**ANNEX A**

**ARMOUR RELATED THREAT ASSESSMENT OF SRI LANKA**

**THE NATURE AND CHARACTER OF WAR**

1. Nature of warfare even in the Sri Lankan context will not alter from its original; it will continue to remain violent, political and human. Sri Lankan Armed Forces would continue to face non-conventional/non-traditional threats and challenges of asymmetric nature. Universally, the character of war will keep on evolving owing to number of factors that include technology, politics, and each war's unique causes, participants, legal implications and demography, etc. It will display more and more VUCA characteristics.

**SRI LANKA ARMY’S PERCEPTION ON THE CHARACTER OF FUTURE WARFARE**

2. Although occurrence of conventional war is a very remote possibility between the nations in the present-day world, the focus on asymmetric warfare in traditional and non-traditional sense is a key concern for Sri Lanka and other nation states.

3. However, as a professional Land Force, as envisaged by the Sri Lanka Armt Capstone Doctrine and other published Keystone Doctrines including the Land Ops and OOTW doctrines, the Sri Lanka Army will continue to maintain its TTPs to suit the full spectrum of conflict. Thus, the anticipation of conventional combat will remain as a basic which will allow better and organized structures, concepts and modernization options.

4. Based on those conventional considerations, Sri Lanka Army will retain its resilience to change by ensuring a balanced composition and versatile and multifaceted TTPs. Sri Lanka Army perceives future wars and military operations would be characterized by the following:

1. Will emerge at short notice, may exist for short duration and be fought at high tempo and intensity and will be non-linear in conduct.
2. Based on all-arms and joint concept which demand Armour in a greater integration with other arms and Services.
3. Combat zones will be increased in depth and width due to increased reach facilitated by dominance of Network Centric Warfare (NCW), Information Warfare (IW) and the influence of media.
4. Greater destructive capability due to enhanced accuracy and lethality of weapons.
5. Based on greater dependence on advance surveillance systems resulted in increased transparency of the Operational Environment (OE).

**THE OPERATIONAL ENVIRONMENT AND THE DOMAINS**

5. The OE includes all elements and conditions which affect the employment of military forces and the decision making in military operations. Within the OE, there are corresponding and consistent physical and perceptual domains where military activities occur. There are four physical domains: Land, Maritime, Air and Space. The two perceptual domains are Information which includes cyber and the EW, and the Cognitive domain. Consideration of the following aspects are of paramount importance when operating in a particular OE and in the domains mentioned above in Sri Lanka Army's case in the land OE:

**TECNOLOGY**

6. Technology is considered a force multiplier along with the fast target acquisition of precision targets, lethality and fast target acquisition. Advancements in the technology in the fields of Armour Command, Control, Communications, Computers, information and Intelligence, Surveillance and Reconnaissance (C4I2SR) and in the field of Armour are vital aspects of concern in the Army's approach to warfare. Meanwhile, possible degradation of the own efforts owing to the use of latest technology by an enemy is a main focus at present.

**GLOBALISATION**

7. Globalisation effected in weakening of security and resulted in the increasing vulnerability of all nations to various threats in contrast to the opportunities provided by it. Sri Lanka being located as an island at the center of the Indian Ocean is apparently susceptible to threats such as proxy wars, human smuggling and drug trafficking, arms proliferation and smuggling of various types of contraband items apart from traditional threats. These threats pose serious implications on national security in a complex environment.

**ADAPTATION**

8. Global non-state adversaries have displayed the use of combined warfare, which includes a mixture of conventional, non-conventional and asymmetric warfare techniques to achieve the desired military goals. Use of conventional war fighting strategies and tactics to counter them are less likely to be successful. Sri Lanka Army shall address above threats with a swift and adaptive response, in which commanders at all levels are encouraged and trained to practice mission command.

**TERRAIN**

9. It is a universal fact that Armour does not like to be restricted in their movements. Mobility is one of the key assets, and any restriction inhibits it. Manoeuvre in thick forests, through bogs or swamps, and in built-up areas obstruct Armour and deprive of a fully potential. The Sri Lankan terrain is divers and posed different challenges to Armour. Hence, it is pertinent to assess terrain variations in different theatres where major operations were conducted:

a. **Northern Theatre**. Northern theatre is a flat terrain with a huge build-up on to the Peninsula. Generally, it intersperses with vegetation and scrub jungles in certain areas towards South. Some of the areas of North Eastern coast are generally covered with sand and mangroves. North Western coast line and periphery are interspersed with scrub with sand and sand dunes. Manoeuvrability is not extremely friendly but committed and dedicated training could simplify the complexity to some extent. Further the build-up in the city limits may curtails the field of fire and the obstacle. The tankability is extremely poor to employ Armour on classic role. Mission oriented training with model training etc may enhance the effectiveness of the crew. It was comprehended with the past experiences and Armour was utilized as a decisive arm at all phases of the war.

b. **Eastern Theatre**. As per the terrain comparatives the trafficability/ tankability in the area is comparatively for AFV’s and MBT’s. However, the Eastern Theatre generally consists with primary and secondary jungles on the South East and Eastern coastal belt generally opened and sandy. Manoeuvrability is not very friendly; however, track vehicles are capable of negotiating to some extent. Further the remote forest patches in the area may curtail the field of fire, observation and may curtail the mobility up to some extent. East Coast along Verugal and Wakerai are in favour of Armour mobility, however isolated forest patches curb its fire power to some degree. Few Sanctuaries and National Parks are available in the form of Gal Oya, Maha Oya, Somawathi and Okada.

c. **Wanni Theatre**. Wanni is a flat terrain mostly covered with jungles/scrub interspersed with paddy fields and isolated water bodies. Mobility is restricted and the obstacles/ fields of fire is limited too within the theatre. While employment of Armour, careful studies should be done on Intelligence Preparation of the Battlefield (IPB) and aerial reconnaissance. Since the area is hugely covered with primary and secondary jungle, Armour is mostly restricted on the avail roads and tracks. Apart from Vavuniya and Kilinochchi very less built up found within the theatre. Manoeuvrability is not extremely friendly but dedicated training could simplify the complexity to some extent. The trafficability in the Wanni is extremely difficult for employment of Armour on large formation. Mission oriented training with model training etc will enhance the confident on crew.

d. **Central Theatre**. When comparing with other parts of the country, Central part covered with many mountain ridges and primary jungles which restrict the movement of armour to available roads and tracks. It provides manoeuvrability for wheel vehicles while curtailing movements of track vehicles due to cultivations. Steep slopes and cliffsides may interrupt the manoeuvrability of MBTs.

e. **Western Theatre**. Western part covered with main communication centers of the country. It is the most densely populated area of the country with scattered build-ups. Though the area is flat and provide adequate soil bearing capacity all over the theatre, it provides less tankability while providing sound manoeuvrability for wheel vehicles along the available scattered road network. Mobility may be restricted for the tanks and the observation/ field of fire is limited too within the theatre.

f. **Southern Theatre**. Southern part of the country mostly covered with flat terrain with isolated water bodies. Secondary jungles cover most of the area while northern part consists with primary jungles. Ground permits armour to move and it provide track vehicles to negotiate the available obstacles in the ground up to some extent. Availability of scattered network of road and tracks provide sound manoeuvrability for wheel vehicles. There are few communication centers along the costal belt which may hinder the movements of track vehicles up to certain extend, However, isolated forest patches and build ups curb its fire power also to some degree.

**CLIMATE AND WEATHER**

10. Manoeuvre forces always depend on the terrain and changes of ground configurations due climatic reasons. It can be spoiled the manoeuvrability with following factors:

a. **Effect of Rain**. Sri Lanka has a typical monsoon climate. Rainfall of the country has multiple origins. Monsoonal, convectional and depressional rain accounts for a major share of the annual rainfall from under 900 mm in the driest parts (south-eastern and north-western) to over 5000 mm in the wettest parts (western slopes of the highlands). Thorough reconnaissance may enhance the confidence of the crew for the best results and AFVs may neglect the swampy grounds up to curtain extend.

b. **Effect of Flood**. Flood is a common phenomenon, which occurs almost every year during May and June as tropical cyclones and the southwest monsoon impact to Sri Lanka. Reconnaissance regiments can be utilized in any emergency since it possesses amphibious capabilities with its light weight.

c. **Visibility**. Generally open and flat nature of terrain offers a considerable degree of visibility in Sri Lanka. When considering the jungle patches and build-ups. It may hinder the visibility according to the terrain configurations.

**EVALUATION OF TERRAIN AND WEATHER**

11. A detail analysis of the terrain and weather of the country leads to the following findings:

a. A major portion of Sri Lankan terrain offers good going for manoeuvre elements during dry season. However, going is restricted to the existing road network during rainy season while some natural disasters hinder the movements of manoeuvre forces.

b. Besides, varying degree of soil bearing capacity coupled with hilly terrain as well as weather also restrict the going of manoeuvre elements in parts along the coastal belt.

c. The growth of built up areas, semi built up areas and villages have enhanced defence potentials of the country and has reduced possibility of mobility.

 d. Large number of rivers and canals form potential natural obstacle, hence making going difficult for manoeuvre elements.

12. Sri Lankan terrain could be divided in to number of segments such as central hills, sandy lands, semi thick jungles, thick jungles, marshy lands and dry scrub grasslands. Central hills are undulating and impassable for armoured vehicles. Other areas are generally tankable and some marshy and sandy terrain create restrictions on tank movements. Therefore, combination of wheel and track armoured vehicles required to operate in different terrain in the country.

**LAND OPERATIONAL ENVIRONMENT**

13. In Sri Lanka, the population is focused into major cities, towns, villages, rural areas and to the costal belt as well. However, the urbanization of the battlefield will be a major consideration in any conflict in the future. Sri Lanka’s urban terrain will present major challenges in any future Armour operation. However, the rural environment provides less friction comparatively for conduct of operations and campaigns; hence careful analysis of population focuses and religious, cultural and social aspects are important factors in launch of military activity in the island, in general.

14. In conducting land operations, climatic conditions stand among the major areas of concern. Although, Sri Lanka does not experience a winter, climatic variations of the weather such as seasonal rains, floods, landsides and other natural calamities occurring haphazardly must be taken into account since those factors hinder the conduct of operations by the Army.

15. When launching operations in different area in Sri Lanka, following areas need to be taken separately.

a. Operations in coastal areas including possible denial of operations by the enemy including conduct of shallow water and riverine operations.

b. Operations in mountainous terrain.

c. Operations in ethno-religious enclaves.

16. With existing security concerns following threats can be identified to the Sri Lanka:

1. Rise of radicalized/ extremist elements.
2. Possible Re-emergence of separatism.
3. Use the country as a hub of transnational crimes.
4. Use of Cyber domain for inimical activities

 e. Geo-political realities and its impacts.

**OPERATIONAL CONCEPT**

17. Based on eminent threat to the national security, involvement of manoeuvre elements in any pattern of threat is likely to prove a decisive edge. Therefore, identifying the threats and analysing their capabilities of employing manoeuvre elements need careful assessment. SLAC will remain ready for conventional combat, keeping in view, the doctrinal considerations of the Sri Lanka Army. While doing so, considering the contemporary and future threat/operational environment and the threat perception, SLAC envisages following operations in particular (SLAWFS 2020-2025):

1. Counter terrorism.

b. Counter violent extremism.

c. MACA (MAC-P/MAC-M/MAC-C).

d. UN operations.

1. Disaster relief operations.