathtaking landscapes. Each year, thousands of tourists travel to Sri Lanka. With these two countries' strategic cooperation, there is a sizable potential for tourism to flourish. Chinese tourists are now the ones who travel the most worldwide. Therefore, friendly diplomatic connections with both China and India can be used to attract upscale Chinese and Indian tourists.

The Sri Lankan diplomatic, economic, informational, military, and other primary issues should be concentrated on maximizing the gains from the growth of both Asian superpowers by utilizing the geopolitical interests of both China and India.

CONCLUSION

Due to Sri Lanka's advantageous location in the Indian Ocean, she would be open to external influence. India, Sri Lanka's immediate neighbour, is aware of China's strategic initiatives in the Indian Ocean. Particularly, India is concerned about the close ties between China and Sri Lanka. Sri Lanka must therefore strike a balance between its geopolitical interests in relation to China and India. Sri Lanka cannot afford to enrage either China or India because as a small nation, it does

not have the luxury to offend either of them. Sri Lanka actually requires China's assistance in order to support its vast development programmes. China has so far completed projects that were beneficial to both countries. These initiatives unquestionably enhanced Sri Lanka's appearance and prominence. Naturally, if China grows, India will be concerned.

However, Sri Lanka must realize that it needs India's help to maintain her national interests and create internal harmony. One thing that helps to secure national security is strengthening the defence ties with India. Even though Sri Lanka maintains defence connections with Pakistan and China, India continues to host and train more Sri Lankan Armed Forces security professionals than any other nation in the world. A carefully managed agreement with India will have a favourable impact on the Tamils of Sri Lanka as well. Only by peaceful dialogue can the significant anti-Sri Lankan bias of Tamil Nadu politics, which has seriously harmed India's relations with Sri Lanka, be overcome.

Due to the ongoing impact of Tamil Nadu politics, the "Palk Bay" controversy became divisive over time. Therefore, a cautious consideration should be given to such concerns without making rash decisions. The two most militarized nations in the region are China and India. National security in Sri Lanka would be at risk if these two states engaged in an armed conflict. Sri Lanka must therefore take the initiative in creating a movement that demilitarizes the Indian Ocean by establishing a system of peaceful cooperation. Any military installation by China should not be welcomed by Sri Lanka since it will significantly influence the country's diplomatic relations with India. The non-alignment approach has traditionally benefited Sri Lanka.

Additionally, as China and India are the two largest sources of foreign direct investments in Sri Lanka, a preference for just one of them will stifle communication with the other. Due to the war's aftermath, Sri Lanka is currently moving toward better peace; consequently, mutual understanding between Sri Lanka-China and Sri Lanka-India is essential to accelerate the progress toward a lasting peace and a prosperous future.

REFERENCES

Aryal, S. (2022). *Regional Geopolitics and Sri Lankan Crisis: Options for India.* Retrieved from https://www.sadf.eu/focus-81-regional-geopolitics-and-sri-lankan-crisis-options-for-india/

Attanayake, C. (2022). *Sri Lanka Amid Sino-Indian Himalayan Rivalry.* In Crossing the Himalayas (pp. 111-132). Springer, Singapore.

Bansal, A. (2022, April 2). *Sri Lankan Economic Crisis: Five Reasons How It Can Affect India. India.com.* Retrieved from: https://www.india.com/news/india/sri-lankan-economic-crisis-five-reasons-how-it-can-affect-india-5315898/.

China's Massive Belt and Road Initiative. (2022). Retrieved from https://www. Cfr.org/backgrounder / Chinas –massive- belt-and-road-initiative

Ghosh,ORF.(2011). *Indian Ocean dynamics: An Indian Perspective.* Retrieved from: https://www.eastasiaforum.org/2011/04/05/indian-ocean-dynamics-an-indian-perspective/

Indo-Pacific Perspectives. (2021). Retrieved from https://media.defense.gov/2021/Dec/28/2002915336/-1/-1/1/IPP%20-%20DECEMBER %202021%20-%20JIPA.PDF/IPP%20-%20DECEMBER%20 2021%20-%20JIPA.PDF

Kauppi, Mark V, and Paul R Viotti. 2020. International Relations Theory Sixth ed. Lanham, Maryland: Rowman & Littlefield.

Kustenbauder, M. (2012). *Book review: Robert D Kaplan, Monsoon: The Indian Ocean and the Future of American Power.* Retrieved from https://journals.sagepub.com/doi/abs/10.1177/0021909611427677?-journalCode=jasa

Madan, T. (2021). *Major Power Rivalry in South Asia. Council on Foreign Relations.* https://www.cfr.org/report/major-power-rivalry-south-asia

Ministry of Foreign affairs, Sri Lanka. (2012). *China-Sri Lanka Economic Affiliations: Trends and Opportunities.* Retrieved from China-Sri Lanka economic affiliations: Trends and Opportunities – Ministry of Foreign Affairs – Sri Lanka (mfa.gov.lk)

Moorthy, S. (2021). *Twin fears for India over the Colombo Port City.* Observer Research Foundation.https://www.orfonline.org/expert-speak/twin-fears-for-india-over-the-colombo-port-city/.

Moramudali, U. (2021). *The Economics of the China-India-Sri Lanka Triangle: Sri Lanka's struggle to balance been China and India has a strong economic dimension.* Retrieved from The Economics of the China-India-Sri Lanka Triangle – The Diplomat

Morgenthau, Hans J, and Kenneth W Thompson. (1993). *Politics among Nations: The Struggle for Power and Peace Brief* ed. New York: McGraw-Hill

Mujtaba, S.A. (2022). *Chinese Ship 'Yuan Wang 5' and India-Sri Lanka-China Triangle.* Retrieved from https://www.siasat.com/chinese-ship-yuan-wang-5-and-india-sri-lanka-china-triangle-2387500/

Neumann, Iver B and Sieglinde Gstohl, Jessica Beyer, and Thies. (2006). International Relations, Law, and Organizations - Small States in International Relations. *Perspectives on Political Science*, *35*(4): 235.

Putnam, Robert. D. (1988). "Diplomacy and Domestic Politics: The Logic of Two-Level Games." *International Organization* 42(3). 427-460. Retrieved from http://www.jstor.org/stable/2706785.

Samsani, S. (2021). *China–Bangladesh strategic linkages. ORF; Observational Research Foundation.* Retrieved from https://www.orfonline.org/expert-speak/china-bangladesh-strategic-linkages/

Singh, T. (2015). *The Geopolitics of Chinese Investments in Sri Lanka.* Retrieved from http://www.ipcs.org/comm_select.php?articleNo=4862

Wignaraja G. (2022). *India mulls aid in Sri Lanka's hour of need.* Retrieved from https://www.eastasiaforum.org/2022/07/19/india-mulls-aid-in-sri-lankas-hour-of-need/

Weerakoon, D., Kumar, U., Dime, R., & South, A. (2019). *Sri Lanka's Macroeconomic Challenges A Tale of Two Deficits.* Retrieved from https://www.adb.org/sites/default/files/publication/493451/swp-063-sri-lanka-macroeconomic-challenges-two-deficits.pdf

MILITARY PERSPECTIVE OF KANDY ESALA PERAHERA

Hasmitha Karunathilake
Intelligence Officer, Special Group, Welimada
hasmitha.karunathilake@gmail.com

ABSTRACT

Kandy Esala Perahera is one of the Sinhalese cultural festivals that exhibits the identity of the Sri Lankan Buddhists. Even though this grand procession is considered to be a ritual or a cultural event, from the military point of view, the contents of the procession show the origins of parts with the historical Sri Lankan military identity and ancient Sinhalese military origin. This has been not analysed to date from the military perspective. The objective of this research article is to analyse the Kandyan Esala Perahera in the aspects of ancient military structure, tactics, and war equipment. Here, the researcher has utilised the secondary data sources and the research approach fully accedes with the qualitative method. In the past, the martial procession is the element that reflected the royal power of the King of the Kandyan Kingdom; the natural strength of the country, the strength of the defensive forces, tactics, and military strength. Esala Perahera dates back to the 3rd century BC and it is believed that Dalada Perahera began in the 4th century when the sacred Tooth Relics of the Buddha were brought to Sri Lanka from India. The concept of the Dalada Perahera in Kandy is of military significance, as evidenced by the costumes worn by the people in this perahera, the manner in which they danced, and advanced in similar battle formations, the musical rhythms of the Perahera, and the singing of poetry. Kandyan soldiers wore minimal clothing during the war, thereby increasing their military efficiency and mobility in battle and during battles in the phase of advanced soldiers who travelled mostly in single file and file formations on long voyages. Dancing and other items show a very close connection to the ancient military concept with its ancient traditions. Singing war poems (Hatan Gee) during a war was a source of encouragement to their own forces, so many of the war-related poems are used in the procession with dancing items. The sacred Dalandawa (Tooth Relic of Buddha) was the personal property of all kings and it is believed that anyone who holds the Relic is undoubtedly the administrator of the country and it is their legitimacy.

KEYWORDS: *Ancient Military, Esala Perahera, Kandyan Kingdom, Kandyan King, War Poems.*

INTRODUCTION

The Kandy Esala festival began in 305-331 AD when the prince and princess of the Kalinga Kingdom of India arrived in Ceylon during the reign of King Meghavanna. The order of King Kirtisiri Meghavanna stated that the relics should be visited around the city of Anuradhapura at least once a year. The Esala Perahera ritual was followed by the remaining kings for the following years but was discontinued due to local wars. They always emphasized the high value of Sinhala culture. Dalada Perahera is an ancient ritual of Sri Lanka that has been carried out to worship the Buddha's Tooth Relic. Later, Kandy became the capital of Sri Lanka and the Dalada Maligawa (Temple of the Sacred Tooth Relic) and the Dalada Perahera migrated to Kandy city (Sri Dalada Maligawa, n.d). At present, it is called Kandy Esala Perahera because it is based on the Esala festival in the month of July (Sri Dalada Maligawa, n.d) which is significant to Buddhists because July Poya day is meant to commemorate the Buddha's Conception, Renunciation, and the First Sermon. (Kandy Esala Perahera, 2018). The Temple of the Tooth Relic is considered to be sacred as the Lord Buddha's Tooth Relic is bestowed there (Kandy Esala Perahera, 2018).

Since the Tooth Relic is the most sacred treasure of Buddhists who were the majority of the country, ancient kings considered it as the legitimacy of kingship. Therefore, the Tooth Relic was highly treated and it has been displayed annually through a cultural procession to verify the authority to hold the kingship (Sri Dalada Maligawa, 2018). The sacred Dalandawa (Tooth Relic of Buddha) was the personal property of all kings and it is believed that anyone who holds the Relic is undoubtedly the administrator of the country (Woolf, 1914). Initially, after receiving the Tooth Relic, it was kept in Abayagiri Vihara in northern Anuradhapura from the 4th century until the end of the 10th century when the capital Anuradhapura was shifted to Polonnaruwa (De Silva,1971). Historically, the Tooth Relic had been a symbol of the monarchy since its inception, as the majority ethnic group is Sinhala-Buddhist and thus they considered the king to have the Tooth Relic as his true royal heir. (Senaratne, 2012) It is evident from the following that various kings in pursuit of kingship have taken the Tooth Relic to various places for their royal anointing and have tried to show their position and royal heritage for the worship of Buddhists as well:

1. In A.D 1153-1186 Parakramabahu, I took the Tooth Relic to the Kingdom of Polonnaruwa.
2. In A.D 1220-1235 Wijayabahu III took the Tooth Relic to the Kingdom of Dambadeniya.
3. In A.D 1293-1302 Buwanekabahu II took the Tooth Relic to the Kingdom of Kurunegala.
4. In A.D 1410-1462 Parakramabahu IV took the Tooth Relic to the Kingdom of Kotte.
5. In A.D 1593-1604 Wimaladharma-sooriya I took the Tooth Relic to the Kingdom of Kandy (Cumaranathunga, 2003).

Thus, the Tooth Relic was revered by various kings throughout Ceylon and served as the custodian and guardian of the Tooth Relic, reflecting the responsibility and elate of the monarchy to the Buddhists who gathered around it (Senarathne, 2020). This states that heritage is so important that every time foreign invaders invaded the upcountry, they tried to capture the Tooth Relic of the kingdom because they knew that without the Tooth Relic the conquest of the Kandyan Kingdom would not have prevented the outbreak of popular protests and revolts. But the British realized that if they had the Tooth Relic the threat to the State would be less (Senavirathne, 2001). It is said that due to the British invasion during the years 1798-1815, King Sri Wickrama took the Tooth Relic and hid it safely outside Kandy (De Silva, 1971). Evidence from literary and archaeological

sources confirm that the Sinhalese had shields and armour from ancient times. However, Father Querros explains why the Kandyan Sinhalese did not wear body armour during the war at all times. "They do not use mere defensive armour in war. They see it as a sign of fear and weakness". (De Silva, 1971). Armed guerrilla warfare with the Europeans, evidence of the presence of advanced shields and armour in guerrilla warfare can be found by referring to the wooden carving of an armoured soldier in Ambakka Devalaya, especially the concept of Kandyan warriors' advanced war suit that can be presently seen on Kandyan dancers' clothing (Herath, 2016).

Raksha Natuma or Devil dance is a southern Sri Lanka mask dance with the Raksha or Devil masks, which also symbolizes the fight between a cobra and a bird. This dance is used to exorcise demons from the possessed and is still believed to be an effective psychiatric treatment in Sri Lanka. The Raban is a traditional folk dance using an instrument of the same name, a small drum. It is played and wielded in a number of positions by both male and female performers. This led to another spectacular performance, the Gini Sisila, or Fire Dance. It is a South Ceylon fire dance showing the power of charms over the fire and the twenty-seven devils that can trouble mankind (Kandy Dancers, n.d.). Lee Keli Natuma, a dance popular in all parts of the country, particularly during festivals in which both male and female dancers participate. Each dancer has two sticks and the sound of the sticks striking each other together with those who accompany drums provide the rhythm for the dancers. (Woolf, 1914). In addition to that, the king (In the present, Diyawadana Nilame) proceeded in the middle of the procession with an escort of provincial leaders who had given political support and military strength to the king. In view of all this, the Tooth Relic was carried in the Esala Perahera not as a ritual but as a way of showing his royal heritage to the people through the ownership of the Tooth Relic. The Buddhists of the country revered the Tooth Relic with great reverence and obeyed the King because he was the custodian of their crown jewel, the Tooth Relic.

LITERATURE REVIEW

Most researchers and historians state that Kandy Esala Perahera symbolizes prosperity. According to that argument, a few of the first events like Kasakaruwo (whip crackers) which display the thunder, and the Gini bola Karuwo (fireball dancers) which display the lightning (Sri Dalada Maligawa, 2018). Other than that, the Kalagedi Netuma (pot dance) can be taken as a dance showing the water sources, and the Kulu Netuma (winnowing fan dance) shows the harvest (Mahanthaarachchi, 2017). Coconut flour dancers are the next performers to prove that argument. As far as other energetic dances are concerned, mainly seen here "Kadu ha Palis" Dance, the Kandyan ancient war drill with sword and shield, "Lee Pathuru Dance or wood chip dance developed as part of the martial art of stick fights of Angampora. "Lee Keli" Dance, the basic use of the short stick consists of 8 special foot movements and 12 basic strikes including the joint lock and wrist come from Angampora. (Angam,2019)

From the above argument, it is justifiable that most of the dancing events of the procession represent the elements of the ancient army. On the one hand, the dresses of the dancers are much similar to the clothes of ancient soldiers (Rambukwelle,1996). On the other hand, elephants participate in the procession wearing body armour type cloths and the Gajanayaka Nilame, is the appointment representinged the chief of the elephant's staff. He also presided over the annual procession and received this high status because the elephant army of the ancient, quadrangular army occupied a special place in this procession. (De Silva, 1971)

METHODOLOGY

This research is mainly based on secondary data sources. The secondary sources describe, interpret, or synthesize primary sources. All the data was collected by using websites, published books, journal articles, and reviews. This research has followed the qualitative research method. There are a number of qualitative research methods and among them this research is a case study where the researcher has analysed a particular event in a descriptive and preliminary manner. This research has followed a naturalistic approach to the subject matter. By referring to this distinct and precious collocation, it seeks to understand or interpret the events of the past. In this research, the main focus is to analyse Kandy Esala Perahera as well as the ancient local military weapons, materials, and marshal poems in Kandy Esala Perahra from the military perspective.

RESULTS AND DISCUSSION

Kandy Esala Perahera is held for ten days and various festivals related to this procession can be seen. The Sinhala word 'Perahera' refers to a procession of musicians, dancers, singers, acrobats, and various other artists in which a large number of elephants roam the streets to celebrate a religious festival. Although everyone knows that this procession is a religious ritual of Sinhala Buddhists, various factors built around the concepts of war unique to the Sinhalese in this proud procession were analyzed according to this research.

Clothing

Under this heading, it is explored the extent to which the costumes and various jewellery are used for the Kandy Esala Perahera related to the military concept.

Body Armour

Body armour, also called personal armour, or suit/armour, is protective clothing designed to absorb or repel physical attacks. Historically, it has been used to protect soldiers, and today it is also used by various types of police (especially riot police), private security guards or bodyguards, and occasionally by civilians. The first record of body weapons in history was found today at Walcher's Steel in ancient Sumer, southern Iraq. The oldest Western armour is Dendera Panoply, which dates back to the Mycenaean period around 1400 BC. (Body Armour, n.d.) Mail, also known as chain mail, is made of iron rings that are connected to each other. It is believed to have been discovered by Celtic people in Europe around 500 BC. (Ibid).

Kandyans engaged in regular guerrilla warfare with Europeans, developed shields, wood carvings of an armed soldier at the Ambakka Devalaya, Dambulla Caves and the murals of gatekeepers at the Bululenagala Historical Temple, such sources contain historical information about the armour of the Kandyan kingdom. (De Silva, 1971) It is also clear from the following poem:

"දුනු කඩු පලිහ ලා ගෙන සන්නාහ යෙන
හෙල්ල දුන්න තොප්පි සැට්ටද සුවහසින"
(Herath, 2016).

Figure 1 - Angampora Fighters costumes.
(Source: Weerasinghe, 2011).

The best examples of Kandyan armour are particularly illustrated by observing the costumes of Kandyan dancers. According to all these factors, the following armour parts of the Kandyan soldier are similar to the Kandyan dancer's costumes:

1. Awul heraya. (Decorative beaded net)
2. Ina hedaya. (Metallic belt around the waist)
3. Wes thattuwa (Headdress)

The Sinhalese armour covers are strong and light enough to enable the Kandyan soldiers to move fast and launch attacks as they have always been involved in mountain guerrilla warfare. In addition to the soldiers, the Kandyans also produced body armour for horses and war elephants for further advantage of defending their forces. (Herath, 2016).

This shows that in the ancient Sinhalese guerrilla warfare against the three European nations, the Kandyans used efficient conventional weapons and armour, as well as superior weapons to the modern weapons of the three European nations. It also appears that appropriate clothing and armour were used for guerrilla warfare (Ibid).

Defensive Armour Concept

The costumes of the Kandyan dancer, this detailed description reveals that in addition to the costumes, the Kandyan guerrilla soldier had small armour shields that were used to cover the joints and body parts most commonly used in combat (De Silva, 1971). In addition, the dancers wear a pair of ear ornaments, bracelets, six pairs of armlets, anklets and jingling ornaments on the insteps velvet belt worked in felt if worn at the waist, all these small armour shields reviewing with defensive armour concept.

1. Bandhi walalu.
2. Kara patiya.
3. Mudu.
4. Kai meththa.
5. Thodu patha.
6. Dewramaala.

Figure 2 - Costumes of Kandyan dancer
(Source : Sri Dalanda Maligawa, n.d)

When considering about the armour parts, it can be stated that these small metal shields were a great help for the Kandyan soldiers to avoid sudden attacks in battle. Also, in particular, each of the armour parts were designed to fit different parts of the body, and they were lightweight and strong.

The main aim of Sinhala swordsmanship is to make cuts on enemy's body and cause a severe damage to the enemy and not to stab him. This ensures that the Kandyan soldier does not get tired during the battle and moves on any terrain. As a result of wearing the armour, the most important parts of the body were protected from many unexpected and targeted attacks by the enemy. (Herath, 2016).

Minimal Dress Code Concept

Another characteristic of the Kandyan warriors is the concept of a minimal dress code, the geographical factors of the Kandyan kingdom motivated the soldiers to use minimal

clothing for their battles in order to maintain the mobility of the land (Rambukwelle, 1996). Because unnecessarily dressing up while climbing mountain forts, forest canyons, and water canyons can be detrimental to them in battle, This minimal outfit concept of the Kandyan soldier has the ability to launch attacks on the enemy very quickly and easily in environments with diverse geographical variations (Abeysinghe,1966).

The following excerpt mentions the geographical location of the Kandyan kingdom and the harshness of the environment.

"The absence of the roads and even footpaths, the rocky nature of the whole terrain affording little foothold to the climber, the snakes and leeches all made the journey still more difficult. In this warfare, the advantage clearly lay with the defenders. Their knowledge of the land, secret footpaths and geographical advantage enabled them to engage in guerrilla warfare with great effectiveness". (Marshall,1969)

Figure 3 - Sword dance and their costumes
(Source: Movva, 2020)

The photo above shows a sword-fighting dance of the procession. The photo clearly shows the minimal costume of the Kandyan soldier. This confirms that the use of minimal attire greatly assisted the tactical fighting methods of the Kandyan soldiers and that this style of fighting and sword fighting was later added to the procession as a feature to show the strength of the king and the unity of the Kandyan kingdom. (Abeysinghe, 1966)

Formations

Concept of Single File and File Formation

The Kandyan forces moved on the battlefield and crossed the hills in a more different way than other invader armies on the heterogeneous geographical factors of the Kandyan kingdom. Kandyan forces were most concerned about mobility in war, the use of speed in their movement, and the speed of attacking the enemy to surprise and destroy them (Wickramasekara, 2004). The Kandyan forces were motivated to move mostly in single file and file formations during the Kandyan mountaineering as they were able to provide full security to their troops and engage in rapid guerrilla warfare.

The invaders who identified the area, how they followed this pattern of moving formation, and the problems faced by the invaders during the advance to the Kandyan kingdom are described in the following paragraph by Henry Marshall in his book "Ceylon".

"They harass the enemy on his marches hang on his flanks, cut off his supplies, interrupt the communication between garrisons or detachments, and occupy the heights which command the passes whence they fire from behind rocks or trees. As the troops are, from the nature of the path, often obliged to march in single file, they are much exposed to the fire of the enemy". (Marshall,1969).

Figure 4 - Single File Formation
(Source - Tactics, n.d)

Figure 5 - File Formation
(Source - Tactics, n.d.)

Based on the above facts, most of the features of the Kandy Dalada Perahera show that they perform dances in this single file and file formation nature. This shows that this marshal procession of the king had added to impress the armies of the Kandyan kingdom which were marching at that time.

Figure - 6 Kandyan dancers maintaining single file formation
(Source - Kandy Esala Perahera, 2017)

Figure - 6 Kandyan dancers maintaining file formation. Pantheru, Sawaran
(Source - Kandy Esala Perahera, 2018)

The above photographs show the Kandyan dancers are performing in the single file order during the Kandy Esala Perahera. Although there are a large number of dancing styles in a dance, they have long been based on the application of dance to this single file and file formations.

Dancing and Other Items

Types of Martial Dancing and Other Items

Many different dance elements can be seen in the Kandy Esala Perahera. These dances are not based on a single theme. It also seems to be based on the livelihoods and social needs associated with that society. The dancers of the procession at that time were men who were in the personal service of the aristocrats and the king, and many of these features were military in nature at the time. (Peiris,2009)

Pantheru Dance

The Pantheruwa is an instrument dedicated to the goddess Pattini. It resembles a rubber band (without skin) and has small palms around its circumference. It is said that this dance originated during the time of Prince Siddhartha. It was believed that the gods would use this device to celebrate war

victories, and Sinhala kings used pantheru dancers to celebrate battlefield victories. This dress is similar to the Uddekki dancer, but the Pantheru dancer doe not wear a beaded jacket and replaces a silk handkerchief at the waist for the Uddekki dancer's flamboyant vulgarity. (The Mindful World,2019)

Kadu ha Palis Dance

The famous sword dance or sword drill of the Kandyan period was created in association with the ancient war drill practice which was practiced locally. In the past, the Sri Lankan Royal Army was made up of four armies of elephants, horses, chariots, and infantry. (Sri Dalanda Maligawa, Media Bureau,2016) In the largest of these armies, the infantry used swords and shields. Sword fights had to be practiced according to a certain technical principle, and as these exercises had to be practiced in deceit fights, those deceit fights were then gradually shaped into a game. The performance of this dance is based on a battle between two groups. Attack, avoidance and counterattack are the basic nature of the movement, which consists of jumping, spinning, sitting, standing, forward, backward and sideways movements. (Peiris,2009)

Lee Pathuru Natuma

This dance is mainly done with the hands, sometimes with the left hand and sometimes with the right hand in quick movements. The feature consists of very light dance wooden pieces and plays various roles while spreading the wood chip (Mahanthaarachchi, 2017). In this dance, the dancers manipulate their bodies in a very three-dimensional manner, dancing and moving in different directions according to the sounds. The drill is performed by placing a piece of wood on the palm of the hand to raise the sound of the drum (Widyawathie, 2004). This wood chip dance was developed as part of the martial art of stick fights of Angampora and

was widely used in guerrilla warfare to make quick attacks on the enemy and to weaken the mental and physical strength of the enemy.

Lee Keli Natuma

Lee Keli is a traditional stick dance designed to generate rhythmic sounds with sticks. This dancing style shows the local pure martial art Angam and Elangam fighters who used to practice in the great courtyard of the Dalada Maligawa to be mastered in this martial art (Sri Dalanda Maligawa & Media Bureau,2016). There are two main drill systems belonging to the Kandyan tradition. These are called Paa Saramba (Foot drills) and Goda Saramba (Hand drills). Foot drills are a series of basic exercises that help flex the body to suit the dance and Goda saramba or hand drills are the drills that train the basic postures of the dance. Using both drills, the lee keli, which was later transformed into a cultural dance is associated with the martial art of Angampora and was later added as a cultural feature of the Dalada Perahera (Peiris,2009).

Flag Bearers

Flags of all the provinces are flown in this procession, symbolizing the loyalty of the king to his representatives. The obedience of the king shows their full support in all these provinces (Coomaraswamy, 1956). The flags carried in the procession are as follows:

1.	Hath Koarale - Singhaya Maha Kodiya.
2.	Hathara Korale – Ira Handa Maha Kodiya.
3.	Uva – Hasnsaya Maha Kodiya.
4.	Mathale - Sudu Maha Kodiya.
5.	Sabaragamuwe – Kaha Pataredi Maha Kodiya.
6.	Walapane – Mayura Maha Kodiya.
7.	Uda Palathe - Nelummal Maha Kodiya.
8.	Wellasse - Kotiya Maha Kodiya.
9.	Nuwara Kalawiya - Gajasinghe Maha Kodiya.

10. Binthanne – Girawaa Maha Kodiya.
11. Thamankaduwea – Walaha Maha Kodiya.(Karunananda, 1993).

Udunuwara, Thumpane, Harispattuwa, Dumbara, Hewaheta, Kotmale, Udabulathgama and Pathabulathgama flag bearers also participated in the procession in support of the Kandyan King (Cumaranathunga,2003).

Sword Bearers

The swordsmen of this procession march silently and nobly to symbolize the protection of the Tooth Relic, the ultimate symbol of the monarchy, protecting the Kandyan king and people on behalf of their country and nation (Manathunga, 2011). Kandyan warriors never fought for their own advantage and for the benefit of one community, these warriors march in this procession shedding their blood for the whole nation and recalling the battles fought on the battlefield against western invaders (Roberts,1997).

Spear Bearers and Gandahaye Vidanes

Another feature of the Dalada Perahera is the Diyawadana Nilame and his bodyguards or Murayudakaruwan (Spear Bearers) including the Vidane's (Admin rulers in villages) of the Ten Villages. This reflects the way in which a group of guards, made up of Angam warriors who have provided protection to the ancient king according to the Dalada tradition, move around to protect king (Sri Dalanda Maligawa, Media Bureau, 2016). The Vidanes were the chiefs of the gabada gam (store villages) belonging to the king in the past, Vidanes in the district were under the supervision of each Disawe (Head of states) and the Disawe appoints an officer in charge of Vidane according to the relevant storage villages. In this martial parade of king, the participation of the Vidanes of the Ten Villages shows their loyalty and allegiance to the king (Thennakoon, 2006).

Music and Poems

From the beginning to the end of Esala Perahera, various musical instruments are performed and the instruments are played according to the rhythmic patterns. Sometimes, playing to the upper thirteenth and lower level vocal bands are primarily associated with a military form (Kandy Esala Perahera, 2018). There are very few martial arts in the world that use drumming, music and martial poems as part of their training and rituals. In addition to martial arts, Angam martial art training is not considered completely unless he is proficient in all these. The use of drums in Angam dates back to a very early period in the history of Sri Lanka. There the Angam warriors would fight with their Sinhala kings and they fought against foreign invasions. In ancient battles, music and poems were used in training, demonstration and combat. These beats contain a high beat rate per minute, which creates a confusing and intense atmosphere for the enemy. The main purpose of training in such an environment is to make the Angam fighter feels calm and alert in a real battle. Ancient masters used this technique to prepare their apprentices for the ancient battlefields, which were probably the most confusing and troublesome experiences anyone could face at the time (Angam,2019)

Martial Poems and Music

The most commonly used dance forms in the procession are the poems composed to express the militancy and heroism of the king and warlords, known as combat or martial poems (Hatan kavi) accompanied by praises. The rhythms that emerge from these martial poems develop the motivation, aggressive passion and mental strength of the Kandyan soldier to fight in battles and even with their advances. The following fighting poem gives some ideas in this regard:

"සත් යොදුන් නැඟී අහසට මොර දෙමිනා   රොසින
සත් වියන් කඟින් රඹතුරු පලු ගසනා   ලෙසින
සත් කඩක් කපන විලසින් යුද කරනා   පොරණ
සත් මහත් සෙබලු බල සකි රඟ බසිනා   දෙරණ"
(Peiris, 2004).

In the Kandyan tradition, some war poems are created around the protagonists of each battle and the story woven around him, for example, the "Parangi Hatana" and the "Maha Hatana" of King Rajasinha II, and the "Ingreesi Hatana" of King Sri Vikrama Rajasinha. Although the same war poem, each tense reflects the horror, warfare and heroism of the war at different times and is composed in such a way to evoke feelings of heroism in the listener and the singer (Peiris,2009). These poems are written in sequential order, such as before the war, the journey to the war, the post-war moments, and the following is one of those poems:

"යුද්දෙටත් ඇවිත් සිදුපිට නැව් නැඟලා පරංගි
උන්නමුත් ඇවිත් කොළඹට ගොඩ බැසලා
අන්දමත් සොදයි කිසි බී සී ගාලා කොළඹදි
කම් පලක් නැතැත් සෙනඟක් මරාදාලා"
(Peiris, 2009).

MUSICAL INSTRUMENTS

Once referring to the ancient history of Sri Lanka in the past reveals that people used drums on special occasions during their lifetime. Drums, originally used for many ceremonies in Buddhist temples were later used for entertainment and rituals. Long ago, the drum was also used as a means of communication (Time Out,n.d.). Drumming has always played an essential role in the Sri Lankan society. In Buddhist temples, drums were used to perform various rituals with different rhythms which can be identified by the laymen. They are performed on special occasions, such as when the eyes of Buddha images are placed with reverence (Wickramasekara, 2004). The monarchy used drums and many horns as the means of transmitting expressions. Going from village to village, the drummers used a special rhythm to communicate the message, and also the crucial role of wind and string instruments in enriching music has ensured that unique craftsmen have also focused on this category of equipment. Flutes, trumpets, and horns were made locally to meet the needs of local musicians and for many purposes in the ancient military (Asia Inch,n.d.).

Legitimacy

After the cremation, the relics of the Buddha were distributed among the various kingdoms. The relics were buried in Stupa. However, the four teeth of the Buddha were reflected and worshiped separately. The right canine tooth was taken and worshipping by the king of gods, Sakra. Another Tooth Relic was worshiped by King Gandhara. The third Tooth Relic was abducted by Nagas worshiping in a golden shrine room. The fourth tooth, the left canine was given to the king of Kalinga in Eastern India. The fourth Tooth Relic of Kalinga is buried today at the Temple of the Tooth in Kandy. (Timothy, 2005) It was highly revered by the dynasty of the Kalinga kings until it earned the wrath of the Brahmin followers. Insane rulers made many attempts to destroy the relics but it has miraculously survived all such atrocities (Antonov, Bongard-Levin, Kotovsky, 1979). For this reason many kings tried to capture it for personal honour and legitimacy (Living Heritage Trust, 2020). The last Indian ruler to possess the Tooth Relic was Guhasiva of Kalinga. When a neighboring kingdom fought a war with Guhasiva to capture the Tooth Relic, the Tooth Relic was taken out of India for its protection. By that time Buddhism was well established in Sri Lanka and the rulers of the island maintained close relations with the Indian states which nurtured Buddhism. So, when the Kalinga ruler was threatened with loosening the sacred tooth of Buddha by war, he decided to send it to his friend's son, the king of

the ancient capital of Sri Lanka, Anuradhapura King Kithsiri Megha Wanna (Dissanayake, 2016).

Military Strength

One of the strongest factors influencing the independence of the Kandyan kingdom was their strong military might. Considering this, we can see a distribution of duties by the king in the past (De Silva, 2000). The people who worked in the King's palace were divided into two parts according to the method of payment and the people who worked for the land were called the "Gankaara Panguwa." The others received a monthly salary for the service they rendered, which they called the "Padikaara Panguwa" (Wickramasekara, 2004). It can be seen from the posts of the following key appointment holders that this group held a number of posts in kingdom and their titles were also created based on the service they rendered:

1. Gajanayake Nilame – Chief of King's Elephant Troops.
2. Athapattuwe Nilame – Chief of the King's personal bodyguards.
3. Wedikkara Lekam – Commander of the Snipers. (Herath, 2016).
4. Maduwe Lekam –The commanding officer of the soldiers carrying guns at the capital's checkpoints.(Thennakoon, 2006).
5. Dunukara Lekam –Chief of the archers of the King's army.
6. Bondikkula Lekam – Chief of the King's Artillery Guns Troops.
7. Kodithuwakku Lekam – Chief of the light Artillery Guns Troops.
8. Aspanthiye Muhandiram Nilame – Commander of the King's cavalry.
9. Sudaliye and Maruwalliye Muhandiram Nilames – Chiefs of Angampora fighters and Infantry of Kanyan Army (Explore Sri Lanka, 2010).

Economic Strength

The Kandyan kingdom as well as other kingdoms in history had a self-sufficient economic system, the main reason for which the people often lived a simple life according to their religion (Wickramasekara, 2004). Trade in which the main exchange took place in the country was the exchange of products specific to each region with products from other regions (Woolf, 1914). The Kandyan Kingdom had a predominantly agrarian economy, and the king entrusted the production of essential commodities for his kingdom based on the specialization of various villages. The kingdom has stockpiled a variety of essential items to deal with any war situation that may befall it (Abeysinghe, 1969). The various dance elements in the procession reflect the wealth, prosperity of the kingdom and its indirect impression is the economic stability of the Kandyan kingdom. The dance elements of the procession show that the Kandyans are ready to face any disaster.

CONCLUSION

Kandyan Kingdom was a mountainous kingdom with natural protection in the central highlands of Sri Lanka. This kingdom, which has successfully faced various invaders from time immemorial under its various war tactics, was a unique combination of different crafts, martial arts, clothing and society, from the king of the kingdom to the commoner who had no other party in the country. A social background around the King had built up around the kingdom of Kandy, The military background and security of the kingdom were compromised, especially by the threat of aggression. Although the king maintained a full-time royal defence force in Kandy, the Kandyan Kingdom did not maintain a large standing army. In the provinces, regional forts were maintained to protect strategic hill areas or to quell riots. These will be supplemented with local militia during the war or military campaigns. Throughout

their history the Kandyan forces relied heavily on the hilly territory of the kingdom, primarily engaged in guerrilla attacks and raids, hideouts, and rapid raids. One of the features of the conflict between the kingdom and its European enemies was the inability of both sides to seize or retain lands or to cut off supply routes permanently.

All these wars and conflicts arose because the invaders were constantly trying to seize control of the Sri Dalada Maligawa, the great Buddhist shrine inherited from the Kandyan Kingdom. Faced with all these problems, the royal procession built inside the palace is still the identity of the Sri Lankan nation. Kandy Esala Perahera is held in Kandy, Sri Lanka during the months of July and August. This historic procession is held annually to pay homage to the Sacred Tooth Relic of the Supreme Buddha at the Temple of the Tooth in Kandy. A unique symbol of Sri Lanka, the procession includes traditional local dances such as Gini dances, Kasa dances, Kandyan dances, various cultural dances and many items. Although Kandy Esala Perahera is known as a religious procession of Buddhists, in the past it was a defensive procession that reflected the royal power of the king of the Kandyan Kingdom, the natural strength of the country, the strength of the defence, tactics and military strength. Especially, the local military identity was practically proven by our ancestors by using various indigenous tactics against the enemy.

REFERENCES

Antonova, K., Bongard-Levin, G., Kotovsky, G. (1979) A History of India. Book 1.

A Sinhalese spear. (n.d.) *Mandarin mansion.* Retrieved from https://www.mandari nmansion.com/item/sinhalese-spear

Angam. (2019). *Art of Weaponary.* Retrieved from http://www.angampora.com/elangampora/

Abeysinghe. T. B. H. (1966), *Kandy on the Defensive, Portuguese Rule in Ceylon.* PP.42-68. https://www.scribd.com/doc/311087380/traditional-dance-in-sri-lanka-new

Asia Inch (n.d.) Retrieved from https://asiainch.org/craft/musical-instruments-of-sri-lanka/

Beck, S. (2007). *Tibet, Nepal, and Ceylon 1800 - 1950.* Retrieved From http://www.san.beck.org/20-7-TibetNepalCeylon1800-1950.html#a6

Body Armour (n.d.) Retrieve from https://www.sciencedirect.com/topics/engineering/body-armour

Brown, A. R. (1952). Structure and Function in Primitive Society. Essays and Addresses. PP. 10-11.

Coomaraswamy, A. K. (1956). Mediaeval Sinhalese Art. (Pantheon Books).

Cumaranathunga, P.N, (2003), Indo Lanka Ethnic Affinities.

De Silva,M S C. (1971). The Sinhalese Army during the Portuguese, Dutch and British periods, 1505 – 1815. *Spolia Zeylanica.*3.81.

De Silva G. P. S. H. (2000). Kandyan Kingdom, History of coins and currency in Sri Lanka, PP.66-67.

Dissanayake, S. S. (2016) The Dalanda Chronicles.

Explore Sri Lanka. (2010). *Angampora the Martial Art Of Sri Lankan Kings* Retrieved from http://exploresrilanka.lk/2010/07/angampora-the-martial-art-of-sri-lankan-kings/

Herath. H. M. (2016). *Palis, Sannaaha aawarana, Nila Andum, Kanda Udarata Garilla Yudaupakrama,* PP. 87-90.

Jayasinghe, K. (2009). *Mahanuwara Loka Uruma Nagarayaka Wagathuga*.

James S.D., (1990), Landscape as a signifying system,The City as Text: The Politics of Landscape Interpretation in the Kandyan.

Kandy Esala Perahera. (2018, August 12). *The Sunday Times*. p.25.

Kandy Dancers. (n.d.). *Sri Lanka Adventure.* Retrieve from http://www.tracyanddale. 50megs.com/Sri%20Lanka/HTML%20Page/kdancers.html

Kandy Esala Perahera | Cultural in Kandy | Ceylon Pages. (n.d.). https://Ceylonpages.Lk/. Retrieved from https://ceylonpages.lk/kandy/event/kandy-esala-perahera/

Karunananda. U. B., (1993, March). *Thamankaduwa 1815-1900*.

Living Heritage Trust. (2020). *Life in the Kingdom of Kandy as seen by Robert Knox (1660-1680)*. Retrieved from: http://daladamaligawa.org/78.htm

Ministry of Defence. (2014). *UK Defence Doctrine.* Swindon: The development, Concept and Doctrine Centre.

Manathunga.M, Manathunga.A, (2011), 1818 Jathika Nidahas Aragalaye Purogamiyo.

Merriam Webster (n.d.) Retrieved from *https://www.merriam-webster.com/dictionary/tradition*

Mahanthaarachchi, A.,(2017). Anganpora .

Muttukumaru, A. (1987). The Levying of the Warriors, *The Military History Of Ceylon.*

Marsheall. H., (1969), *A General Description of the Island and an Account of Its Inhabitants*, Ceylon PP. 41-48.

Movva, S. (2020). *Kandy Perehera 2020: Procession, Dates, History*. Retrieved From: https://www.holidify.com/pages/kandy-perehera-2691.html

Peiris. G. P. (2009), *Sri Lankawe narthana kalawe eithihaasika pasubima*,11 Shreniya Narthanaya.

Peiris, G. P. (2004), *Narthanaya- Udarata, Pahatharata, Sabaragamu.*

Rambukwelle, P. B. (1996). *The Period of Eight Kings Portuguese Wars*.

Roberts. M. (1997). *The Kandyan Sinhalese,* Sri Lanka collective identities revisited.

Sarachchandra, E. A. (1952). *The folk drama of Ceylon.*

Somarathne, A. H. M. (1967) *Lankawe abyantharaya ha ehi wasiyan pilibandha wistharayak,* Dave dutu Lankawa.

Sri Dalada Maligawa. (2018, August 25). *Kandy Asala Perahera 2018*. [Television broadcast]. Colombo. Sri Lanka Rupawahini Corporation.

Senarathne, L.B. (2020, August 3). Esala perahera of the past and the present. *Dailymirror*, pp. 6

Sanmugeswaran.S, (2019) Reclaiming Ravana in Sri Lanka: Ravana's Sinhala Buddhist Apotheosis and Tamil Responses, *Journal of South Asian Studies,* 796-812. doi.org/10.1080/00856401.2019.1631900

Senarathne P. M. (2012). Perahera Sanskruthiya. Perahera Puraanaya. PP. 9-10.

Senivirathne, A. (2001), Ekalhi Singhayoda Kotiyoda mese jeewath wuuha.

Sri Dalada Maligawa. (2018, August 25). *Kandy Asala Perahera 2018*. [Television broadcast]. Colombo. Sri Lanka Rupawahini Corporation.

Sri Dalada Maligawa. (n.d. a). *A short historic tour of Sri Dalada Maligawa.* Retrieved from http://daladamaligawa.org/sri.dalada.maligawa.htm

Sri Dalada Maligawa. (n.d. b). *Kandy Esala Perahera*. Retrieved from http://sridaladamaligawa.lk/Kandy-Esela-Perahara

Sri Dalanda Maligawa, Media Bureau., (2016,August 14). Kandy Esala Perahera 2nd Randoli 2016. Retrieved From: https://www.youtube.com/watch?v=rmuZ-ELHFmg

The Kandyan Dance. (n.d.). *Asian traditional theatre and dance*. Retrieve from https://disco.teak.fi/asia/the-kandyan-dances/

Tactical formations. (n.d.). *The defence forces*. Retrieve from http://www.militaryarchives.ie/gallery/thumbnails.php?album=134

The Evolution of Military Camouflage. (2018). *Weapons and kit.* Retrieve from https://www.forces.net/news/evolution-military-camouflage

The Rice of Life: Paddy cultivation forms the heart of Sri Lankan culture. (n.d.). Retrieved from http://btoptions.lk/serendib/article.php?issue=45&id=1124

Traditional Drums of Sri Lanka (2010) Retrieved from https://lakpura.com/traditional-drums

Time Out (n.d.) Sri Lanka, Retrieved from https://www.timeout.com/sri-lanka/art-culture/traditional-muscial-instruments

Timothy.T., (2005). *UNESCO World Heritage Site Sri Dalada Maligawa* (Temple of the Sacred Tooth Relic). Kandy. Sri Lanka. Retrieved From http://www.asiaexplorers.com/srilanka/sri_dalada_maligawa.htm

Thennakoon. W. (2006), Udarata Maha Karalla.

The Mindful World. (2019) Retrieved from https://www. themindfulword.org/2013/kandyan-dance-sri-lanka

Virtual Library Sri Lanka (n.d.) *The Portuguese in Sri Lanka.* Retrieved from http://www.lankalibrary. com/geo/portu2.htm

Weerasinghe, R. (2011). Angampora - Angam the movie - A Documentary Film on Sri Lankan Traditional Martial Art. Retrieved from: https://www.youtube.com/watch?reload= 9&v=v1fUn3zNI78&ab_channel= RasangaWeerasinghe

Wickramasekara, C. (2004). Military organisation in pre-modern Sri Lanka: the army of the Kandyan kings South Asia, *Journal of South Asian Studies*, 27(2), 133-151, doi:10.1080/14790270420 00236616

Wickramasekara, C. (2004). *Kandy at war*.

Waidyawathie, R. (2004). On the Origin and Early History of Sri Lankan Dancing: Between Spirit Beliefs and Great Tradition, Appeasement of the Gods, and Healing Methods, *Journal article ,The World of Music 46*(3).

Wright, A. (1999). Twentieth Century Impressions of Ceylon: Its History, People, Commerce, Industries, and Resources.

Woolf, B.S. (1914). How to see Ceylon.

Sri Lanka Military Academy Journal

Volume 4 | 2022 December

මහා විජයබාහු රජුගේ සංග්‍රාම සැළසුම් වන්නි මානුෂීය මෙහෙයුම හා සබඳතාවක් තිබේ දැයි පිළිබඳ විමසුමක්

Sarath Jayawardane
Sinhala Translator, Commander Secretariat, Army Headquarters
sarath.jayawardene@yahoo.com

ABSTRACT

Sri Lanka counts more than 2600 years of prestigious recorded history. However, it is debatable, whether our country has been independent and peaceful for at least 1300 years due to various foreign invasions and internal struggles for power. When considering the history from the inception of Anuradhapura Kingdom to year 2009, it is evident that there had been many battles throughout the history of Sri Lanka. The scope of this study has been limited to discuss combat tactics used by King Vijayabahu to liberate the country form 'Chola' invasion which had the control of the country for more than seventy years. Also, Humanitarian Operation launched to liberate Northern and Eastern parts of the country from LTTE is also a prominent battle in the history. It can be suggested that Wanni Humanitarian Operation has been influenced by the combat tactics used by King Vijayabahu in releasing the Rajarata territory. Accordingly, this study examines King Vijayabahu's military tactics in liberating the country while focusing on the strategies of Wanni Humanitarian Operation.

මුඛ්‍ය පද: සංග්‍රාමෝපක්‍රම, ආරක්ෂාව, යුද සැළසුම්, විජයබාහු, යුද පෙරමුණ

හැඳින්වීම

ශ්‍රී ලංකා රජය දශක තුනකට ආසන්න කාලයක් LTTE ත්‍රස්තවාදීන්ට එරෙහිව කළ සටනේ අවසන් අදියර වන්නි මානුෂීය මෙහෙයුම යි. වන්නි මානුෂීය මෙහෙයුම යනු ලෝක ප්‍රකට සංග්‍රාමයක් බව පැවසීම නිවැරදිය. මෙහිදී එම මෙහෙයුම පිළිබඳව සාකච්ඡා කිරීමට ප්‍රථම වන්නි යන පදය විග්‍රහ කර බැලීම වැදගත් වේ. වනය පිළිබඳ වූ යන අර්ථයෙන් වන්නි යනුවෙන් ව්‍යවහාර වන්නා වූ ද වනය ආශ්‍රිත වූ ජනාවාස 'වන්නි' යනුවෙන් ද ව්‍යවහාරයට පත්ව ඇත. එබැවින් වන්නි යන පදය වනාන්තර යන්න සමග සෘජු සබඳතාවක් ඇති බව පැහැදිලි ය. (ලියනගමගේ අමරදාස, 1989: 135) මෙහිදී වන්නියට ඇතුළත් වන භූමි ප්‍රදේශය පිළිබඳ අවබෝධයක් ලබා ගැනීම වැදගත් වේ. ඒ අනුව යාපනය අර්ධද්වීපයෙන් පහළ උතුරුමැද පළාතෙන් ඉහළ ප්‍රධාන වශයෙන් වව්නියා, මුලතිව්, කිලිනොච්චි සහ මන්නාරම් දිස්ත්‍රික්ක මෙන්ම පුත්තලම් හා ත්‍රිකුණාමල දිස්ත්‍රික්කවල ඇතැම් ප්‍රදේශ ත් වන්නියට ඇතුළත් වේ යැයි සලකනු ලැබේ. ඒ අනුව එම ප්‍රදේශය ත්‍රස්තවාදි ග්‍රහණයෙන් දේශය මුදාගෙන සියලු ශ්‍රී ලාංකිකයින්ට සාමයෙන් සහ සහජීවනයෙන් ජීවත් විය හැකි රටක් නිර්මාණය කිරීම වන්නි මෙහෙයුමේ ප්‍රධාන අරමුණ විය.

2006 අගෝස්තු මාසයේ දී ත්‍රස්තවාදීන් විසින් එම ප්‍රදේශයේ සිවිල් වැසියන්හට ජලය ලබා ගැනීමට තිබූ මාවිල්ආරු සොරොව්ව වසා දැමීමත් සමග සටන ආරම්භ විය. එම ජනතාවගේ දෛනික අවශ්‍යතා සඳහා ජලය සපයන ප්‍රධාන මූලාශ්‍රය මෙය වන අතර ප්‍රදේශය තුළ වෙසෙන 22,000 ක් පමණ වූ සිංහල, දෙමළ සහ මුස්ලිම් ජනවර්ගයාගේ පානීය ජලය මෙන්ම ඉඩම් අක්කර 30,000 ක පමණ භූමියක කෘෂිකාර්මික කටයුතු සඳහා මෙමගින් ජලය සැපයිණි (මහාවංසය, 6 වෙළුම, දෙවෙනි කාණ්ඩය, පිටුව 353). මේ වනවිට ත්‍රස්තවාදීහු උතුරු සහ නැගෙනහිර පළාත්වල වර්ග කිලෝමීටර් 15000 ක පමණ ප්‍රදේශයක සිය ආධිපත්‍යය දැරූහ (සරත් ජයවර්ධන, 2020: 273). 2007 මාර්තු මාසය පමණ වන විට නැගෙනහිර මුදා ගැනීමත් සමඟම උතුරේ ත්‍රස්තවාදී ග්‍රහණයේ සිටි වැසියන් මුදා ගැනීම ආරම්භ කරන ලදි. ඒ අනුව LTTE ත්‍රස්තවාදීන්ගෙන් දේශය මුදාගැනීම සඳහා ශ්‍රී ලංකා රජයේ ආරක්ෂක හමුදා විසින් 2007 - 2009 වර්ෂය අතර කාලය තුළ මෙහෙයවන ලද මානුෂීය මෙහෙයුම ලෝක ඉතිහාසයේ වාර්තා වූ සුවිශාලතම මුදාගැනීමේ ක්‍රියාන්විතය ලෙස හැඳින්විය හැක.

2006 වසරේ ජූලි මස මාවිල්ආරු මෙහෙයුමෙන් ආරම්භ වූ නැගෙනහිර මුදා ගැනීමේ සටනේ දී LTTE සංවිධානයට දැඩි පරාජයක් උරුම වන විට නැගෙනහිර යුද පෙරමුණට අමතරව ඊට සමගාමීව වන්නි හා යාපනය යුද පෙරමුණු ශක්තිමත් කරමින් එම ප්‍රදේශයන්ද ත්‍රස්තවාදීන්ගෙන් නිදහස් කරගැනීමේ සංග්‍රාම සැළසුමක් ක්‍රියාත්මක කරන ලදි. වන්නි ප්‍රදේශ ඇතුළු සමස්ත උතුරුකරය මුදා ගැනීමේ මෙහෙයුම ශ්‍රී ලංකා යුද්ධ හමුදාවේ ආධාරක හා පාබල සේනාංක සමගින් ගුවන් හා නාවික හමුදාවල යුද ශක්තියත් පොලිස් විශේෂ කාර්ය බලකායේ හා සිවිල් ආරක්ෂක බලකායේ ප්‍රහාරක සහ ආරක්ෂක හැකියාවන් ඒකාබද්ධ කොට සකස් කරන ලද උපක්‍රමශීලී සැළසුමක් ලෙස හැඳින්විය හැකිය. මෙහිදී නැගෙනහිර මෙහෙයුම්වලදී ලබාගත් අවබෝධය හා අත්දැකීම් උතුර හා එම ප්‍රදේශවාසීන් ත්‍රස්තවාදීන්ගෙන් නිදහස් කර ගැනීම සඳහා උපයෝගී කර ගන්නා ලදි. එසේම මෙහෙයුම් සැළසුම් කිරීමේ දී සාම්ප්‍රදායික

යුද න්‍යායෙන් බැහැරව සතුරාට පහර දී ඔවුන් විසින් අත්පත්කරගෙන සිටි භූමිය නිදහස් කර ගැනීම සඳහා විශේෂ අවධානය යොමු කරන ලදි. ඒ අනුව යුද පෙරමුණු කිහිපයක් ලෙසින් සංවිධානය වී වන්නි කොටි පරාජය කිරීම සඳහා සටන් මෙහෙයවීමේ සංකල්පය ප්‍රධාන වශයෙන් කැපී පෙනුණි. මෙම සමස්ත මෙහෙයුම යුද්ධ හමුදාධිපති ලුතිනන් ජෙනරාල් සරත් ෆොන්සේකාගේ විධානය හා සෘජු අධීක්ෂණය යටතේ ක්‍රියාත්මක විය.

වන්නියේ ත්‍රස්තවාදීන් පරාජය කිරීම සඳහා 1997 වර්ෂයේදී දියත් කළ 'ජයසිකුරු මෙහෙයුම' මගින් සෘජුවම සතුරාට පහර දීම සඳහා භූමියේ පටු යුද පෙරමුණක් ඔස්සේ ඉදිරියට යාමට උත්සාහ කිරීම එය අසාර්ථක වීමට එක් හේතුවක් ලෙස යුද විශ්ලේෂකයෝ කල්පනා කරති. මූලිකව වවුනියාව හා කිලිනොච්චිය අතර ගොඩබිම් මාර්ගයක් විවෘත කර ගැනීම මෙහි අපේක්ෂාව වූ අතර මේ සඳහා 53, 54, 55, 56 හා 21 සේනාංක ද ඊට අමතරව ආරක්ෂක වළල්ලේ රාජකාරි කටයුතු සඳහා ශ්‍රී ලංකා ගුවන් හමුදාවේ, නාවික හමුදාවේ සේෂ්ත හට පිරිස් හා පොලිසයේ හට පිරිස් ද යොදාගන්නා ලදි (මහාවංසය, 6 වෙළුම, දෙවෙනි කාණ්ඩය, පිටුව 123). මෙහිදී පැති කිහිපයකින් සතුරාට පහර දෙමින් එසේම වෙරළ තීරය දිගේ තවත් සේනාවක් ඉදිරියට ගියේ නම් එය සාර්ථක වීමට ඉඩ තිබුණ බව තවත් අදහසකි. විශේෂයෙන්ම එහිදී සතුරා දෙපැත්තෙන් හා ඉදිරියෙන් පහර දීම නිසා රජයේ හමුදාවන්ට ඉදිරියට යාම අතිදුෂ්කර වූ අතර එම න්‍යායයෙන් බැහැරව වන්නි මානුෂීය මෙහෙයුම සැළසුම් කර ඇති බව හඳුනා ගත හැකිය.

මෙලෙස යුද පෙරමුණු වශයෙන් සංවිධානය වී වන්නියේ කොටි ත්‍රස්තවාදීන්ට පහර දී දේශය නිදහස් කර ගැනීමේ මෙහෙයුම අතීතයේ දී රජරට රාජධානිය චෝලයින්ගේ පාලනයට නතු වී තිබියදී ඔවුන් පළවා හැරීම සඳහා මහා විජයබාහු රජු (ක්‍රි.ව. 1055 - 1110) යුද පෙරමුණු කිහිපයක් යොදා ගැනීමේ උපක්‍රමය සිහිපත් කරයි. මහා විජයබාහු රජුගේ සටන් සැළසුම් හා සේනා ගමන් කළ මාර්ග පිළිබඳ අවධානය යොමු කිරීමේ දී යුද පෙරමුණු වශයෙන් සතුරා වටකර පහරදීමේ යුද උපක්‍රමය විශේෂයෙන් දක්නට හැකි අතර එම සංග්‍රාම විධි

149

වන්නි මෙහෙයුමට ආදර්ශයට ගන්නට ඇති බව කල්පනා කිරීමට බාධාවක් නොමැත.

1 වන විජයබාහු රජු ගේ යුද සැළසුම් අනුව දිවයිනේ බටහිර දෙසින් ගමන් කළ සේනාංක අනුරාධපුරය හා මාතොට වරායේ බලය තහවුරු කරගත් අතරේදි පොළොන්නරුවට පහර දීම සඳහා තවත් සේනා දෙකක් නැගෙනහිර වෙරළ තීරයට සමගාමීව මෙහෙයවන ලදි. ඒ අතරතුර රට අභ්‍යන්තරයේ වූ මලය දේශය හරහා තවත් සේනාවක් ඉදිරියට ගමන් ගන්නා ලදි (මහාවංසය, 58; 40-46). මේ සියළු සේනා සතුරාට දිශා කිහිපයකින් පහරදීම නිසා සතුරු හමුදාවට ඒ සෑම පෙරමුණකටම මුහුණ දිය යුතු වූ බැවින් ඔවුනගේ ශක්තිය ඒකරාශි කරගැනීමට අවකාශ නොලැබුණී. මෙලෙස එදා විජයබාහු රජුගේ සේනාවන් මන්නාරම් ප්‍රදේශය සියතට ගෙන රකවල් ලා සොළීන්ට පැන යාමට හෝ දකුණු ඉන්දීයාවෙන් ආධාරක බල සේනා ගෙන්වා ගැනීමට අවකාශ ලබා නොදුන්නා සේම මෙදා යුද්ධ හමුදාවේ එක් සේනාංකයක් විසින් (58 සේනාංකය) කොටි ත්‍රස්තවාදීන්ගේ ජාත්‍යන්තර මුහුදේ සබඳතාව සම්පූර්ණයෙන්ම අහිය කරන ලදි. තවද කෝට්ටේ සමයේ දී 6 වන පරාක්‍රමබාහු රජු විසින් උතුරේ ආර්යචක්‍රවර්තීගේ ආධිපත්‍ය අවසන් කිරීම සඳහා සපුමල් කුමරු සමග යුද සේනාවක් යවන ලද අතර, කෝට්ටේ සිට යාපනය දක්වා වූ දිවයිනේ මන්නාරම් වෙරළ තීරය දිගේ ඇති මාර්ගය පදනම් කරගෙන එම සේනා ඉදිරියට ගිය බවත් මෙහි දී සිහිපත් වේ. වෙරළ තීරය දිගේ උතුරට ගමන් කරන විට සපුමල් කුමරුගේ සේනාව තැන් තැන්වල සුළු යුද්ධ කරමින් ඉදිරියට ගමන් කළ බව අලකේශ්වර යුද්ධයෙහි සඳහන් වන අතර එම ගමන් මාර්ගය කෝකිල සන්දේශයෙහි සවිස්තරාත්මකව දක්වා තිබේ. (අමරසිංහ අජිත්, 2014; 114).

කරුණු එසේ හෙයින් LTTE ත්‍රස්තවාදයෙන් මෙරට මුදාගැනීම සඳහා විජයබාහු රජු අනුගමනය කළ යුද න්‍යාය වන, පෙරමුණු කිහිපයකින් සතුරාට පහරදීම වන්නි මෙහෙයුම සැළසුම් කිරීමේ දී අවධානයට ගන්නට ඇත්දැයි කල්පනා කිරීම තර්කානුගෝචර වේ. ඒ අනුව මීට වසර 1000 කට පමණ පෙර මෙරට සංග්‍රාම නායකයින් විසින්

යොදා ගන්නා ලද යුද සැළසුම් හා මූලධර්ම LTTE ත්‍රස්තවාදීන්ගෙන් උතුර මුදා ගැනීම සඳහා වන්නි මානුෂීය මෙහෙයුමේදී ආදර්ශයට ගන්නට ඇති බව අනුමාන කිරීම සනේතුක ය. විශේෂයෙන්ම වසර ගණනාවක් තිස්සේ විවිධ ක්‍රියාන්විත රාශියක් සිදුකොට විවිධ අත්හදාබැලීම් සිදුකරමින් අවසානයේ දී (2007 වර්ෂය) වන්නියේ ප්‍රධාන කොටි බලකොටු සියල්ල එකවර වටකිරීමට සැළසුම් කරන ලදි. ඒ අනුව යාපනය, මන්නාරම, වවුනියා, මුලතිවු ආදි ප්‍රදේශ හරහා ඉදිරියට යමින් ත්‍රස්තවාදීන්ට දිශා කිහිපයකින් එකවර පහර දෙන ලදි. එහි දී ශ්‍රී ලංකා නාවික හමුදාව විසින් LTTE මුහුදු කොටි ත්‍රස්තවාදීන්ට පැනයාමට හෝ ජාත්‍යන්තර මුහුදේ සබඳතාව පවත්වාගැනීමට අවකාශ නොතබමින් සාගරයේ දී ඉටු කරන ලද කාර්භාරයත් ශ්‍රී ලංකා ගුවන් හමුදාව ගොඩබිම හා මුහුදු ක්‍රියාන්විතවල දී සිදුකළ මහගු කාර්යභාරයත් වෙසෙසින් සිහිපත් කළ යුතුය.

මෙහි දී මහා විජයබාහු රජු චෝලයින්ගෙන් මේ දේශය නිදහස් කර ගැනීම සඳහා වසර ගණනාවක් සටන් කළ ආකාරය පිළිබඳ සාකච්ඡා කිරීම ප්‍රමුඛතාවය බැවින් මින් ඉදිරියට ඒ පිළිබඳව විස්තර කරනු ලැබේ.

ක්‍රි.ව. දහවෙනි සියවසේදි රුහුණේ දේශපාලන අරගලය

අනුරාධපුර රජ කළ පස්වන මිහිඳු රජු ආරක්ෂාව පතා රුහුණට පලාගිය දවස පටන් 1 වන විජයබාහු රජු නැවත රජරට පාලනය ස්ථාපිත කරන තෙක් එනම්, ක්‍රි.ව. 993 සිට 1070 දක්වා වූ වසර 77 ක පමණ කාලයක් දකුණු ඉන්දීය චෝලයින් විසින් රජරට පාලනය කරන ලදි (ලංවිලංඉ; 1 කාණ්ඩය, 2 භාගය; 406). ඔවුන්ට රජ රට ප්‍රදේශය හැර දිවයිනේ අනෙකුත් ප්‍රදේශ යටත් කර ගැනීමට අවකාශ නොලැබුණු නමුත් වරින්වර දකුණේ ප්‍රදේශවලට ප්‍රහාර එල්ල කළහ. දිවයිනේ දක්බිණ දේශයේ හා රුහුණු වැසියෝ ආක්‍රමණිකයින්ට එරෙහිව කොතෙකුත් ක්‍රියා මාර්ග ගත්තද ඔවුන් පලවා හැරීමට තරම් ශක්තියක් නොවීය. පස්වන මිහිඳු රජුගේ පුත් වික්‍රමබාහු එමෙන්ම රුහුණේ ප්‍රදේශිය නායකයින් කිහිප දෙනෙක් චෝල පාලනයෙන් මිදීම සඳහා සටන් කළහ.

150

චෝළ පාලන සමයේ මෙරට සාමාන්‍ය ජනයාට සිදු වූ අසාධාරණකම් හා විපත්ති බොහෝය. මේ කාලයෙදි ජනතාව දැඩි පීඩනයකින් දිවි ගෙවූහ. බොහෝ හිරිහැර දුක් පීඩා ගෙන දුන් චෝළයෝ අහිංසක ජනතාවගේ අත්පා කපා දැමූහ. හිස් කපා දැමූහ. බෞද්ධ වෙහෙර විහාර කොල්ලකෑහ. මෙම ත්‍රස්ත ක්‍රියාකාරකම්වලට එරෙහිව දකුණේ ජනයා එක් රැස් වී සටන් කරනවිට චෝළයින් විසින් එම නායකයින්ද විනාශ කරන ලදහ. චෝළ පාලනයෙන් කෙසේ හෝ මිදීම සඳහා දකුණේ සිංහල ජනතාව ගතහැකි සෑම පියවරක්ම ගත්හ. ඔවුනට එරෙහිව සටන් වැදුනහ. දීර්ඝ කාලයක් තිස්සේ පැවති මේ සටන්වල දී බොහෝ දෙනෙක් මිය ගොස් මහා වස්තු සම්භාරයක් ද විනාශ විය.

මේ අනුව දේශීය ප්‍රභූන් මෙන්ම විදේශිකයින් ද රුහුණේ ප්‍රාදේශීය බලය ලබාගෙන ඇති බැවින් එවකට මෙරට දේශපාලනය කොතරම් පරිහාණියට පත්ව තිබුණේදැයි පෙන්නුම් කරයි. මේ අයුරින් බලනවිට චෝළයෝ රුහුණේ කිසිදු නායකත්වයක් ඉස්මතු වන්නට ඉඩ නොදුන්නහ. විටින්විට ආක්‍රමණකාරී ප්‍රහාර එල්ල කරමින් පාලකයින්ට තර්ජනයක් වූහ. රුහුණ එක්සත් කර චෝළයින් පලවා හැරීමට ප්‍රවේශයක් ගත් වික්‍රමබාහු රජුද අකාලයේ මිය යාම නිසා එම බලාපොරොත්තුවද දුරස්ථර විය. කෙසේ වුවද ආක්‍රමණිකයින්ගෙන් රට නිදහස් කර ගැනීමේ අභිලාෂය එලෙසම පැවතුනි. තම නිදහසට මග පෙන්වූ ඒ සඳහා සටන් කළ වික්‍රමපාණ්ඩු, ජගතිපාල, පරාක්‍රමපාණ්ඩු ආදී විදේශික නායකයින්ටද ජනයාගේ විරුද්ධත්වයක් නොමැතිව එහි බලය ලබා ගත හැකි වුයේ චෝළයින්ට විරුද්ධව සටන් කිරීම නිසාය. එහෙත් විදේශීය නායකයින් නිසා අභ්‍යන්තර ගැටුම් වැඩි වූවා මිස මේ රට නිදහස් කර ගැනීම තවදුරටත් ප්‍රමාද විය.

රටෙහි පැවති අභ්‍යන්තර ගැටුම් නිසා බොහෝ පීඩාවන් ඉවසාගත නොහුණු රුහුණේ ජනතාවට නව නායකත්වයක් ලැබෙන්නේ කීර්ති කුමාරයා හෙවත් විජයබාහු කුමාරයාගේ පහළවීමත් සමගය. විජයබාහු රජු විසින් මෙරට එක්සෙසත් කිරීම සඳහා චෝළයින් සමග බොහෝ කලක් සටන් කිරීම මෙරට යුද ඉතිහාසයේ විශේෂයෙන්

සාකච්ඡාවට බඳුන් වේ. දේශය වෙනුවෙන් ඉටුකරන ලද විශාල කාර්යභාරය නිසා මහා (Great) යන ගෞරව පූර්වක විශේෂණයක් සහිත අග්‍රගණ්‍ය පාලකයෙකු වන මහා විජයබාහු රජුගේ කාර්ය සාල්‍ය රචනා කිරීම සඳහා වංශකතාවේ පරිච්ඡේද 4 ක් වෙන් කර ඇත. අනුරාධපුර රාජ පරම්පරාවට ඥාති සම්බන්ධතා දක්වන කීර්ති කුමාරයාගේ පියා වන මුගලන් ඇතුළු ඔහුගේ පවුල සුරක්ෂිතව රැකබලා ගත්තේ රුහුණේ ජන ප්‍රධානියෙකු වූ බුද්ද හෙවත් බුද්දරාජ විසිනි. විජයබාහු රජ වූ පසු මේ බුද්දරාජ හෙවත් බුද්ධනාවන්ට කළගුණ සැලකීම සඳහා පිරිනමන ලද නීතිමය වරප්‍රසාද පිළිබඳවත් විජයබාහු ළමා කාලයේ දී ගත කළ කටුක ජීවිතය පිළිබඳවත් පනාකඩුව තඹ සන්නසින් තොරතුරු අනාවරණය වේ (E.Z. vol 5, අමරවංශ හිමි, 1969; 341).

විජයබාහු රජු චෝළයින්ට එරෙහිව දියත් කළ සටන

පරාක්‍රම පණ්ඩුගෙන් පසු රෝහණයේ බලය අත්පත් කරගත් ලෝක නැමති (ලෝකේශ්වර) සෙන්පතියා කතරගම ප්‍රදේශය කේන්ද්‍ර කරගෙන පාලනය කළේය. ඒ ක්‍රි.ව. 1050 දී පමණ ය. මේ අතර කීර්ති කුමාරයාට රැකවරණය ලබාදුන් බුද්දරාජ කතරගම විසූ ලෝකේශ්වර සමග සටන් කොට එම ප්‍රදේශය අත්පත් කරගෙන තිබේ. මේ වන විට වයස අවුරුදු 13 ක් පමණ වූ කීර්ති කුමාරයා දුනු ශිල්පය ප්‍රගුණ කළ අතර, ඔහු බුද්දරාජයන්ගේ යුද්ධ කාර්යන්වලට සම්බන්ධ වී ක්‍රියාකර තිබේ (මහාවංසය, 57; 46-48, ලංවිලංඉ; 1 කාණ්ඩය, 2 භාගය; 401).

ලෝක සෙන්පතියාගේ බලසේනා බුද්දරාජයන් සමග සටන් කළද නැවත එම ප්‍රදේශය අත්පත් කර ගැනීම පහසු නොවීය. තව ද මේ වන විට බුද්දරාජ විසින් රාජ උරුමය ඇති කීර්ති කුමාරයා අනාගත රජු හැටියට පත් කිරීම සඳහා පදනම ගොඩනගමින් සටන්වල නිරත වූ බැව් හඳුනාගත හැකිය. මේ අතර ලෝක සේනාපති විරුද්ධව සටන් කිරීම සඳහා දේවමල්ල නම් ප්‍රසිද්ධ නායකයෙක් ඔහුගේ පිරිවර සමග බුද්දරාජ හා කීර්ති දෙදෙනාට එකතු වූ බැව් ද මේ ඒකාබද්ධ සේනාව රන්මාලකන්ද (හිරණ්‍යමලය) කඳුවැටියේ කඳවුරු

බැදගෙන සිටිය දී ලෝක සේනාපති විසින් මෙම බලකොටුවට ප්‍රහාර එල්ල කළ ද, පරාජය වූයේ ය. තවද හුණුවල, රක්වාන, රත්මලේ හා බෝවල යන ස්ථානවල දී සිදුකරන ලද සටන්වලින් ද ලෝක සෙනවියා පරාජය වී ඇත. අවසානයේ දී සටන් අතහැර දැමූ ලෝක සෙනෙවියා ඒ ආසන්නයේ දී ම මිය ගියේ ය (මහාවංසය, 57; 59-60).

ලෝක හෙවත් ලෝකේශ්වරගෙන් පසුව කේශධාතු කාශ්‍යප බලයට පත් වී රුහුණු ජනයා මැඩ සිය අණසක පැවැත්විය. එය වංශකතාවේ දැක්වෙන්නේ මෙසේය. "එකල්හි කසුබ් නම් කේසධාතු නායක වූ එක්කෙනෙක් ජනයා මැඩ රුහුණ සිය අණ පැවැත්විය." (මහාවංසය, 57; 67) මේ වන විට පොලොන්නරුවේ චෝළ සාමන්ත පාලකයා රෝහණයේ දේශපාලන හා ආරක්ෂක ක්‍රියාකාරකම් පිළිබඳ විමසිල්ලෙන් පසු වූ අතර කතරගම පාලකයා වූ කේශධාතු කාශ්‍යපට පහරදෙන්නට සේනාවක් එවන ලදි. චෝළ බල සේනා පරාජය කළ කාශ්‍යප ඉන්පසු සිය බල ප්‍රදේශයේ ආරක්ෂාව තහවුරු කිරීම සඳහා ක්‍රියාමාර්ග රැසක් ගත්තේය. ඒ බැවි,

"එකල සොළී සාමාන්ත තෙමේ එපවත් අසා පොලොන්නරුවෙන් නික්ම යුද්ධයට සැරසී කතරගම ගියේ ය. එකල කෙස්දනා තෙමේ යුද්ධයෙහි දෙමළ බලසෙන් බිඳ සීමායෙහි ආරක්ෂක මිනිසුන් තබන ලද ජයෙන් ඔද වැඩිව මහ සෙනගින් පෙරටු කරන ලදුව පෙරළා අවුත් කතරගම නුවරට වන" (මහාවංසය, 57,68- 69).

මේ අතරතුර බුද්දරාජ හා කීර්ති කුමාරයා ගේ සේනාව මහානාගහුල දක්වා පැමිණ එය සිය ප්‍රධාන මෙහෙයුම් මධ්‍යස්ථානය කරගෙන යුද කටයුතු සංවිධානය කළේ. තවද මෙහි දී මලය රට හා පස්දුන් කෝරළය ප්‍රදේශවල ජනයාද කාශ්‍යපට විරුද්ධව බුද්දරාජ හා කීර්ති කුමාරයා සමඟ එකතු වුහ.

කේශධාතු කාශ්‍යපගේ හමුදා බලයත් එසේම ධනයත් අඩු වී ඇති බව සිතූ බුද්දරාජ හා කීර්ති දෙදෙනා කාශ්‍යප හා සටන් කිරීමට සුදුසු අවස්ථාව මෙය බව කල්පනා කොට ඔහු හා සටන් ආරම්භ කළෝය. මෙහි දී කේශධාතු කාශ්‍යප තර්ජනවලට මුහුණ දීමට නොහැකිව කතරගම අතහැර නැගෙනහිර පෙදෙසේ තිබූ බදිරංගනී බලකොටුවට ගිය අතර බුද්ද රාජයන්ගේ සේනාව විසින් කතරගම ප්‍රදේශය අල්ලා ගන්නා ලදි.

"පස්යොදුන් ආදී රටවැසි ඉතා බොහෝ මිනිසුන් ගෙන රජ කුමර සමීප වන කළ කෙස්දනා තෙමේ මෙහි යුද උගහට යැයි සිතා බදිරංගනියට ගියේය. සොළොස් වස් ඇති මිහිපත් කුමරද මහසෙන් සග පහ වූ බිය ඇත්තේ කතරගම නුවරට වන. ඉක්බිති රජ කුමරු මහා බල ඇති සේනා තොමෝ රට යුද පවත්වන්නේ කෙස්දාවන් හිස ගත්තාය...." (මහාවංසය, 57; 73- 77).

මෙසේ කතරගමට පැමිණි බුද්දරාජයන්ට හා කීර්ති කුමාරයාට තවත් වසර දෙකක් පමණ ගිය පසු රෝහණයේ ආධිපත්‍ය ලබා ගැනීමට හැකි වූ බවත් ඉක්බිති 18 හැවිරිදි කීර්ති කුමාරයා ක්‍රි. ව. 1055 දී රෝහණයේ රජ වූ බවත් සඳහන් වේ (රාජාවලිය, සුරවීර (සංස්.), 1997; 116, ලංවිලංෂ්; 1 කාණ්ඩය, 2 භාගය; 403). රජ පරපුරකින් පැවත ආ නමුත් විජයබාහුට රාජ්‍යත්වය, රාජ සභාවක් පිළිබඳ හෝ අත්දැකීමක් තිබුණේ නැත. කුඩා කළ සිටම කටුක ජීවිතයක් ගත කළ ඔහු ආරක්ෂාව සඳහා රහසේ තැනින් තැනට මාරු වෙමින් බොහෝ විට වනයේ කැලෑ කොළ, අල වර්ග අනුභව කරමින් ජීවත් වූ බවද සිහිපත් කළ යුතුය. කෙසේ නමුදු දීර්ඝ කාලයක් තිස්සේ විවිධ ප්‍රාදේශීය නායකයින් බලය අත්පත් කර ගැනීම සඳහා නිතරම සිදුකරන ලද කැරලි කෝලාහල නිසා ව්‍යාකූල තත්වක් තිබූ රුහුණේ දේශපාලනය මින් පසු ස්ථාවර විය. රුහුණ එක්සත් කළ විජයබාහු රජු චෝළයන් නෙරපා හැරීම සඳහා උපක්‍රම කල්පනා කරමින් ක්‍රම ක්‍රමයෙන් ඒ සඳහා කටයුතු සූදානම් කළේය.

152

මේ අතර රුහුණු රාජ්‍යයේ එක්සත්භාවය හා විජයබාහුගේ නායකත්වය පිළිබඳවත් ඉන්දියාවේ සිටි චෝල අධිරාජ්‍යයට දැනගන්නට ලැබුණි විජයබාහුගෙන් තමාට තර්ජනයක් විය හැකි යැයි කල්පනා කළ හෙතෙම පොලොන්නරුවේ සාමාන්ත පාලකයා සන්නද්ධ කොට රුහුණ ආක්‍රමණය සඳහා පිටත් කළේය. ඒ අනුව කතරගම දක්වා පැමිණ සිටි චෝල සේනාව හා සටන් නොකිරීමට රජු වගබලා ගත්තේය. සතුරු හමුදාව තම සේනාවට වඩා බලවත් බව තේරුම් ගත් විජයබාහු සතුරාට මුහුණ නොදී කතරගම අත්හැර, තමාට හොඳින් හුරුපුරුදු කදුකර වනාන්තරයේ සිට ආරක්‍ෂාව තහවුරු කර ගත්තේය. සොළින් කතරගමට කඩාවැදී එහි වස්තුව කොල්ලකෑ ටික දවසකින් නැවත පොලොන්නරුවට ගියහ. චෝලයින්ගේ අරමුණ ව‍්‍යර්ථ විය. චෝලයින් පසු බසින අයුරු දැක කදුකරයේ සිටි විජයබාහු රජු පෙරළා හම්බන්තොට ප්‍රදේශයේ සිප්පත්ථලකයට පැමිණියේය (මහාවංසය, 58; 6-8).

විජයබා රජු නැවත රුහුණේ සංවර්ධන කටයුතු ආරම්භ කළ අතර විදේශීය රටවල් සමග (රාමඤ්ඤ දේශය) වෙළෙඳ සබඳතා ද ඇති කර ගත්තේය. මෙරටින් යවන ලද භාණ්ඩ වෙනුවට එරට වෙළෙඳ බඩු නැව් රෝහණයේ හම්බන්තොට මුහුදට ගොඩ බස්සවන ලදි. මේ කාලයේ විජයබා රජ සමයේ මෙරට නැව් තිබුණේ දැයි යම් අවිනිශ්චිත බවක් මතු වුවද පාණ්ඩ්‍ය දේශය හෝ අග්නිදිග ආසියාවේ මලයවරුන්ගේ නැව් හරහා විදේශීය වෙළඳාම පවත්වාගෙන යන්නට ඇතැයි විශ්වාස කෙරේ (ලංවිලංඉ; 1 කාණ්ඩය, 2 භාගය; 403). කඩා වැටී තිබුණු රටේ ආර්ථිකය විදේශ වෙළෙඳාම තුළින් නංවාලීමට උත්සාහ ගෙන ඇති බවත් එසේම රජරට පාලනය කළ චෝලයින් පලවා හැරීම සඳහා ඒ හරහා ශක්තිමත් පදනමක් ස්ථාපිත කිරීමත් රජු ගේ අරමුණ විය.

රුහුණේ විජයබාහු රජුගේ බලය තහවුරු වෙද්දි, එනම් ක්‍රි.ව. 1065 දී පමණ රජරට වැසියෝ ද ක්‍රමයෙන් චෝල නීති රීතිවලට පටහැනිව ක්‍රියා කරන්නටත් බදු ගෙවීම ප්‍රතික්ෂේප කරන්නටත් විය. එසේම චෝල නිලධාරීන්ට අවනත වූයේ ද නැත. රුහුණේ වර්ධනය වන විජයබාහුගේ බලය විනාශ කිරීමට හා රජරට චෝල විරෝධී රැල්ල මර්දනය

කිරීම සඳහා චෝල අධිරාජ්‍යය විසින් මහා සේනාවක් එවන ලදි. එම සේනා මහාතිත්ථ වරායට ගොඩබැස රජරට වැසියන්ට වද හිංසා කරමින් රුහුණ ආක්‍රමණය කරන්නට විය. මෙහිදී විජයබාහු රජුගේ ඉදිරි ආරක්ෂක වළල්ලේ සිටි සෙන්පතියන් දෙදෙනෙකු රවිදේව හා වල, රුහුණට කඩාවැදෙන චෝල සේනා සමග එකතු වූහ (මහාවංසය, 58; 16). මේ තත්ත්වය යටතේ විජයබාහු රජුගේ අරමුණ ව්‍යර්ථ වූ අතර මීට පෙර අත්හදා බලා තිබෙන සතුරාට මුහුණ නොදී පසුබසින උපක්‍රමය අනුගමනය කළේය. ඔහු පලතුපාන ප්‍රදේශයේ කඳවුරු සදාගෙන චෝලයින් එනතුරු බලා සිටියේය. විවිධාකාරයේ ස්වභාවික ආරක්ෂිත ස්ථානයන්ගෙන් සමන්විත එම පරිසරයේ ගල්ගුහා, කදුවැටි, දිය ඇලි, ප්‍රපාත ආදියත් දුර සිට සතුරා නිරීක්ෂණය කළ හැකි කඳු මුදුන් පිහිටීමත් භූගෝලීය වශයෙන් වැදගත් විය. සතුරා පටු මං මාවත් දිගේ ඉදිරියට එන විට අනපේක්ෂිත ලෙස සතුරාට පහර දිය හැකි වාසි සහිත භූමියක් විය. මෙහි දී සිදු වූ සටන්වල දී චෝලයින් පරාජය වූ අතර ඔවුන්ගේ සෙන්පතියන් පලා යද්දී බුත්තල ප්‍රදේශයේ තම්බට්ඨයේ දී සාතනය කරන ලදහ (මහාවංසය, 58; 20).

චෝලයින් පළවා හැරීමේ ප්‍රථම පියවර

පලතුපාන සටනේ ජයග්‍රහණයෙන් ධෛර්යමත් වූ විජයබාහු සේනාවෝ පොලොන්නරුව අල්ලා ගැනීමට තමන් ශක්තිමත් බව සිතා ඒ දෙසට ගමන් ආරම්භ කළහ. මේ බව දැනගත් චෝල රජු (වීරරාජේන්ද්‍ර) විශාල සේනාවක් මෙහි එවන ලදි (මහාවංසය, 58; 22-24). විජයබාහු රජුගේ සේනාවෝ ඔවුන්ට පහර දීම සඳහා ඉදිරියට ගමන් කරමින් සිටිය දී අනුරාධපුරය අසල දී ඔවුන් හා සටන් කළෝය. මෙම සටනේ දී විජයබාහු රජුගේ ප්‍රධාන සෙන්පතියා ඇතුළු විශාල සෙබළන් සංඛ්‍යාවක් චෝලයින් අතින් ජීවිතක්ෂයට පත් වූ අතර තවත් සමහරෙක් චෝලයින්ගේ ග්‍රහණයට හසු වූහ. මේ තත්ත්වය මත විජයබාහු රජුට පොලොන්නරුවට ළඟා වීමට නොහැකි විය. එබැවින් වැදඩ විල්පත්තුවේ විල්ලිකාබාන ප්‍රදේශයට පසුබස වහාම තම හමුදා ප්‍රතිසංවිධාන කටයුතු කළේය (මහාවංසය, 58; 29-30). චෝල සේනාව තමා ලුහුබැඳ එන බව දැනගත් රජතුමා

153

කෑගලුදිස්ත්‍රික්කයේ ගල්බොඩ කෝරළය වාතගිරි හෙවත් වාකිරිගල කදු ශිබරයට ගොස් බලකොටුවක් කරවා මාස තුනක් මුළුල්ලේ චෝලයින් සමග සටන් කළේය (මහාවංශය, 58 ;31-32).

රජරට විදේශිකයින්ගෙන් මුදාගැනීමේ අප්‍රතිහත ධෛර්යය අත්නොහළ රජුට සතුරු පක්ෂයෙන් පමණක් නොව මිතුරු පක්ෂයෙන් එල්ල වූ බොහෝ බාධකවලට මුහුණ දීමටද සිදුවිය. ඉන් අනතුරුව රුහුණ එක්සත් කරන සටනේ දී බදිරංගනියේ දී මිය ගිය කේශධාතු කාශ්‍යපගේ (ක්‍රි.ව.1053) සොහොයුරෙකු බුත්තල ප්‍රදේශයේ කැරැල්ලක් ඇති කරවීය. මේ වන විට විජයබාහු කෑගල්ල වාකිරිගල ප්‍රදේශයේ මෙහෙයවන ලද සටන්වල දී චෝලයින් ක්‍රමයෙන් පසු බසින ලදි. ඔවුන් එසේ කරන්නට ඇත්තේ විජයබාහුට බුත්තල කැරැල්ල මැඬ පැවැත්වීමට ඉඩප්‍රස්තා ලබාදීම සඳහා විය හැකිය. ඒ අනුව විජයබාහු දකුණේ කැරැල්ල මැඬපැවැත්වීම සඳහා එහි ගිය අතර කැරලි නායකයා ආරක්ෂාව පතා චෝල පාලන ප්‍රදේශයට පලා ගියේය (මහාවංශය, 58 ;37). ඉන්පසු රජතුමා අම්බලන්තොටට සැතපුම් නවයක් පමණ දුරින් පිහිටි මහානාගහුලේ බලකොටු ස්ථාපිත කොට අනාගත සටන සඳහා ප්‍රතිසංවිධාන කටයුතු කළේය (ලං.වි.ලං; 1 කාණ්ඩය, 2 භාගය; 405).

චෝලයින්ගේ දරුණු ප්‍රහාරවලට ලක්ව සිටි රජතුමාට දේශීය දෝහීන්ගෙන් එල්ල වන තර්ජන මැද පැවැත්වීමටත් සිදු වූ නිසා විදේශිකයන්ගෙන් රජරට නිදහස් කර ගැනීම තවදුරටත් ප්‍රමාද විය. ජයග්‍රහණය ලබා ගන්නට ආසන්නව තිබූ අවස්ථා කිහිපයක දී ම ඇතැම් දේශීයයන් දෝහි ලෙස ක්‍රියා කිරීම නිසා නැවත මුල සිට සංවිධානය වීමට සිදු විය. එහෙත් බලසම්පන්න චෝල අධිරාජ්‍යාගෙන් ලංකාද්වීපය නිදහස් කර ගැනීමේ සටන අත්නොහළේය. මේ වන විට වීර රාජේන්ද්‍ර රජු බටහිර චාලුක්‍යයන් සමග යුද්ධයක පැටලී සිටි නිසා (ක්‍රි.ව. 1067) ලංකාවේ චෝල පාලනය පිළිබඳ එතරම් අවධානයක් යොමු කරවීමට නොහැකි විය. චෝලයින්ගෙන් මේ රට නිදහස් කර ගැනීමට සුදුසම අවස්ථාව මෙය බව කල්පනා කළ විජයබාහු රජු විසින් නොපමාව යුද කටයුතු සැළසුම් කරන ලදි.

විජයබාහු රජුගේ සංග්‍රාම සැළසුම

විජයබාහුගේ යුධ සැළසුම වූයේ රජරට ප්‍රදේශයට යුද පෙරමුණු කිහිපයකින් එකවර ප්‍රහාරයක් දියත් කිරීමය. ඒ අනුව මහානාගහුල සිට දක්බිණ දේශය හරහා දිවයිනේ බටහිර පෙදෙසින් සේනාපතිවරුන් දෙදෙනකු යටතේ හමුදා සේනාංක දෙකක් යොදවා අනුරාධපුරයට පහර දී ඉනික්බිතිව එක් සේනාවක් මහාතිත්ත වරාය හා එම නගරය (මන්නාරම) අත්පත් කර ගැනීමට සැලසුම් කෙරිණි. නැගෙනහිර වෙරළ බඩ ප්‍රදේශය ඔස්සේ ඉදිරියට යන සේනාව මහියංගනයට පැමිණ එතැන් සිට පොලොන්නරුවට පහරදීම සඳහා පිටත්ව යාමට නියමිත විය. විජයබාහු රජ තමා විසින්ම අණ දුන් සේනාව මාගම සිට බුත්තල හරහා ගොස් මහියංග නය වෙත ළඟා වී නැගෙනහිරින් එන සේනා සමග ඒකාබද්ධවීම පළමු අදියරේ සැලසුම විය. (ලං.වි.ලං; 1 කාණ්ඩය, 2 භාගය; 406).

බටහිර දෙසින් ඉදිරියට ඇදුණු හමුදා සේනා විසින් මුහුන්නරුව (හෙට්ටිපොළ අසල නුවර කැලේ), බදලත්ථලය (බතලේගොඩ), වාසි නගරය (කුරුණෑගල අසල චේනරුව), බුද්ධගාමය (දඹුල්ලට දකුණින් පිහිටි මැණික්දෙන), තිලගුල්ල (තලගල්ලේ ඇල), මහාගල්ල (මාගල්ල හෝ නිකවැරටිය), මන්දගුල්ලය (පොල්පිතිගම අසල මහාමඩගල), යන ස්ථාන පිළිවෙලින් අත්පත්කරගෙන ඉන්පසු අනුරාධපුරය හා මහාතිත්ථය අත්පත් කරගැනීමට ගමන් කළහ (මහාවංශය, 58; 42-44). එහි දී එක් ප්‍රහාරක සේනාවක් විසින් අනුරාධපුර නගරය අල්ලාගන්නා ලද අතර අනෙක් සේනාව විසින් සතුරාට ඉතා වැදගත් වූ මහාතිත්ථ වරාය අත්පත්කරගන්නා ලදි. එමගින් චෝලයින්ගේ මව් රට වූ දකුණු ඉන්දියාව සමග තිබූ සබඳතාවය නතර කෙරිණි. එබැවින් ඔවුනට තවදුරටත් පිටරටින් ආධාරක හමුදා ගෙන්වා ගැනීමට තිබූ අවකාශය ඇසුරිණි. අනුරාධපුර නගරය අත්පත් කරගත් සේනාව පොලොන්නරුව දෙසට ගමන් කිරීම ඔවුන්ගේ ඊළඟ අදියර විය.

නායකයින් දෙදෙනකු යටතේ නැගෙනහිර වෙරළ තීරයට සමාගමව ඉදිරියට ඇදුණු සේනාවෝ සගම (මහාවංශය, 58; 44-46) (තිරුක්කෝවිලට

154

බටහිරින් පිහිටි සකාමම්) ආදී කදවුරු යටත් කරගෙන නැගෙනහිර පෙදෙසේ බලය තහවුරු කරගන්නා ලදී. මෙම සේනාවෝ මාගම සිට බුත්තල හරහා උතුරට ඇදුණු සේනාංක හා මහියංගනයේ දී මුණ ගැසිය යුත්ය අතර එතෙක් පැවති සියලු සතුරු බලසෙන් විනාශ කොට ආරක්ෂාව තහවුරු කිරීම පළමු අධියරෙහි පරමාර්ථය විය.

ඉන්පසු පොලොන්නරුව නගරය වටලා ඒකාබද්ධ ප්‍රහාරයක් එල්ල කිරීම මෙහෙයුමේ දෙවන අධියර විය. එහි දී එම ප්‍රදේශය අවට සිටි චෝලයින්ට පහරදෙමින් ඉදිරියට ඇදී ක්‍රමයෙන් පොලොන්නරුව නගරයට සමීප විය. මෙහි දී එල්ල වූ දරුණු ප්‍රහාර මධ්‍යයේ චෝලයින් පොලොන්නරුව බලකොටුව තුළට වැදුනු අතර විජයබාහු සේනාව බලකොටුව වැටලුහ. මෙහිදී සොළින්ට ආධාරක හමුදා ගෙන්වා ගැනීමට අවකාශ නොලැබුණු අතර පසුබසින්නට ද අවකාශ ලබා නොදෙන ලදී. මේ අයුරින් මාස එකහමාරක් පමණ (එක් මස් පසළොස් දිනක් මහාවංසය, 58; 54) බලකොටුව වටලාගෙන සිටි සේනාව එක්වරම අනපේක්ෂිත ලෙස දැවැන්ත ප්‍රහාරයක් එල්ල කළහ. මීට පෙර සොළින් හා එකතු වී සිටි රවිදේව හා චල යන විජයබාහු රජුගේ සෙන්පතින් දෙදෙනාද බලකොටුවට පැන සිංහල හමුදා සමඟ එක්වී සියලු දෙමළන් නැසුහ. "මහ රජහුගේ මහත් වූ වීර්යය ඇති මහා ශූර වූ මහා බලැත්තා වූ රවිදේව හා චල ආදී වූ මායා යෝධයෝ පවුර පැන බලාත්කාරයෙන් පුරයට පිවිස ක්ෂණයකින් සියලු දෙමළන් නැසීම වශයෙන් මැරූහ..." (මහාවංසය, 58; 55-56).

රුහුණ එක්සත් කරනවිට විජයබාහු රජු මර්දනය කිරීම සඳහා විශාල දුවිඩ සේනාවක් රුහුණට එවන ලද බවත් එම සටන්වල දී රවිදේව හා චල යන නායකයින් දෙදෙනා සතුරු හමුදාව වූ චෝල සෙනවියාට එකතු බවත් ඉහතින් දක්වන ලදී. එහෙත් පොලොන්නරුව අල්ලා ගැනීමේ අවසාන සටනේ දී මේ සෙන්පතින් දෙදෙනා විජයබාහු සේනා සමග එකතු වී විශාල කාර්යහාරයක් ඉටු කරන ලද බව ද මොවුන් මායා යෝධයෝ ලෙස මහාවංශයේ හැදින්වීමෙන් ද ගම්‍ය වන්නේ මෙහි සැඟවුණු රහසක් ඇති බව ය. සතුරාට සමීපවී ඔවුන් අතරට රිංගා ඔවුන්ගේ ක්‍රියාකාරකම් මැනවින්

අධ්‍යයනය කර අවසානයේ දී ඔවුනට පහර දීම සඳහා රවිදේව හා චල යන සෙනෙවිවරුන් හරහා එවන් යුද උපක්‍රමයක් විජයබා රජු විසින් ක්‍රියාවේ යොදවන්නට ඇත්දැයි අනුමාන කළ හැක.

මෙසේ වසර ගණනාවක් තිස්සේ (1017- 1070) කුරිරු අත්දැකීම් නිමාකර රටත් ජාතියත් චෝල ආධිපත්‍යයෙන් නිදහස් කරගත් මහා විජයබාහු ක්‍රි. ව. 1070 දී මෙරට එක්සේසත් කරන ලද අතර ජනයා එම සතුට බෙර වාදන මැද්දේ හුක්ති විදිය(මහාවංශය, 58; 57). එය වසර 30 කට ආසන්න කාලයක් LTTE ත්‍රස්තවාදීන්ගෙන් මේ රට නිදහස් කර ගැනීමෙන් පසු (2009 වර්ෂයේදී) කිලිනොච්චිය, මුලතිව් ආදිය ඇතුලත් උතුරු ප්‍රදේශය මුදාගෙන එහි සිංහ ධජය ලෙලෙදවමින් ජයග්‍රහණය තහවුරු කළ අයුරු ද ප්‍රීතිසෝෂා, නැටුම් ගැයුම් මැද මං මාවත් දිගේ සමස්ත රට වැසියෝම ජයග්‍රහණය සැමරූ අයුරු ද සිහි ගැන්වෙයි.

එසේම දීර්ග කාලයක් තිස්සේ අති දුෂ්කර කටුක දිවිපෙවෙතක් ගත කරමින් මෙරට එක්සේසත් කළ විජයබාහු රජු තම අභිෂේක කටයුතු සඳහා ඉක්මන් වූ බවක් දක්නට නොලැබේ. විජයග්‍රහණයෙන් වසර තුනකට පමණ පසුව තම මුත්නුම්මිත්තන්ගේ රාජධානිය වූ අනුරාධපුරයේ දී ස්වකීය අභිෂේක මංගල්‍යය පවත්වා තෙමසක් එහි ගතකොට නැවත පොලොන්නරුවට පැමිණියේ ය (මහාවංසය, 59; 1-3).

එළාරගෙන් රජරට මුදාගැනීම සඳහා දුටුගැමුණු රජතුමා මාගම සිට සේනා මෙහෙය වූ ආකාරයත් විජයබාහු රජු මහානාගහුල සිට පොලොන්නරුව නිදහස් කර ගැනීම සඳහා සටන් මෙහෙය වූ ආකාරයත් පිළිබඳව තුලනාත්මකව අධ්‍යයනය කර බැලීම වැදගත් වේ. මෙහි දී ඇතැම් අවස්ථාවල දී භාවිතා කරන ලද යුද නයායන් හා උපක්‍රම බොහෝවිට එක සමාන බවක් පෙනෙයි. විදේශිකයන් විසින් රජ රට අත්පත් කරගත් සෑම අවස්ථාවකම දකුණේ හෙවත් රුහුණේ සිට සේනා සංවිධානය කරගෙන සටන් කොට දේශය නිදහස් කරගන්නා ලද අයුරු ඉතිහාසය පුරාම දක්නට ලැබේ.

155

දුටුගැමුණු රජු මාගම සිට බුත්තල හරහා මහියංගනය දක්වා වූ පැරණි මාර්ගය ආශ්‍රිතව සිය සන්නද්ධ සේනා සමග පැමිණ එතැන් සිට නැවත සංවිධානය වී එළාරගේ සේනාවන්ට පහර දීම ආරම්භ කළේය (මේධානන්ද හිමි, 2005;50-52). විජයබාහු රජු ඊට වඩා වෙනස් උපක්‍රමයක් අනුගමනය කළේය. දිවයිනේ බටහිර දෙසින් ගමන් කළ සේනාංක අනුරාධපුර නගරය හා මාතොට වරාය ආදී ප්‍රදේශ අල්ලා ගන්නා අතරතුර පොලොන්නරුවට පහර දීම සඳහා තවත් බළමුළු දෙකක් නැගෙනහිර වෙරළ තීරයට සමගාමීව මෙහෙයවා ඒ අතරතුර මළය දේශය හරහා තවත් සේනාවක් යොදවන ලදි.
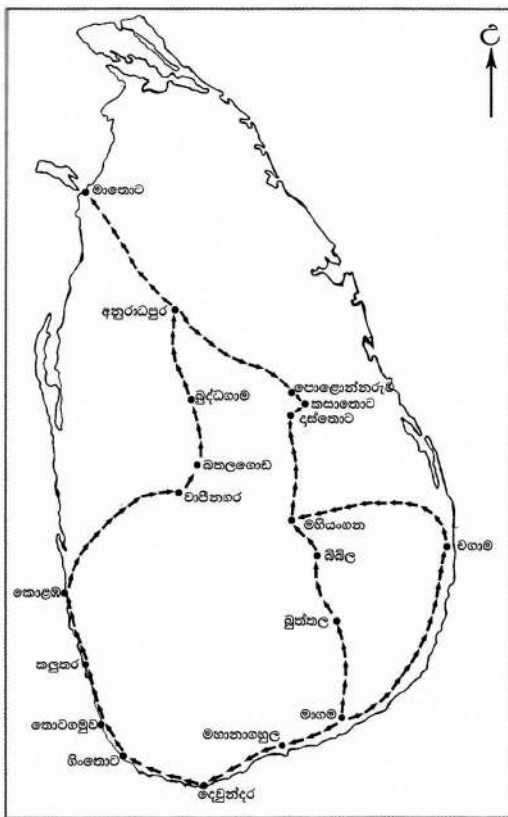
රූපසටහන - 1
චෝළයින්ට එරෙහිව විජයබාහු රජු ගේ
සේනා ගමන් කළ මාර්ග (සිරිවීර, 2020; 47)

LTTE ත්‍රස්තවාදයෙන් මෙරට මුදාගැනීම සඳහා අනුගමනය කළ යුද උපක්‍රම හා මහා විජයබාහු රජු අනුගමනය කළ යුද සැළසුම් පිළිබඳ තුලනාත්මකව අධ්‍යයනය කිරීමේ දී යම් අතීත යුද න්‍යායන් වත්මන් සංග්‍රාම නායකයින් විසින් අධ්‍යයනය කරන්නට ඇත්දැයි අනුමාන කිරීම සහේතුක ය. ඒ අනුව ක්‍රි.ව. 11 වන සියවසේ දී පොලොන්නරුව අවධියේ දී චෝළයින්ගෙන් රජරට නිදහස් කරගැනීම සඳහා යොදා ගන්නා ලද යුද සැළසුම් හා මූලධර්ම ක්‍රි.ව. 21 වන සියවසේ දී LTTE ත්‍රස්තවාදීන්ගෙන් උතුර මුදා ගැනීම සඳහා අනුගමනය කළ යුද උපක්‍රම අතර යම් සමානතා ලක්ෂණ පෙන්නුම් කරන බව කල්පනා කිරීම තර්කානුගෝචර ය.

විශේෂයෙන්ම වසර තිහකට ආසන්න කාලයක් තිස්සේ විවිධ ක්‍රියාන්විත රාශියක් සිදුකොට අවසානයේ දී (2009 වර්ෂය) කිලිනොච්චිය හා මුලතිවු ත්‍රස්තවාදි බලකොටු වටකිරීමට සැළසුම් කරන ලදි. ඒ අනුව යාපනය, මන්නාරම, ඕමන්තේ, වැලිඔය ආදී ප්‍රදේශ හරහා සටන් පෙරමුණු වශයෙන් ඉදිරියට යමින් ත්‍රස්තවාදීන්ට දිශා කිහිපයකින් එකවර පහර දෙන ලදි. එදා විජයබාහු රජු මහාතිත්ථ වරාය රැකවල්ලා සොළීන්ට පැන යාමට හෝ වෙනත් රටකින් ආධාරක බල සේනා ගෙන්වා ගැනීමට අවකාශ ලබා නොදුන්නා සේ මෙදා ශ්‍රී ලංකා යුද්ධ හමුදාවේ 58 වන සේනාංකය විසින් එම කාර්ය භාරය ඉටුකරන ලද අයුරු හඳුනා ගත හැකිය. එසේම සමස්ත මෙහෙයුමේ දී ශ්‍රී ලංකා නාවික හමුදාව හා ගුවන් හමුදාව ලබා දුන් දායකත්වයද මහෝපකාරී වූ බවද සඳහන් කළ යුතුය.

චෝළයින් විසින් අනුරාධපුර රාජධානිය විනාශ කොට සිය පාලන මධ්‍යස්ථානය පොලොන්නරුවට ගෙන ගොස් වසර 70 කට අධික කාලයක් රජරට යටත් කරගෙන සිටියහ. විජයබාහු රජු විසින් මෙරට නිදහස් කර ගැනීමෙන් පසුව තවදුරටත් සතුරන් ලක්දිවට ගොඩබැසීම වැළැක්වීම සඳහා වෙරළබඩ කලාපවල අවශ්‍ය පරිදි හටපිරිස් ස්ථානගත කළේය. එහි දී සමුදුය ආරක්ෂා

කිරීම භාරව සිටි ආරක්ෂක ප්‍රධානියා මලයානා නමින් හැඳින් වූ බව කැලණි විහාර සෙල්ලිපිය අනුව පැහැදිලි වේ. මෙම රාජ්‍ය ආරක්ෂක උපක්‍රම නිසා විජයබාහු රජුගේ පාලන සමයේ දී හෝ ඊට පසු වසර හතළිහක් පමණ ගතවනතුරුත් විදේශිකයින් විසින් මෙරට ආක්‍රමණය කළ බවක් වාර්තා නොවේ. නමුත් රාජ්‍යත්වය සඳහා තිබූ දීර්ඝ කාලීන අභ්‍යන්තර අරගල නිසා රටෙහි ස්ථීර සාමයක් පැවති බවක් හඳුනාගත නොහැක.

විජයබාහු රජු හැත්තෑ තුන් අවුරුද්දක් ආයු වළඳා පනස් පස් වැනි රාජ්‍ය වර්ෂයේදී එනම් ක්‍රි.ව. 1110 වැන්නේදි මිය ගියේය. (රාජාවලිය, සුරවීර, 1997; 116). රණ ශූරත්වයෙන් මේ රජුට වඩා උසස් වූ වෙන එකද සිංහල රජෙක් නොවූ බව ද විජයබාහු රජතුමා නොසිටියේ නම් අද ලංකාවේ සිංහලයන් සිටිනු සැක සහිත බව ද සිංහලයින්ට නිදහස ලබා දුන්නේ ඒ රජතුමා බවත් සිංහල ජාතිය ගොඩනැඟූ අය අතර ප්‍රධාන ස්ථානයක් එතුමාට අනිවාර්යයෙන්ම හිම්වන බවත් කිව යුතුය.
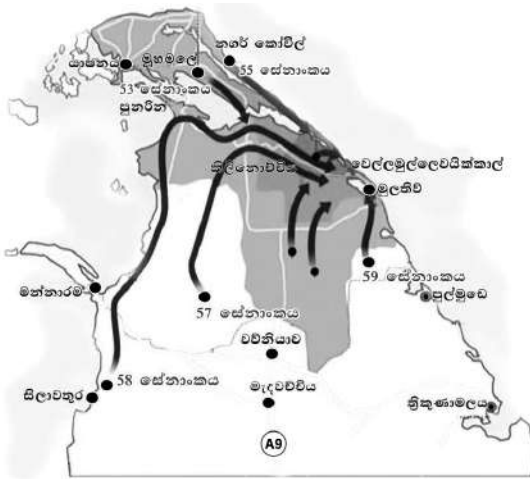
රූපසටහන - 2
වන්නි මානුෂීය මෙහෙයුමේදි සතුරාට එරෙහිව
ගමන් කළ මාර්ග

ආශ්‍රිත ග්‍රන්ථ

මහාවංසය, (1996), සිංහල සංස්. එච්. සුමංගල හිමි හා දොන් අන්ද්‍රිස් ද සිල්වා බටුවන්තුඩාවේ කොළඹ, ජාතික කෞතුකාගාර දෙපාර්තමේන්තුව.

රාජාවලිය, (1997) (සංස්.) ඒ.වි සුරවීර, කොළඹ, ලේක්හවුස්.

ලංකා විශ්ව විද්‍යාලයේ ලංකා ඉතිහාසය, (1972), i කාණ්ඩය, ii භාගය විද්‍යාලංකාර විශ්වවිද්‍යාලය, කැළණිය.

ලංකා විශ්ව විද්‍යාලයේ ලංකා ඉතිහාසය, (2001), i කාණ්ඩය, i භාගය විද්‍යාලංකාර විශ්වවිද්‍යාලය, කැළණිය.

අමරවංශ හිමි, කොත්මලේ (1969), ලක්දිව සෙල්ලිපි, කොළඹ, සීමාසහිත ඇම් ඩී ගුණසේන සහ සමාගම.

අමරසිංහ අජිත්, (2014), ලක් ඉතිහාසයෙන් වසන් වූ චීන මෙහෙයුම, කොළඹ, නියෝ ග්‍රැෆික්ස්.

ගමගේ ගුණසේන, (2007), දේශයේ අසහාය විමුක්ති දායකයා මහා විජයබාහු, බොරලැස්ගමුව, විසිදුනු ප්‍රකාශකයෝ.

ජයවර්ධන සරත් (2020), ලක්දිව සංග්‍රාම ඉතිහාසය.

ධීරානන්ද හිමි, කුඩාවැල්ලේ. (1967), ලංකාවේ ඓතිහාසික භූමි සිතුවම්, කොළඹ, ඇම්.ඩී. ගුණසේන සහ සමාගම.

මේධානන්ද හිමි එල්ලාවල, (2005), සිංහලයේ විමුක්තිදායකයා දුටුගැමුණු මහරජතුමා, දයාවංශ ජයකොඩි සහ සමාගම.

ලියනගමගේ අමරදාස, (1989), මධ්‍යකාලීන ලංකා ඉතිහාසය පොළොන්නරු රාජධානියේ පරිහානිය හා දඹදෙනි රාජධානියේ නැගීම, කොළඹ අධ්‍යාපන ප්‍රකාශන දෙපාර්තමේන්තුව,

සමරසිංහ උපාලි, (2015), මහරජ ගැමුණු ජයමග ඔස්සේ, කොළඹ, දයාවංශ ජයකොඩි සහ සමාගම.

සිරිවීර ඉන්ද්‍රකීර්ති, (2020), විජිතපුර සිට නන්දිකදාල් තෙක් ශ්‍රී ලාංකේය සංග්‍රාම ඉතිහාසය, කොළඹ, සරසවි ප්‍රකාශකයෝ.

Lewis, J. P. (1895). A manual of the Vanni District, Colombo.

Paranavitana, S, Epigrapia Zelanica. vol 5, Department of Archaeology Sri Lanka.

Paranavitana, S. (1970). Inscription of Ceylon, Volume I, Department of Archaeology Ceylon.

Paranavitana, S. (1983). Inscription of Ceylon, Volume II, Part I, Department of Archaeology Sri Lanka.

THE IMPACT OF WORK-LIFE BALANCE ON JOB SATISFACTION OF MARRIED MIDDLE GRADE OFFICERS IN THE SRI LANKA ARMY

P V T M Perera
Directing Staff, Army War College.
tharinduperera123@yahoo.com

ABSTRACT

A balanced life is one where employees spread their energy and efforts between key areas of importance. Work-life balance has become important and essential for almost all categories of employees, including all employees in every position. The nature of military jobs creates a challenging working environment and as such, it is unsurprising that retaining officers over the longer term is of great importance. Work-life balance of Sri Lankan military officers is an area which has not been discoursed deeply, even though there are many related studies in the global context. Hence, in this research, the researcher attempts to build up a deep study on the work-life balance of the Sri Lankan military officers. Further, it is required to identify the gaps the prevail in present policies and systems in the Sri Lanka Army, to minimize the work-life balance related issues and maximize the Job Satisfaction of the members of the SLA.

Mainly three objectives were formulated as;

1.   To investigate the key factors which affect the work-life balance of married middle-grade officers of the Sri Lanka Army;

2.   To investigate the relationship between work-life balance and Job Satisfaction of married middle-grade officers of the Sri Lanka Army;

3.   To provide recommendations to policymakers on how to improve the work-life balance to enhance the Job Satisfaction of married middle-grade officers of the Sri Lanka Army. To achieve the objectives, the researcher carried out a detailed literature review and data were gathered through a self-administered questionnaire from 150 married middle-grade officers of the Sri Lanka Army to prove the formulated three hypotheses.

After the data analysis, the factors affecting work-life balance were identified as per the weightage and all the hypotheses were proven using Pearson Correlation analysis with the value of >0.5 and with statistical significance of <0.05. Finally, the recommendations were derived to address the key issues and shortcomings of main factors affecting the work-life balance.

INTRODUCTION

"Invest in your Work-Life Balance. Time with friends and family is as important as times at work. Getting that out of balance is a path toward unhappiness."

Stephen Gillett

BACKGROUND OF THE STUDY

Balancing two ends is not an easy task, especially when both ends are of equal importance to one's life. Work and family life can be cited as two main facets of any individual's life. In a changing economy, handling individual employees is a challenging task as the disproportion of professional life affects both personal and organizational behaviour. In fact, it is a person's skill to maintain stability between personal life and professional life. As stated by Sharma (1993) personal and professional life cannot be detached one from the other as both are interconnected. Hence, a balanced lifecycle is one which employees spread their energies and efforts between vital areas of importance. Many individuals spend a considerable amount of their lifetime at work and it affects society (Hochschild, 1997). But, having a balanced professional life is important and essential for all employees in every position. According to Hackman (1974), this is important in a military setting as the stages of satisfaction in occupations are directly correlated to on-the-job officer performance. The aforementioned perspective is supported by Skolnick and Fyfe (1994), who discuss the idea that the officer dissatisfaction causes inefficiency, low effort (or "mailing it in") and failure of the association with the community and other officers.

The military working environment is always a challenging one. Such working environments are strategically important and essential for a well-functioning society as well. In fact, during the COVID19 pandemic situation which all the countries are struggling at present, military personnel carry out a huge role to assist the government and the health sector to reduce its negative effects. Due to the commitments, almost all the military personnel called back to the duties and by now most of them are away from houses for months. In this context, the challenges in the military also remain at a reasonably higher level, the expected relief from the job front has not been found apparently. (Robertson, 2004). With the strict working schedules, officers of the Sri Lanka Army (SLA) have to struggle with military life and family life. The major reasons behind the aforementioned issue are, employed wives, having children below 12 years who need more parental attention and also some of the officers are newly married and they have very limited time for caring for their families. With these proofs, Work-Life Balance (WLB) has become a crucial factor in achieving job satisfaction (JS). Considering the Middle-grade officers' working environment, the researcher aims to investigate on WLB and the way of achieving JS.

PROBLEM STATEMENT

Work and family are considered as two sides of the same coin. It also discusses satisfying arrangements between an individual's personal life and work responsibilities. Studies on WLB often concentrate only on the two domains, professional and personal life. The feelings of satisfaction arise from the work itself and also the working environment. When the job gets more attractive and challenging, the employees face a new challenge of accomplishing the job-related goals whilst striking a balance in their personal life. The term WLB comes into play in this context.

The nature of military career creates a thought-provoking working environment due to strict rules and regulations attached to the job. Military officers have very limited time to spend with their beloved parents, spouses and children. Simultaneously, the job front becomes more hectic as the peacetime role of the military is to train them and be prepared for any contingency. The tasks which are being performed by the military during the current pandemic situation can be taken as a good example for that. Moreover, military officers have limited holidays and most of the military officers live away from their homes. Especially, the target group of the married middle-grade officers of the SLA requires more holidays and day offs than the senior officers who have long-term experiences and more facilities. Hence, there is a critical question; whether they are happy with their occupation or not.

With the experience by serving in different establishments, the researcher has observed that many married officers are unhappy with the inequality of professional life. Some of them forward redress of grievances to the superior officers and try to sort out these issues, whereas some officers bear them up by themselves. Even though many officers request for transfers to close establishments to their residences, only few will get the opportunity as per the available vacancies. Hence, there is a doubt that some officers are demotivated, thereby underperforming their duties due to these reasons. Besides, it will cause some officers to apply for early retirement. All these matters affect negatively in achieving the goals of the army. On the other hand, another problematic area is whether they spend a happy family life. When these officers are overloaded and exhausted with their tasks, they tend to reduce the concentration and affection towards their family life, which will ignite the problems within the family. Finally, all these emotional factors combined increase the stress level of each individual which will affect him/her negatively in achieving JS and a peaceful family life.

Considering all the above circumstances, the researcher aims to investigate the issues related to WLB of married middle-grade officers. The previous research studies also have revealed that employees with greater levels of JS possess a healthier life (Fischer and Sousa-Poza, 2009). WLB of the Sri Lankan military officers is an area which has not been discoursed deeply, even though there are many related studies in the global context. Hence, in this research, the researcher attempts to build up a deep study on WLB of the Sri Lankan military officers. It can be stated that maintaining stability between WLB and achieving JS is of paramount importance. Further, it is required to identify the gaps prevailing in present policies and systems of the SLA, to minimize the WLB related issues and maximize the JS of the members of the SLA. Hence, the problem statement of the study is formulated as: What is the impact of WLB on JS of married middle-grade officers of the SLA?

LITERATURE REVIEW

Factors Affecting WLB

Many kinds of studies have been conducted to find the factors affecting WLB among employees. As stated by Poulose & Susdarsan, (2014) WLB can be widely categorized into several dimensions as individual, organizational and social factors. Moreover, these facts were supported by Gaffoor (2018) by stating that, individual, organizational, social and other demographical factors are directly linked with WLB. In addition to that, Vyas & Shrivastava (2017), discussed various factors affecting WLB such as individual, work-related, family-related and family-work related factors. Hence, by considering the common dimensions associated with WLB, a deep analysis of these factors can be categorized as follows:

Individual Factors

An individual can have an appropriate balance amongst work and life if he can manage both responsibilities while managing himself (Vyas & Shrivastava, 2017). Individual factors influencing WLB have been determined in several studies and it has been explained in terms of personality, well-being and emotional intelligence.

1. Personality and WLB.
2. Well-being.
3. Emotional intelligence.

Organizational Factors

Organizations play a major role in initiating the WLB policies for their workers. If these organizations emphasize appropriate WLB policies, it will affect to increase worker satisfaction and performance (Vyas & Shrivastava, 2017). According to the above-mentioned studies, researchers have recognized several organizational factors which affect WLB as follows:

1. Work arrangements.
2. WLB policies and programmes.
3. Work support.
4. Job stress.

Societal Factors

An individual cannot live in isolation. The difficulties faced during the current COVID19 pandemic situation can be taken as an example. According to Vyas & Shrivastava (2017), there are numerous social responsibilities that a person needs to accomplish in order to achieve a peaceful family life. Hence, societal consequences can be depicted as follows:

1. Childcare responsibilities.
2. Family support.
3. Other social factors.

Work-Life Balance and Job Satisfaction

JS refers to the worker attitudes towards the profession which reflects how the employee is comfortable with the job. Attitude is primarily based on personal perception of satisfaction. Hence, the measuring of JS becames a challenging task to employees since it depends on the individuals' attitude (Isse et al., 2018). Moreover, Adikaram et al., (2016) stated that JS can be achieved by individuals' skill to complete the assigned tasks, the state of communication within the workplace and the way superior employers treat their employees. Organizations always put efforts to create a satisfied workforce because satisfied workers perform their duties well and the total output of the organization depends on the effectiveness of employees (M.D. Pushpakumari, 2008). Moreover, Adikaram et al., (2016) describe two levels of JS as shown in the figure below:

Job Satisfaction

Cognitive Job Satisfaction
* Pay
* Working Hours
* Benefits

Effective Job Satisfaction
* Person's emotional feeling about the job
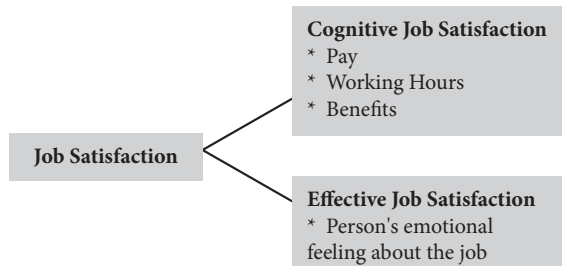
Figure 1 - Two Levels of Job Satisfaction
(Source: Adikaram et al., (2016))

Work-Life Balance, Job Satisfaction and Military

Due to its uniqueness in nature, Military force in any country can stand apart from all other government and private sector organizations. Strict rules, limitations, military culture, ethics etc., have created that difference into a larger scale. As Rus & Sandu, (2013) mentioned, military personnel have different types of behavioural patterns, attitudes and ways of thinking. Also, they have to spend long time duration in isolation from civil society

and is more different from the usual life. But, all these forces consist of human beings. Hence, the WLB of these forces can be identified as an important subject area to be discussed. Military always deals with risk, stress, time limitations etc. Therefore, it is highly required to recognize the factors affecting WLB in achieving the JS of troops serving in the military.

Due to the significance of WLB, many studies have been conducted everywhere in the world to examine the factors affecting WLB of military troops. The available literatures have found that WLB was a well-considered factor even many years back. Lockwood, (2003) mentioned that WLB programmes existed in the early 1930s, before the World War II, to increase the morale and efficiency of the fighting troops. Since that period, WLB is recognized as a vital role of soldiers in achieving desired JS. According to Sharma (2014), work and family are interconnected with each other and if any person is not happy with works, its effects can be seen in his behaviour at home. Similarly, if an individual is not satisfied and unhappy with the home environment, its effects will be visible in his performance at work. Moreover, Huffman & Castro, (2008) mentioned that perception towards own family and societal environment of military members are directly connected with his/her physical fitness, efficiency beliefs and their intention to retain in army. Also, they have stated that, better family-social environment can reduce the negative effects caused to work-family conflicts. In addition, Keeling et al., (2020) highlighted that, military couples and also their children are inevitably affected as a result of the nature of military service. And in fact, it is examined that there is a divorce rate of 3% of military families which needs immediate attention. This was supported by Cook et al., (2004) by stating that military marriages can face significant tension due to long-term separation, stress and uncertainty of work (risk).

Work-life conflict has also been related to retention and other job commitment factors of soldiers of the United States (US). Work-to-family conflict was assessed in the following two studies using the work-family struggle scale which focuses on the general demand and time and strain-based facets of the construct (Netemeyer et al., 1996). They also provide evidence as to the consistency and validity of this scale and their measure of work-to-family conflict. But, each aspect of work-family clash (i.e., time demand and strain-based demand) is not separately measured in the above mentioned measurement. Durand et al., (2003) identified that higher levels of work family clashes were correlated with lower levels of JS in US soldiers. Work-to-family conflict was also related to spouses' retention preference; in that, the greater their work-to-family conflict, the less inclined they were for their partner to continue the military career. They were also less satisfied with marriage, and had a negative attitude towards the Army. Similarly, higher work-to-family conflict was associated with soldiers' lower JS and greater intents to leave the military. All of these negative job-related factors undoubtedly impact on soldiers' choices to leave the military (Harrison et al., 2006). According to Sharma (2014), the United States military implemented well-structured work-life policies to assist their members to maintain a balanced work-family life. They have also provided facilities such as, on-site education programmes for children, daycare centers, recreational and youth programmes, family accommodative holidays etc.

IDENTIFICATION OF THE RESEARCH GAP

WLB and JS are widely discussed subject areas all over the world. By reviewing the accessible literature, the researcher has found many studies which were carried out to measure the WLB and JS linked to the military. Nevertheless, only a few generalized researches

have been conducted interconnected to the SLA. Keppetipola (n.d) conducted an analysis of WLB of the military officers in the SLA as a general study. Dehigala (2015) conducted another study on connection between WLB and happiness of soldiers in the SLA and revealed several factors such as, leadership, financial benefits, family supports, responsibility, family commitment etc., affect their happiness. Moreover, Panangama (2017) researched the relationship between WLB and early retirement of the middle-grade infantry officers of the SLA. Likewise, a few studies were conducted in the SLA context, focusing on different facets of the military. Therefore, this study mainly focuses on identifying various factors related to WLB and its impact on the JS of married middle-grade officers serving in the SLA for the future betterment of the entire army.

SCOPE OF THE RESEARCH

The scope of this study is to identify the impact of WLB on JS of married middle grade officers in the Sri Lanka Army and to derive recommendations to enhance WLB of the same group.

LIMITATIONS OF THE RESEARCH

Due to the time constraints, the researcher investigated only on the married middle grade officers in the Sri Lanka Army. Grade one and above senior officers, and Other Ranks are not taken into consideration in this study.

OBJECTIVES OF THE RESEARCH

The specific objectives of the research are as follows:

1. To investigate the key factors which affect the WLB of married middle grade officers of the Sri Lanka Army.

2. To investigate the relationship between WLB and JS of married middle grade officers of the SLA.

3. To provide recommendations to policymakers on how to improve the WLB to enhance the JS of married middle-grade officers of the SLA.

RESEARCH QUESTIONS

The specific questions of the research are as follows:

1. What are the key factors that affect WLB of married middle grade officers of the SLA?

2. What is the relationship between WLB and JS of married middle grade officers of the SLA?

3. What are the recommendations available to policymakers on how to improve WLB to enhance the JS of married middle-grade officers of the SLA?

SIGNIFICANCE OF THE RESEARCH

WLB is an important factor in achieving both individual and organizational level success. Maintaining a balance between profession and family is essential for military personnel in order to successfully perform their duties. Therefore, investigation on WLB of middle-grade officers of the SLA can be considered as an immediate requirement. In fact, there are only a very few research studies conducted on the military personnel's WLB and JS in the Sri Lankan context. Therefore, in this study the researcher deeply investigates on the factors which affect WLB and the barriers faced by the married middle-grade officers in achieving WLB; representing the entire army personnel, who serve in different fields such as, command, administration, instructional and staff appointments.

Moreover, the researcher deeply explores to what extend WLB impact on JS of the married middle-grade officers of the SLA. Therefore, the researcher discusses the factors influencing the JS of the middle-grade officers of the SLA. Besides, this research study will be useful for several parties such as military personnel in the SLA and other forces; especially for senior officers, students and future researchers to find the problematic areas linked with the WLB. The outcome of this study will provide insights on probable solutions and recommendations to relevant authorities to identify the importance of developing well-structured WLB policies and to consider several aspects in increasing JS of junior officers when it comes to formulation of policies.

METHODOLOGY

Research Design

Creswell (2003) states that research design epitomizes the whole approach which is applicable to the selected research that the researcher picks to fit in the different mechanisms and scenarios of the research in a comprehensible and rational way. In a comprehensive research design, it ensures that the researcher successfully discourses the research problem from the proper conceptual framework which often establishes an outline of gathering, measuring, analyzing and presenting the data.

This research design consists of the objectives such as:

1. To identify the research problem clearly and justify the problem and its selection.

2. To review formerly published literature related to the research problem and some studies relevant to the current research problem.

3. To stipulate research hypothesis and research questions pertinent to the identified problem by aligning with the conceptual framework and objectives of the research.

4. To describe data which are necessary for testing the research hypothesis.

5. To describe the methods of analysis in determining whether the initially selected hypothesis is true or false.

Conceptual Framework

The conceptual framework of this study is as follows:
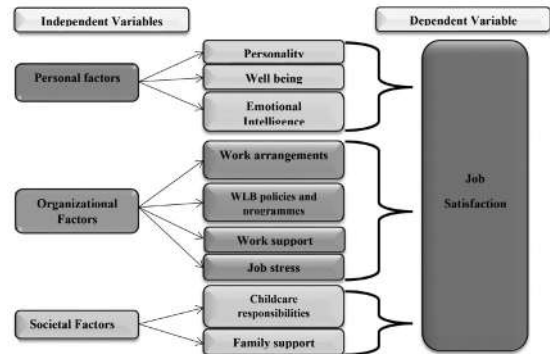
Figure 2 - Conceptual Framework
(Source: Constructed by the Researcher)

Formulation of Hypothesis

As per the conceptual framework, the researcher formulated the hypotheses as follows:

1. H1: There is a positive relationship between personal factors and achieving job satisfaction of married middle grade officers of the SLA.

2. H2: There is a positive relationship between organizational factors and achieving job satisfaction of married middle grade officers of the SLA.

3. H3: There is a positive relationship between social factors and achieving job satisfaction of married middle grade officers of the SLA.

Research Approach

The deductive approach which uses specific logic or theory to make conclusions or conduct hypothesis test is used as the research approach. Further, it is required to measure the relationship of considered variables and quantitative data collection. Within the research study, the researcher carries out intense analysis of literature and related variables are identified and a conceptual framework is developed. Then, the hypotheses are constructed to measure the relationship between independent and dependent variables.

Sampling

The purpose of taking a sample is to obtain a result which is a representative of the entire population being sampled, without going to the trouble of asking everyone (Fisher, 2007). The target population is all married middle grade officers of the SLA. Inclusion criteria for the respondents were to:

1. Married officers in the ranks of Major and Captain

2. Both from Regular and Volunteer Force
3. Field Commissioned, Direct Enlisted and QM Commissioned Officers

Exclusion criteria for the respondents were to:

1. Grade one and above officers
2. Temporary attached officers
3. Officers who are following long courses. The researcher chose the sample based on the Simple Random Sampling method. By considering the limitations of the research, the researcher has set the sample size of this survey as 150 respondents.

Questionnaire Administering

After obtaining the approval for the research and the questionnaire was developed, the under-mentioned steps have been followed for data collection:

1. A properly structured and pre-tested questionnaire was given to randomly chosen married middle grade officers of the SLA, which is not included in the final data analysis.

2. After checking the reliability by a pilot study, the questionnaire is used for a proper study sample.

3. Conducted data collection by self-administered e-questionnaire.

Method of Data Collection

Data were gathered from both primary and secondary sources. A well-structured e-questionnaire which consisted of close ended and a lesser number of open-ended questions are designed to gather data. The researcher selected the appropriate questions from available research studies and modified according to the SLA environment. The secondary data is collected from the previous studies, websites, books, articles and interviews with senior army officers and other related publications.

Data Presentation And Analysis Method

The processed data is converted into numbers, statistics, tables, and graphs necessary for easy presentation of the findings pertinent to the research. IBM SPSS 20 programme is used for quantitative analysis. Data is analyzed using both inferential and descriptive statistics.

FINDINGS AND DISCUSSION

Key Findings

The sample profile of the study consists of married middle grade officers of the Sri Lanka Army representing majority of male (93%) and less number of female (7%) from different fields such as Admin, Command, Staff and Instructor fields. Among them 59% of the respondents represent the age group of 31-35 and majority of them are experienced officers of the SLA having nearly 10 - 15 years of work experience. Considering their family background, all of them are married and 67.7% of their spouses are employed. In the research study, the researcher investigated on the middle grade officers' job satisfaction with related to work-life balance. The researcher has gathered the following key findings through the collected data:

When investigating the personal factors which affect WLB, the researcher has found out that there are some personal issues which are associated with lower level of job satisfaction. With the period of service and maturity, 65% officers accepted that they are in a level to handle the stress well during work. Nearly 55% of the middle grade officers stated that sometimes they felt that they are not confident enough to fulfill their family responsibilities with the weight of responsibilities in their profession. Moreover, 50% of the middle grade officers revealed that they are not satisfied with the time they spent with the family, due to busy work schedules at the workplace. Also, 41% of the officers stated that sometimes they are impatient and intolerant with co-workers and family members due to the workplace stress, while only 20% disagreed with that. Finally, the researcher tested correlation between personal factors and achieving job satisfaction. As per the derived results, it was proven that personal factors have moderate positive impact on achieving job satisfaction of married middle grade officers of the SLA since the calculated correlation value is 0.668**.

Then the researcher investigated on organizational factors which affected job satisfaction of the middle grade officers. The majority of middle grade officers are not satisfied with work arrangements due to lack of flexibility at work place. In fact, they believe that flexibility of work arrangements would help employees attain a better blend between work and personal activities. Further, according to the responses, it is revealed that new technology leads to increase stress level, pressure on work and job dissatisfaction of Army officers. When investigating on leave schedule, a considerable number of middle grade officers are satisfied with their leave schedules. In fact, the majority stated that the SLA has not implemented adequately the WLB policies and programmes to their employees. Moreover, 78% of the officers agreed that welfare facilities and family care facilities such as daycare centers, nurseries and medical centers require more concentration. Due to the heavy workload in work places, many officers mentioned that they have to work for long hours or in holidays, and 63% of the officers stated that they are overloaded with work. Considering previous literature, it was revealed that support given by the superiors is highly influential for increasing job satisfaction of junior officers. Warner and Hausdorf, (2009) conducted a study on work-life issues of employees and the findings implied that a positive relationship exists between the organization and supervisor support for work-life issues and reduction of work-to-family conflict. Therefore, the researcher has investigated the level of superior officers' support for junior officers' work and research findings have proven that lack of senior officers' work support highly influences for an increasing level of stress. In that, 60% of the officers agreed that sometimes they are unable to satisfy the different demands of superior officers. Then, the researcher investigated the relationship that exists between organizational factors and achieving job satisfaction. According to the correlation analysis, it represents 0.903** of

correlation value. Therefore, the organizational factors positively influences on achieving job satisfaction.

Investigating the social factors which affect WLB, the researcher has identified that there are some societal issues associated with lower level of job satisfaction. Many of the middle grade officers (62%) stated that they are not getting sufficient time to spend with their families due to work commitments. Further, the researcher investigated how they fulfill childcare responsibilities while performing duties. As per the responses 61% of the middle grade officers stated that they fail in seeing childcare responsibilities due to strict working schedules. Moreover, 71% of the respondents stated that they usually miss out the quality time with their family and friends due to work pressure. Apart from that, majority of the officers (74%) clearly stated that they missed the chances to attend their family functions and attend to their parents' requirements due to high level of workload. These responses highlight the point that many of the middle grade married officers are discouraged and less satisfied with the job due to missing the times spent with family members. Also, on the other hand, they stated that they are getting good support from family members to perform the work-life responsibilities. According to the correlation analysis carried out, it represents 0.993** of correlation value. Therefore, social factors positively influence on achieving job satisfaction.

Finally, the researcher investigated on overall job satisfaction level of middle grade officers and a majority of them are satisfied with their job while a few officers remain neutral and a few less satisfied. Only 7% stated that they are not satisfied with the job since they are not physically and emotionally fit enough. Also, a majority disagrees with the notion that personal life issues and family problems cause less job satisfaction. On the contrary, 46% of

the middle grade officers stated that they are not satisfied with the job, because they cannot manage the time to fulfill family responsibilities. 41% of middle grade officers request a pleasant environment to work. Hence, the researcher found out that lack of pleasant environment i.e. strict rules, high pressure on work etc. cause lower level of job satisfaction within the middle grade officers. Apart from that, personal life issues and family life issues are also reasons for dissatisfaction with their jobs for some officers. By considering all the data, it can be mentioned that a majority of middle grade officers of the SLA put forward their general opinion as they are satisfied with their profession but at the same time they have highlighted some areas which undermine their job satisfaction.

In addition, ideas were taken from the respondents whether they have felt to leave the army due to various circumstances and 42% of the officers mentioned that they have felt so due to less JS and high level of stress at work. Moreover, opinions were taken to see whether the middle grade officers plan to leave the army before the retirement and 8% said 'yes' while 37% stated as 'may be'. Some respondents reasoned out the less JS as their reason for early retirement, and they required attending to their family matters since they are missing it at present due to their busy work schedules.

Summary of the Hypotheses Testing

The summary of the hypothesis tested is as follows:

Table 4.1: The summary of hypothesis testing

Ser	Hypotheses	Correlation Analysis	Result
01	There is a positive relationship between personal factors and achieving job satisfaction of married middle grade officers in SLA	Correlation value = 0. 668** Significance of p = 0.036	Accepted – H1 The positive relationship between personal factors and job satisfaction of married middle grade officers in SLA exists.
02	There is a positive relationship between organizational factors and achieving job satisfaction of married middle grade officers in SLA	Correlation value = 0.903** Significance of p = 0.000	Accepted – H2 The positive relationship between organizational factors and job satisfaction of married middle grade officers in SLA exists.
03	There is a positive relationship between social factors and achieving job satisfaction of married middle grade officers in SLA	Correlation value = 0.993** Significance of p = 0.000	Accepted – H3 The positive relationship between social factors and job satisfaction of married middle grade officers in SLA exists.

(Source : Developed by the researcher)

Achievement of Objectives

The first objective of the study is achieved as mentioned below:

Objective: To investigate the key factors affecting WLB and JS.

Result: After analyzing the available literature in detail, the researcher identified the key factors which affect WLB and JS. Those are namely:

1. Personal factors
2. Organizational factors and
3. Social factors.

In fact, the level of relationship of these factors related to WLB and JS were analyzed separately. After the analysis, it is identified that social factors have the highest positive relationship which affects the married middle grade officers' WLB and JS.

The second objective of the study is achieved as mentioned below:

Objective: To investigate the relationship between WLB and JS of married middle grade officers of the SLA.

Result: In order to identify the impact of WLB on the achieving JS, the researcher measured

WLB in terms of personal life, organizational life and social life. Relationship exists between personal life and JS was measured through correlation analysis and it was proven that there is a moderate positive relationship between personal life and JS since the calculated correlation value is greater than 0.5 (0.668 correlation value). Therefore, it is proven that, if the middle grade officers are personally strong, they can achieve a high level of JS.

As per the correlation analysis carried out, the researcher found out that organizational life and JS also have a positive relationship because calculated correlation value is 0.903. Therefore, favourable organizational factors cause for employee JS.

The relationship between social life and JS also is measured through the correlation analysis and it is proven that there is a strong positive relationship with the correlation value of 0.993. Hence, it can be identified that social factors are the most significant factors of the married middle grade officers which are related with their WLB and JS.

The third objective is to provide recommendations to policymakers on how to improve WLB to enhance the JS of married middle-grade officers. Many practical recommendations were derived from the survey data and will be briefly discussed in the Chapter five.

CONCLUSION AND RECOMMENDATIONS

CONCLUSIONS

The overall conclusion derived from the research study is that WLB is highly influential on achieving JS of middle grade officers of the Sri Lanka Army. WLB was measured in terms of personal factors, individual factors and social factors. Based on the primary data,

the researcher identified that a majority of the middle grade officers is less satisfied with their job sometimes due to various reasons. As per the study findings;

1. Social factors,
2. Organizational factors and
3. Personal factors influence the JS respectively in different scales as discussed in Chapter four. To achieve the JS of married middle grade officers while having a sufficient WLB, the researcher provides the following recommendations:

RECOMMENDATIONS

According to the empirical findings, personal factors significantly affect the WLB and JS of married middle grade officers. According to the primary data analysis, a moderate positive relationship is identified among personal factors and JS. The following recommendations are derived from the data to improve JS through personal life satisfaction:

1. Organize and execute personality development programmes in order to enhance the officers' personality level and moral development. This will enable to enhance the individual interactions and enhance the negotiation skills to reduce conflicts within families.

2. Implementing training programmes to increase physical and psychological wellbeing and positive thinking.

3. Organize programmes to develop time management skills.

4. Reduce the workload on individual officers and delegate the workload in a balanced manner.

5. Develop precise job description/ job specification and implement it in all military establishments.

In the context of the SLA, another dimension used to measure WLB is organizational factors. According to the empirical findings, many dimensions can be emphasized under organizational factors such as, work arrangements, WLB policies and program, work support and job stress that directly affect officers' job satisfaction. According to the primary data analysis, a significant positive relationship is identified among organizational factors and JS. The following recommendations are derived from the data to improve JS through organizational life satisfaction:

1. ERE policy of the officers should be reviewed in a way in which allocating of employment should be par with personal requirements.

2. Salary scale and allowances should be readjusted as per the present living cost.

3. Employ an adequate number of staff with required skills in military establishments in order to reduce the work load and stress level of the officers.

4. Evade unnecessary and irrelevant commitments of the officers.

5. Reduce the restrictions and long processes when providing welfare facilities.

6. Introduce tax free purchasing systems (such as CSD) for the military.

7. Implement a proper system to avoid continuous detailing of married lady officers with children for additional tasks such as parades.

8. Steps can be taken to utilize the modern technology such as adaption of computerized systems as much as possible.

9. Arrange flexible, and friendly working environment in order to work in more relaxed way, which includes; applying leave as per requirements, mobile phone using facilities and effective communication.

10. Implement officers' stress releasing activities in order to reduce the job related stress.

Another important dimension behind JS and WLB is social factors, and many authors have emphasized a significant connection between those two dimensions. In this study, the researcher has identified that there is a positive relationship between social factors and JS. Child care responsibilities, family support and other socially relevant factors underlying social factors have been taken into researcher's consideration. The following recommendations were derived from the collected data in order to improve JS through social life satisfaction:

1. Arrange loan facilities such as vehicle loan and housing loan at low interest rates at army level and in combination with other government banks.

2. Opening childcare facilities within the camp premises.

3. Flexible working schedules can be introduced to middle grade officers who have small/schooling children.

4. Expand the Defence College system to provide more opportunities.

5. Expand the healthcare facilities to family members.

6. Family accommodation/ facility of married quarters should be increased in order to meet the requirements of married officers.

7. Establish a well-coordinated and flexible system with the other ministries to give priorities for job transfers of family members.

Recommendations for Future Researchers

Without any hesitation, the families of military personnel can expect the beloved parents, spouses and children to be there for extended periods of time. At the same time, there could be more active employment, as the military's position in peace time is to train and be prepared for any emergencies such as prevailing COVID 19 pandemic situation. Moreover, with the increase of military aspirations of the present government, the involvement of military in nation building has been increased. Hence, the desired relief from the job cannot be observed even during peace time. The work-life relationship of the Sri Lankan military officers has been ignored by the existing literature, though a great number of studies are carried out worldwide. As stated in the previous articles, it was known that the military officers had been unable to find the accurate balance between the job and life even after thirty years of war. The causes and effects of this phenomenon on the families of such officials should be studied further.

Further, this research study is carried out with the limited time frame and the researcher was not able to capture whole middle grade officers of the SLA. Unless otherwise, more respondents and more reliable findings should have been brought out.

REFERENCES

Cook, J. M., Riggs, D. S., Thompson, R., Coyne, J. C., & Sheikh, J. I. (2004). Posttraumatic stress disorder and current relationship functioning among World War II ex-prisoners of war. Journal of Family Psychology, 18(1), 36–45. doi:10.1037/0893-3200.18.1.36

Creswell, J.W. (2003). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. SAGE Publications

Dehigala, R.R.S.(2015). STUDY ON THE RELATIONSHIP BETWEEN WORK FAMILY BALANCE AND HAPPINESS OF SOLDIERS IN SRI LANKA ARMY. M.HRM.Theses. University of Kelaniya. Available at http://repository.kln.ac.lk/handle/123456789/17307

DSR Adikaram Bank Associate, B., National Bank PLC, H., Lanka, S., & Jayatilake Senior Lecturer, D. V. (2016). Impact of Work Life Balance on Employee Job Satisfaction in Private Sector Commercial Banks of Sri Lanka. *International Journal of Scientific Research and Innovative Technology, 3*(11), 2313–3759.

Gaffoor, S. (2018). *the Factors Affecting Work Life Balance of Married Working Women : With Special Reference To Bank of Ceylon Head Office Working Women : With Special Reference To Bank of. 2017*(December 2017).

Hackman, J. R., and Oldham, G. R. (1974). The Job Diagnostic Survey: An Instrument for the Diagnosis of Jobs and the Evaluation of Job Redesign Projects. *Report No. 4, Yale University, Department of Administration Science, New Haven, CT., 1.*

Huffman, A. H., & Castro, C. A. (2008). *Family-Friendly Environments and U . S . Army Soldier Performance and Work Outcomes. January.* https://doi.org/10.1080/08995600802345162

Hochschild, A. (1997). The Time Bind. https://doi.org/10.1111/j.1743-4580.1997.tb00019.x

Isse, H., Abdirahman, H., Najeemdeen, I. S., Abidemi, T., & Ahmad, R. B. (2018). The Relationship between Job Satisfaction, Work-Life Balance and Organizational Commitment on Employee Performance. *Academic Journal of Economic Studies, 4*(3), 12–17. https://doi.org/10.9790/487X-2005077681

Keeling, M., Borah, E. V, Kintzle, S., Kleykamp, M., Heather, C., Keeling, M., Borah, E. V, Kintzle, S., Kleykamp, M., Heather, C., & Kleykamp, M. (2020). Military spouses transition too ! A call to action to address spouses ' military to civilian transition. Journal of Family Social Work, 23(1), 3–19. https://doi.org/10.1080/10522158.2019.1652219

Lockwood, N. R. (2003). Work/Life Balance: Challenges and Solutions for Human Resource Management. *SHRM Research*, 1–10.

Panangama, PRNVK (2017). Relationship between Work-Life Balance and Premature Retirement of Middle Grade Infantry Officers of Sri Lanka Army. 2019-01-22T11:42:43Z. Available at http://ir.kdu.ac.lk/handle/345/1962.

Poulose, S., & Susdarsan, N. (2014). Work- Life Balance : A Conceptual Review. *International Journal of Advances in Management and Economics, 3*(2), 1–17.

Robertson, I. a. (2004). *Premiership of pressure - Britain's most stressful jobs.* Robertson Cooper Limited.

Rus, M., & Sandu, M. (2013). Personality Factors and Job Satisfaction Levels in Military Staff Employed on a Contract basis. *Procedia - Social and Behavioral Sciences, 92*(Lumen), 814–819. https://doi.org/10.1016/j.sbspro.2013.08.759

Ryff CD, Singer B (1996) Psychological well-being:Meaning, measurement, and implications for psychotherapy research. Psychotherapy and Psychosomatics. 65(1): 14-23.

Sharma, D (2014). Leadership lessons from the military. https://books.google.com.bd/books?id=mOyICwAAQBAJ&printsec =front cover#v= onepage&q&f=false

Skolnick, J.H and Fype, J. (1994). Above the Law: Police and the Excessive Use of Force.https://search.proquest.com/openview/e159f47c75ea564a483f5804ef353737/1?pq-origsite=gscholar&cbl=47867

Vyas, A., & Shrivastava, D. (2017). Factors Affecting Work Life Balance - A Review. *Pacific Business Review International, 9*(7), 194–200.

TECHNICAL COMMITTEE - PUBLICATION SECTION

WO I PLA Jayasinghe   - Chief Clerk
Sgt Senavirathna WAP   - Bookbinder
Sgt Nilantha Kumara TM   - Bookbinder
Sgt Bandara WMH   - Accounts Clerk
Cpl Karunathilake KGI   - Assistants Account Clerk
Cpl Lankathilaka MADT   - Offset Machine Helper
Cpl Madushanka LGM   - Bookbinder
Cpl Piyatissa MBMN   - Offset Machine Helper
L/Cpl Piyarathna RDU   - Bookbinder
L/Cpl Jayasekara WJMAN   - Graphic Designer
L/Cpl Indrajith GVD   - Offset Machine Minder
L/Cpl Perera WPS   - Offset Machine Minder
Pte Nagahapitiya NWS   - Offset Machine Minder
Civil KHRS Lakmal   - Computer Operator