

Challenges & opportunities for Sri Lankan engineering professionals in the emerging maritime hub: a case presentation from the shipbuilding industry

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Abstract— While the demand for Asian shipbuilders prevail over the demand for European shipbuilders, Sri Lanka is in a relatively advantageous position to take the advantage of becoming a Regional Maritime Hub. With the end of the civil war, the time is most opt for the country to define its way forward and the government has vision to transform Sri Lanka regional hub with focus on a five-hub concept; a Knowledge Hub, a Commercial Hub, an Aviation Hub, an Energy Hub and a Maritime Hub. The natural geographical positioning of Sri Lanka makes it an enviable advantage to become a Maritime Hub and the amassed experience and acumen in Shipbuilding and Ship Repair augments its true potential. There are many challenges, but they also provides ample opportunities for the Sri Lankan Engineering Professionals to exploit. This case study is mainly focus on the contribution of Colombo Dockyard PLC and their Engineering Professionals, for the Shipbuilding and Ship repairing sector on the way forward on sustainable development of Sri Lanka.

Keywords— Maritime, Hub, Professionals, Shipbuilding



Fig 1. Strategic Location of Sri Lanka

Sri Lanka, then known as Ceylon thrived in the past as an international maritime and trade hub, connecting the East with the rest of the world; becoming the safe heaven and much sort after Port of the seaborne silk route. After the end of the 30 years of civil war, Sri Lanka’s geo-strategic importance in the Indian Ocean is significantly enhanced due to the rapid development of local maritime industry. The Macro Level Vision of the Government of Sri Lanka is to transform the country as a Dynamic Regional Hub,

envisaging the post conflict economic resurgence be driven by the five hub concept; a Knowledge Hub, a Commercial Hub, an Aviation Hub, an Energy Hub and a Maritime Hub. Ports play a vital role in transforming the country to a Maritime Hub concept, and the vision of the Sri Lankan Government is to engage in a rapid development and expansion of all the ports in Sri Lanka enabling the island to regain its position as a Regional Maritime Hub, as shown in the Table 1.

No	Port	Proposed Task
1	Port of Colombo	Container mega hub
2	Magampura Mahinda Rajapakse Port in Hambantota	Free port service dedicated for industrial and multi-purpose activities
3	Port of Galle	Cruise shipping centre
4	Port of Trincomalee	Port-related industries
5	Port of Oluvil	Commercial and fisheries

Table 1. Future utilization of Sri Lankan Ports

The government’s vision being such, it is pertinent to evaluate whether Sri Lanka has the true potential and essentially needed prerequisites to become a leading Maritime Hub. The geographical location of becomes one of the essential criteria, a nation is to be a Maritime Hub, and as shown in the Figure 1, Sri Lanka is enviously located at the intersection of many sea-lanes, placing it an advantageous position to become a regional maritime hub. Historical evidence proves that this is not mere wishful thinking; Sri Lanka was a regional maritime centre in the past and Port of Colombo ranked the 7th in terms of volumes of tonnage handled amongst all ports in the World, while being ranked the 5th, amongst the ports in the British Reign. Globalisation has transformed the world, giving rise to multi-facetted changes in the maritime industry than ever before. There is a significant shift in the geopolitical power in shipbuilding as well as ship owning highlighting the dominance of East Asia during the last 3 to 4 decades: the Shipbuilding industry that was dominated by Europe up until seventies had shifted Eastward giving rise to the Japanese, South Korean, Chinese and other Far Eastern nations to dominate the global shipbuilding industry by eighties and nineties, whereby the Far Eastern

nations accounting for a market share of around 90% of the global shipbuilding order book. Ship owning too has gone through similar shifting from Europe to the Far East.

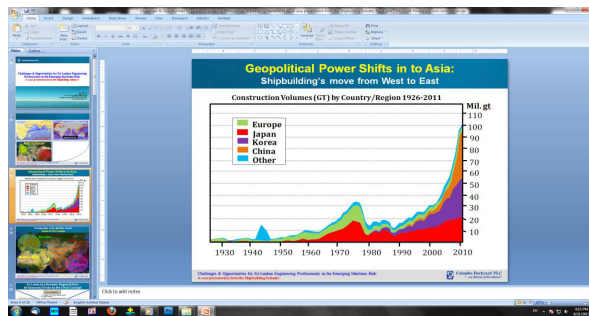


Fig 2. Eastward Shifting of Global Shipbuilding Industry

In 2005, China announced the plan to become the largest shipbuilding nation in the world by 2015 and the goal was achieved in 2010, five-years ahead of schedule. The emergence of Singapore and the Persian Gulf, especially Dubai as international maritime canter, indicates the future direction of the maritime industry; having steadily routed in the Far East the maritime industry is gradually shifting southward. The consistent rapid economic growth of China and India with over 2.5 billion population provides the requisite natural impetus for accelerated maritime activities in the region. All the above conditions provide the essential economic conditions for South Asia to venture into and exploit the emerging opportunities in the region, especially in the maritime activities.

II. MAJOR ATTRIBUTES OF A MARITIME HUB

A Maritime Hub encompasses different aspects of business activities.

1. Ports and Harbours
2. Logistics Management
3. Bunkering and other Services
4. Supply of Ship's Crew & Crew Management
5. Ship Owning & Ship Management
6. Ship Repairing and Value Added Service
7. Shipbuilding
8. Ship Design & Value Added Services
9. Maritime Safety and Emergency Response
10. Ocean Resources Exploration (Fishing, Hydro Carbons, Minerals etc.)

Sri Lanka's envious geographical positioning in between the two fast growing Asian giant economies and at the intersection of major sea lanes connecting the East as well as India to the West, enhances its true potential to reap benefits from these developments immensely.

Thus, the concept of Sri Lanka's vision of becoming a regional Maritime Hub, interconnecting these two economies amongst each other and with the rest of the

world has more than a fair chance; it is not only a wishful thinking, but a logical argument based on sound economic logic and reasoning.

	Name of Port	Tonnage of Vessels Entered
(1)	Newyork	12,154,780
(2)	London	11,605,698
(3)	Antaerp	11,005,761
(4)	Hamburg	10,944,909
(5)	Hong Kong	10,085,595
(7)	Colombo	8,091,123
(8)	Liverpool	7,747,994
(9)	Marseilles	7,187,638
(10)	Singapore	7,045,193
(11)	Montevideo	6,936,983
(12)	Cardiff	5,771,476

Table 1. Ranking of Ports of the World

(Source: Administration Report of the Principal Collector of Customs for 1910)

The infrastructure development, especially the Port Sector capacity enhancement and building new mega ports is one of the several right moves in this direction. Along with such infrastructure development, it is also essential to consider all the other opportunities that could be exploited and Repair & Maintenance of Ships and Shipbuilding is such other potential area.

Ports and Harbours are the key factors for a Maritime Hub since this is where the hub can engage effectively in international shipping and cargo movement. Located almost at close proximity to India and handling as much 75% of transshipment cargo from India, Sri Lanka can be the "Gate Way" to India, as Hong Kong is for China and Singapore is for Indo-China. Enhanced logistics operations, insurance, ship management, ship crewing and crew management, husbanding of foreign ships calling over at local ports and seaborne tourism are some of the potential benefits that a Maritime Hub would envisage and Sri Lanka is poised to develop in these respects. The timely completion of Colombo South Harbour breakwater and the ongoing planned construction of several mega container terminal, enabling accommodation of modern high draft container ships (triple E Class Ships), further reinforce country's shift towards becoming a Maritime Hub.

Ship Repair and Shipbuilding industries not only provide viable business opportunity to exploit, but it is an essential and integral part of a developed Maritime Hub, especially for its sustainability. The industries are not easy to venture into for emerging economies, as they are labour, capital and technology intensive global businesses that have entry barriers. Fortunately, Sri Lanka is several steps ahead of its neighbours in these regards as it has a reasonably developed industry that is in operation for over four

decades. Starting off as a state owned entity, Colombo Dockyard PLC, which operates four drydocks with the largest drydock having a capacity to accommodate vessels up to 125,000 dwt, operates in joint collaboration with a well-established Japanese Shipbuilding company and has amassed a wealth of experience and acumen to exploit emerging opportunities. In the absence of local business, through-out its existence, the company had been engaged in international business and has earned a good reputation as South Asia's leading Ship Repair and Shipbuilding facility.

The Ship Repair and Shipbuilding industries are essentially global and competitive and to survive in this global competition, the industries have to be high in productivity, innovation, multiple competencies and a range of products and services that the global market is looking for. Meeting international standards of quality, differentiated products and efficiency in meeting stringent demands in the industry are essential criteria for the sustenance and growth of this industry.

Sri Lanka has tremendously improved in regard to Maritime Safety and now moving towards developing capacities towards Emergency Response, with the immense capacity and experience gained over the 30-years civil war and elimination of terrorism from the island.

Offshore activities have commenced with the exploration of offshore hydrocarbon potential in Cowry and Mannar Basins. The outcomes provide extremely positive expectations for further enhancement of offshore activities.

The culmination of all above activities would make Sri Lanka's potential in realising its vision of becoming a Maritime Hub.

III. ROLE OF COLOMBO DOCKYARD PLC IN NATIONS' DEVELOPMENT

Colombo Dockyard PLC (CDPLC) was established in 1974 as a government undertaking under the Ministry of Shipping & Tourism. In the year 1975, CDPLC built its first craft, a 14m Patrol Boat for the Sri Lanka Navy and ventured into ship building. Conveniently located within the Port of Colombo, the hub of all major shipping lanes, Colombo Dockyard has a strategic advantage to attract vessels belonging to international ship owners for both dry dock and afloat repairs. Thus, Ship repair became the major business activity of Colombo Dockyard PLC, and over the years it had amassed a wealth of experience and competences in managing such business in international competition. In eighties Colombo Dockyard, expanded its capacity by adding a modern drydock facility with a 125,000 dwt capacity. In 1993, the company was restructured and became a public listed company, while majority stake being held by a reputed Japanese shipbuilding entity, providing it the requisite technological partnership

including inculcating Japanese shipbuilding practices. The latest advent of the Company is the design and building of highly sophisticated and fully differentiated offshore support vessels and vessels for passenger transportation to the international market, meeting emerging marketing demands. By now the company has transformed into a state of the art marine engineering facility in the country and emerged as the South Asia's leading Ship Repair and Shipbuilding entity.

Colombo Dockyard's contribution to the national economy is immense, as the entity provides employment to well over 3,000 Sri Lankans, including around 150 local engineers and generates almost 1.5% of country's total export revenue. It is a company that has a focused vision to grow in its core businesses, excelling their performance in every respect. The approach is a complete transformation adopted by improving the competency of its people, adopting most prudent practices of the shipbuilding and ship repair industry and enhancing its overall capacity and capability, while committing to achieve highest standards, of quality, health, safety environment protection and expansion of its business activities sustainably. While the Company remains relatively small in size compared to competitors in the south Asian region, the differentiation lies in the way it engages in business, based on five core values; flexibility, innovation, being customer centric, people focused and environmentally friendly. The Company is recognised for its business prudence and performance excellence with many accolades given by the state as well as various business chambers. It is also one of the very few companies that had been listed under the Best Asian Businesses under a Billion by the prestigious Forbes magazine for its performance in year 2009.

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