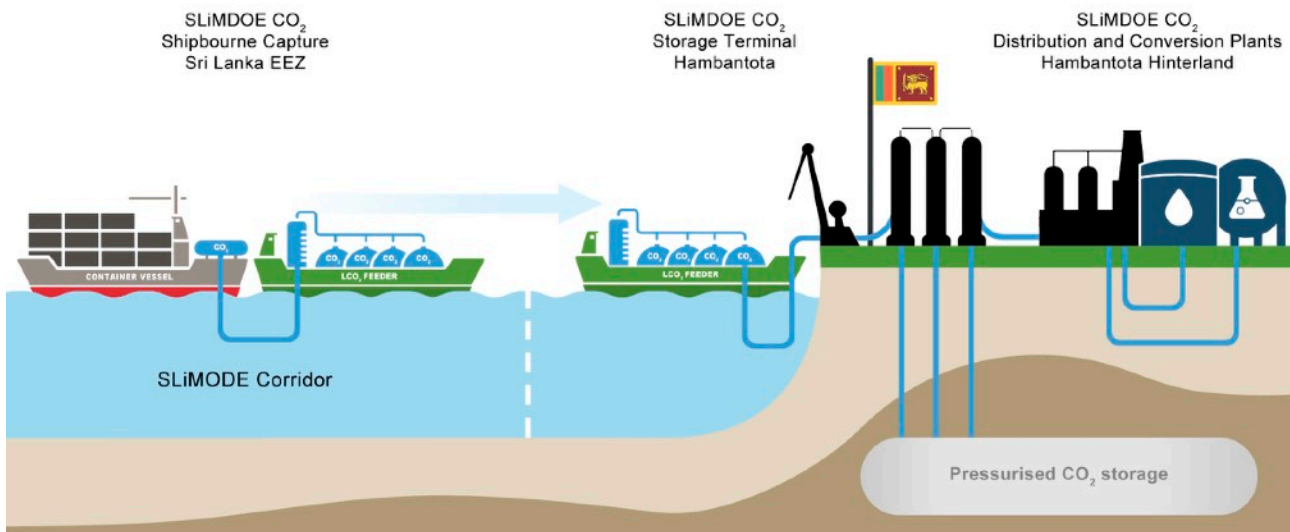


# Industrialization & Commercialization of SLiMDOE Emissions

The SLiMDOE Carbon Capture & Utilization (CCU) Initiative



# SLiMDOE

**Conceptualized & Authored by:**

Ranjith J. Wickramasinghe

FCMA (UK), FCCA, ACC.Dir.SL, CGMA, and JP.

Former Chairman Sri Lanka Ports Authority and Ceylon Shipping Corporation.

Chairman SLiMDOE (Pvt) Ltd.

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**142/68 Jenson Watta, Anderson Road, Nedimala, Dehiwala**

# Executive Summary

## Transforming Sri Lanka's Maritime Corridor into a Carbon-Neutral Gateway for Global Trade

Sri Lanka occupies a uniquely strategic position in global commerce, with over **60,000 ships** and **40,000 aircraft** transiting its **Exclusive Economic Zone (EEZ)** annually through the **SLiMDOE Corridor**—a 500-nautical-mile ocean-air passage south of the island that carries **40% of world trade**.

While this corridor enables vast global economic efficiency, Sri Lanka bears the environmental cost of concentrated maritime and aviation emissions without receiving any direct economic benefit. In the context of the **International Maritime Organization (IMO)** delaying its roadmap for net-zero shipping by one year, this presents a critical **window of opportunity (2025–2027)** for Sri Lanka to act.

The proposed **SLiMDOE Carbon Capture & Utilization (CCU) Initiative** seeks to establish a **Carbon Capture and Conversion Zone (CCCZ)** centered on **Hambantota Port**—integrating ship-based carbon collection systems with shore-based liquid CO<sub>2</sub> storage and conversion infrastructure. Captured CO<sub>2</sub> will be transformed into **commercially valuable products** such as synthetic fuels, cement additives, and industrial carbonates.

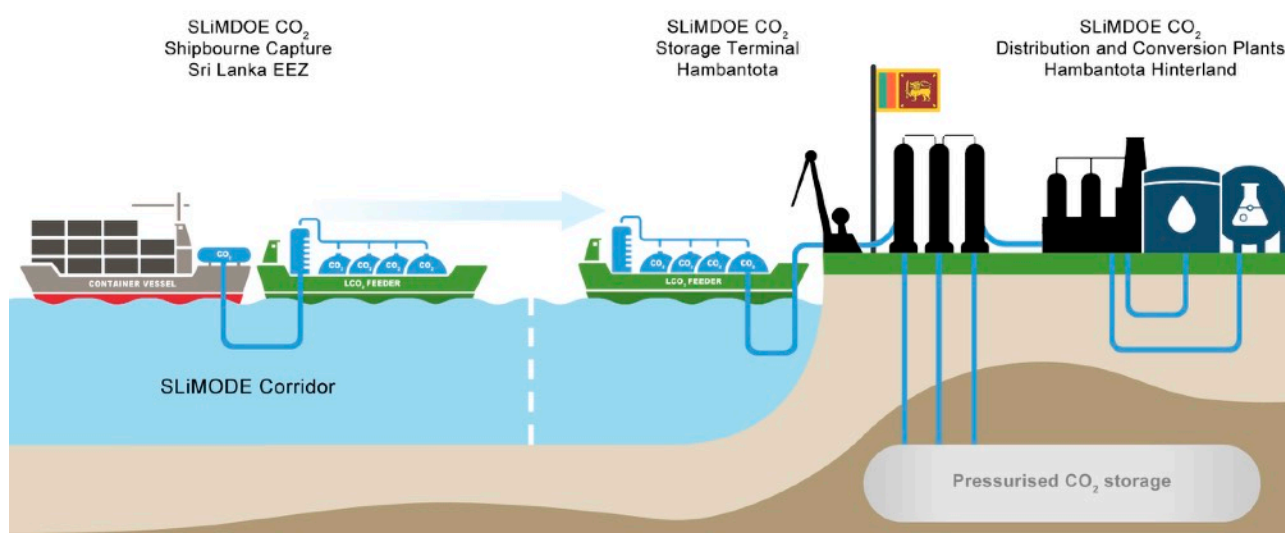
This initiative offers dual benefits:

- **For Sri Lanka:** Foreign direct investment (US\$2–3 billion), job creation, climate finance inflows, and positioning as Asia's first maritime carbon-neutral EEZ hub.
- **For the global shipping industry:** A cost-effective, in-transit solution for emissions mitigation and compliance with emerging IMO standards.

To realize this vision, I would like to assist a **Presidential Task Force** to coordinate feasibility studies, legal frameworks, and investment partnerships across relevant ministries and international agencies.

**In essence, SLiMDOE transforms Sri Lanka's geographic advantage into a sustainable economic asset—aligning environmental responsibility with national prosperity.**

### The SLiMDOE Carbon Capture & Utilization (CCU) Initiative



# Introduction

This publication outlines my proposal for energizing the SLiMDOE Platform, that I have conceptualized, and formulated detailed my previous SLiMDOE publications and websites - [www.ranjithwickramasinghe.com](http://www.ranjithwickramasinghe.com) and [www.slimdoe.com](http://www.slimdoe.com).

This proposal introduces a commercially viable green initiative that aligns with global decarbonization trends and provides Sri Lanka with tangible investment opportunities tied to maritime traffic through the SLiMDOE Shortcut/Corridor in it's EEZ, and thus enabling the Industrialization & Commercialization of SLiMDOE Emissions.

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## SLiMDOE Carbon Capture & Utilization (CCU) Initiative

*Positioning Sri Lanka as a Regional Hub for Maritime Carbon Management*

### 1. Global Context and Strategic Relevance

- The International Maritime Organization (IMO) has committed to net-zero emissions by 2050, yet the policy and enforcement roadmap has been delayed due to industry and political pressures.
- This delay creates a window of opportunity (2025–2027) for proactive nations to develop carbon offset and capture infrastructure to serve the maritime industry.
- Ships passing through SLiMDOE Shortcut (~60,000 annually) represent one of the densest maritime traffic corridors globally—ideal for mid-ocean decarbonization partnerships.

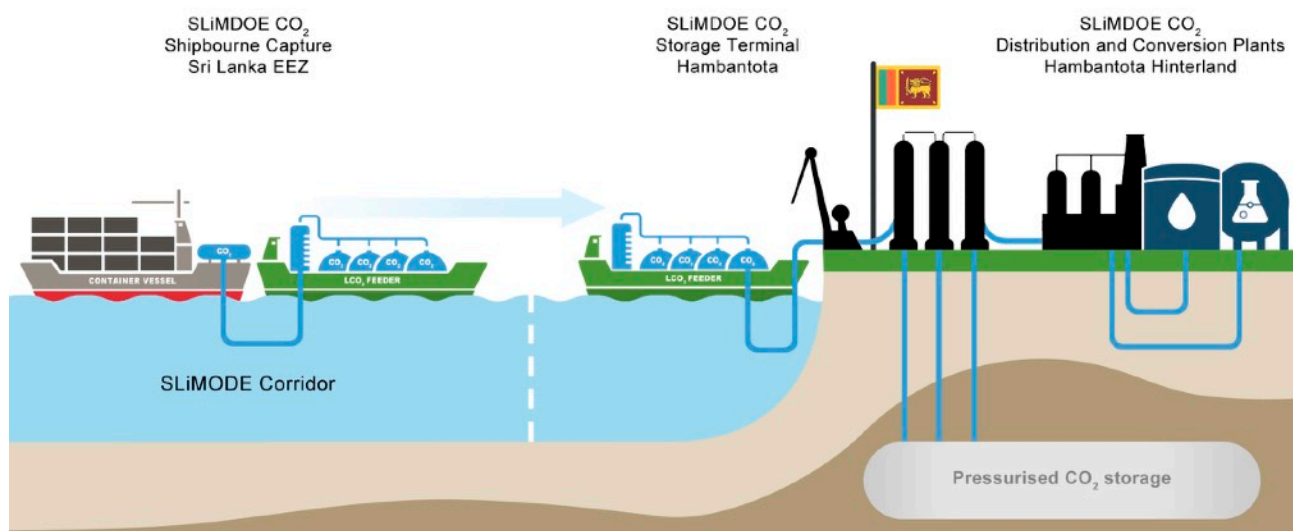
Sri Lanka should position itself as a **“Carbon Gateway of the Indian Ocean”**, capturing, storing, and reusing CO<sub>2</sub> emissions from ships passing near its southern maritime boundary.

## 2. Concept: Carbon Capture from Maritime Exhaust in the SLiMDOE Corridor

### Core Idea

Develop a Carbon Capture and Conversion Zone (CCCZ) anchored to Hambantota Port, focusing on:

- **Ship-based carbon collection systems:** Retrofitting or service stations for vessels using carbon scrubbers.
- **Shore-based reception facilities:** Receiving captured liquid CO<sub>2</sub> for temporary storage.
- **Conversion infrastructure:** Transforming captured CO<sub>2</sub> into commercially valuable products such as:
  - Synthetic fuels
  - Cement and concrete additives
  - Carbonates for industrial use
  - Agricultural CO<sub>2</sub> (greenhouse-grade)




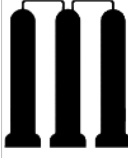




### 3. Infrastructure & Investment Potential

#### Strategic Location

- **Hambantota Port:** Deepwater port with adjacent industrial zone and logistics infrastructure.
- **SLiMDOE Corridor (~500 NM long, passing south of Dondra Head):** Proximity enables service and logistical access for carbon capture and offloading.

#### Proposed Infrastructure Components

Component		Description	Potential Partners
	<b>Shipborne Carbon Capture Service</b>	Establish floating or mobile service units to capture CO <sub>2</sub> during transit	Shipping lines, tech firms (e.g., Wärtsilä, Mitsubishi, Carbon Clean)
	<b>Liquid CO<sub>2</sub> Storage Terminal</b>	Cryogenic storage tanks near Hambantota	Hambantota International Ports Group, Adani Ports, Sinopec, or Mitsui partnerships
	<b>Conversion/Utilization Plant</b>	Cement & synthetic material manufacturing using captured CO <sub>2</sub>	Holcim, Lafarge, CarbonCure Technologies
	<b>Carbon Credit Exchange Mechanism</b>	Framework for certified carbon offsets via international registries	UNFCCC, Verra, Gold Standard

## 4. Economic and Strategic Benefits

### To Sri Lanka

- **Foreign Direct Investment (FDI):** Estimated US\$ 2–3 billion over 5 years.
- **Job creation:** 5,000+ direct and indirect jobs in logistics, industry, and research.
- **New revenue streams:** Port fees, carbon credits, joint ventures.
- **Green Brand Positioning:** Sri Lanka as the first maritime carbon-neutral EEZ hub in Asia.

### To Shipping Industry

- **Interim decarbonization compliance** ahead of IMO mandates.
- **Reduced reputational and regulatory risk.**
- **Opportunity to offset emissions** directly en route through an existing high-traffic corridor.
- **Return on Investment (ROI)**

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**Enclosed:** Annexures of publications/TV interviews and profile

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[www.slimdoe.com](http://www.slimdoe.com)

## **My Publications:**

- 1) An Independent Professional's view to TURNAROUND SRI LANKA - report dated 1<sup>st</sup> October 2019.
- 2) URGENT PLAN TO MITIGATE COVID-19 IMPACT ON SRI LANKAN ECONOMY dated 10th June 2020. <https://bit.ly/3OzyZk4>
- 3) A Rolling (2021) Budget & Five-Year Plan to Turn Around the Post-Covid 19 Economy of Sri Lanka, published on 31st July 2020 - ISBN 978-624-96562-0-8.
- 4) Sea: Sri Lanka's Competitive Advantage (ISBN 978-624-97686-0-4 of 22nd March 2021), and how to earn foreign exchange Income quickly from the sea.
- 5) Sri Lanka's Multi-Billion Dollar Ocean Expressway, and its Impact on this Island Nation (ISBN 978-624-97686-1-1 of 2nd September 2021), and the Global Initiative to obtain a waiver on debt repayments for Sri Lanka to redress the damage caused to our economic resources by the carriers using our Exclusive Economic Zone in the South Sea of Sri Lanka. the Sinhala translation of this was published on ISBN 978-624-97686-3-5.
- 6) Sri Lanka's Multi-Billion Dollar Ocean-Air Expressway (SLiMDOE) – Researched, formulated, invented, monetized and published on 2<sup>nd</sup> September 2021 as ISBN 978-624-97686-4-2.
- 7) My 2022 Budget & Five-Year Plan to Turn Around the Ailing Economy of Sri Lanka dated 12th November 2021 (ISBN 978-624-97686-2-8).
- 8) Rescue and Reset Plan for Sri Lanka, ISBN 978-624-97686-5-9 dated 14<sup>th</sup> April 2022. The Sinhala translation of this was published as ISBN 978-624-67686-6-6.
- 9) The Prestige's financial magazine "**LMD THE VOICE OF BUSINESS**" carried his SLiMDOE discovery and the Rescue and Reset Plan for Sri Lanka as the letter of the month in its [December 2021](#) and [June 2022](#) magazines.
- 10) The Island newspaper published a review on my Rescue and Reset Plan for Sri Lanka via questions and answers conducted by Sanath Nanayakkara in May 2022 and published on 25<sup>th</sup> June 2022. It is available in the <https://bit.ly/3nrv78K>
- 11) How to Rescue Sri Lanka from the Debt trap and the Dollar crisis, and Reset was published on 25<sup>th</sup> June 2022 as ISBN 978-624-97686-7-3. This is an update to the ISBN 978-624-97686-6-6 published earlier, reflecting the extensive damage caused by the crash and the continuing social unrest and political instability.
- 12) Island newspaper of Wednesday 24<sup>th</sup> August 2022 carried my article titled "Rescuing Sri Lanka from Debt trap via a Nature-Nation debt Sustainability Instrument".
- 13) Rescuing and Reset Sri Lanka, using the leverage of an Intangible Asset named as "SLiMDOE Shortcut" via a Global Initiative, and a Public Petition on 22<sup>nd</sup> September 2022 as ISBN 978-624-97686-9-7.



- 14) Rescue Sri Lanka Using the SLiMDOE leveraged Macro Economic-Fiscal five-year Plan of 9<sup>th</sup> February 2023 ISBN 978-624-97686-10-
- 15) SLiMDOE Leveraged Alternative Growth Strategy To TURNAROUND Sri Lanka's Economy dated 7<sup>th</sup> September 2023.
- 16) Rescue Sri Lanka using SLiMDOE Leveraged, request to United Nations for Reliefs / Grants Fre Damage, based on Principles of Natural Justice and Equity dated 29<sup>th</sup> April 2023 on ISBN 978-624-99952-1-5.
- 17) European Union's introduction of a supra-regional carbon tax on shipping, and its implication to the suffering citizens of Sri Lanka for emissions offloaded during the passage on SLiMDOE dated 7<sup>th</sup> September 2023 on ISBN 978-624-99952-3-9.
- 18) SLiMDOE Leveraged Alternative Growth Strategy to Turnaround Sri Lanka's Ailing Economy and its sustainability. My Discourse with the International Monetary Fund dated 7<sup>th</sup> March 2024.
- 19) SLiMDOE, A NOVEL STRATEGY TO BOOST SRI LANKAN ECONOMY dated 4<sup>TH</sup> April 2024. Letter to the President of Sri Lanka.
- 20) SLiMDOE, A NOVEL STRATEGY TO BOOST SRI LANKAN ECONOMY dated 18<sup>TH</sup> April 2024. Letter to the International Institute of Environment and Development – IIED.
- 21) SLiMDOE, A NOVEL STRATEGY TO BOOST SRI LANKAN ECONOMY, and a five-year Macro Economic Plan dated .<sup>th</sup> June 2024. An open letter to "Dear Frinds of Sri Lanka and the Presidential aspirants.
- 22) SLiMDOE Commercialisation ISBN 978-624-99952-5-3 dated 23rd January 2025
- 23) MY Disccourse with IMO ISBN 978-624-99952-7-7 dated 10th April 2025
- 24) Trade Tariffs Imposed on Sri Lanka, and SLiMDOE Leverage - ISBN 978-624-99952-6-0 on 22 nd May 2025.
- 25) Industrialization & Commercialization of SLiMDOE Emissions – ISBN 978-624-99952-8-4 dated 21 st October 2025.

#### TV interviews

1. News first, Newslane with Faraz – "[No Planning No Progress](https://bit.ly/3QYfJyr)" live telecast on 7<sup>th</sup> July 2021, regarding my proposed development plans in the Sea of Sri Lanka, available on <https://bit.ly/3QYfJyr>
2. Dawasa - kalina deshapolana wadasatahana by Roshan Watawala on SIRASA – regarding my "SLiMDOE discovery" conducted in Sinhala as a live telecast on 20<sup>th</sup> May 2022. <https://bit.ly/3y2qw1L>
3. BISNOMICS weekly program interview with Tharindu Amarasekere of TV1 done on 16<sup>th</sup> June 2022 at Stein Studio – a review on the "state of the crashed economy" and my vision to Rescue and Reset Sri Lanka. [https://m.youtube.com/watch?v=Ah7E\\_W9YFyc](https://m.youtube.com/watch?v=Ah7E_W9YFyc)
4. My 13<sup>th</sup> August 2022 presentation by Zoom to the Institute of Certified Management Accountants in Sri Lanka, wherein I detailed by previous publications, and explained my Rescue and Reset Sri Lanka Plan wherein I described & illustrated visually the relevant SLiMDOE Shortcut main attributes in the link: <https://m.youtube.com/watch?v=HFhNn40JH50>



### Achievements & Accolades Synopsis:

- Early education at “Gajanayake Paasela” at Wellandura, in a school built, and run free of charge by his grandfather Kiri Bandara Gajanayaka of “Wellandura Walauwa” in 1950 for the village kids, in the Ratnapura District. His Rural and Family Planting background gave him knowledge in cultivation of Paddy, Tea, Rubber, Coconut, Pepper and Cinnamon, etc.
- Class Prize winner and athlete at Ananda Sastralaya, Kotte - 1956 to 1959.
- Entered Royal College Colombo 7 via an all-island test in 1960. Class prize winner, in 1960, and a Junior Hostel annual sports competition winner.
- Champion Athlete Royal College - 1962, 1964 and Hockey Coloursman. Participated in 7 sports for “Harward House”.
- Left Royal early, in 1967 to pursue Accountancy, qualified inter by 1969 and final exam by 1972.
- Pioneering staff member of Ceylon Shipping Corporation (CSC) that was Corporatized in 1970.
- CSC commenced with a seed capital of USD 2 million given by the Treasury.
- Assisted in the acquisition of first 15,000 DWT Vessel, ***MV Lanka Rani for Sri Lanka in 1971***, sourcing of finance internationally, and building up the fleet to eight vessels worth US\$ 20 million almost fully paid for by 1977.
- CSC built up **Liner Services** to UK, Europe, Far East, and Middle East by 1977, and containerized shipping **ahead** of Singapore.
- CSC also set up the Colombo Dockyard Limited in the seventies which now has been transformed into a world class facility with Onamichi Japan
- CSC built up the “Shipping Capability” for Sri Lanka, trained sea-going staff, enhanced non-traditional exports and restarted the Silk Route.
- Became a Director, Mackinnon Mackenzie Shipping Company Limited in 1974, at the age of 25 years.
- Membership – ACMA in 1974, and FCMA in 1977, left Sri Lanka for Expatriate employment in 1978.
- Head of Group Financial Analysis & Head of ZCCM Group Budget Committee, and Head of Corporate Planning of Zambia Consolidated Copper Mines, a New York Stock Exchange LISTED Company – 1985 & 1991. Evolved an interim Financial Plan for ZCCM with SRI Consultants at Palo Alto, USA, under the auspices of the World Bank.
- Managing the ZCCM Group Billion US Dollar Treasury in LONDON and, Tracing & Recovery of funds, US\$ 10 million for ZCCM in 1992.
- During his Chairmanship, Ceylon Shipping Corporation won the Lloyds of London ‘STAR PERFORMER’ award for two consecutive years in 1995 & 1996 for Liner Services to UK and Europe.
- As Chairman CSC, coordinated the rescue of “MV Lanka Muditha” aftermath of a LTTE deadly suicide attack in Trincomalee harbour and, bringing the crippled ship through the LTTE infiltrated sea to Colombo. The vessel was repaired and refitted to international standards within three months during 1996 and put back into operation.
- During his Chairmanship in Sri Lanka Ports Authority, the Port of Colombo became recognized as the ‘**Fastest Growing Hub Port in the World**’ at a **growth rate of 25% per annum** for 1997.
- Under his Chairmanship in 1997, SLPA earned a profit of Rs. 3 billion (US\$50 Million) – **the highest profit** earned by a PLC or Public Enterprise in Sri Lanka.
- In 1997 Port of Colombo held the 20<sup>th</sup> world ranking as a port, and presently dropped to 24<sup>th</sup> position.
- As Chairman SLPA and a Member of the Cabinet Appointed Negotiating Committee negotiated the Build Operate and Transfer (BOT) project for the expansion of the Queen Elizabeth Quay in Colombo at a cost of US\$ 240 million, and enhanced the initial offer of US dollars two million as ground rent offered by P&O consortium, the South Asia Gateway Terminal (SAGT) , to Over US Dollars Twenty million revenue for SLPA per year, for a **reduced** thirty year period, and obtained a gratis shareholding, and convinced the Port workers and Engineers of the need to broad base, all of whom were violently opposed to it. The potential gain to SLPA was estimated at US \$ 600 million.



- Simultaneously, with the “win win negotiation” SAGT became the first **successful large** Public Private Partnership (PPP) between SLPA, John Keels and P&O set up in Sri Lanka (now with a 60% Sri Lankan shareholding and fully manned by SL), which recently celebrated 21 years of maritime excellence in the Port of Colombo having achieved 2 million TEUs, almost doubling the designed capacity. The above “SAGT Model” created in the nineties as a Public Private Partnership with SLPA has been used to lease out the South Terminal of the South Harbour to CICT, and the West Terminal now to Adani, India.
- During his tenure as Chairman, SLPA also took a strategic decision to expand the Port of Colombo *Southwards* (rather than northwards to the congested Mutuwal side – Prince Vijaya Quay of the old harbour), thereby changing the SLPA Master Plan in 1997, and initiating the development of the “New South Port of Colombo” with a capacity of 9 million TEUs, comprising of three terminals at an investment of US \$ 1500 Million, now called the “South Harbour”.
- During his Chairmanship SLPA converted the Port Tariff to US Dollars and also conceptualized the reclamation of land as a means of providing counterpart funds for financing the breakwater of the “New South Port of Colombo” with ADB in 1997. Reclamation plan herein was limited to 20 acres of land. That strategic shift of future “port development to the South”, in the SLPA Corporate Plan in 1997 enabled the reclamation of 500 acres in the same location at a cost of US\$ 1.4 billion for the Colombo Port City, now seeking investors to complete the targeted US\$ 14 billion World Financial Hub.
- Raising Finance for the construction of two hotels for the Barbaryn Group – 120 rooms at a cost of US \$ 20 million in 2000, and 2005 post Tsunami reconstruction. Functioned as the Chairman of a Tech startup company 2011 – 2014.
- He was Accredited as a Director of Sri Lanka (Acc.Dir.SL) by SEC and ICASL in 2015, (first batch to be accredited in Sri Lanka).
- Walked 20 miles (32km) on the Farmington Canal railroad track in New Haven, CT, USA in 6 hours in June 2019, and again in October 2022, **climbed Sri Paada at the age of 74 years and was a semi finalist at Sri Lanka National Badminton Championship in 2023 for over 70 years category.**



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