

I am truly honoured to address this seminar on the very topical issue of '*Nation Building through Shipbuilding*.' It is also a privilege to get this opportunity to interact with the immense intellectual pool of experts on maritime issues that has assembled today within the four walls of this hall.

I would like to thank the **F**ederation of **I**ndian **C**hambers of **C**ommerce and **I**ndustry for hosting this seminar; our knowledge partner **N**ational **M**aritime **F**oundation; distinguished audience from the maritime community; industry, academia and government organisations, as also all participants for supporting this seminar. I am confident that the proceedings would act as a springboard for implementable ideas that promote ship-building in India.

The Government has announced plans to take our country's economy on a trajectory to be a 5 trillion Dollar economy by 2024. I think ship-building is a sector that can contribute significantly. I'm sure several speakers today would discuss measures to spur on ship-building, especially commercial ship-building, in India. I will, however, dwell on the Indian Navy's ship building initiatives and its linkage to nation building.

As you all know, the Indian Navy is fully invested in encouraging an indigenous ship-building ecosystem 50 years before 'Make in India' became a national Mission, the Navy took formative steps towards indigenous ship-building, through creation of an in-house 'Central Design Office' in 1964. The Navy has, to date, designed more than 90 warships across 19 different classes. With more than 130 platforms constructed in Indian shipyards since the first ship INS Ajay was constructed by GRSE in 1961, Naval ship-building could be counted as one of the success stories of India. This is testimony to the synergy between the Navy and industry, as also our commitment towards self-reliance.

Yet, we must acknowledge that this journey from a 'Buyers Navy' to a 'Builders Navy' has been an arduous one. Today, whilst the Navy boasts of respectable percentages in ship-construction and equipment within 'Float' 'Move' and 'Fight' categories, we remain fully cognisant of the challenges ahead. The fiscal environment calls for prudence and optimisation of every rupee spent. Time and cost overruns in ship construction create challenges in budget management. Also, ship-building, being a capital intensive activity, has created a narrative, where budgetary allocation for Naval ship-building is considered by some to be a drain on the economy.

Yet, I would argue that investing in naval ship-building is far from a fiscal drain. I will take a few minutes to mention 3 reasons to explain that what is sometimes perceived as a 'drain' or even as 'sunk cost' is not actually so and that Naval ship-building actually contributes handsomely to economic growth and nation building.

The first reason is the '*Plough-back*' effect.

By conservative estimates, a very large proportion of every rupee spent on the Navy is ploughed back into the Indian economy. To start with, more than 60% of the Naval budget is dedicated to Capital expenditure. Nearly 70% of this Capital budget has

been spent on indigenous sourcing, amounting to nearly Rs 66,000 Crores in the last five years. Since the launch of 'Make in India' in 2014, 80% AoNs on cost basis have been awarded to Indian vendors. Of the total 51 ships and submarines on order at various shipyards as on date, 49 are being constructed indigenously. This highlights the considerable levels of plough-back of naval ship-building into the economy.

Each ship building project creates logistics, spares and project support ecosystems, comprising OEMs, ancillary industry, and MSMEs, to support each platform. GRSE, for instance, has nearly 2100 firms registered to support ongoing naval ship-building projects. Subsequent ship repair and maintenance requirements, over nearly three decades of platform or ship's life, lead to considerable investments in domestic industry. Nearly 90% of ship repair by value is undertaken by Indian vendors, mostly MSMEs, implying that a high proportion of Navy's Revenue, in addition to the Capital Budget, also is being ploughed back into the economy.

The second contribution of Naval ship-building is as a catalyst for employment generation and skill development, which are present-day real challenges faced by our nation.

There is a quote which says that "Give a man fish and feed him for a day; teach him fishing and feed him for a lifetime." Shipbuilding is a skilled activity. Each shipbuilding project involves considerable investment of manpower, with commensurate employment and skilling of workforce. As platforms become more complex, skill levels are also proportionately upgraded.

Naval ship-building projects have made considerable, if often less acknowledged, contribution towards employment and skilling. Studies show that labour employed for a given sum of industrial turnover is one of the highest in the ship-building industry. Complexity of warship construction also implies much higher manpower absorption vis-à-vis commercial construction. For instance, manpower employed for constructing a commercial ship of about 30,000 tons is less than the manpower employed in warship construction of about 6,000 tons. In addition, warship construction requires a much higher ratio of white collared workers, vis-à-vis blue collared workers, given the inherent complexities involved. Thus, employment opportunities are extended to more widespread educational backgrounds, especially educated youth of our country.

In addition, statistics show that the multiplier effect of one worker employed in a shipyard is approximately 6.4 on ancillary industries. Project 17A frigates for instance, is expected to employ a workforce of about 4,500 workers annually within the yard, but nearly 28,000 personnel per year as outsourced manpower from ancillary industries.

Apart from individual skilling, naval projects also lead to creation of new capacities within shipyards. These are crucial spin-offs for the economy. India's largest dry-dock under construction at Cochin Shipyard, for instance, would enable servicing larger sized commercial ships, apart from aircraft carriers, which was one of the prime-movers for the project. Similarly, requirement for indigenous steel for IAC 1 has led to development of indigenous

DMR 249A steel by DMRL, Hyderabad, which is being employed in other Naval projects as well. Steel Authority of India has supplied nearly 50,000 Tonnes of indigenous steel, which was hitherto being imported. In essence, ship-building has potential to contribute to other sectors as well, in ways both tangible and intangible.

Finally, naval ship-building projects contribute to strategic outcomes for the nation as well.

We all know that Multi-dimensional, state-of-the-art, ships constructed by our industry, and operated by the Navy and the Coast Guard, are crucial to protecting India's maritime interests in the Indian Ocean Region and beyond. In addition Navy's diplomatic engagements and capacity building efforts have also allowed several friendly countries to harness our ship-building prowess. We have already added to the capacities of friendly nations, such as Seychelles, Maldives and Sri Lanka to name a few, by exporting warships that enhance their overall security. As India's ship-building industry matures, there is immense potential to forge strategic partnerships and convert India into a strategic hub for defence ship-building exports and repairs to friendly foreign Countries.

To enable such strategic outcomes, however, there is a need for the nation to achieve a certain 'critical mass' in indigenous ship-production and ship-repair capability. Whilst defence ship-building plays an important role. We really need to harness the headroom available in sectors, such as mercantile marine and coastal shipping, to increase capacities and attain true potential.

I would like to conclude by reassuring the audience of the Indian Navy's unrelenting focus on indigenous ship-construction and capacity development. As the first service to operationalise the Strategic Partnership model, conclude contracts under the Buy and Make (Indian) category, and contract prototype development under Make-II project, we are committed to partnering the industry in our collective quest for greater self-reliance.

With that, I wish the Seminar and participants all success. I am happy to note the encouraging response received from all stakeholders and I am sure that the discussions would strengthen efforts to revitalise the ship-building ecosystem in the country.