INVESTIGATION OF CAUSES FOR INCREASED GREENHOUSE GAS EMISSIONS FROM THE LOGISTICS VEHICLE FLEET OF SRI LANKA ARMY

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Degree of Master of Business Administration

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Thesis submitted in partial fulfilment of the requirements for the degree
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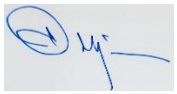
Signature:  Date: 31 August 2021

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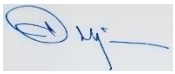
Signature:  Date: 31 August 2021

NGJP Thilakarathna

STATEMENT OF THE SUPERVISOR

The candidate has carried out research for the MBA in Supply Chain Management in the Department of Transport and Logistics Management of University of Moratuwa under my supervision.

Signature of the supervisor: ..... Date: 31 August 2021

Dr HN Perera

ABSTRACT

Being the largest service organization in the country, the Sri Lanka Army (SLA) is not only responsible to ensure the internal or external threats to the national security of Sri Lanka, but also to ensure the environmental security. In line with that the researcher carefully undertaken this research titled ‘measuring the carbon footprint of the logistics vehicle fleet of the SLA. Since this subject covers a several technical terms, the researcher conducted a comprehensive literature review; referring to various books, journals and paper articles, internet sources, and scholarly articles to discover the research gap which was considered essential element to explore research. Based on that, the researcher defined research objectives, research questions, and research hypotheses.

The methodology was illustrated comprehensively with the adopted research methods and designs. Later a conceptual framework was formulated and the same was operationalized to formulate the questionnaire which was circulated amongst 10 selected senior officers in the SLAOC since it is of strategic importance. Moreover, the researcher consulted professionals in the ministry of environment to discover the impact of carbon footprints that emit from substandard vehicles to pollute the environment.

Since this is qualitative research, the researcher used Microsoft Excel and SPSS software in coding and analysing the data. All the opinions, views, and comments were summarised to excerpt the essence of their ideas. The selected questions of this research were then tested and managed to identify the means of getting rid of the old fleet of vehicles to create a healthy vehicle fleet that emits no or reduced greenhouse gasses.

Having concluded the data presentation and analysis, the researcher described the significant findings through an effective discussion. Questions testing in detail, testing of hypotheses, and the achievement of research objectives were more clearly described to make the reader clearer about the significance of this research.

Recommendations were carefully filtered facilitating the authorities of SLA to initiate the creation of an environmentally friendly GHG-free vehicle fleet. Future researchable areas were also documented for interested parties to conduct further studies.

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LIST OF ABBREVIATION

Abbreviation	Description
AHQ	Army Headquarters
SLA	Sri Lanka Army
SLAOC	Sri Lanka Army Ordnance Corps
IPCC	Intergovernmental Panel on Climate Change
UNFCCC	United Nations Framework of convention on Climate Change
NDCs	Nationally Determined Contributions
CFCs	Chlorofluorocarbons
EV	Electric Vehicle
GM	General Motors
EPA	Environment Protection agency
GHG	Green House Gasses
STA	Swedish Transport Administration
CEA	Central Environmental Authority
MTO	Mechanical Transport Officer
NCO	Non-Commissioned Officer
OC	Officer Commanding
DI	Daily Inspections
MT	Mechanical Transport

ACRs	Annual Confidential Reports
SLEME	Sri Lanka Electrical and Mechanical Engineers
BER	Beyond Economics Repair
RHQ	Regimental Head Quarters
SLASC	Sri Lanka Army Service Corps
SLCMP	Sri Lanka Corps of Military Police
QMG	Quarter Master General
DST	Directorate of Supply and Transport
FMA	Forward Maintenance Area
BAQ	Brigadier Admin and Quartering
HQ	Headquarters
YOM	Year of Manufacture
YOR	Year of registration