Galvanising Indigenous Defence Industrial Base

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> "We had set up the goal of self-reliance some 50 years ago. But still, it is unfortunate that we are importing 70 per cent of our defence equipment. We cannot allow this to happen. It is both shameful and dangerous"
>
> — AK Antony
> Defence Minister

Introduction

The ever changing dynamics in the multi-polar world have positioned India at the cusp of executing a dominant and pro-active role commensurate to its size and potential. However, discharge of this international responsibility would pre-necessitate reinforcement of critical constituents of power and military might remains significantly high in the pecking order. Military capability of a nation is a function of four interdependent components; Force Structures, Combat Readiness, Modernization and Sustainability. The technical sophistication of forces, units, weapon systems and equipment is a reflection of the indigenous Defence Industrial Base (DIB) capability. Weak DIB, results in heavy dependence on foreign supplies, which impacts both economy and the operational readiness.

India: Net Arms Importer

Non Alignment and the strong democratic values, have contributed immensely to India's status as a responsible and peaceful nation. One of its positive spinoffs is easy access to dual use technology, though partly for commercial interests

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too. Be it the Russian T-90 tank, european fourth generation fighter aircraft or French Submarine, Indian Armed Forces today seek and are obliged with the best weapon/equipment platforms available globally. However, the world's fourth largest standing army and second fastest growing economy, does not axiomatically translate into an equivalent defence capability for India, as it remains largely dependent on external sources for advanced military technology. Though self reliance in arms acquisition has always been the goal of Indian Government, its achievement remains as distant a dream as it was six decades ago. In spite of the National Will, India continues to import more than 70 per cent of its defence hardware and remains a popular destination with major arm supplying nations like the USA, Russia, France and Germany. This massive import oriented defence capability is in stark contrast to China, which has recently joined the elite club of top five arms exporters, with 5 per cent international share. Furthermore, 70 per cent of Chinese arms sales are in the Indian neighborhood, with Pakistan accounting for 55 per cent and Bangladesh, Myanmar and Sri Lanka collectively for about 15 per cent.

Credible DIB: Critical Necessity

The geo political dynamics, with an economically and militarily resurgent China, make India a natural US ally and a counterweight in Asia - Pacific region. Indian military enjoys an esteemed status as a professional force amongst the comity of nations. This exalted status which India has been jettisoned to, pre necessitates a credible DIB, fuelling the defence production indigenously. DIB should have the capability to both develop technology indigenously, as well as absorb it seamlessly, taking it to the next level indigenously, rather than seeking upgrades. However desirable it may be, the same has not been the case so far with the indigenous DIB. With its present capabilities, correlation between DIB and Indian Armed Forces could at best be compared to a Second World War vintage Vijyant Sherman Tank engine attempting to power a modern T-90. Massive overhaul of the DIB is crucial for achieving the desired military capability. A road map for creation of a strong DIB, would essentially entail a holistic analysis of its origin,

development, capabilities, weaknesses, proposed policy changes and restructuring.

Indian DIB: Origin and Development

The Nehruvian vision of peaceful coexistence coupled with the ideology of creating a socialist socio economic environment, resulted in the defence production coming under the ambit of Government. Defence spending from 1947 to 1960 remained low at less than 2 per cent of GDP. The surge post 1962 Chinese incursion, was both inevitable and mandatory. The humiliating defeat duly accentuated by lack of military equipment represented watershed for the Indian defence policy leading to focused attention of this vital sector. However the development process remained restricted to the Ordnance Factory Board (OFB) and Defence Public Sector Undertakings (DPSUs). Defence Research and Development Organisation (DRDO) was charted with the responsibility of research and development.

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Post independence two decade long neglect had a major impact on the DIB, forcing India to seek defence technology from the developed world, which was not so forthcoming. Without a positive response from the democratic leading defence giants like USA, assistance was sought from the communist USSR, which came readily. Ordnance Factories and DPSUs rapidly expanded and commenced manufacturing a large variety of military hardware from rifles to tanks and aircrafts. The focus however, remained on production, rather than on design and development. DIB remained an exclusive domain of public sector, until the production of components, assemblies and sub-assemblies was opened to the private sector in 1991. While ingress of private companies to the erstwhile No Entry zone, augured well for them, their role remained restricted to producing low end components, thus contributing marginally to the DIB. The restricted performance of public sector, on the other hand necessitated the mandatory opening up of this exclusive preserve if the nation had to tread the path of self reliance. By 2002, the private sector had galvanised into a dynamic force perched on the edge to take a leap into the gigantic ocean of defence production, yearning exploitation for long.

DIB: Capability Check

DIB as on date, despite its sustained efforts has remained in the confines

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of elementary hardware production. More so, the indigenous technology levels remain far below the contemporary international standards, leading to the import of elementary equipment. The presently ongoing procurement of assault rifle and carbine is an apt example of the indigenous defence production potential and expertise. Transfer of Technology (ToT) of sophisticated equipment, wherever contracted have by and large gone beyond the stipulated timelines for indigenous licensed production, leading to repeated import orders. Furthermore, the indigenous capability to develop the next generation technology remained largely non-existent. The indigenous production of T-90 commenced only after a decade or so of receiving knocked down kits, an unacceptable time lag, especially when the nation has been equipped with its earlier version i-e the T-72 tanks since 1980s.To sum up, Indian DIB has remained restricted to a manufacturing base with weak R&D component, coupled with lack of competition.

Reforms: Defence Public Sector

Simultaneous actions at various levels are essential towards improving the existing DIB. At the outset, ordnance factories should be corporatised under leadership of a competitive management and accorded the status of Nav Ratna. This shall usher in higher accountability for their operations and also give a fillip to the process of building consortium of industries around these corporate units, enabling them to play the role of designer and integrator. DPSUs, though faring relatively better than the OFs, need to achieve an optimal size. Acquisition of companies with specialised design skills and expertise either in India or abroad should be pursued vigorously towards their own strengthening. There exists an urgent need to loosen the bureaucratic control with higher delegated powers to do cross investment in foreign companies in order to access technology, critical to their production. For furthering the cause of full accountability, transparency and efficiency, time-bound disinvestment plans also need to be worked out for DPSUs.

R&D strengthening remains imperative for a viable DIB. There is a need to have a structured R&D setup for innovations, upgradation of existing products, absorption of imported technology and product development. OFs/DPSUs with their vast experience in producing armaments could well become a storehouse

of R&D / knowledge in this vital field. Product development in OFs/DPSUs should ideally be through in house R&D. In order to achieve the same there would be an inherent requirement to spend 5 per cent of turnover on R&D.

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Private Sector

Enhanced defence production capability would necessarily entail a concerted effort by all competent players in the arena, rather than restricting to select governmental houses. It needs to be realised that both public and private sectors are national assets and harnessing of their potential is essential if self-reliance in defence production is to be achieved. Presently, the contribution of private sector towards defence production is negligible. There exists a need for greater appreciation by the government of the potential complementary role of the private sector in augmenting the defence production. A level playing field, needs to be provided to all , be it the Indigenous Private Sector or the foreign vendors. The recently unveiled 155mm artillery gun by Tata Power Corporation is a clear reflection of our private sector's potential. The offset clause for all defence procurements above 300 crore, should be exploited optimally to harness the incoming technology. ToT, with an assurance that an indigenous source will produce the same equipment post successful technology transfer, remains mandatory to the cause.

FDI

2002 saw the dawn of a new era in defence production with the government permitting 100 per cent private equity with 26 per cent Foreign Direct Investment (FDI). As per estimates, India is likely to spend in excess of $ 235 Billion till 2021. With the restricted indigenous capability of DIB, large scale foreign procurements remain the only option to maintain desired operational preparedness. Though, a higher FDI percentage would be desirable, given the present DIB status, 49 per cent is a recommended proportion of FDI, keeping the defence sensitivities in view. The requirement of 50 per cent equity holding in JVs is imperative as any internationally reputed company would like to be active. More so, when technology inflow, required for development of high tech products is presently not available even at a price, for licensed manufacturing programmes.

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Internationally, 50 per cent management control is an essential condition for participation in JVs in high-tech area and the foreign partner, who transfers critical technology may also commit buy back of products to meet worldwide requirements, giving fillip to exports in a big way. The technology provider should have the leeway to select the production agency as per its capability. It remains a far better option to pay Indian firms with JVs, rather than paying foreign vendors exclusively and ensuring flight of national capital.

DRDO Reforms

DRDO, the premier research and development agency's contribution towards increasing the potency of DIB, has been at best, limited. The Armed Forces have been eagerly awaiting for clones in other defence fields, similar to the hugely successful missile programme. At the hierarchical level, there is an urgent need to separate the twin charter of Scientific Advisor to the Raksha Mantri (SA to RM). While, SA to RM should focus on futuristic requirements of India's defence and strategic needs, the DG DRDO must assume responsibility for managing the DRDO's laboratories and research centres and ensuring the on-time delivery of projects undertaken there. A new agency needs to be set up for steering futuristic military research, with SA to RM being its chairman. This agency's charter should be to identify, fund and guide cutting edge projects relating to the country's futuristic security requirements, duly assisted by national agencies like, University Grants Commission, Council of Scientific and Industrial Research and Indian Institute of Science. Research should be funded in institutions like IITs, universities and private laboratories.

The vast DRDO preserve, ranging from development of Future Main Battle Tank to biodegradable toilets, needs a diminution. Low end and commercially usable technologies to a large extent can be outsourced to private sector, thereby retaining focus on critical projects, which have long exceeded their stated schedules. DRDO is starved of quality technical manpower and necessitates transformational changes to attract the best brains available, for quality research.

DGQA Reforms

Quality Assurance (QA) is an essential facet of defence production, which ensures that reliable equipment is handed over to the field army. DGQA needs to redesign itself in order to undertake QA in the twenty first century. This would largely involve process audit and quality surveillance work. In the ultimate form it would have function akin to bodies that certify like NABL or ISO certification organisation. The final objective being to mould DGQA to perform Quality Audit, Surveillance role and ultimately establish itself as a certification body. To achieve this objective, QA agency needs to operate alongside the end user, rather than the Production Agencies (PAs) as is presently the setup. From its inception till 1955, DGQA functioned under the Service Headquarters to great satisfaction of the user, however post its transfer to Department of Defence Production, it has not lived up to the expectations. It is imperative that respective service components of DGQA revert under the control of Service Headquarters possibly under the Vice Chiefs of Army/Navy/Air Staff for effective QA.

Conclusion

Military modernisation requires innovative thinking, perseverance and sustained commitment to attain self-sufficiency. There exists no option, but to reverse the current high proportion of imports with the indigenous content and steadily reduce thereafter. Vision for India in the next two decades would be flawed if it did not envisage a sizeable, vibrant and sophisticated DIB, that is globally competitive and has the capacity to develop advanced technologies. The Government has made indigenous defence production a priority and amply shown its resolve to steam roll all obstructions. This has greatly inspired the DIB, which has now found a new confidence. With concerted efforts of DPSUs, trade, research and development agencies, intellegensitia and the governmental support, it shall be a matter of time, before India emerges as an Asian powerhouse in defence production.

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